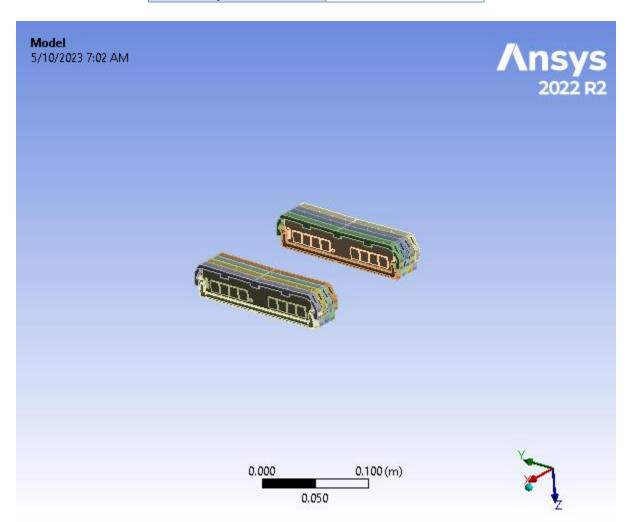


# Project\*

| First Saved                  | Wednesday, May 3, 2023 |
|------------------------------|------------------------|
| Last Saved                   | Monday, May 8, 2023    |
| Product Version              | 2022 R2                |
| Save Project Before Solution | No                     |
| Save Project After Solution  | No                     |



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  - Structural Steel 0
  - o Nylon
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  - LCP 0
  - Glass Epoxy Composite

#### **Units**

| Unit System         | Metric (m, kg, N, s, V, A) Degrees rad/s Celsius |
|---------------------|--|
| Angle               | Degrees  |
| Rotational Velocity | rad/s  |
| Temperature         | Celsius  |

# Model (A4, B4)

#### TABLE 2 Model (A4, B4) > Geometry Imports

Object Name Geometry Imports
State Solved

# TABLE 3 Model (A4, B4) > Geometry Imports > Geometry Import (A3, B3)

|               | Model (A4, B4) > Geometry Imports > Geometry Import (A3, B3)   |
|---------------|--|
| ct<br>e       | Geometry Import (A3, B3)   |
| е             | Solved   |
|               | Definition   |
| е             | \\iowa.uiowa.edu\shared\Engineering\Home\makaufman\windowsdata\Desktop\ASSEMBLIES_FINAL\clip_project_2_files\dp0\SYS\DM\\$ |
| е             | SpaceClaim   |
|               | Basic Geometry Options   |
| s             | Independent  |
| er            |  |
| У             |  |
|               | Advanced Geometry Options  |
| e<br>n        | No   |
| е             |  |
| s<br>e        | 3-D  |
|               | Geometry   |
|               | TABLE 4  |
|               | Model (A4, B4) > Geometry  |
| ct<br>e<br>te | Geometry   |
| te            | Fully Defined  |

|        | Model (A4, B4) > Geometry  |
|--------|--|
| t<br>e | Geometry   |
| )      | Fully Defined  |
|        | <b>Definition</b>  |
| )      | $\verb \lambda  SEMBLIES_FINAL   Clip\_project\_2\_files   ASSEMBLIES\_FINAL   Clip\_project\_2\_files   Clip\_project\_2\_file$ |
| )      | SpaceClaim   |
| t      | Meters   |
| t<br>I | Program Controlled   |
| /<br>? | Body Color   |

| ie     | •            |
|--------|--------------|
|        | Bounding Box |
| X      | 0.48082 m    |
| $\vee$ | 0 55504 m    |

| L              |   |
|----------------|---|
| Z              |   |
|                | Properties |
| e<br>ss        | 2.1156e-003 m³  |
|                |   |
| le             |   |
| or             |   |
| e              | Statistics Statistics   |
| s              |   |
| e              |   |
| es             |   |
| es             | 453910  |
| s<br>ts<br>ic  | 231263  |
| ic             |   |
|                | Update Options  |
| n              |   |
| ılt            |   |
| al             | Basic Geometry Options  |
| id             |   |
|                |   |
| es<br>e        | V   |
| es             | T es  |
| es             | Yes   |
| rs             | Independent   |
| er             |   |
| ey<br>es<br>te | Yes   |
| ;S<br>D        | l es  |
|                |   |
| y<br>d         | V   |
| ıs<br>ed       | Yes   |
|                |   |
| n              |   |
| ey<br>Ol       |   |
| al<br>es       |   |
|                | Advanced Geometry Options   |
| е              |   |
| ty             | T eS  |
| te             | Yes   |
| is<br>te       |   |
| te             |   |
| y<br>or        |   |
| er<br>le       |   |
| le<br>s<br>d   | No  |
| d              |   |
| le<br>e        |   |
| e              | Yes   |
| S              |   |
|                |   |

| D<br>te                                 | Yes    |
|---|--------|
| te<br>re in te<br>is e<br>d<br>rt<br>in | No     |
| is<br>e                                 | 3-D    |
| d<br>rt<br>n                            | None   |
| rt<br>et<br>ty                          | Source |
| ty<br>in<br>n<br>rt                     | No     |
| es<br>rt                                | None   |
| e<br>nt                                 | Yes    |
| re<br>id<br>ry<br>ig                    | Yes    |

#### Smallest

TABLE 5
Model (A4, B4) > Geometry > Smallest > Parts

| Object Name              | SCREW-<br>1\SCREW-<br>1 | SCREW-<br>2\SCREW-<br>2 | SCREW-<br>3\SCREW-<br>3 | SCREW-<br>4\SCREW-<br>4 | LEFT-<br>NUT-<br>1\LEFT-<br>NUT-1 | LEFT-<br>NUT-<br>2\LEFT-<br>NUT-2 | LEFT-<br>NUT-<br>3\LEFT-<br>NUT-3 | LEFT-<br>NUT-<br>4\LEFT-<br>NUT-4 | LEFT-<br>NUT-<br>5\LEFT-<br>NUT-5 | LEFT-<br>NUT-<br>6\LEFT-<br>NUT-6 | LEFT-<br>NUT-<br>7\LEFT-<br>NUT-7 |  |  |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|--|
| State                    |                         |                         |                         | Hidden                  |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Graphics Properties      |                         |                         |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Visible                  | ole No                  |                         |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Transparency             |                         | 1                       |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
|                          |                         |                         |                         | Defin                   | ition                             |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Suppressed               |                         |                         |                         |                         | N                                 | 0                                 |                                   |                                   |                                   |                                   |                                   |  |  |
| Stiffness Behavior       |                         |                         |                         |                         | Flex                              | ible                              |                                   |                                   |                                   |                                   |                                   |  |  |
| Coordinate<br>System     |                         |                         |                         | Defa                    | ault Coord                        | inate Sys                         | tem                               |                                   |                                   |                                   |                                   |  |  |
| Reference<br>Temperature |                         | By Environment          |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Treatment                |                         | None                    |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
|                          | Mat                     |                         |                         |                         |                                   |                                   | aterial                           |                                   |                                   |                                   |                                   |  |  |
| Assignment               |                         | Steel Structural Steel  |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |
| Nonlinear Effects        |                         | Yes                     |                         |                         |                                   |                                   |                                   |                                   |                                   |                                   |                                   |  |  |

| Thermal Strain<br>Effects |   |                     |                     |        | Yes                    |                   |                        |                        |                  |                   |             |  |
|---------------------------|---|---------------------|---------------------|--------|------------------------|-------------------|------------------------|------------------------|------------------|-------------------|-------------|--|
| Elioto                    |   |                     |                     | Boundi | ling Box               |                   |                        |                        |                  |                   |             |  |
| Length X                  |   | 1.5875€             | e-002 m             |        | 3.2512e-003 m          |                   |                        |                        |                  |                   |             |  |
| Length Y                  |   | 6.6548€             | e-003 m             |        | 7.874e-003 m           |                   |                        |                        |                  |                   |             |  |
| Length Z                  |   | 6.6548€             | e-003 m             |        |                        |                   | 7.                     | 874e-003               | m                |                   |             |  |
|                           |   |                     |                     | Prop   | erties                 |                   |                        |                        |                  |                   |             |  |
| Volume                    |   | 1.6218e             | -007 m <sup>3</sup> |        |                        |                   | 1.0                    | 658e-007               | m³               |                   |             |  |
| Mass                      |   | 1.2763e             | -003 kg             |        | 8.3666e-<br>004 kg     |                   |                        | 8.3663e                | -004 kg          |                   |             |  |
| Centroid X                | 0.148   | 394 m               | -0.27               | 984 m  |                        |                   | (                      | 0.16035 m              |                  |                   |             |  |
| Centroid Y                | 0.245   | 0.24544 m 0.24545 n |                     | 545 m  | -0.18287<br>m          | -<br>0.12731<br>m | -<br>7.1745e-<br>002 m | -<br>1.6183e-<br>002 m | 3.938e-<br>002 m | 9.4942e-<br>002 m | 0.1505<br>m |  |
| Centroid Z                | -1.2777e-<br>002 m 1.2623e-002 m -1.2777e-<br>002 m |                     |                     |        | -<br>7.7017e-<br>005 m | -7.7016e-005 m    |                        |                        |                  |                   |             |  |
| Moment of Inertia         |   | 2.622e-0            | 09 kg∙m²            |        |                        | 7.0864e-009 kg·m² |                        |                        |                  |                   |             |  |
| Moment of Inertia         |   | 3.013e-0            | 08 kg⋅m²            |        |                        | 4.1271e-009 kg⋅m² |                        |                        |                  |                   |             |  |
| Moment of Inertia         |   | 3.013e-0            | 08 kg⋅m²            |        |                        | 4.1271e-009 kg·m² |                        |                        |                  |                   |             |  |
|                           |   |                     |                     | Stati  | stics                  |                   |                        |                        |                  |                   |             |  |
| Nodes                     | 697   | 681                 | 6                   | 53     | 1055                   | 1030              | 1058                   | 1047                   | 1015             | 1063              | 1024        |  |
| Elements                  | 339   | 328                 | 3                   | 15     | 524                    | 521               | 537                    | 530                    | 503              | 542               | 514         |  |
| Mesh Metric               |   |                     |                     |        | No                     | ne                |                        |                        |                  |                   |             |  |
|                           |   |                     |                     | CAD At | tributes               |                   |                        |                        |                  |                   |             |  |
| PartTolerance:            |   |                     |                     |        | 0.0000                 | 00001             |                        |                        |                  |                   |             |  |
| Color:175.143.175         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:159.175.143         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:143.143.175         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:175.159.143         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:175.175.143         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:143.159.175         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:175.143.143         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |
| Color:143.175.159         |   |                     |                     |        |                        |                   |                        |                        |                  |                   |             |  |

TABLE 6
Model (A4, B4) > Geometry > Smallest > Parts

|                   | LEFT-   | LEFT-   | RIGHT-   | RIGHT-   | RIGHT-     | RIGHT-   | RIGHT-   | RIGHT-   | RIGHT-   | RIGHT-   | RIGHT-   |  |
|-------------------|---------|---------|----------|----------|------------|----------|----------|----------|----------|----------|----------|--|
| Object Name       | NUT-    | NUT-    | NUT-     | NUT-     | NUT-       | NUT-     | NUT-     | NUT-     | NUT-     | NUT-     | NUT-     |  |
| Object Name       | 8\LEFT- | 9\LEFT- | 1\RIGHT- | 2\RIGHT- | 3\RIGHT-   | 4\RIGHT- | 5\RIGHT- | 6\RIGHT- | 7\RIGHT- | 8\RIGHT- | 9\RIGHT- |  |
|                   | NUT-8   | NUT-9   | NUT-1    | NUT-2    | NUT-3      | NUT-4    | NUT-5    | NUT-6    | NUT-7    | NUT-8    | NUT-9    |  |
| State             |         | Hidden  |          |          |            |          |          |          |          |          |          |  |
|                   |         |         |          | Gra      | aphics Pro | perties  |          |          |          |          |          |  |
| Visible           |         |         |          |          |            | No       |          |          |          |          |          |  |
| Transparency      |         | 1       |          |          |            |          |          |          |          |          |          |  |
| <b>Definition</b> |         |         |          |          |            |          |          |          |          |          |          |  |
| Suppressed        |         | No      |          |          |            |          |          |          |          |          |          |  |

|                          | ı            |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
|--------------------------|--------------|-------------------|--------------------|---------------|------------------------|------------------------|-----------------------------|-------------------|----------|--------------|--------------|--|
| Stiffness Behavior       |              | Flexible          |                    |               |                        |                        |                             |                   |          |              |              |  |
| Coordinate<br>System     |              |                   |                    |               | Defaul                 | t Coordinat            | e System                    |                   |          |              |              |  |
| Reference<br>Temperature |              |                   |                    |               | В                      | By Environn            | nent                        |                   |          |              |              |  |
| Treatment                |              |                   |                    |               |                        | None                   |                             |                   |          |              |              |  |
|                          |              | Material Material |                    |               |                        |                        |                             |                   |          |              |              |  |
| Assignment               |              | Structural Steel  |                    |               |                        |                        |                             |                   |          |              |              |  |
| Nonlinear Effects        |              | Yes               |                    |               |                        |                        |                             |                   |          |              |              |  |
| Thermal Strain Effects   |              | Yes               |                    |               |                        |                        |                             |                   |          |              |              |  |
|                          |              |                   |                    |               | <b>Bounding</b>        | Box                    |                             |                   |          |              |              |  |
| Length X                 |              |                   |                    |               | 3                      | 3.2512e-00             | 3 m                         |                   |          |              |              |  |
| Length Y                 |              |                   |                    |               |                        | 7.874e-003             | 3 m                         |                   |          |              |              |  |
| Length Z                 |              |                   |                    |               |                        | 7.874e-003             | 3 m                         |                   |          |              |              |  |
|                          |              |                   |                    |               | Properti               |                        |                             |                   |          |              |              |  |
| Volume                   |              |                   |                    |               | 1                      | .0658e-007             | <sup>7</sup> m <sup>3</sup> |                   |          |              |              |  |
| Mass                     | 8.3663e      | -004 kg           | 8.3666e-<br>004 kg |               |                        |                        | 8.3663e                     | -004 kg           |          |              |              |  |
| Centroid X               | 0.160        | )35 m             |                    |               |                        | -                      | 0.29122 m                   |                   |          |              |              |  |
| Centroid Y               | 0.20607<br>m | 0.26163<br>m      | -0.18287<br>m      | -0.12731<br>m | -<br>7.1745e-<br>002 m | -<br>1.6183e-<br>002 m | 3.938e-<br>002 m            | 9.4942e-<br>002 m | 0.1505 m | 0.20607<br>m | 0.26163<br>m |  |
| Centroid Z               | -7.7016      | e-005 m           |                    |               |                        |                        | 4579e-005                   | m                 |          |              |              |  |
| Moment of Inertia        |              |                   |                    |               | 7.0                    | )864e-009 l            | kg·m²                       |                   |          |              |              |  |
| Moment of Inertia        |              |                   |                    |               | 4.1                    | 271e-009 l             | kg·m²                       |                   |          |              |              |  |
| Moment of Inertia        |              |                   |                    |               | 4.1                    | 271e-009 l             | kg·m²                       |                   |          |              |              |  |
| ipo                      |              |                   |                    |               | Statistic              | cs                     |                             |                   |          |              |              |  |
| Nodes                    | 1033         | 1030              | 1042               | 1063          | 1024                   | 1038                   | 1023                        | 1014              | 1008     | 1012         | 1085         |  |
| Elements                 | 521          | 513               | 515                | 541           | 511                    | 519                    | 509                         | 505               | 503      | 506          | 554          |  |
| Mesh Metric              |              |                   |                    |               |                        | None                   |                             |                   |          |              |              |  |
|                          |              |                   |                    |               | CAD Attrib             | utes                   |                             |                   |          |              |              |  |
| PartTolerance:           |              |                   |                    |               |                        | 0.0000000              | )1                          |                   |          |              |              |  |
| Color:175.159.143        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:143.175.175        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:143.175.143        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:159.143.175        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:175.175.143        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:143.159.175        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:175.143.143        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:143.175.159        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:175.143.175        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:159.175.143        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
| Color:143.143.175        |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |
|                          |              |                   |                    |               |                        |                        |                             |                   |          |              |              |  |

| SCREW3\SCREW3              | SCREW4\SCREW4          | SCREW5\SCREW5              |                      | SCREW7\SCREW7  | SCREW8\SCREW | 8 SCREW  |  |  |
|----------------------------|------------------------|----------------------------|----------------------|----------------|--------------|----------|--|--|
|                            |                        |                            | Hidden               |                |              |          |  |  |
|                            |                        | Graphic                    | s Properties         |                |              |          |  |  |
|                            |                        |                            | No                   |                |              |          |  |  |
|                            |                        |                            | 1<br>Sfinition       |                |              |          |  |  |
|                            |                        | De                         | efinition<br>No      |                |              |          |  |  |
|                            |                        |                            | Flexible             |                |              |          |  |  |
|                            |                        |                            |                      | V - 4          |              |          |  |  |
|                            |                        | L                          | Default Coordinate S | system         |              |          |  |  |
|                            |                        |                            | By Environmen        | t              |              |          |  |  |
|                            |                        |                            | None                 |                |              |          |  |  |
|                            |                        | N                          | laterial             |                |              |          |  |  |
|                            |                        | IV                         | Steel                |                |              |          |  |  |
|                            |                        |                            | Yes                  |                |              |          |  |  |
|                            |                        |                            | Yes                  |                |              |          |  |  |
|                            |                        | D                          |                      |                |              |          |  |  |
| 1 1270                     | e-002 m                | Boul                       | nding Box            |                |              | 9.5      |  |  |
| 1.13736                    |                        | e-002 m                    |                      |                |              | 7.92     |  |  |
| 1.13796                    | e-002 m                |                            |                      |                |              | 7.92     |  |  |
|                            |                        | Pro                        | operties             |                |              |          |  |  |
| 5.8375e-007 m <sup>3</sup> |                        | 5.8374e-007 m <sup>3</sup> |                      |                |              | 1.51     |  |  |
| 4.5941e-003 kg             |                        | 4.594e-003 kg              |                      | 1.19           |              |          |  |  |
| 0.167                      | 713 m                  | -0.29                      | 98 m                 |                | 0.12=2:      | 0        |  |  |
| 4 5050- 000                |                        | 358 m                      | 4 570- 000           | -0.18287 m     | -0.12731 m   | -7.174   |  |  |
| -1.5952e-002 m             | 1.5798e-002 m          | -1.596e-002 m              | 1.579e-002 m         | -7.7012e-005 m | -7.701       | 3e-005 m |  |  |
|                            | 2.2853e-0              | 007 kg⋅m²                  |                      |                |              | 4.091    |  |  |
|                            | 3 49986-0              | 008 kg⋅m²                  |                      | 1.220          |              |          |  |  |
|                            | J. <del>1</del> 3306-0 |                            |                      | 1.220          |              |          |  |  |
|                            | 2.2853e-0              | 007 kg⋅m²                  |                      | 1.220          |              |          |  |  |
|                            |                        | St                         | atistics             |                |              |          |  |  |
| 1345                       | 1344                   | 1320                       | 1312                 | 443            | 470          |          |  |  |
| 668                        | 670                    | 658                        | 644                  | 201            | 223          |          |  |  |
|                            |                        |                            | None                 |                |              |          |  |  |
|                            |                        | CAD                        | Attributes           |                |              |          |  |  |
|                            |                        |                            | 0.0000001            |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |
|                            |                        |                            |                      |                |              |          |  |  |

| TABLE 8 Model (A4, B4) > Geometry > Smallest > Parts |                 |                 |    |  |  |  |  |  |
|--|-----------------|-----------------|----|--|--|--|--|--|
| V15  | SCREW16\SCREW16 | SCREW17\SCREW17 | SC |  |  |  |  |  |

|  |                 | Model (A4, B4) > Geo     | ABLE 8<br>ometry > Smallest > Par |                 |                 |  |  |  |  |
|--|-----------------|--------------------------|-----------------------------------|-----------------|-----------------|--|--|--|--|
| REW14\SCREW14  | SCREW15\SCREW15 | SCREW16\SCREW16          | SCREW17\SCREW17                   | SCREW18\SCREW18 | SCREW19\SCREW19 |  |  |  |  |
| Hidden   |                 |                          |                                   |                 |                 |  |  |  |  |
| Graphics Properties  |                 |                          |                                   |                 |                 |  |  |  |  |
|  |                 |                          | No<br>1                           |                 |                 |  |  |  |  |
|  |                 | De                       | finition                          |                 |                 |  |  |  |  |
|  |                 | 50.                      | No                                |                 |                 |  |  |  |  |
|  |                 |                          | Flexible                          |                 |                 |  |  |  |  |
|  |                 | D                        | Pefault Coordinate Syster         | m               |                 |  |  |  |  |
|  | By Environment  |                          |                                   |                 |                 |  |  |  |  |
| None   |                 |                          |                                   |                 |                 |  |  |  |  |
| Material Mat |                 |                          |                                   |                 |                 |  |  |  |  |
| Steel  |                 |                          |                                   |                 |                 |  |  |  |  |
| Yes  |                 |                          |                                   |                 |                 |  |  |  |  |
|  | Yes             |                          |                                   |                 |                 |  |  |  |  |
|  |                 | Boun                     | nding Box                         |                 |                 |  |  |  |  |
|  |                 |                          | 9.525e-003 m                      |                 |                 |  |  |  |  |
|  |                 |                          | 7.9248e-003 m                     |                 |                 |  |  |  |  |
|  |                 |                          | 7.9248e-003 m                     |                 |                 |  |  |  |  |
|  |                 | Pro                      | operties                          |                 |                 |  |  |  |  |
|  |                 |                          | 1.5136e-007 m <sup>3</sup>        |                 |                 |  |  |  |  |
|  | -0.28628 m      | 0.15538 m                | 1.1912e-003 kg                    |                 | -0.286          |  |  |  |  |
| 0.20607 m  | -0.18287 m      | 0.15536 III<br>0.26163 m | -0.12731 m                        | -7.1745e-002 m  | -1.6183e-002 m  |  |  |  |  |
| -7.7013e-005 m   | -8.4575e-005 m  | -7.7012e-005 m           | 0.12701111                        | 7.11700 002 III | -8.45756        |  |  |  |  |
| 7110100 000 111  | 3.13.32 333     |                          | 4.0912e-009 kg⋅m²                 |                 |                 |  |  |  |  |
|  |                 |                          | 1.2206e-008 kg⋅m²                 |                 |                 |  |  |  |  |
|  |                 |                          | 1.2206e-008 kg·m²                 |                 |                 |  |  |  |  |
|  |                 | Sta                      | atistics                          |                 |                 |  |  |  |  |
|  | 437             | 432                      | 43                                | 37              | 452             |  |  |  |  |
|  | 201             | 196                      | 20                                |                 | 211             |  |  |  |  |
| 1  |                 |                          | None                              |                 |                 |  |  |  |  |
|  |                 | CAD                      | Attributes                        |                 |                 |  |  |  |  |
|  |                 |                          | 0.0000001                         |                 |                 |  |  |  |  |
| 4  |                 |                          |                                   |                 |                 |  |  |  |  |

| TABLE 9     Model (A4, B4) > Geometry > Smallest > Parts   PEM-   PEM-   PEM-   FASTENER-   FASTENER | 7\PEM-                           |  |  |  |  |  |  |  |  |
|--|----------------------------------|--|--|--|--|--|--|--|--|
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Model (A4, B4) > Geometry > Smallest > Parts   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| FASTENER   | FASTENER-<br>7\PEM-<br>FASTENER- |  |  |  |  |  |  |  |  |
| Variable   Variable  | 7\PEM-<br>FASTENER-              |  |  |  |  |  |  |  |  |
| 1   2   3   4   5   6  |                                  |  |  |  |  |  |  |  |  |
| Hidden   Graphics Properties   No  | ,                                |  |  |  |  |  |  |  |  |
| No   1   |                                  |  |  |  |  |  |  |  |  |
| Definition   |                                  |  |  |  |  |  |  |  |  |
| Definition           No         No           Flexible         Default Coordinate System           By Environment         None           None         Material           Steel         Aluminum 6061-T6; 6061-T651           Yes  |                                  |  |  |  |  |  |  |  |  |
| No   Flexible   Default Coordinate System   By Environment   None   Material   Steel   Aluminum 6061-T6; 6061-T651   Yes   Yes   Yes   Steel   Yes   Steel   Steel   Steel   Steel   Steel   Steel   Steel   Steel   Yes   Steel   S |                                  |  |  |  |  |  |  |  |  |
| Default Coordinate System  By Environment  None  Material  Steel  Aluminum 6061-T6; 6061-T651  Yes   | No                               |  |  |  |  |  |  |  |  |
| By Environment  None  Material  Steel  Aluminum 6061-T6; 6061-T651  Yes  |                                  |  |  |  |  |  |  |  |  |
| None  Material  Steel  Aluminum 6061-T6; 6061-T651  Yes  | Default Coordinate System        |  |  |  |  |  |  |  |  |
| Material Steel Aluminum 6061-T6; 6061-T651 Yes   |                                  |  |  |  |  |  |  |  |  |
| Steel Aluminum 6061-T6; 6061-T651 Yes  |                                  |  |  |  |  |  |  |  |  |
|  |                                  |  |  |  |  |  |  |  |  |
| Yes  |                                  |  |  |  |  |  |  |  |  |
|  |                                  |  |  |  |  |  |  |  |  |
| Bounding Box   |                                  |  |  |  |  |  |  |  |  |
| 9.525e-003 m 7.3324e-003 m 7.3323e-003 m   | 7.3324e-003<br>m                 |  |  |  |  |  |  |  |  |
| 7.9248e-003 m 6.35e-003 m  |                                  |  |  |  |  |  |  |  |  |
| 7.9248e-003 m 4.7498e-003 m  | 4.7498e-003 m                    |  |  |  |  |  |  |  |  |
| Properties   |                                  |  |  |  |  |  |  |  |  |
| 1.5136e-007 m³ 8.8258e-008 m³  |                                  |  |  |  |  |  |  |  |  |
| 1.1912e-003 kg 2.383e-004 kg   |                                  |  |  |  |  |  |  |  |  |
| m m  | -0.15686 m                       |  |  |  |  |  |  |  |  |
| 0.20607 m 0.26163 m 4.6568e-002 m 0.22818 m 8.4788e-004 7.3238e-002 m 8.4788e-0  |                                  |  |  |  |  |  |  |  |  |
| -8.4575e-005 m 1.9415e-002 m   | 004 m                            |  |  |  |  |  |  |  |  |
|  | ·004 m                           |  |  |  |  |  |  |  |  |

| 4.0912e-         | 12e-009 kg·m² 1.0709e-009 kg·m² |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|------------------|---------------------------------|-------------------------|-------------------|------------|---------------|-------------|-------------|--------------------|-------------------|---------------------------------|--|--|
| 1.2206e-         | 008 kg·m²                       |                         |                   |            |               | 1.070       | 9e-009 kg⋅m | 2                  |                   |                                 |  |  |
| 1.2206e-         | 008 kg·m²                       |                         | 1.1596e-009 kg⋅m² |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   | Sta        | tistics       |             |             |                    |                   |                                 |  |  |
| 458              | 45                              | 60                      | 523               | 518        | 563           | 574         | 576         | 5 5                | 49                | 513                             |  |  |
| 215              |                                 | 208 241 231 257 265 268 |                   |            |               |             |             |                    |                   | 233                             |  |  |
|                  |                                 | <u> </u>                | '                 |            | Nor           | ne          |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   | CAD A      | ttributes     |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            | 0.0000        | 0001        |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   |            | BLE 10        |             |             |                    |                   |                                 |  |  |
|                  | CODEM                           | CODEM                   | SCREW-            |            | metry > Sma   |             |             | 000514/            | <u> </u>          | OTANDO                          |  |  |
| Object Name      | SCREW-                          | SCREW-                  | 42\SCREW-         | SCREW-     | SCREW-        | SCREW-      | SCREW-      | SCREW-<br>9\SCREW- | NUT-              | STANDOI<br>1\STANDO             |  |  |
| Object Name      | 22 ISONEW-                      | 32 ISCNEW-              | 42 10 CNL W       | 5 5        | 6             | 7           | 8           | 9                  | 1WUT-1            | 1                               |  |  |
| State            |                                 | 02                      | ,_                | - U        | Hidd          | •           | <u> </u>    | · ·                |                   | •                               |  |  |
|                  |                                 |                         |                   | Graphics   | Properties    |             |             |                    |                   |                                 |  |  |
| Visible          |                                 |                         |                   |            | No            |             |             |                    |                   |                                 |  |  |
| Transparency     |                                 |                         |                   |            | 1             |             |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   | Def        | inition       |             |             |                    |                   |                                 |  |  |
| Suppressed       |                                 |                         |                   |            | No            | )           |             |                    |                   |                                 |  |  |
| fness Behavior   |                                 |                         |                   |            | Flexi         |             |             |                    |                   |                                 |  |  |
| Coordinate       |                                 |                         |                   | De         | efault Coordi | nata System | 1           |                    |                   |                                 |  |  |
| System           |                                 |                         |                   | D6         | elault Coolul | nate System | I           |                    |                   |                                 |  |  |
| Reference        |                                 |                         |                   |            | By Enviro     | onment      |             |                    |                   |                                 |  |  |
| Temperature      |                                 |                         |                   |            | •             |             |             |                    |                   |                                 |  |  |
| Treatment        |                                 |                         |                   |            | Nor           | 16          |             |                    |                   |                                 |  |  |
|                  |                                 |                         |                   | Ма         | terial        |             |             |                    |                   | Λ Ι !                           |  |  |
| Assignment       |                                 |                         |                   |            | Steel         |             |             |                    |                   | Aluminur<br>6061-T6<br>6061-T65 |  |  |
| onlinear Effects |                                 |                         |                   |            | Ye            | <u> </u>    |             |                    |                   | 0001-103                        |  |  |
| Thermal Strain   |                                 |                         |                   |            |               |             |             |                    |                   |                                 |  |  |
| Effects          |                                 |                         |                   |            | Ye            | S           |             |                    |                   |                                 |  |  |
| 2110013          |                                 |                         |                   | Bound      | ding Box      |             |             |                    |                   |                                 |  |  |
| Length X         |                                 |                         | 7.9               | 756e-003 m |               |             |             | 7.0866e-<br>003 m  | 6.8162e-<br>003 m | 6.3498e-0<br>m                  |  |  |
|                  | 003 m   003 m   m               |                         |                   |            |               |             |             |                    |                   |                                 |  |  |

| Volume   |                |   |   |     |            |            |      |     |          |          |            |
|--|----------------|---|---|-----|------------|------------|------|-----|----------|----------|------------|
| Centroid X   Controid X   Con | Length Y       |   |   | 7.9 |            |            |      |     |          |          |            |
| Volume   | Length Z       |   |   | 9.2 | 456e-003 m |            |      |     | 9.4742e- | 3.0226e- | 3.175e-003 |
| Volume   |                |   |   |     | Pro        | perties    |      |     | 000      | 000      |            |
| Centroid X   6.1601e   | Volume         |   |   | 1.4 |            |            |      |     |          |          |            |
| Centroid Y   O04 m   O04 m   O02 m   O02 m   O04 m   O02 m   O02 m   O04 m   O02 m   O02 m   O02 m   O04 m   O02 m   | Mass           |   |   |     |            |            |      |     |          |          |            |
| Centroid   Y   | Centroid X     |   | -0.15686 m  |     | -0.15686   | m          |      |     |          |          |            |
| Centroid   Centroid  | Centroid Y     |   |   |     |            |            |      |     |          | 0.20532  | m          |
| Part    | Centroid Z     | 1.5731e- 1.5831e- 1.5731e- 1.5831e- 1.5731e-002 m |   |     |            |            |      |     |          |          |            |
| Section   Sect |                | 9.5364e-009 kg·m²                                 |   |     |            |            |      |     |          | 009      |            |
| Statistics   Sta |                |   | 9.5364e-009 kg·m²  7.2928e- 009 kg·m²  9.5289e- 009 kg·m² |     |            |            |      |     |          |          |            |
| Nodes   927   934   969   921   931   936   969   428   2241   331   |                | 6 10060-000 kg-m2                                 |   |     |            |            |      |     | 009      |          |            |
| Elements 453 462 479 451 457 460 479 194 1174 42  Mesh Metric  CAD Attributes  PartTolerance: 0.00000001  0r:143.175.175  0r:175.143.175  0r:175.143.175  0r:175.143.193  0r:175.143.193  0r:175.143.195  0r:175.143.195  0r:175.143.195  0r:175.143.195  0r:175.143.195  0r:175.143.195  0r:175.143.195  0r:175.143.195   |                |   |   |     | Sta        | tistics    |      |     |          |          |            |
| Mesh Metric         None           CAD Attributes           PartTolerance:         0.00000001           or:143.175.175         0.00000001           or:155.143.159         0.000000000           or:159.143.175.143         0.000000000           or:175.175.143         0.000000000           or:175.175.143         0.000000000           or:175.143.159         0.000000000           or:175.143.175         0.000000000  | Nodes          | 927   | 934   | 969 | 921        | 931        | 936  | 969 | 428      | 2241     | 331        |
| CAD Attributes       PartTolerance:     0.00000001       pr:143.175.175     0.00000001       pr:175.143.159     0.00000001       pr:143.175.143     0.000000001       pr:159.143.175     0.000000001       pr:175.175.143     0.000000001       pr:175.143.143     0.000000001       pr:175.143.143     0.000000001       pr:175.143.175     0.000000001       pr:175.143.175     0.000000001  | Elements       | 453   | 462   | 479 | 451        | 457        | 460  | 479 | 194      | 1174     | 42         |
| PartTolerance: 0.0000001  pr:143.175.175  pr:175.143.159  pr:143.175.143  pr:159.143.175  pr:175.175.143  pr:175.175.143  pr:175.143.159  pr:175.143.175  pr:175.143.175  pr:175.143.175   | Mesh Metric    |   |   |     |            | Nor        | ne   |     |          |          |            |
| br:143.175.175 br:143.175.143 br:159.143.175 br:175.143 br:175.143 br:175.143 br:175.143 br:175.143.143 br:175.143.175 br:175.143.175  |                |   |   |     | CAD A      | Attributes |      |     |          |          |            |
| br:175.143.159 br:143.175.143 br:159.143.175 br:175.175.143 br:175.143.159 br:175.143.175 br:175.143.175.159 br:175.143.175  | PartTolerance: |   |   |     |            | 0.0000     | 0001 |     |          |          |            |
| pr:143.175.143<br>pr:159.143.175<br>pr:175.175.143<br>pr:143.159.175<br>pr:175.143.143<br>pr:143.175.159<br>pr:175.143.175   | or:143.175.175 |   |   |     |            |            |      |     |          |          |            |
| br:159.143.175<br>br:175.175.143<br>br:143.159.175<br>br:175.143.143<br>br:143.175.159<br>br:175.143.175   | or:175.143.159 |   |   |     |            |            |      |     |          |          |            |
| br:175.175.143<br>br:143.159.175<br>pr:175.143.143<br>br:143.175.159<br>pr:175.143.175   | or:143.175.143 |   |   |     |            |            |      |     |          |          |            |
| br:143.159.175<br>br:175.143.143<br>br:143.175.159<br>br:175.143.175   | or:159.143.175 |   |   |     |            |            |      |     |          |          |            |
| pr:175.143.143<br>pr:143.175.159<br>pr:175.143.175   | or:175.175.143 |   |   |     |            |            |      |     |          |          |            |
| pr:175.143.143<br>pr:143.175.159<br>pr:175.143.175   | or:143.159.175 |   |   |     |            |            |      |     |          |          |            |
| br:143.175.159<br>br:175.143.175   | or:175.143.143 |   |   |     |            |            |      |     |          |          |            |
|  | or:143.175.159 |   |   |     |            |            |      |     |          |          |            |
|  | or:175.143.175 |   |   |     |            |            |      |     |          |          |            |
|  | or:159.175.143 |   |   |     |            |            |      |     |          |          |            |
|  |                |   |   |     |            |            |      |     |          |          |            |

### Small

#### TABLE 11 Model (A4, B4) > Geometry > Small > Parts

| _1\DDR4_SL | DDR4_SLOT_1_1_2_1\DDR4_SL | DDR4_SLOT_1_1_2_1\DDR4_SL | DDR4_SLOT_1_1_2_1\DDR4_SL | DDR4_SLOT_  |
|------------|---------------------------|---------------------------|---------------------------|-------------|
| _1         | OT_1_1_2_1                | OT_1_1_2_1                | OT_1_1_2_1                | OT <u>.</u> |
|            |                           |                           |                           |             |

Meshed

|       |                            | Graphics Properties       |              |           |     |
|-------|----------------------------|---------------------------|--------------|-----------|-----|
|       |                            | Yes                       |              |           |     |
|       |                            | 1                         |              |           |     |
|       |                            | Definition                |              |           |     |
|       |                            | No                        |              |           |     |
|       |                            | Flexible                  |              |           |     |
|       |                            | Default Coordinate System | em           |           |     |
|       |                            | By Environment            |              |           |     |
|       |                            | None                      |              |           |     |
|       |                            | Material                  |              |           |     |
|       |                            | LCP                       |              |           |     |
|       |                            | Yes                       |              |           |     |
|       |                            | Yes                       |              |           |     |
|       |                            | Bounding Box              |              |           |     |
|       | 6.3034e-                   |                           |              |           |     |
|       | 0.152                      |                           |              |           |     |
|       | 1.965e-                    |                           |              |           |     |
|       | 4.0000-                    | Properties                |              |           |     |
|       | 4.8828e-                   |                           |              |           |     |
| 2 m   | 8.5938e-<br>-3.3027e-002 m | -0.13786 m                | -0.14573 m   |           | -0. |
| 2 111 |                            |                           | -0.14073 III | 0.12474 m | -0. |
|       | 1.0705e-                   | -002 m                    |              |           |     |
|       | 1.7584e-00                 | 07 kg⋅m²                  |              |           |     |
|       | 1.8398e-00                 | 05 kg⋅m²                  |              |           |     |
|       | 1.8513e-00                 | <br>05 kg⋅m²              |              |           |     |
|       |                            | Statistics                |              |           |     |
|       | 3072                       |                           |              |           |     |
|       | 1659                       |                           |              |           |     |
|       |                            | None                      |              |           |     |
|       |                            | CAD Attributes            |              |           |     |
|       |                            | 0.0000001                 |              |           |     |
|       |                            |                           |              |           |     |
|       |                            |                           |              |           |     |

TABLE 12 Model (A4, B4) > Geometry > Small > Parts

| i  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| 1-00175-<br>1_2_1\MEM-<br>)175-<br>_1_1_2_1    | MEM-00175-<br>- 02_A_1_1_2_1WEM-<br>00175-<br>02_A_1_1_2_1 | MEM-00175-<br>- 02_A_1_1_2_1WEM-<br>00175-<br>02_A_1_1_2_1 | IMP-<br>00393_D_1_1_2_1VMP-<br>00393_D_1_1_2_1 | IMP-<br>- 00393_D_1_1_2_1VMP-<br>00393_D_1_1_2_1 | IMP-<br>- 00393_D_1_1_2_1VMP-<br>00393_D_1_1_2_1 |  |  |  |  |
| <u>. '_                                   </u> | <u> </u>   | 02_, _ , _ ,   | Meshed   |  |  |  |  |  |  |
|  |  | (  | Graphics Properties                            |  |  |  |  |  |  |
|  |  |  | Yes  |  |  |  |  |  |  |
|  |  |  | Definition 1                                   |  |  |  |  |  |  |
|  |  |  | Definition                                     |  |  |  |  |  |  |
|  |  |  | No<br>Flexible                                 |  |  |  |  |  |  |
|  |  |  | Default Coordinate                             | System   |  |  |  |  |  |
|  |  |  | By Environme                                   | ent  |  |  |  |  |  |
|  |  |  | None   |  |  |  |  |  |  |
|  |  |  | Material                                       |  |  |  |  |  |  |
| 1  |  |  | LCP<br>Yes                                     |  |  |  |  |  |  |
| Yes  |  |  |  |  |  |  |  |  |  |
| <u></u>  |  |  | Yes  |  |  |  |  |  |  |
|  |  |  | Bounding Box                                   |  |  |  |  |  |  |
| -003 m   |  |  |  |  | 7.7724e-   |  |  |  |  |
| 3335 m   |  |  |  |  | 0.1514   |  |  |  |  |
| e-002 m  |  |  | Durana ution                                   |  | 2.3818e-   |  |  |  |  |
| e-006 m³                                       |  |  | Properties                                     |  | 3.9622e-   |  |  |  |  |
| 7e-006 m²<br>7e-002 kg                         |  |  |  |  | 6.9735e-   |  |  |  |  |
| 4559 m   | -0.15347 m   | -0.16134 m   | -0.16125 m                                     | -0.15338 m                                       | -0.1455 m  |  |  |  |  |
|  | 439 m  | <u> </u>   |  |  | 487 m  |  |  |  |  |
| 4e-004 m                                       |  |  |  |  | -1.4494e   |  |  |  |  |
| -005 kg·m²                                     |  |  |  |  | 3.1388e-0  |  |  |  |  |
| -005 kg·m²                                     |  |  |  |  | 1.7309e-0  |  |  |  |  |
| -007 kg·m²                                     |  |  |  |  | 1.7538e-0  |  |  |  |  |
| - ,_   |  |  | Statistics                                     |  | 20   |  |  |  |  |
| 017  |  |  |  |  | 384  |  |  |  |  |
| 2871   |  |  | None   |  | 178  |  |  |  |  |
|  |  |  | CAD Attributes                                 |  |  |  |  |  |  |
|  |  |  | 0.00000001                                     |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | TABLE 13<br>B4) > Geometry > Small >           | > Parts  |  |  |  |  |  |
|  | Object Nar   | IMP-00393_D  | D_1_1_2_1VMP-<br>D_1_1_2_1                     | IMP-00393_D_1_1_2_1<br>00393_D_1_1_2_1           |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

| State                  | Meshed                        |  |  |  |  |  |  |  |  |
|------------------------|-------------------------------|--|--|--|--|--|--|--|--|
| State                  | Graphics Properties           |  |  |  |  |  |  |  |  |
| Visible                | Yes                           |  |  |  |  |  |  |  |  |
| Transparency           | 1                             |  |  |  |  |  |  |  |  |
| Transparency           | Definition                    |  |  |  |  |  |  |  |  |
| Suppressed             | No                            |  |  |  |  |  |  |  |  |
| Stiffness Behavior     | Flexible                      |  |  |  |  |  |  |  |  |
| Coordinate System      | Default Coordinate System     |  |  |  |  |  |  |  |  |
| Reference              |                               |  |  |  |  |  |  |  |  |
| Temperature            | By Environment                |  |  |  |  |  |  |  |  |
| Treatment              | None                          |  |  |  |  |  |  |  |  |
| Material Material      |                               |  |  |  |  |  |  |  |  |
| Assignment             | LCP                           |  |  |  |  |  |  |  |  |
| Nonlinear Effects      | Yes                           |  |  |  |  |  |  |  |  |
| Thermal Strain         | Yes                           |  |  |  |  |  |  |  |  |
| Effects                |                               |  |  |  |  |  |  |  |  |
|                        | Bounding Box                  |  |  |  |  |  |  |  |  |
| Length X               | 7.7724e-003 m                 |  |  |  |  |  |  |  |  |
| Length Y 0.15144 m     |                               |  |  |  |  |  |  |  |  |
| Length Z 2.3818e-002 m |                               |  |  |  |  |  |  |  |  |
|                        | Properties                    |  |  |  |  |  |  |  |  |
| Volume                 | 3.9622e-006 m³                |  |  |  |  |  |  |  |  |
| Mass                   | 6.9735e-003 kg                |  |  |  |  |  |  |  |  |
| Centroid X             | -1.7044e-002 m -9.1687e-003 m |  |  |  |  |  |  |  |  |
| Centroid Y             | 0.11852 m                     |  |  |  |  |  |  |  |  |
| Centroid Z             | -1.4494e-002 m                |  |  |  |  |  |  |  |  |
| Moment of Inertia Ip1  | 3.1388e-007 kg⋅m²             |  |  |  |  |  |  |  |  |
| Moment of Inertia Ip2  | 1.7309e-005 kg⋅m²             |  |  |  |  |  |  |  |  |
| Moment of Inertia Ip3  | 1.7538e-005 kg⋅m²             |  |  |  |  |  |  |  |  |
|                        | Statistics                    |  |  |  |  |  |  |  |  |
| Nodes                  | 3842                          |  |  |  |  |  |  |  |  |
| Elements               | 1786                          |  |  |  |  |  |  |  |  |
| Mesh Metric            | None                          |  |  |  |  |  |  |  |  |
|                        | CAD Attributes                |  |  |  |  |  |  |  |  |
| PartTolerance:         | 0.0000001                     |  |  |  |  |  |  |  |  |
| Color:175.143.159      |                               |  |  |  |  |  |  |  |  |

#### Medium

#### TABLE 14 Model (A4, B4) > Geometry > Medium > Parts

|     |             |                  |                  | ( , , -          |             |                |                  |              |
|-----|-------------|------------------|------------------|------------------|-------------|----------------|------------------|--------------|
|     | LEFT-       | DICUT            | LEFT-            | RIGHT-           |             | LEFT-          | RIGHT-           |              |
|     | PLATE-      | RIGHT-<br>PLATE- | <b>MOUNTING-</b> | <b>MOUNTING-</b> | BACK-       | MOUNTING-      | <b>MOUNTING-</b> | LEFT-        |
| IT- | INNER\LEFT- | INNER\RIGHT-     | EAR\LEFT-        | EAR\RIGHT-       | PLATE\BACK- | EAR_REAR\LEFT- | EAR_REAR\RIGHT-  | GUIDEBAR\LEF |
|     | PLATE-      | PLATE-INNER      | MOUNTING-        | MOUNTING-        | PLATE       | MOUNTING-      | MOUNTING-        | GUIDEBAR     |
|     | INNER       | FLATE-IIVIVER    | EAR              | EAR              |             | EAR_REAR       | EAR_REAR         |              |

Hidden

#### **Graphics Properties**

No

|            |                      |                      |                    |                    | 1                                 | 1              |               |                      |  |
|------------|----------------------|----------------------|--------------------|--------------------|-----------------------------------|----------------|---------------|----------------------|--|
|            |                      |                      |                    |                    | <b>Definition</b>                 | do             |               |                      |  |
| _          |                      |                      |                    |                    | Flex                              |                |               |                      |  |
|            |                      |                      |                    |                    | Default Coord                     | dinate System  |               |                      |  |
|            |                      |                      |                    |                    | By Envi                           | ironment       |               |                      |  |
| _          |                      |                      |                    |                    | No                                | ne             |               |                      |  |
|            |                      |                      |                    |                    | Material                          |                |               |                      |  |
| ur         | m 6061-T6; 606       | 31-T651              | Structu            | ral Steel          | Aluminum<br>6061-T6;<br>6061-T651 |                | teel          |                      |  |
| _          |                      |                      |                    |                    | Υe                                | əs             |               |                      |  |
|            |                      |                      |                    |                    | Ye                                | es             |               |                      |  |
|            |                      |                      |                    | P                  | Bounding Box                      |                |               |                      |  |
|            | 9.144€               | e-003 m              | 3 m 1.651e-002 m   |                    |                                   | 1.7882         | e-002 m       | 6.3                  |  |
| า          | 0.48                 | 826 m                | 0.497              | 721 m              | 9.525e-003 m                      | 0.49           | 916 m         | 0.                   |  |
| า          |                      | 4.3688e-0            | ე02 m              |                    | 4.3307e-002<br>m                  | 4.3688         | se-002 m      | 1.16                 |  |
| Properties |                      |                      |                    |                    |                                   |                |               |                      |  |
| 3          | 1.4888e-004<br>m³    | 1.4882e-004<br>m³    | 5.2426e-005 m³     |                    | 8.2892e-005<br>m <sup>3</sup>     | 6.4756         | e-005 m³      | 2.766                |  |
|            | 0.40199 kg           | 0.4018 kg            | 0.411              | 155 kg             | 0.22381 kg                        | 0.509          | 963 kg        | 3.208                |  |
| 1          | 0.15149 m            | -0.28239 m           | 0.15954 m          | -0.29042 m         | -6.5449e-002<br>m                 | 0.16474 m      | -0.29561 m    | 0.15427 m            |  |
|            | 1.2658e-002<br>m     | 1.2625e-002 m        | 2.1425             | e-002 m            | -0.23384 m                        | 7.3427         | e-002 m       | 3.93                 |  |
| n          | -7.4915e-005<br>m    | -7.0093e-005<br>m    | -7.7017e-<br>005 m | -8.4579e-<br>005 m | 4.7337e-005<br>m                  | -7.6985e-005 m | -8.461e-005 m | -7.7016e-005 m       |  |
|            | 7.7884e-003<br>kg·m² | 7.7855e-003<br>kg·m² | 8.4577e-(          | 003 kg⋅m²          | 4.8203e-005<br>kg·m²              | 1.0799e-       | -002 kg⋅m²    | 5.8192               |  |
|            | 7.7224e-003<br>kg·m² | 7.7196e-003<br>kg·m² | 9.1794e-(          | 005 kg⋅m²          | 5.2268e-003<br>kg·m²              | 8.5857e-       | -005 kg·m²    | 3.8703e-007<br>kg·m² |  |
|            | 7.1982e-005<br>kg·m² | 7.1958e-005<br>kg·m² | 8.3699e-           | 003 kg⋅m²          | 5.2717e-003<br>kg·m²              | 1.072e-(       | 002 kg⋅m²     | 5.8175               |  |
|            |                      |                      |                    |                    | Statistics                        |                |               |                      |  |
|            | 13316                | 14044                | 5269               | 5262               | 6129                              | 4194           | 4046          | 3955                 |  |
|            | 7398                 | 7859                 | 2265               | 2258               | 2851                              | 1891           | 1820          | 1811                 |  |
|            |                      |                      |                    | C                  | No<br>CAD Attributes              | ne             |               |                      |  |
|            |                      |                      |                    |                    | 0.0000                            | 00001          |               |                      |  |
| _          |                      |                      |                    |                    |                                   |                |               |                      |  |
| _          |                      |                      |                    |                    |                                   |                |               |                      |  |
|            |                      |                      |                    |                    |                                   |                |               |                      |  |

TABLE 15
Model (A4, B4) > Geometry > Medium > Parts

| Model (A4, B4) > Geometry > Medium > Parts |                 |   |                                |                                |                                |                                |                       |                               |  |
|--|-----------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------|-------------------------------|--|
| Object Name                                | PCI-<br>2\PCI-2 | PCI-<br>3\PCI-3                                 | PCI-<br>4\PCI-4                | PCI-<br>5\PCI-5                | PCI-<br>6\PCI-6                | PCI-<br>7\PCI-7                | SINK\SINK             | BASE\BASE                     |  |
| State                                      |                 |   |                                |                                | Hidden                         |                                |                       |                               |  |
|  |                 |   | Graphi                         | cs Prope                       | rties                          |                                |                       |                               |  |
| Visible                                    |                 |   |                                |                                | No                             |                                |                       |                               |  |
| Transparency                               |                 |   |                                |                                |                                |                                |                       |                               |  |
|  |                 |   | D                              | efinition                      |                                |                                |                       |                               |  |
| Suppressed                                 | No              |   |                                |                                |                                |                                |                       |                               |  |
| Stiffness Behavior                         |                 |   |                                |                                |                                |                                |                       |                               |  |
| Coordinate                                 |                 | Default Coordinate System                       |                                |                                |                                |                                |                       |                               |  |
| System                                     |                 |   |                                | Doladii Ot                     | Jordinate (                    | Эубісііі                       |                       |                               |  |
| Reference                                  |                 | By Environment                                  |                                |                                |                                |                                |                       |                               |  |
| Temperature                                |                 | •   |                                |                                |                                |                                |                       |                               |  |
| Treatment                                  |                 |   |                                |                                |                                |                                |                       |                               |  |
| Material Aluminum LOD                      |                 |   |                                |                                |                                |                                |                       |                               |  |
| Assignment                                 |                 | Structural Steel                                |                                |                                |                                |                                |                       | LCP                           |  |
| Nonlinear Effects                          |                 |   |                                |                                |                                |                                |                       |                               |  |
| Thermal Strain<br>Effects                  |                 |   |                                |                                |                                |                                |                       |                               |  |
| Bounding Box                               |                 |   |                                |                                |                                |                                |                       |                               |  |
| Length X                                   | 7.5e-           | 7.5e-003 m 7.4e-003 m                           |                                |                                |                                |                                |                       | 002 m                         |  |
| Length Y                                   | 5.5999          | 5 50000-002 m 8.9e-002 5.5999e- 8.9e-002 5.5999 |                                |                                |                                | 5.5999e-<br>002 m              | 0.10214 m             |                               |  |
| Length Z                                   |                 |   | 1                              | e-002 m                        |                                | 332                            | 2.4698e-<br>002 m     | 9.185e-003<br>m               |  |
|  |                 |   | Pi                             | roperties                      |                                |                                | 002 111               | 111                           |  |
| Volume                                     | 4.65356         | e-006 m³  | 7.2973e-<br>006 m <sup>3</sup> | 4.5915e-<br>006 m <sup>3</sup> | 7.2973e-<br>006 m <sup>3</sup> | 4.5915e-<br>006 m <sup>3</sup> | 1.678e-<br>004 m³     | 7.4113e-005<br>m <sup>3</sup> |  |
| Mass                                       | 3.653e          | -002 kg   | 5.7284e-<br>002 kg             | 3.6043e-<br>002 kg             | 5.7284e-                       | 3.6043e-                       | 0.1678 kg             | 0.13044 kg                    |  |
|  |                 |   | ŭ                              | Ū                              | 002 kg                         | 002 kg                         |                       |                               |  |
| Centroid X                                 | 0.10065<br>m    | 8.0327e-<br>002 m                               | 6.0006e-<br>002 m              | 3.9681e-<br>002 m              | 1.9366e-<br>002 m              | 9.5399e-<br>004 m              | -8.5753               | Be-002 m                      |  |
| Centroid Y                                 | 0.167           | 789 m   | 0.15139<br>m                   | 0.16789<br>m                   | 0.15139<br>m                   | 0.16789<br>m                   | 0.10                  | 549 m                         |  |
| Centroid Z                                 |                 |   | 9.7451                         | e-003 m                        |                                |                                | -6.2487e-<br>003 m    | 1.0693e-002<br>m              |  |
| Moment of Inertia                          | 9.92e-0         | 06 kg⋅m²  | 3.8398e-<br>005<br>kg·m²       | 9.7878e-<br>006<br>kg·m²       | 3.8398e-<br>005<br>kg·m²       | 006<br>kg·m²                   | 1.2346e-<br>004 kg·m² | 1.1431e-004<br>kg·m²          |  |
| Moment of Inertia                          |                 | 6e-007<br>·m²                                   | 8.4745e-<br>007<br>kg·m²       | 5.3322e-<br>007<br>kg·m²       | 8.4745e-<br>007<br>kg·m²       | 5.3322e-<br>007<br>kg·m²       | 8.3056e-<br>005 kg·m² | 6.8756e-005<br>kg·m²          |  |

| Moment of Inertia | 9.7175e-006<br>kg·m²      | 3.8073e-<br>005<br>kg·m² | 9.5835e-<br>006<br>kg·m² | 3.8073e-<br>005<br>kg·m² | 9.5835e-<br>006<br>kg·m² | 1.8945e-<br>004 kg·m² | 1.8124e-004<br>kg·m² |
|-------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------|----------------------|
| Statistics        |                           |                          |                          |                          |                          |                       |                      |
| Nodes             | 127                       | 184                      | 127                      | 184                      | 127                      | 1472                  | 714                  |
| Elements          | 12                        | 18                       | 12                       | 18                       | 12                       | 249                   | 88                   |
| Mesh Metric       |                           |                          |                          | None                     |                          |                       |                      |
|                   |                           | CAD                      | <b>Attribute</b>         | S                        |                          |                       |                      |
| PartTolerance:    | PartTolerance: 0.00000001 |                          |                          |                          |                          |                       |                      |
| Color:143.159.175 |                           |                          |                          |                          |                          |                       |                      |
| Color:175.143.143 |                           |                          |                          |                          |                          |                       |                      |
| Color:143.175.159 |                           |                          |                          |                          |                          |                       |                      |
| Color:175.143.175 |                           |                          |                          |                          |                          |                       |                      |
| Color:159.175.143 |                           |                          |                          |                          |                          |                       |                      |
| Color:143.143.175 |                           |                          |                          |                          |                          |                       |                      |
| Color:175.159.143 |                           |                          |                          |                          |                          |                       |                      |
| Color:143.175.175 |                           |                          |                          |                          |                          |                       |                      |

## Big

TABLE 16 Model (A4, B4) > Geometry > Big > Parts

|  | PSK\PSK<br>den             |  |  |  |  |  |  |  |
|--|----------------------------|--|--|--|--|--|--|--|
|  |                            |  |  |  |  |  |  |  |
| Graphics Properties  |                            |  |  |  |  |  |  |  |
| Graphics Properties  |                            |  |  |  |  |  |  |  |
| Visible No   |                            |  |  |  |  |  |  |  |
| Transparency   | 1                          |  |  |  |  |  |  |  |
| Definition   |                            |  |  |  |  |  |  |  |
| Suppressed   | lo                         |  |  |  |  |  |  |  |
| Stiffness Behavior Flex  | kible                      |  |  |  |  |  |  |  |
| Coordinate System Default Coordinate Coordin | dinate System              |  |  |  |  |  |  |  |
| Reference Temperature By Envi  | ronment                    |  |  |  |  |  |  |  |
| Treatment None   |                            |  |  |  |  |  |  |  |
| Material   |                            |  |  |  |  |  |  |  |
| Assignment Glass Epoxy Composite LCP   |                            |  |  |  |  |  |  |  |
| Nonlinear Effects Yes  |                            |  |  |  |  |  |  |  |
| Thermal Strain Effects   | es                         |  |  |  |  |  |  |  |
| Bounding Box   |                            |  |  |  |  |  |  |  |
| Length X 0.30734 m   | 0.10096 m                  |  |  |  |  |  |  |  |
| Length Y 0.254 m   | 0.2222 m                   |  |  |  |  |  |  |  |
| Length Z 1.6072e-003 m   | 3.847e-002 m               |  |  |  |  |  |  |  |
| Properties   |                            |  |  |  |  |  |  |  |
| Volume 1.2467e-004 m <sup>3</sup>  | 5.2225e-004 m <sup>3</sup> |  |  |  |  |  |  |  |
| Mass 0.91006 kg  | 0.91916 kg                 |  |  |  |  |  |  |  |
| Centroid X -1.2014e-002 m  | -0.23166 m                 |  |  |  |  |  |  |  |
| Centroid Y 0.11111 m   | 0.10571 m                  |  |  |  |  |  |  |  |
| Centroid Z 1.6085e-002 m   | 1.2126e-004 m              |  |  |  |  |  |  |  |
| Moment of Inertia Ip1 4.8751e-003 kg·m²  | 3.3407e-003 kg·m²          |  |  |  |  |  |  |  |
| Moment of Inertia Ip2 7.1718e-003 kg⋅m²  | 6.3751e-004 kg·m²          |  |  |  |  |  |  |  |

| Moment of Inertia lp3 | 1.2046e-002 kg·m²         | 3.793e-003 kg·m² |  |  |  |  |  |  |
|-----------------------|---------------------------|------------------|--|--|--|--|--|--|
| Statistics            |                           |                  |  |  |  |  |  |  |
| Nodes                 | Nodes 2864 321            |                  |  |  |  |  |  |  |
| Elements              | 1337                      | 1595             |  |  |  |  |  |  |
| Mesh Metric           | None                      |                  |  |  |  |  |  |  |
|                       | CAD Attributes            |                  |  |  |  |  |  |  |
| PartTolerance:        | PartTolerance: 0.00000001 |                  |  |  |  |  |  |  |
| Color:175.143.159     |                           |                  |  |  |  |  |  |  |
| Color:143.143.175     |                           |                  |  |  |  |  |  |  |

# Biggest

TABLE 17
Model (A4, B4) > Geometry > Biggest > Parts

|                        | metry > biggest > Parts   |  |  |  |  |  |  |  |
|------------------------|---------------------------|--|--|--|--|--|--|--|
| Object Name            | PLATE\PLATE               |  |  |  |  |  |  |  |
| State                  | Hidden                    |  |  |  |  |  |  |  |
| Graphics Properties    |                           |  |  |  |  |  |  |  |
| Visible                | No                        |  |  |  |  |  |  |  |
| Transparency           | 1                         |  |  |  |  |  |  |  |
| Definition             |                           |  |  |  |  |  |  |  |
| Suppressed             | No                        |  |  |  |  |  |  |  |
| Stiffness Behavior     | Flexible                  |  |  |  |  |  |  |  |
| Coordinate System      | Default Coordinate System |  |  |  |  |  |  |  |
| Reference Temperature  | By Environment            |  |  |  |  |  |  |  |
| Treatment              | None                      |  |  |  |  |  |  |  |
| Ma                     | terial                    |  |  |  |  |  |  |  |
| Assignment             | Steel                     |  |  |  |  |  |  |  |
| Nonlinear Effects      | Yes                       |  |  |  |  |  |  |  |
| Thermal Strain Effects | Yes                       |  |  |  |  |  |  |  |
| Bounding Box           |                           |  |  |  |  |  |  |  |
| Length X               | 0.43713 m                 |  |  |  |  |  |  |  |
| Length Y               | 0.48971 m                 |  |  |  |  |  |  |  |
| Length Z               | 1.5189e-003 m             |  |  |  |  |  |  |  |
| Pro                    | perties                   |  |  |  |  |  |  |  |
| Volume                 | 3.2278e-004 m³            |  |  |  |  |  |  |  |
| Mass                   | 2.5403 kg                 |  |  |  |  |  |  |  |
| Centroid X             | -6.5508e-002 m            |  |  |  |  |  |  |  |
| Centroid Y             | 6.888e-003 m              |  |  |  |  |  |  |  |
| Centroid Z             | 2.0875e-002 m             |  |  |  |  |  |  |  |
| Moment of Inertia lp1  | 5.0134e-002 kg·m²         |  |  |  |  |  |  |  |
| Moment of Inertia lp2  | 4.0459e-002 kg·m²         |  |  |  |  |  |  |  |
| Moment of Inertia lp3  | 9.0592e-002 kg·m²         |  |  |  |  |  |  |  |
| Sta                    | tistics                   |  |  |  |  |  |  |  |
| Nodes                  | 3118                      |  |  |  |  |  |  |  |
| Elements               | 411                       |  |  |  |  |  |  |  |
| Mesh Metric            | None                      |  |  |  |  |  |  |  |
| CAD A                  | Attributes                |  |  |  |  |  |  |  |
| PartTolerance:         | 0.0000001                 |  |  |  |  |  |  |  |
|                        |                           |  |  |  |  |  |  |  |

Color:143.175.143

FIGURE 1
Model (A4, B4) > Geometry > Geometry

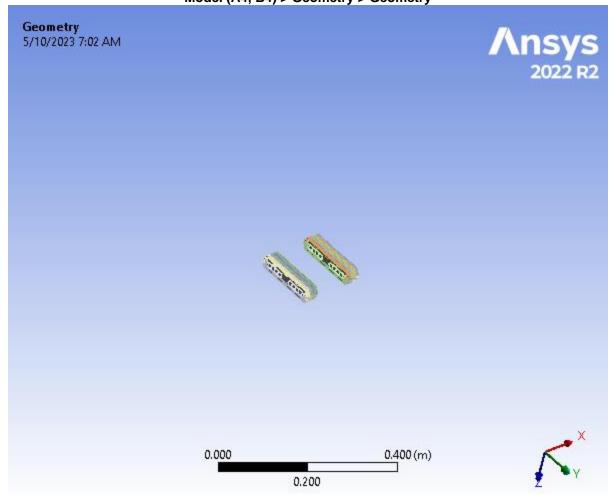


TABLE 18 Model (A4, B4) > Materials

| Object Name          | Materials     |  |  |  |  |  |
|----------------------|---------------|--|--|--|--|--|
| State                | Fully Defined |  |  |  |  |  |
| Statistics           |               |  |  |  |  |  |
| Materials            | 7             |  |  |  |  |  |
| Material Assignments | 0             |  |  |  |  |  |

## **Coordinate Systems**

TABLE 19
Model (A4, B4) > Coordinate Systems > Coordinate System

| Object Name | Global Coordinate System |  |  |  |  |  |  |
|-------------|--------------------------|--|--|--|--|--|--|
| State       | Fully Defined            |  |  |  |  |  |  |
| Definition  |                          |  |  |  |  |  |  |

| Туре                 | Cartesian    |  |  |
|----------------------|--------------|--|--|
| Coordinate System ID | 0.           |  |  |
| C                    | Prigin       |  |  |
| Origin X             | 0. m         |  |  |
| Origin Y             | 0. m         |  |  |
| Origin Z             | 0. m         |  |  |
| Directio             | nal Vectors  |  |  |
| X Axis Data          | [ 1. 0. 0. ] |  |  |
| Y Axis Data          | [ 0. 1. 0. ] |  |  |
| Z Axis Data          | [ 0. 0. 1. ] |  |  |

#### **Connections**

TABLE 20 Model (A4, B4) > Connections

| Connections   |
|---------------|
| Fully Defined |
|               |
| Yes           |
|               |
| Yes           |
|               |

TABLE 21
Model (A4, B4) > Connections > Contacts

| Model (A4, B4) > Collice  | tione / Comacte    |  |  |  |  |  |  |
|---------------------------|--------------------|--|--|--|--|--|--|
| Object Name               | Contacts           |  |  |  |  |  |  |
| State                     | Fully Defined      |  |  |  |  |  |  |
| Definition                |                    |  |  |  |  |  |  |
| Connection Type           | Contact            |  |  |  |  |  |  |
| Scope                     |                    |  |  |  |  |  |  |
| Scoping Method            | Geometry Selection |  |  |  |  |  |  |
| Geometry                  | All Bodies         |  |  |  |  |  |  |
| Auto Detec                | tion               |  |  |  |  |  |  |
| Tolerance Type            | Slider             |  |  |  |  |  |  |
| Tolerance Slider          | 0.                 |  |  |  |  |  |  |
| Tolerance Value           | 1.8391e-003 m      |  |  |  |  |  |  |
| Use Range                 | No                 |  |  |  |  |  |  |
| Face/Face                 | Yes                |  |  |  |  |  |  |
| Face-Face Angle Tolerance | 75. °              |  |  |  |  |  |  |
| Face Overlap Tolerance    | Off                |  |  |  |  |  |  |
| Cylindrical Faces         | Include            |  |  |  |  |  |  |
| Face/Edge                 | No                 |  |  |  |  |  |  |
| Edge/Edge                 | No                 |  |  |  |  |  |  |
| Priority                  | Include All        |  |  |  |  |  |  |
| Group By                  | Bodies             |  |  |  |  |  |  |
| Search Across             | Bodies             |  |  |  |  |  |  |
| Statistic                 | S                  |  |  |  |  |  |  |
| Connections               | 260                |  |  |  |  |  |  |
| Active Connections        | 260                |  |  |  |  |  |  |
|                           |                    |  |  |  |  |  |  |

TABLE 22
Model (A4, B4) > Connections > Contacts > Contact Regions

|           |   |   |                     |   | is > Contacts       | > Contact Regio     |   |   |              |
|-----------|---|---|---------------------|---|---------------------|---------------------|---|---|--------------|
| gion      | Contact<br>Region 2                               | Contact<br>Region 3                                 | Contact Region<br>4 | Contact<br>Region 5                               | Contact<br>Region 6 | Contact Region<br>7 | Contact<br>Region 8                             | Contact<br>Region 9                                   | Contact<br>1 |
|           |   |   |                     |   | Fully Define        | d                   |   |   |              |
|           |   |   |                     | S   | Scope               |                     |   |   |              |
| <u></u>   |   |   |                     |   | Geometry Selec      | ction               |   |   |              |
| 2 Fac     |   | 1 Face  | 2 Fac               |   | 1 Face              | 2 Fa                |   | 1 Face  |              |
| 2 Fac     | es  | 1 Face  | 2 Fac               | ces   | 1 Face              | 2 Fa                | ices  | 1 Face  |              |
| SCR       | EW-1\SCREW  | -1  | SCR                 | REW-2\SCREW-                                      | -2                  | SCF                 | SCREW-3\SCREW-3                                 |   |              |
| -<br>ONT- | LEFT-<br>PLATE-<br>INNER\LEFT-<br>PLATE-<br>INNER | LEFT-<br>MOUNTING-<br>EAR\LEFT-<br>MOUNTING-<br>EAR | PLATE\FRONT-        | LEFT-<br>PLATE-<br>INNER\LEFT-<br>PLATE-<br>INNER | MOUNTING-<br>EAR    | PLATE\FRONT-        | RIGHT-<br>PLATE-<br>INNER\RIGHT-<br>PLATE-INNER | RIGHT-<br>MOUNTING-<br>EAR\RIGHT-<br>MOUNTING-<br>EAR | PLATE\I      |
|           |   |   |                     |   | No                  |                     |   |   |              |
|           |   |   |                     | De  | finition            |                     |   |   |              |
|           |   |   |                     |   | Bonded              |                     |   |   |              |
|           |   |   |                     |   | Automatic           |                     |   |   |              |
|           |   |   |                     | P   | Program Contro      | olled               |   |   |              |
| 1         |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     |   | 1.8391e-003         | m                   |   |   |              |
|           |   |   |                     |   | No                  |                     |   |   |              |
|           |   |   |                     | Di  | isplay              |                     |   |   |              |
|           |   |   |                     |   | No                  |                     |   |   |              |
|           |   |   |                     |   | vanced              |                     |   |   |              |
|           |   |   |                     | P   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | P   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     | F   | Program Contro      | olled               |   |   |              |
|           |   |   |                     |   | c Modification      |                     |   |   |              |
|           |   |   |                     |   |                     |                     |   |   |              |
|           |   |   |                     |   | None                |                     |   |   |              |

#### None

|                            |   | M                    | lodel (A4, B4)                                      |                               | LE 23<br>s > Contacts > Cont        | act Regions       |                   |        |
|----------------------------|---|----------------------|---|-------------------------------|-------------------------------------|-------------------|-------------------|--------|
| ict<br>13                  | Contact<br>Region 14                            | Contact<br>Region 15 | Contact<br>Region 16                                | Contact<br>Region 17          | Contact Region<br>18                | Contact Region 19 | Contact Region 20 | Contac |
|                            |   |                      |   |                               | Fully Defined                       |                   |                   |        |
|                            |   |                      |   | Sc                            | ope                                 |                   |                   |        |
|                            |   |                      |   | Ge                            | eometry Selection                   |                   |                   |        |
| ice                        |   | 4 Faces              | 2 Faces   | 1 Face                        | 7 Faces                             |                   |                   | Face   |
| ice                        |   | 4 Faces              | 5 Faces   | 1 Face                        | 7 Faces                             |                   | 11                | Face   |
| RON                        | T-PLATE\FRONT                                   | -PLATE               |   |                               | LEI                                 | FT-PLATE-INNER\LE | FT-PLATE-INNER    |        |
| -<br>E-<br>EFT-<br>E-<br>R | RIGHT-<br>PLATE-<br>INNER\RIGHT-<br>PLATE-INNER | PLATE\PLATE          | LEFT-<br>MOUNTING-<br>EAR\LEFT-<br>MOUNTING-<br>EAR | BACK-<br>PLATE\BACK-<br>PLATE | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR | SCREW7\SCREW7     | SCREW8\SCREW8     | SCREV  |
|                            |   |                      |   |                               | No                                  |                   |                   |        |
|                            |   |                      |   | Defi                          | nition                              |                   |                   |        |
|                            |   |                      |   |                               | Bonded                              |                   |                   |        |
|                            |   |                      |   |                               | Automatic                           |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   |                               | 1.8391e-003 m                       |                   |                   |        |
|                            |   |                      |   |                               | No                                  |                   |                   |        |
|                            |   |                      |   | Dis                           | play                                |                   |                   |        |
|                            |   |                      |   |                               | No                                  |                   |                   |        |
|                            |   |                      |   |                               | anced                               |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   | _      |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   | Pro                           | ogram Controlled                    |                   |                   |        |
|                            |   |                      |   |                               |                                     |                   |                   |        |

|                  |                   | Geometric M  | lodification  |  |                                       |               |
|------------------|-------------------|--|---|--|---------------------------------------|---------------|
|                  |                   |  | None  |  |                                       |               |
|                  |                   |  | None  |  |                                       |               |
|                  | Model (A4, B4) >  |  |   | Contact Regior   | ns                                    |               |
| ntact Region 25  | Contact Region 26 | Contact<br>Region 27                                   | Contact<br>Region 28                                  | Contact<br>Region 29   | Contact Region 30                     | Contact Regio |
|                  |                   |  |   |  |                                       |               |
|                  |                   |  |   |  |                                       |               |
|                  |                   |  |   |  |                                       | T             |
|                  |                   |  |   |  |                                       |               |
|                  |                   | 2 Faces  | 5 Faces   | 1 Face   |                                       |               |
| :R\LEFT-PLATE-IN | NNER              |  |   |  | RIGHT-PLAT                            | E-INNER\RIGHT |
| EW13\SCREW13     | SCREW14\SCREW14   | PLATE\PLATE  | RIGHT-<br>MOUNTING-<br>EAR\RIGHT-<br>MOUNTING-<br>EAR | BACK-<br>PLATE\BACK-<br>PLATE  | RIGHT-<br>GUIDEBAR\RIGHT-<br>GUIDEBAR | SCREW15\SCR   |
|                  |                   |  | No  |  |                                       |               |
|                  |                   | Defini   |   |  |                                       |               |
|                  |                   |  | Bonded  |  |                                       |               |
|                  |                   |  | Automatic   |  |                                       |               |
|                  |                   | Prog   | gram Controlle  | :d   |                                       |               |
|                  |                   | Prog   | gram Controlle  | ed .   |                                       |               |
|                  |                   | 1.   | .8391e-003 m  |  |                                       |               |
|                  |                   |  | No  |  |                                       |               |
|                  |                   | Disp   |   |  |                                       |               |
|                  |                   |  | No  |  |                                       |               |
|                  |                   |  |   |  |                                       |               |
|                  |                   | Prog   | gram Controlle  | :d   |                                       |               |
|                  |                   | Pro  | gram Controlle  | ed   |                                       |               |
|                  |                   | Prog   | gram Controlle  | ed   |                                       |               |
|                  |                   | Pro  | gram Controlle  | ed   |                                       |               |
|                  |                   | Pro  | gram Controlle  | ed   |                                       |               |
|                  |                   | Pro  | gram Controlle  | ed   |                                       |               |
|                  |                   |  |   |  |                                       |               |
|                  | R\LEFT-PLATE-II   | ntact Region 25 Contact Region 26  ER\LEFT-PLATE-INNER | TABL  | TABLE 24  Model (A4, B4) > Connections > Contacts > Contact Region 25  Contact Region 26  Contact Region 27  Region 28  Fully Defined  Scope  Geometry Selection  2 Faces 2 Faces 5 Faces  ERILEFT-PLATE-INNER  RIGHT-MOUNTING-EAR No  Definition  Bonded  Automatic  Program Controlle  Program Controlle | None                                  | None          |

|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|--------|-------------------|--------------------|----------------------------------|----------------------|----------------------|-------------------------|-----------------------------------|
|        |                   |                    | Program Cor                      | trolled              |                      |                         |                                   |
|        |                   |                    | Geometric Modificati             | on                   |                      |                         |                                   |
|        |                   |                    | None                             |                      |                      |                         |                                   |
|        |                   |                    | None                             |                      |                      |                         |                                   |
|        |                   | Model (A4, B4) > 0 | TABLE 25<br>Connections > Contac | ts > Contact Regions |                      |                         |                                   |
| ion 34 | Contact Region 35 | Contact Region 36  | Contact Region 37                | Contact Region 38    | Contact<br>Region 39 | Contact<br>Region<br>40 | Contact<br>Region<br>41           |
|        |                   |                    | Fully Defin                      | ned                  |                      |                         |                                   |
|        |                   |                    | Scope                            |                      |                      |                         |                                   |
|        |                   |                    | Geometry Se                      | lection              |                      |                         |                                   |
|        |                   | 1 Face             |                                  |                      | 2 Faces              | 1 Face                  |                                   |
|        |                   | 1 Face             |                                  |                      | 2 Faces              | 4 Faces                 |                                   |
|        |                   | RIGHT-PLATE-INNE   | R\RIGHT-PLATE-INNEI              | ₹                    |                      |                         | LEFT                              |
| REW19  | SCREW20\SCREW20   | SCREW21\SCREW21    | SCREW22\SCREW22                  | SCREW23\SCREW23      | PLATE\PLATE          | PSK\PSK                 | LEFT-<br>NUT-<br>1\LEFT-<br>NUT-1 |
|        |                   |                    | No                               |                      |                      |                         |                                   |
|        |                   |                    | <b>Definition</b> Bonded         | 1                    |                      |                         |                                   |
|        |                   |                    | Automat                          |                      |                      |                         |                                   |
|        |                   |                    |                                  |                      |                      |                         |                                   |
|        |                   |                    | Program Cor                      |                      |                      |                         |                                   |
|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|        |                   |                    | 1.8391e-00                       | )3 m                 |                      |                         |                                   |
|        |                   |                    | No                               |                      |                      |                         |                                   |
|        |                   |                    | Display                          |                      |                      |                         |                                   |
|        |                   |                    | No                               |                      |                      |                         |                                   |
|        |                   |                    | Advanced                         |                      |                      |                         |                                   |
|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|        |                   |                    | Program Cor                      | ntrolled             |                      |                         |                                   |
|        |                   |                    |                                  |                      |                      |                         |                                   |

|                |                                   |                                   |                                   |                                   |                               | Program   | Controlled                          |                   |                   |
|----------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------|---|-------------------------------------|-------------------|-------------------|
|                |                                   |                                   |                                   |                                   |                               | Program   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Program   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Program <sup>1</sup>  | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Geometric Modific   | cation                              |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Nc  | one                                 |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Nc  | one                                 |                   |                   |
|                |                                   |                                   |                                   | M                                 | odel (A4, B4) >               | TABLE 26<br>Connections > Con                                 | ntacts > Contact Re                 | eaions            |                   |
| ct<br>n        | Contact<br>Region<br>46           |                                   | Contact<br>Region<br>48           |                                   | Contact                       | Contact Region 51   | Contact Region<br>52                | Contact Region 53 | Contact Region 54 |
|                |                                   |                                   |                                   |                                   |                               |   | Defined                             |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Scope   |                                     |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Geometry  | y Selection                         |                   |                   |
|                |                                   | 2 Faces                           |                                   |                                   | 5 Faces                       | 6 Faces   | 1 Face                              | 3 Faces           | 2 Fac             |
|                |                                   | 6 Faces                           |                                   |                                   | 1 Face                        | 6 Faces   | 1 Face                              | 2 Faces           | 1 Fa              |
|                |                                   |                                   |                                   |                                   | LEF                           | FT-MOUNTING-EAR\  | \LEFT-MOUNTING-                     | -EAR              |                   |
| -<br> -<br> Г- | LEFT-<br>NUT-<br>6\LEFT-<br>NUT-6 | LEFT-<br>NUT-<br>7\LEFT-<br>NUT-7 | LEFT-<br>NUT-<br>8\LEFT-<br>NUT-8 | LEFT-<br>NUT-<br>9\LEFT-<br>NUT-9 | BACK-<br>PLATE\BACK-<br>PLATE | LEFT-<br>MOUNTING-<br>EAR_REAR\LEFT-<br>MOUNTING-<br>EAR_REAR | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR | SCREW1\SCREW1     | SCREW3\SCREW3     |
|                |                                   |                                   |                                   |                                   |                               | N<br><b>Definition</b>  | No                                  |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | nded                                |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | omatic                              |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   |                                     |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | e-003 m                             |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | No                                  |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Display   |                                     |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   | No                                  |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Advanced<br>Program (   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               | Flogialii   | Controlled                          |                   |                   |
|                |                                   |                                   |                                   |                                   |                               |   |                                     |                   |                   |

|                 |                   |                        | Program Controlled                |                   |                   |     |
|-----------------|-------------------|------------------------|-----------------------------------|-------------------|-------------------|-----|
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   | Geom                   | etric Modification                |                   |                   |     |
|                 |                   |                        | None                              |                   |                   |     |
|                 |                   |                        | None                              |                   |                   |     |
|                 | Mc                | odel (A4, B4) > Connec | TABLE 27<br>tions > Contacts > Co | ntact Regions     |                   |     |
| itact Region 58 | Contact Region 59 | Contact Region 60      | Contact Region 61                 | Contact Region 62 | Contact Region 63 | С   |
|                 |                   |                        | Fully Defined                     |                   |                   |     |
|                 |                   |                        | Scope                             |                   |                   |     |
|                 |                   | 4.500                  | Geometry Selection                |                   |                   |     |
|                 |                   | 1 Face                 | 1 Face                            |                   |                   |     |
|                 | LEFT-M            | OUNTING-EAR\LEFT-M     |                                   |                   |                   |     |
| EW9\SCREW9      | SCREW10\SCREW10   | SCREW11\SCREW11        | SCREW12\SCREW12                   | SCREW13\SCREW13   | SCREW14\SCREW14   | SCI |
|                 |                   |                        | No                                |                   |                   |     |
|                 |                   |                        | <b>Definition</b> Bonded          |                   |                   |     |
|                 |                   |                        | Automatic                         |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | Program Controlled                |                   |                   |     |
|                 |                   |                        | 1.8391e-003 m                     |                   |                   |     |
|                 |                   |                        | No                                |                   |                   |     |
|                 |                   |                        | Display                           |                   |                   |     |
|                 |                   |                        | No                                |                   |                   |     |
|                 |                   |                        |                                   |                   |                   |     |
|                 |                   |                        |                                   |                   |                   |     |

|                         |  |                         | Advanced  |                                     |                   |                        |  |  |  |
|-------------------------|--|-------------------------|---|-------------------------------------|-------------------|------------------------|--|--|--|
|                         |  |                         | Program Controlled  | t                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | t                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | t                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | t                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | b                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | b                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | b                                   |                   |                        |  |  |  |
|                         |  |                         | Program Controlled  | b                                   |                   |                        |  |  |  |
|                         |  | Geor                    | metric Modification   |                                     |                   |                        |  |  |  |
|                         |  |                         | None  |                                     |                   |                        |  |  |  |
|                         |  |                         | None  |                                     |                   |                        |  |  |  |
|                         | TABLE 28<br>Model (A4, B4) > Connections > Contact Regions |                         |   |                                     |                   |                        |  |  |  |
| Contact Region<br>69    | Contact Region 70  | Contact Region<br>71    | Contact Region 72   | Contact Region<br>73                | Contact Region 74 | Contact<br>7           |  |  |  |
|                         |  |                         | Fully Defined   |                                     |                   |                        |  |  |  |
|                         |  |                         | Scope   |                                     |                   |                        |  |  |  |
|                         |  |                         | Geometry Selection  | n                                   |                   |                        |  |  |  |
| 2 Faces                 | 1 Face   | 2 Faces                 | 1 Face  | 2 Faces                             | 1 Face            | 2 Fa                   |  |  |  |
|                         |  |                         | 1 Face  | <u> </u>                            |                   | 1                      |  |  |  |
| I EET MILIT O           | ,, === , , , , = , , , , , , , , , , ,                     |                         |   |                                     |                   |                        |  |  |  |
| LEFT-NUT-3              | 3\LEFT-NUT-3   | LEFT-NUT-               | -4\LEFT-NUT-4   | LEFT-NUT-                           | -5\LEFT-NUT-5     | L                      |  |  |  |
| LEFT-                   | SCREW9\SCREW9  | LEFT-                   |   | LEFT-                               |                   | LEI                    |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- |   | LEFT-<br>GUIDEBAR\LEFT-             |                   | LEI<br>GUIDEB/         |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition   | LEFT-<br>GUIDEBAR\LEFT-             |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10   | LEFT-<br>GUIDEBAR\LEFT-             |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition  Bonded  Automatic  | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition  Bonded   | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition  Bonded  Automatic  | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition  Bonded  Automatic  Program Controlled  Program Controlled  1.8391e-003 m | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | No Definition Bonded Automatic Program Controlled Program Controlled 1.8391e-003 m No                     | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |
| LEFT-<br>GUIDEBAR\LEFT- |  | LEFT-<br>GUIDEBAR\LEFT- | SCREW10\SCREW10  No  Definition  Bonded  Automatic  Program Controlled  Program Controlled  1.8391e-003 m | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR |                   | LEI<br>GUIDEB <i>i</i> |  |  |  |

|                  |                                     |                   | 1                                   | No                     |                                     |                                     |                                     |                               |
|------------------|-------------------------------------|-------------------|-------------------------------------|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------|
|                  |                                     |                   | Advanced                            |                        |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Geometric Modifi                    | ication                |                                     |                                     |                                     |                               |
|                  |                                     |                   | N                                   | lone                   |                                     |                                     |                                     |                               |
|                  |                                     |                   | N                                   | lone                   |                                     |                                     |                                     |                               |
|                  |                                     | Model (A4, B4) >  | TABLE 29<br>Connections > Cor       | ntacts > Contact Regio | ins                                 |                                     |                                     |                               |
| Region 78        | Contact Region<br>79                | Contact Region 80 | Contact Region<br>81                | Contact Region 82      | Contact<br>Region<br>83             | Contact<br>Region<br>84             | Contact<br>Region<br>85             | Conta<br>Regio<br>86          |
|                  |                                     |                   | Fully                               | Defined                |                                     |                                     |                                     |                               |
|                  |                                     |                   | Scope                               |                        |                                     |                                     |                                     |                               |
|                  |                                     |                   | Geometr                             | y Selection            |                                     |                                     |                                     |                               |
| ace              | 2 Faces                             | 1 Face            | 2 Faces                             | 1 Face                 |                                     |                                     | 2 Fa                                | aces                          |
|                  |                                     | 1 Face            |                                     |                        |                                     |                                     | 6 Fa                                | aces                          |
| Γ-7\LEFT-<br>T-7 | LEFT-NUT-                           | -8\LEFT-NUT-8     | LEFT-NUT-                           | -9\LEFT-NUT-9          | RIG                                 | HT-MOUN                             | TING-EAR                            |                               |
| SCREW13          | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR | SCREW14\SCREW14   | LEFT-<br>GUIDEBAR\LEFT-<br>GUIDEBAR | SCREW16\SCREW16        | RIGHT-<br>NUT-<br>1\RIGHT-<br>NUT-1 | RIGHT-<br>NUT-<br>2\RIGHT-<br>NUT-2 | RIGHT-<br>NUT-<br>3\RIGHT-<br>NUT-3 | RIGH<br>NUT<br>4\RIGH<br>NUT- |
|                  |                                     |                   | 1                                   | No                     |                                     |                                     |                                     |                               |
|                  |                                     |                   | Definition                          |                        |                                     |                                     |                                     |                               |
|                  |                                     |                   | Bor                                 | nded                   |                                     |                                     |                                     |                               |
|                  |                                     |                   |                                     | omatic                 |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   | Program                             | Controlled             |                                     |                                     |                                     |                               |
|                  |                                     |                   |                                     |                        |                                     |                                     |                                     |                               |

|                              |                               |   |                                       | 1.8391e-003 m      |                   |                   |        |
|------------------------------|-------------------------------|---|---------------------------------------|--------------------|-------------------|-------------------|--------|
|                              |                               |   |                                       | No                 |                   |                   |        |
|                              |                               |   |                                       | Display            |                   |                   |        |
|                              |                               |   |                                       | No                 |                   |                   |        |
|                              |                               |   |                                       | dvanced            |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   |                                       | Program Controlled |                   |                   |        |
|                              |                               |   | Geometr                               | ic Modification    |                   |                   |        |
|                              |                               |   |                                       | None               |                   |                   |        |
|                              |                               |   |                                       | None               |                   |                   |        |
|                              |                               | Model (   | T <i>I</i><br>(A4, B4) > Connectio    | ABLE 30            | ntact Regions     |                   |        |
| ntact<br>egion<br>91         | Contact<br>Region 92          | Contact Region 93   | Contact Region 94                     | Contact Region 95  | Contact Region 96 | Contact Region 97 | Contac |
|                              |                               |   |                                       | Fully Defined      |                   |                   |        |
|                              |                               |   |                                       | Scope              |                   |                   |        |
|                              |                               |   | ,                                     | Geometry Selection |                   |                   |        |
|                              | 5 Faces                       | 6 Faces   | 1 Face                                | 3 Faces            | 2 Fa              | aces              |        |
|                              | 1 Face                        | 6 Faces   | 1 Face                                | 2 Faces            |                   | 1                 | Face   |
|                              |                               |   | RIGHT-MOUNT                           | ING-EAR\RIGHT-MO   | UNTING-EAR        |                   |        |
| GHT-<br>UT-<br>IGHT-<br>JT-9 | BACK-<br>PLATE\BACK-<br>PLATE | RIGHT-<br>MOUNTING-<br>EAR_REAR\RIGHT-<br>MOUNTING-<br>EAR_REAR | RIGHT-<br>GUIDEBAR\RIGHT-<br>GUIDEBAR | SCREW2\SCREW2      | SCREW5\SCREW5     | SCREW6\SCREW6     | SCREW  |
|                              |                               |   | D                                     | No<br>efinition    |                   |                   |        |
|                              |                               |   | De                                    | Bonded             |                   |                   |        |
|                              |                               |   |                                       |                    |                   |                   |        |
|                              |                               |   |                                       |                    |                   |                   |        |

|                  |                    |                                | Automatic          |                    |                                       |     |
|------------------|--------------------|--------------------------------|--------------------|--------------------|---------------------------------------|-----|
|                  |                    |                                | Program Controlled |                    |                                       |     |
|                  |                    | F                              | Program Controlled |                    |                                       |     |
|                  |                    |                                | 1.8391e-003 m      |                    |                                       |     |
|                  |                    |                                | No                 |                    |                                       |     |
|                  |                    | D                              | Display            |                    |                                       |     |
|                  |                    |                                | No                 |                    |                                       |     |
|                  |                    |                                | dvanced            |                    |                                       |     |
| <u> </u>         |                    |                                | Program Controlled |                    |                                       |     |
|                  |                    |                                | Program Controlled |                    |                                       |     |
|                  |                    | F                              | Program Controlled |                    |                                       |     |
|                  |                    | F                              | Program Controlled |                    |                                       |     |
|                  |                    |                                | Program Controlled |                    |                                       |     |
|                  |                    | 1                              | Program Controlled |                    |                                       |     |
|                  |                    | 1                              | Program Controlled |                    |                                       |     |
|                  |                    | 1                              | Program Controlled |                    |                                       |     |
|                  |                    | Geometri                       | ic Modification    |                    |                                       |     |
|                  |                    |                                | None               |                    |                                       |     |
|                  |                    |                                | None               |                    |                                       |     |
|                  | Mode               | TA<br>el (A4, B4) > Connection | ABLE 31            | act Regions        |                                       |     |
| ntact Region 102 | Contact Region 103 | Contact Region 104             | Contact Region 105 | Contact Region 106 | Contact Region 107                    | С   |
|                  |                    |                                | Fully Defined      |                    |                                       | _   |
|                  |                    | ş                              | Scope              |                    |                                       |     |
|                  |                    | (                              | Geometry Selection |                    |                                       |     |
|                  | 1 Face             |                                |                    |                    | 2 Faces                               |     |
|                  |                    |                                | 1 Face             |                    | T                                     |     |
| RIGHT-MOUN       | NTING-EAR\RIGHT-MO | UNTING-EAR                     |                    |                    | RIGHT-NUT-1                           | 1\R |
| REW20\SCREW20    | SCREW21\SCREW21    | SCREW22\SCREW22                | SCREW23\SCREW23    | SCREW24\SCREW24    | RIGHT-<br>GUIDEBAR\RIGHT-<br>GUIDEBAR | SC  |
|                  | -                  |                                | No                 |                    |                                       |     |

|                   |                    |                    | Definition                         |                    |                    |      |
|-------------------|--------------------|--------------------|------------------------------------|--------------------|--------------------|------|
|                   |                    |                    | Bonded                             |                    |                    |      |
|                   |                    |                    | Automatic                          |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | 1.8391e-003 m                      |                    |                    |      |
|                   |                    |                    | No                                 |                    |                    |      |
|                   |                    |                    | Display                            |                    |                    |      |
|                   |                    |                    | No                                 |                    |                    |      |
|                   |                    | l l                | Advanced                           |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    |                    | Program Controlled                 |                    |                    |      |
|                   |                    | Geome              | etric Modification                 |                    |                    |      |
|                   |                    |                    | None                               |                    |                    |      |
|                   |                    |                    | None                               |                    |                    |      |
|                   | Mode               |                    | TABLE 32<br>tions > Contacts > Con | ntact Regions      |                    |      |
| ontact Region 113 | Contact Region 114 | Contact Region 115 | Contact Region 116                 | Contact Region 117 | Contact Region 118 | Cont |
| 1                 |                    |                    | Fully Defined                      | 1                  |                    |      |
|                   |                    |                    | Scope                              |                    |                    |      |
|                   |                    |                    | Geometry Selection                 |                    |                    |      |
| 2 Faces           | 1 Face             | 2 Faces            | 1 Face                             | 2 Faces            | 1 Face             |      |
|                   |                    |                    | 1 Face                             |                    |                    |      |
| RIGHT-NUT-4       | 4\RIGHT-NUT-4      | RIGHT-NUT-         | 5\RIGHT-NUT-5                      | RIGHT-NUT-6        | 6\RIGHT-NUT-6      |      |
|                   |                    |                    |                                    | I.                 |                    |      |
|                   |                    |                    |                                    |                    |                    |      |

| UIDEE | RIGHT-<br>BAR\RIGHT-<br>JIDEBAR | SCREW19\SCREW19 | RIGHT-<br>GUIDEBAR\RIGHT-<br>GUIDEBAR | - SCREW20\SCREW20                | RIGHT-<br>GUIDEBAR\RIGHT-<br>GUIDEBAR | SCREW21\SCREW21          | I GUID            |
|-------|---------------------------------|-----------------|---------------------------------------|----------------------------------|---------------------------------------|--------------------------|-------------------|
|       |                                 |                 |                                       | No                               |                                       |                          |                   |
|       |                                 |                 |                                       | <b>Definition</b> Bonded         |                                       |                          |                   |
|       |                                 |                 |                                       |                                  |                                       |                          |                   |
|       |                                 |                 |                                       | Automatic                        |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          | $\longrightarrow$ |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | 1.8391e-003 m                    |                                       |                          |                   |
|       |                                 |                 |                                       | No                               |                                       |                          |                   |
|       |                                 |                 |                                       | Display                          |                                       |                          |                   |
|       |                                 |                 |                                       | No                               |                                       |                          | •                 |
|       |                                 |                 |                                       | Advanced                         |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 |                                       | Program Controlled               |                                       |                          |                   |
|       |                                 |                 | Geom                                  | etric Modification               |                                       |                          |                   |
|       |                                 |                 |                                       | None                             |                                       |                          |                   |
|       |                                 |                 |                                       | None                             |                                       |                          |                   |
|       |                                 | Mode            |                                       | TABLE 33 ctions > Contacts > Con | ntact Pagions                         |                          |                   |
| 123   | Contact Reg                     | Contact Po      |                                       |                                  |                                       | on Contact Region<br>129 | n C               |
|       |                                 |                 |                                       | Fully Defined                    |                                       |                          |                   |
|       |                                 |                 |                                       | Scope                            |                                       |                          |                   |
|       |                                 |                 |                                       | Geometry Selection               |                                       |                          |                   |
|       | 1 Fac                           | De l            |                                       |                                  | 3 Faces                               |                          |                   |
|       |                                 |                 | 3 Faces                               |                                  |                                       | 2 Faces                  |                   |
| i     |                                 |                 |                                       |                                  |                                       |                          | 7                 |

| NUT-9          | 9\RIGHT-NUT-9              |                 | BACK-PLATE\BACK-PLATE        |                |          |                   |                 |        |  |  |  |
|----------------|----------------------------|-----------------|------------------------------|----------------|----------|-------------------|-----------------|--------|--|--|--|
| НТ-            | SCREW24\SCREW24            | 4 SCREW1\SCREW1 | SCREW2\SCREW2                | SCREW3\SC      | CREW3    | SCREW4\SCREW4     | SCREW5\SCREW    | /5 SCI |  |  |  |
|                |                            |                 |                              | No             |          |                   |                 |        |  |  |  |
|                |                            |                 | Definit                      |                |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | Bonded         |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | Automatic      |          |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controlled | <u>d</u> |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controlled | d        |                   |                 |        |  |  |  |
|                |                            |                 | 1.8                          | 8391e-003 m    |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | No             |          |                   |                 |        |  |  |  |
|                |                            |                 | Displa                       |                |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | No             |          |                   |                 |        |  |  |  |
|                |                            |                 | Advand                       |                | 1        |                   |                 |        |  |  |  |
|                |                            |                 |                              | ram Controlled |          |                   |                 |        |  |  |  |
|                |                            |                 | Progr                        | ram Controlled | d<br>    |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controlled | :d       |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controllec | d        |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controlled | ∤d       |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controllec | ∤d       |                   |                 |        |  |  |  |
|                |                            |                 | Prog                         | ram Controlled | ;d       |                   |                 |        |  |  |  |
|                |                            |                 |                              | ram Controllec | .d       |                   |                 |        |  |  |  |
|                |                            |                 | Geometric Mo                 | odification    |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | None           |          |                   |                 |        |  |  |  |
|                |                            |                 |                              | None           |          |                   |                 |        |  |  |  |
|                |                            |                 | TABLE<br>B4) > Connections > |                | Contact  | Regions           |                 |        |  |  |  |
| itact l<br>135 | Region Contact Re<br>5 136 |                 | gion 137 Contact F           | Region 138     | Contac   | et Region 139 Con | tact Region 140 | Conta  |  |  |  |
| 700            | 7 100                      |                 | F                            | ully Defined   |          |                   |                 |        |  |  |  |

|           |                        |                 | _                         |                 |                 |       |  |  |  |
|-----------|------------------------|-----------------|---------------------------|-----------------|-----------------|-------|--|--|--|
|           |                        |                 | Scope                     |                 |                 |       |  |  |  |
|           |                        |                 | Geometry Selecti          | ion             |                 |       |  |  |  |
| 8 F       | aces                   |                 | 2 Faces                   |                 |                 | 8     |  |  |  |
|           |                        |                 |                           | 2 Faces         |                 |       |  |  |  |
|           |                        | LE              | FT-GUIDEBAR\LEFT-G        | JUIDEBAR        |                 |       |  |  |  |
| W8\SCREW8 | SCREW9\SCREW9          | SCREW10\SCREW10 | SCREW11\SCREW11           | SCREW12\SCREW12 | SCREW13\SCREW13 | SCREW |  |  |  |
|           |                        |                 | No                        |                 |                 |       |  |  |  |
|           |                        |                 | Definition                |                 |                 |       |  |  |  |
|           | Bonded                 |                 |                           |                 |                 |       |  |  |  |
|           | Automatic              |                 |                           |                 |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           | Program Controlled     |                 |                           |                 |                 |       |  |  |  |
|           |                        |                 | 1.8391e-003 m             | ١               |                 |       |  |  |  |
|           |                        |                 | No                        |                 |                 |       |  |  |  |
|           |                        |                 | Display                   |                 |                 |       |  |  |  |
|           |                        |                 | No                        |                 |                 |       |  |  |  |
|           |                        |                 | Advanced Program Controll | lod             |                 |       |  |  |  |
|           |                        |                 |                           |                 |                 |       |  |  |  |
|           |                        |                 | Program Controll          |                 |                 |       |  |  |  |
|           |                        |                 | Program Controll          | ed<br>          |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           |                        |                 | Program Controll          | led             |                 |       |  |  |  |
|           | Geometric Modification |                 |                           |                 |                 |       |  |  |  |
|           |                        |                 | None                      |                 |                 |       |  |  |  |
|           |                        |                 | None                      |                 |                 |       |  |  |  |
|           |                        |                 |                           |                 |                 |       |  |  |  |

TABLE 35

|               | М                  | odel (A4, B4) > Conne | ctions > Contacts > Co | ntact Regions      |                    |     |
|---------------|--------------------|-----------------------|------------------------|--------------------|--------------------|-----|
| ct Region 145 | Contact Region 146 | Contact Region 147    | Contact Region 148     | Contact Region 149 | Contact Region 150 | Col |
|               |                    |                       | Fully Defined          |                    |                    |     |
|               |                    |                       | Scope                  |                    |                    |     |
|               |                    |                       | Geometry Selection     |                    |                    |     |
| 3 Faces       |                    | 2 Faces               |                        | 8 Fa               | aces               |     |
|               |                    | 2 Fa                  | ices                   |                    |                    |     |
|               |                    | RIGHT-GUIDEBAR\       | RIGHT-GUIDEBAR         |                    |                    |     |
| /18\SCREW18   | SCREW19\SCREW19    | SCREW20\SCREW20       | SCREW21\SCREW21        | SCREW22\SCREW22    | SCREW23\SCREW23    | SCR |
|               |                    |                       | No                     |                    |                    |     |
|               |                    |                       | Definition             |                    |                    |     |
|               |                    |                       | Bonded                 |                    |                    |     |
|               |                    |                       | Automatic              |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | 1.8391e-003 m          |                    |                    |     |
|               |                    |                       | No                     |                    |                    |     |
|               |                    |                       | Display                |                    |                    |     |
|               |                    |                       | No                     |                    |                    |     |
|               |                    |                       | Advanced               |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    |                       | Program Controlled     |                    |                    |     |
|               |                    | Geom                  | netric Modification    |                    |                    |     |
|               |                    |                       |                        |                    |                    |     |

None

#### None

**TABLE 36** Model (A4, B4) > Connections > Contacts > Contact Regions Contact Contact Contact Contact Contact Region Contact Contact Region Region Region Contact Region 159 Region 160 161 Region 162 Region 163 Re 156 157 158 **Fully Defined** Scope Geometry Selection 1 Face 1 Face 4 Faces 1 Face PCI-PCI-PCI-7\PCI-7 SINK\SINK BASE\BASE BOARD\BOA 5\PCI-5 | 6\PCI-6 PEM-PEM-FASTENER- FASTENER- FAS DDR4\_SLOT\_1\_1\_2\_1\DDR4\_SLOT\_1\_1\_2\_1 BASE\BASE BOARD\BOARD BOARD\BOARD 1\PEM-2\PEM-FASTENER- FASTENER- FAS 2 No **Definition Bonded** Automatic **Program Controlled Program Controlled** 1.8391e-003 m No **Display** No Advanced **Program Controlled Program Controlled Program Controlled Program Controlled Program Controlled Program Controlled Program Controlled** 

|                | Program Controlled                                      |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
|----------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|--------------------------|--|
|                | Geometric Modification                                  |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
|                | None  |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
|                | None  |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
|                | TABLE 37 Model (A4, B4) > Connections > Contact Regions |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
| ect<br>ne      | Contact<br>Region 166                                   | Contact<br>Region 167       | Contact<br>Region 168       | Contact<br>Region 169       | Contact<br>Region 170 | Contact<br>Region 171 | Contact<br>Region 172 | Contact<br>Region 173 | Contact<br>Region<br>174 | Contact<br>Region<br>175 |  |
| te             |   |                             |                             |                             |                       | lly Defined           |                       |                       |                          |                          |  |
| 2~             |   |                             |                             |                             | Scope                 |                       |                       |                       |                          |                          |  |
| ng<br>od       |   |                             |                             |                             | Geom                  | etry Selection        | 1                     |                       |                          |                          |  |
| ıct            |   |                             |                             |                             |                       | 1 Face                |                       |                       |                          |                          |  |
| et             |   |                             |                             |                             |                       | 1 Face                |                       |                       |                          |                          |  |
| ict<br>es      |   |                             |                             |                             | BOA                   | RD\BOARD              |                       |                       |                          |                          |  |
| et             | PEM-<br>FASTENER-<br>5\PEM-                             | PEM-<br>FASTENER-<br>6\PEM- | PEM-<br>FASTENER-<br>7\PEM- | PEM-<br>FASTENER-<br>8\PEM- | SCREW-<br>12\SCREW-   | SCREW-<br>22\SCREW-   | SCREW-<br>32\SCREW-   | SCREW-<br>42\SCREW-   | SCREW-<br>5\SCREW-       | SCREW-<br>6\SCREW- 7     |  |
| es             |   |                             | FASTENER-                   |                             | 12                    | 22                    | 32                    | 42                    | 5                        | 6                        |  |
| ed             | 5   | 6                           | 7                           | 8                           |                       | No                    |                       |                       |                          |                          |  |
| <b>,</b>       |   |                             |                             |                             | Definiti              |                       |                       |                       |                          |                          |  |
| ре             |   |                             |                             |                             |                       | Bonded                |                       |                       |                          |                          |  |
| be<br>de       |   |                             |                             |                             | Д                     | utomatic              |                       |                       |                          |                          |  |
| or             |   |                             |                             |                             | Progra                | am Controlled         |                       |                       |                          |                          |  |
| im             |   |                             |                             |                             | Progra                | am Controlled         |                       |                       |                          |                          |  |
| ict<br>im      |   |                             |                             |                             |                       | 391e-003 m            |                       |                       |                          |                          |  |
| ce<br>ed       |   |                             |                             |                             |                       | No                    |                       |                       |                          |                          |  |
| su             |   |                             |                             |                             | Displa                |                       |                       |                       |                          |                          |  |
| nt<br>als      |   |                             |                             |                             |                       | No                    |                       |                       |                          |                          |  |
| al S           |   |                             |                             |                             | Advanc                | ed                    |                       |                       |                          |                          |  |
| on             |   |                             |                             |                             |                       | am Controlled         |                       |                       |                          |                          |  |
| all<br>ng      |   |                             |                             |                             | Progra                | am Controlled         |                       |                       |                          |                          |  |
| ng<br>on<br>od |   |                             |                             |                             | Progra                | am Controlled         |                       |                       |                          |                          |  |
| on<br>ce       |   |                             |                             |                             | Progra                | am Controlled         |                       |                       |                          |                          |  |
| J-C            |   |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |
|                |   |                             |                             |                             |                       |                       |                       |                       |                          |                          |  |

| ce               | Program Controlled     |  |  |  |  |  |  |  |
|------------------|------------------------|--|--|--|--|--|--|--|
| nal<br>ss        | Program Controlled     |  |  |  |  |  |  |  |
| ite<br>ss        | Program Controlled     |  |  |  |  |  |  |  |
| all<br>on        | Program Controlled     |  |  |  |  |  |  |  |
|                  | Geometric Modification |  |  |  |  |  |  |  |
| ict<br>try<br>on | None                   |  |  |  |  |  |  |  |
| et<br>try<br>on  | None                   |  |  |  |  |  |  |  |

TABLE 38

Model (A4, B4) > Connections > Contacts > Contact Regions Contact Contact Contact | Object Contact Region Name Region 179 178 180 181 182 185 186 187 177 183 184 Fully Defined State Scope Scoping **Geometry Selection** Method Contact 1 Face 2 1 Face 1 Face 29 Faces **Target** Faces Contact BOARD\BOARD **Bodies** NUT-STANDOFF-SCREW-Target 8\SCREW-1\NUT-1\STANDOFF-DDR4\_SLOT\_1\_1\_2\_1\DDR4\_SLOT\_1\_1\_2\_1 Bodies 8 1 **Protected** No **Definition** Bonded Type Scope Automatic Mode **Behavior Program Controlled** Trim **Program Controlled** Contact Trim 1.8391e-003 m Tolerance Suppressed No **Display** Element No Normals Advanced Formulation **Program Controlled** Small **Program Controlled** Sliding

| Detection<br>Method               | Program Controlled     |
|-----------------------------------|------------------------|
| Penetration<br>Tolerance          | Program Controlled     |
| Elastic Slip<br>Tolerance         | Program Controlled     |
| Normal<br>Stiffness               | Program Controlled     |
| Update<br>Stiffness               | Program Controlled     |
| Pinball<br>Region                 | Program Controlled     |
|                                   | Geometric Modification |
| Contact<br>Geometry<br>Correction | None                   |
| Target<br>Geometry<br>Correction  | None                   |

TABLE 39

Model (A4, B4) > Connections > Contacts > Contact Regions

| Object<br>Name    | Contact<br>Region<br>188 |   | Contact<br>Region<br>190 | Contact<br>Region<br>191 | Contact<br>Region<br>192 | Contact<br>Region<br>193 |          | Contact<br>Region<br>195                      | Contact<br>Region 196 | Contact<br>Region 197 | Contact<br>Region 198 |
|-------------------|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|----------|---|-----------------------|-----------------------|-----------------------|
| State             | State Fully Defined      |   |                          |                          |                          |                          |          |   |                       |                       |                       |
|                   | Scope                    |   |                          |                          |                          |                          |          |   |                       |                       |                       |
| Scoping<br>Method |                          | Geometry Selection                            |                          |                          |                          |                          |          |   |                       |                       |                       |
| Contact           |                          | 1 Face  |                          |                          |                          |                          |          |   |                       | 2 Faces               |                       |
| Target            |                          |   |                          | 8 Fa                     | aces                     |                          |          |   |                       | 9 Faces               |                       |
| Contact<br>Bodies |                          | BOARD\BOARD                                   |                          |                          |                          |                          |          | PLATE\PLATE                                   |                       |                       |                       |
| Target<br>Bodies  | M                        | MEM-00175-02_A_1_1_2_1\MEM-00175-02_A_1_1_2_1 |                          |                          |                          |                          | 1∖PEM-   | PEM-<br>FASTENER-<br>2\PEM-<br>FASTENER-<br>2 | 3∖PEM-                |                       |                       |
| Protected         |                          |   |                          |                          |                          |                          | No       |   |                       |                       |                       |
|                   |                          |   |                          |                          |                          | Definition               | n        |   |                       |                       |                       |
| Туре              |                          |   |                          |                          |                          | E                        | Bonded   |   |                       |                       |                       |
| Scope<br>Mode     |                          |   |                          |                          |                          | Aı                       | utomatic |   |                       |                       |                       |
| Behavior          |                          |   |                          |                          |                          | Progra                   | m Contro | olled   |                       |                       |                       |
| Trim<br>Contact   |                          |   |                          |                          |                          | Progra                   | m Contro | olled   |                       |                       |                       |
| Trim<br>Tolerance | 1.8391e-003 m            |   |                          |                          |                          |                          |          |   |                       |                       |                       |
| Suppressed        |                          |   |                          |                          |                          |                          |          |   |                       |                       |                       |
|                   |                          |   |                          |                          |                          | Display                  | /        |   |                       |                       |                       |

| Element<br>Normals                | No                     |  |  |  |  |  |  |
|-----------------------------------|------------------------|--|--|--|--|--|--|
| Advanced                          |                        |  |  |  |  |  |  |
| Formulation Program Controlled    |                        |  |  |  |  |  |  |
| Small<br>Sliding                  | Program Controlled     |  |  |  |  |  |  |
| Detection<br>Method               | Program Controlled     |  |  |  |  |  |  |
| Penetration<br>Tolerance          | Program Controlled     |  |  |  |  |  |  |
| Elastic Slip<br>Tolerance         | Program Controlled     |  |  |  |  |  |  |
| Normal<br>Stiffness               | Program Controlled     |  |  |  |  |  |  |
| Update<br>Stiffness               | Program Controlled     |  |  |  |  |  |  |
| Pinball<br>Region                 | Program Controlled     |  |  |  |  |  |  |
|                                   | Geometric Modification |  |  |  |  |  |  |
| Contact<br>Geometry<br>Correction | None                   |  |  |  |  |  |  |
| Target<br>Geometry<br>Correction  | None                   |  |  |  |  |  |  |

**TABLE 40** Model (A4, B4) > Connections > Contacts > Contact Regions

Contact

| et<br>e | Contact<br>Region 199 | Contact<br>Region 200                    | Contact<br>Region 201 | Contact<br>Region 202 | Contact<br>Region 203 | Contact<br>Region 204     | Contact<br>Region 205     | Contact<br>Region 206     | Contact<br>Region 207     | Contact<br>Region<br>208 |  |  |
|---------|-----------------------|--|-----------------------|-----------------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--|--|
| е       | Fully Defined         |  |                       |                       |                       |                           |                           |                           |                           |                          |  |  |
|         | Scope                 |  |                       |                       |                       |                           |                           |                           |                           |                          |  |  |
| g<br>d  |                       | Geometry Selection                       |                       |                       |                       |                           |                           |                           |                           |                          |  |  |
| ct      |                       |  | 2 Faces               |                       |                       |                           |                           | 1 Fa                      | ce                        |                          |  |  |
| et      |                       |  | 9 Faces               |                       |                       |                           |                           | 1 Fa                      | ce                        |                          |  |  |
| ct<br>s | PLATE\PLATE           |  |                       |                       |                       |                           |                           |                           |                           |                          |  |  |
| et<br>S | 4\PEM-                | PEM-<br>FASTENER-<br>5\PEM-<br>FASTENER- | 6\PEM-                | 7∖PEM-                | 8\PEM-                | SCREW-<br>12\SCREW-<br>12 | SCREW-<br>22\SCREW-<br>22 | SCREW-<br>32\SCREW-<br>32 | SCREW-<br>42\SCREW-<br>42 | SCREW-<br>5\SCREW-<br>5  |  |  |
|         | 4                     | 5  | 6                     | 7                     | 8                     |                           |                           |                           |                           |                          |  |  |
| d       |                       |  |                       |                       |                       | No                        |                           |                           |                           |                          |  |  |
|         |                       |  |                       |                       | Definiti              | on                        |                           |                           |                           |                          |  |  |
| е       |                       |  |                       |                       |                       | Bonded                    |                           |                           |                           |                          |  |  |
| e<br>e  |                       |  |                       |                       | A                     | Automatic                 |                           |                           |                           |                          |  |  |
| or      |                       |  |                       |                       | Progr                 | am Controlled             | t                         |                           |                           |                          |  |  |

| n<br>et       | Program Controlled |                   |                   |                   |           |                          |               |                       |                       |                       |              |
|---------------|--------------------|-------------------|-------------------|-------------------|-----------|--------------------------|---------------|-----------------------|-----------------------|-----------------------|--------------|
| n             |                    |                   |                   |                   |           | 1.8391€                  | -003 m        |                       |                       |                       |              |
| e<br>d        |                    |                   |                   |                   |           | N                        | 0             |                       |                       |                       |              |
|               |                    |                   |                   |                   |           | Display                  |               |                       |                       |                       |              |
| nt            | No                 |                   |                   |                   |           |                          |               |                       |                       |                       |              |
| S             |                    |                   |                   |                   |           | Advanced                 |               |                       |                       |                       |              |
| n             |                    |                   |                   |                   |           | Program (                | Controlled    |                       |                       |                       |              |
| Ш             |                    |                   |                   |                   |           | Program (                |               |                       |                       |                       |              |
| g             |                    |                   |                   |                   |           | Fiogram                  | Jonitrolled   |                       |                       |                       |              |
| n<br>d        | Program Controlled |                   |                   |                   |           |                          |               |                       |                       |                       |              |
| n<br>e        | Program Controlled |                   |                   |                   |           |                          |               |                       |                       |                       |              |
| p<br>e        |                    |                   |                   |                   |           | Program (                | Controlled    |                       |                       |                       |              |
| al<br>S       | Program Controlled |                   |                   |                   |           |                          |               |                       |                       |                       |              |
| е             |                    |                   |                   |                   |           | Program (                | Controlled    |                       |                       |                       |              |
| s<br>III      |                    |                   |                   |                   |           | Program (                |               |                       |                       |                       |              |
| n             |                    |                   |                   |                   | 0         |                          |               |                       |                       |                       |              |
| ct            |                    |                   |                   |                   | Geon      | netric Modific           | ation         |                       |                       |                       |              |
| у             |                    |                   |                   |                   |           | No                       | ne            |                       |                       |                       |              |
| n<br>et       |                    |                   |                   |                   |           |                          |               |                       |                       |                       |              |
| y<br>n        | None               |                   |                   |                   |           |                          |               |                       |                       |                       |              |
|               |                    |                   | Mode              | el (A4, B4        | ) > Conne | TABLE 41<br>ctions > Con | tacts > Conta | ct Regions            |                       |                       |              |
| bject<br>Jame | Contact<br>Region  | Contact<br>Region | Contact<br>Region | Contact<br>Region |           | Contact<br>Region 215    | Contact       | Contact<br>Region 217 | Contact<br>Region 218 | Contact<br>Region 219 | Coi<br>Regio |

| Name            | Region<br>210           | Region<br>211           | Region<br>212              | Region<br>213       | Region<br>214 | Region 215                                    | Region 216          | Region 217                                    | Region 218                | Region 219                                    | Regio             |  |
|-----------------|-------------------------|-------------------------|----------------------------|---------------------|---------------|---|---------------------|---|---------------------------|---|-------------------|--|
| State           |                         |                         |                            |                     |               | Fully D                                       | efined              |   |                           |   | ·                 |  |
|                 | Scope                   |                         |                            |                     |               |   |                     |   |                           |   |                   |  |
| oping<br>ethod  | GEOMETY SELECTION       |                         |                            |                     |               |   |                     |   |                           |   |                   |  |
| ntact           | 1 Face 2 Faces          |                         | 1 Face 2 Faces 1 Face 2 Fa |                     |               |   |                     |   | aces                      |   |                   |  |
| arget           | 1 F                     | ace                     | 2 Faces                    | 8<br>Faces          | 1 Face        | 2 Faces                                       |                     |   |                           |   |                   |  |
| ontact<br>odies | PI ATF\PI ATF           |                         |                            |                     |               | PEM-<br>FASTENER-<br>1\PEM-<br>FASTENER-<br>1 | 2\PEM-              | PEM-<br>FASTENER-<br>3\PEM-<br>FASTENER-<br>3 | 4\PEM-                    | PEM-<br>FASTENER-<br>5\PEM-<br>FASTENER-<br>5 | 6\P               |  |
| arget<br>odies  | SCREW-<br>7\SCREW-<br>7 | SCREW-<br>8\SCREW-<br>8 | SCREW-<br>9\SCREW-<br>9    | NUT-<br>1\NUT-<br>1 | PSK\PSK       | SCREW-<br>32\SCREW-<br>32                     | SCREW-<br>8\SCREW-8 | SCREW-<br>7\SCREW-7                           | SCREW-<br>12\SCREW-<br>12 | SCREW-<br>6\SCREW-6                           | SCF<br>22\SC<br>2 |  |

| ected                     | ed No              |                                       |                       |           |  |  |  |  |  |
|---------------------------|--------------------|---------------------------------------|-----------------------|-----------|--|--|--|--|--|
|                           |                    | Definition                            |                       |           |  |  |  |  |  |
| Type                      |                    | Bonde                                 | ed .                  |           |  |  |  |  |  |
| cope<br>Mode              |                    | Automa                                | atic                  |           |  |  |  |  |  |
| avior                     | Program Controlled |                                       |                       |           |  |  |  |  |  |
| Trim<br>Intact            | Program Controlled |                                       |                       |           |  |  |  |  |  |
| Trim<br>ance              | 1.8391e-003 m      |                                       |                       |           |  |  |  |  |  |
| essed                     |                    | No                                    |                       |           |  |  |  |  |  |
|                           | Display            |                                       |                       |           |  |  |  |  |  |
| ment<br>rmals             |                    | No                                    |                       |           |  |  |  |  |  |
|                           |                    | Advanced                              |                       |           |  |  |  |  |  |
| ation                     |                    | Program Co                            | ntrolled              |           |  |  |  |  |  |
| Small<br>liding           |                    |                                       |                       |           |  |  |  |  |  |
| ethod                     |                    |                                       |                       |           |  |  |  |  |  |
| ration<br>rance           | Program Controlled |                                       |                       |           |  |  |  |  |  |
| c Slip<br>rance           | Program Controlled |                                       |                       |           |  |  |  |  |  |
| ormal<br>fness            |                    | Program Co                            | ntrolled              |           |  |  |  |  |  |
| odate<br>fness            |                    | Program Co                            | ntrolled              |           |  |  |  |  |  |
| inball<br>egion           |                    | Program Co                            | ntrolled              |           |  |  |  |  |  |
| egion                     |                    | Geometric Modificat                   | tion                  |           |  |  |  |  |  |
| ontact<br>metry<br>ection |                    | None                                  |                       |           |  |  |  |  |  |
| arget<br>metry<br>ection  |                    | None                                  | ;                     |           |  |  |  |  |  |
|                           | Model (A4, B4)     | TABLE 42<br>) > Connections > Contact | cts > Contact Regions |           |  |  |  |  |  |
| act Region 225            | Contact Region 226 | Contact Region 227                    | Contact Region 228    | Contact R |  |  |  |  |  |
|                           |                    | Fully Def                             | ined                  |           |  |  |  |  |  |

|          |           | Geometry S | election |       |
|----------|-----------|------------|----------|-------|
| 17 Faces | 163 Faces |            | 17 Faces | 163 F |
| 8 Faces  | 39 Faces  | 12 Faces   | 8 Faces  | 39 Fa |

Scope

## DDR4\_SLOT\_1\_1\_2\_1\DDR4\_SLOT\_1\_1\_2\_1

| 2_ | MEM-00175-<br>1\DDR4_SLOT_1_1_2_1   |  |  |  |  |  |  |  |  |  |
|----|---|--|--|--|--|--|--|--|--|--|
|    | No  |  |  |  |  |  |  |  |  |  |
|    | Definition Desirated  |  |  |  |  |  |  |  |  |  |
|    | Bonded  |  |  |  |  |  |  |  |  |  |
|    | Automatic  Program Controlled   |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | 1.8391e-003 m   |  |  |  |  |  |  |  |  |  |
|    | No<br>Display   |  |  |  |  |  |  |  |  |  |
|    | Display   |  |  |  |  |  |  |  |  |  |
|    | No<br>Advenced  |  |  |  |  |  |  |  |  |  |
|    | Advanced  Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    |   |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Program Controlled  |  |  |  |  |  |  |  |  |  |
|    | Geometric Modification  |  |  |  |  |  |  |  |  |  |
|    | None  |  |  |  |  |  |  |  |  |  |
|    | None  |  |  |  |  |  |  |  |  |  |
|    | TABLE 43  Model (A4, B4) > Connections > Contact Regions                    |  |  |  |  |  |  |  |  |  |
|    | Contact Region 236 Contact Region 237 Contact Region 238 Contact Region 239 |  |  |  |  |  |  |  |  |  |
|    | Fully Defined   |  |  |  |  |  |  |  |  |  |
|    |   |  |  |  |  |  |  |  |  |  |

|  | Scope              |                  |                     |         |  |  |  |  |  |  |
|--|--------------------|------------------|---------------------|---------|--|--|--|--|--|--|
|  | Geometry Selection |                  |                     |         |  |  |  |  |  |  |
|  | 17 Faces           | 163 Faces        | 17 Faces            |         |  |  |  |  |  |  |
|  | 8 Faces            | 39 Faces         | 12 Faces            | 8 Faces |  |  |  |  |  |  |
|  |                    | DDR4_SLOT_1_1_2_ | 1\DDR4_SLOT_1_1_2_1 |         |  |  |  |  |  |  |
| P- DDR4_SLOT_1_1_2_1\DDR4_SLOT_1_1_2_1 |                    |                  |                     |         |  |  |  |  |  |  |
|  | No                 |                  |                     |         |  |  |  |  |  |  |
|  | Definition         |                  |                     |         |  |  |  |  |  |  |
|  | Bonded             |                  |                     |         |  |  |  |  |  |  |
|  | Automatic          |                  |                     |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  | Program Controlled |                  |                     |         |  |  |  |  |  |  |
|  | 1.8391e-003 m      |                  |                     |         |  |  |  |  |  |  |
|  | No                 |                  |                     |         |  |  |  |  |  |  |
|  |                    | Display          |                     |         |  |  |  |  |  |  |
|  |                    |                  | No                  |         |  |  |  |  |  |  |
|  |                    | Advanced         |                     |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Program          | Controlled          |         |  |  |  |  |  |  |
|  |                    | Geometric Modif  | ication             |         |  |  |  |  |  |  |
|  |                    | N                | lone                |         |  |  |  |  |  |  |
|  | None               |                  |                     |         |  |  |  |  |  |  |

TABLE 44
Model (A4, B4) > Connections > Contacts > Contact Regions

| ject<br>ime  | Contact Region 243  | Contact Region 244                              | Contact Region 245  | Contact<br>Region<br>246 | Contact<br>Region<br>247                 | Contact<br>Region<br>248 |          |         | Contact<br>Region<br>251 |       |
|--------------|---|---|---|--------------------------|--|--------------------------|----------|---------|--------------------------|-------|
| tate         |   |   | Fully D   | efined                   |  |                          |          |         |                          |       |
|              |   |   | Scope   |                          |  |                          |          |         |                          |       |
| oing<br>hod  |   |   | Geometry  | Selection                | 1  |                          |          |         |                          |       |
| tact         | 163 Faces   | 17 Faces  | 163 Faces   | 17<br>Faces              |  |                          |          | 3 Faces |                          |       |
| rget         | 39 Faces  | 12 Faces  | 39 Faces  | 12<br>Faces              |  |                          |          | 9 Faces |                          |       |
| tact<br>dies | DDR4  | _SLOT_1_1_2_1\DDR4_5                            | SLOT_1_1_2_1  |                          | MEM-00175-02_A_1_1_2_1\MEM-00175-02_A_1_ |                          |          | 02_A_1_ |                          |       |
| rget<br>dies | MEM-00175-<br>02_A_1_1_2_1\MEM-<br>00175-<br>02_A_1_1_2_1 | IMP-<br>00393_D_1_1_2_1\IMP-<br>00393_D_1_1_2_1 | MEM-00175-<br>02_A_1_1_2_1\MEM-<br>00175-<br>02_A_1_1_2_1 |                          | IMP-00                                   | 0393_D_                  | 1_1_2_1\ | IMP-003 | 93_D_1_                  | 1_2_1 |
| ted          |   |   | N   | 0                        |  |                          |          |         |                          |       |
|              |   |   | Definition  |                          |  |                          |          |         |                          |       |
| ype<br>ope   |   |   | Bon   |                          |  |                          |          |         |                          |       |
| ode          | Automatic   |   |   |                          |  |                          |          |         |                          |       |
| vior         |   |   | Program (   | Controlled               | l  |                          |          |         |                          |       |
| rim<br>tact  |   |   | Program (   | Controlled               | l  |                          |          |         |                          |       |
| rim<br>nce   | 1.8391e-003 m   |   |   |                          |  |                          |          |         |                          |       |
| sed          | No  |   |   |                          |  |                          |          |         |                          |       |
|              | Display   |   |   |                          |  |                          |          |         |                          |       |
| nent<br>nals | No  |   |   |                          |  |                          |          |         |                          |       |
|              | Advanced  |   |   |                          |  |                          |          |         |                          |       |
| tion<br>nall | Program Controlled  |   |   |                          |  |                          |          |         |                          |       |
| ling         | Program Controlled  |   |   |                          |  |                          |          |         |                          |       |
| tion<br>hod  |   |   | Program (   | Controlled               | l  |                          |          |         |                          |       |
| tion<br>nce  |   |   | Program (   | Controlled               | İ  |                          |          |         |                          |       |
| Slip<br>nce  |   | Program Controlled                              |   |                          |  |                          |          |         |                          |       |
| mal<br>ess   | Program Controlled  |   |   |                          |  |                          |          |         |                          |       |
| late<br>ess  | Program Controlled  |   |   |                          |  |                          |          |         |                          |       |
| ball         | Program Controlled  |   |   |                          |  |                          |          |         |                          |       |
| jion         |   |   | Geometric Modific   |                          |  |                          |          |         |                          |       |
| tact<br>etry | None  |   |   |                          |  |                          |          |         |                          |       |
| tion         |   |   |   |                          |  |                          |          |         |                          |       |

TABLE 45
Model (A4, B4) > Connections > Contacts > Contact Regions

|                                   | Model (A4, B4) > Connections > Contacts > Contact Regions  |                          |                          |                          |                          |                          |                          |
|-----------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Object Name                       | Contact Region 254   | Contact<br>Region<br>255 | Contact<br>Region<br>256 | Contact<br>Region<br>257 | Contact<br>Region<br>258 | Contact<br>Region<br>259 | Contact<br>Region<br>260 |
| State                             |  |                          | Fully Defir              | ned                      |                          |                          |                          |
|                                   | Scope  |                          |                          |                          |                          |                          |                          |
| Scoping<br>Method                 |  | Ge                       | ometry Se                | lection                  |                          |                          |                          |
| Contact                           |  |                          | 3 Faces                  | 3                        |                          |                          |                          |
| Target                            | 9 Faces  |                          |                          | 3 Fa                     | aces                     |                          |                          |
| Contact<br>Bodies                 | MEM-00175-<br>02_A_1_1_2_1\MEM-<br>00175-02_A_1_1_2_1<br>IMP-00393_D_1_1_2_1\IMP-00393_D_1_1_2_1 |                          |                          |                          |                          |                          |                          |
| Target Bodies                     | IMP-00   | )393_D_1_                | _1_2_1\IMF               | P-00393_E                | )_1_1_2_1                |                          |                          |
| Protected                         |  |                          | No                       |                          |                          |                          |                          |
|                                   |  | Defin                    | ition                    |                          |                          |                          |                          |
| Туре                              |  |                          | Bonded                   | ł                        |                          |                          |                          |
| Scope Mode                        |  |                          | Automat                  | ic                       |                          |                          |                          |
| Behavior                          |  | Program Controlled       |                          |                          |                          |                          |                          |
| Trim Contact                      |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Trim<br>Tolerance                 | 1.8391e-003 m  |                          |                          |                          |                          |                          |                          |
| Suppressed                        | No   |                          |                          |                          |                          |                          |                          |
|                                   |  | Disp                     | lay                      |                          |                          |                          |                          |
| Element<br>Normals                |  |                          | No                       |                          |                          |                          |                          |
|                                   |  | Adva                     | nced                     |                          |                          |                          |                          |
| Formulation                       | Formulation Program Controlled   |                          |                          |                          |                          |                          |                          |
| Small Sliding                     | Program Controlled   |                          |                          |                          |                          |                          |                          |
| Detection<br>Method               |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Penetration<br>Tolerance          |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Elastic Slip<br>Tolerance         |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Normal<br>Stiffness               |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Update<br>Stiffness               |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| Pinball<br>Region                 |  | Pro                      | ogram Con                | trolled                  |                          |                          |                          |
| _                                 | Geometric Modification   |                          |                          |                          |                          |                          |                          |
| Contact<br>Geometry<br>Correction | Geometry   |                          |                          |                          |                          |                          |                          |

| Target     |  |
|------------|--|
| Geometry   |  |
| Correction |  |

#### None

## Mesh

### TABLE 46 Model (A4, B4) > Mesh

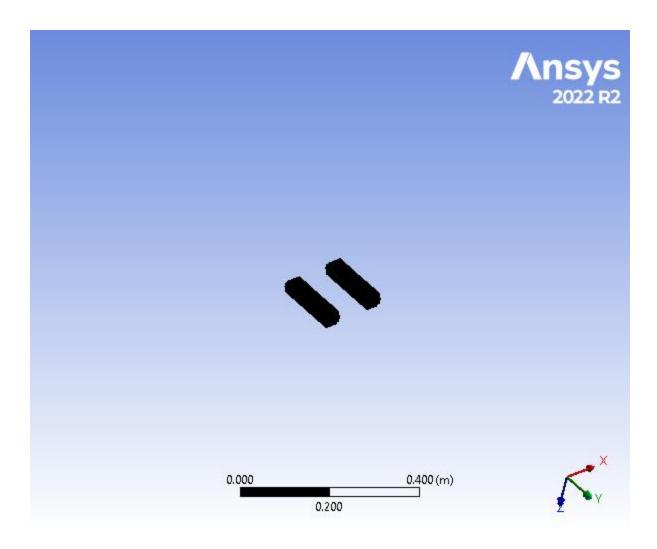
| Model (A4, B4) > Mesh                    |                            |  |  |  |  |
|--|----------------------------|--|--|--|--|
| Object Name                              | Mesh                       |  |  |  |  |
| State                                    | Solved                     |  |  |  |  |
| Display                                  |                            |  |  |  |  |
| Display Style                            | Use Geometry Setting       |  |  |  |  |
| Defaults                                 |                            |  |  |  |  |
| Physics Preference                       | Mechanical                 |  |  |  |  |
| Element Order                            | Program Controlled         |  |  |  |  |
| Element Size                             | Default                    |  |  |  |  |
| Sizing                                   |                            |  |  |  |  |
| Use Adaptive Sizing                      | Yes                        |  |  |  |  |
| Resolution                               | Default (2)                |  |  |  |  |
| Mesh Defeaturing                         | Yes                        |  |  |  |  |
| Defeature Size                           | Default                    |  |  |  |  |
| Transition                               | Fast                       |  |  |  |  |
| Span Angle Center                        | Coarse                     |  |  |  |  |
| Initial Size Seed                        | Assembly                   |  |  |  |  |
| Bounding Box Diagonal                    | 0.73564 m                  |  |  |  |  |
| Average Surface Area                     | 9.1312e-005 m <sup>2</sup> |  |  |  |  |
| Minimum Edge Length                      | 1.6327e-005 m              |  |  |  |  |
| Quality                                  |                            |  |  |  |  |
| Check Mesh Quality                       | Yes, Errors                |  |  |  |  |
| Error Limits                             | Aggressive Mechanical      |  |  |  |  |
| Target Element Quality                   | Default (5.e-002)          |  |  |  |  |
| Smoothing                                | Medium                     |  |  |  |  |
| Mesh Metric                              | None                       |  |  |  |  |
| Inflation                                |                            |  |  |  |  |
| Use Automatic Inflation                  | None                       |  |  |  |  |
| Inflation Option                         | Smooth Transition          |  |  |  |  |
| Transition Ratio                         | 0.272                      |  |  |  |  |
| Maximum Layers                           | 5                          |  |  |  |  |
| Growth Rate                              | 1.2                        |  |  |  |  |
| Inflation Algorithm                      | Pre                        |  |  |  |  |
| View Advanced Options                    | No                         |  |  |  |  |
| Advanced                                 |                            |  |  |  |  |
| Number of CPUs for Parallel Part Meshing | Program Controlled         |  |  |  |  |
| Straight Sided Elements                  | No                         |  |  |  |  |
| Rigid Body Behavior                      | Dimensionally Reduced      |  |  |  |  |
| Triangle Surface Mesher                  | Program Controlled         |  |  |  |  |
| Topology Checking                        | Yes                        |  |  |  |  |
| Pinch Tolerance                          | Please Define              |  |  |  |  |
| Generate Pinch on Refresh                | No                         |  |  |  |  |
|  |                            |  |  |  |  |

| Statistics |        |
|------------|--------|
| Nodes      | 453910 |
| Elements   | 231263 |

# TABLE 47 Model (A4, B4) > Mesh > Mesh Controls

| model (A4, B4) > mesh > mesh controls |              |               |                |           |           |  |
|---------------------------------------|--------------|---------------|----------------|-----------|-----------|--|
| Object Name                           | Smallest     | Small         | Medium         | Big       | Biggest   |  |
| State                                 |              | Fully Defined |                |           |           |  |
|                                       |              | Scope         |                |           |           |  |
| Scoping Method                        |              | Geom          | etry Selection | on        |           |  |
| Geometry                              | 1351 Faces   | 13128 Faces   | 648 Faces      | 51 Faces  | 21 Faces  |  |
|                                       | Definition   |               |                |           |           |  |
| Suppressed                            | No           |               |                |           |           |  |
| Туре                                  | Element Size |               |                |           |           |  |
| Element Size                          | 2.5e-003 m   | 5.e-003 m     | 1.e-002 m      | 2.e-002 m | 3.e-002 m |  |
|                                       | Advanced     |               |                |           |           |  |
| Defeature Size                        | Default      |               |                |           |           |  |
| Influence Volume                      | No           |               |                |           |           |  |
| Behavior                              | Soft         |               |                |           |           |  |

FIGURE 2 Model (A4, B4) > Mesh > Mesh



# Modal (A5)

TABLE 48 Model (A4, B4) > Analysis

| Model (A4, B4) > Allalysis     |                 |  |  |  |  |
|--------------------------------|-----------------|--|--|--|--|
| Object Name                    | Modal (A5)      |  |  |  |  |
| State                          | Solved          |  |  |  |  |
| Definition                     |                 |  |  |  |  |
| Physics Type                   | Structural      |  |  |  |  |
| Analysis Type                  | Modal           |  |  |  |  |
| Solver Target                  | Mechanical APDL |  |  |  |  |
| Options                        |                 |  |  |  |  |
| <b>Environment Temperature</b> | 22. °C          |  |  |  |  |
| Generate Input Only            | No              |  |  |  |  |
|                                |                 |  |  |  |  |

TABLE 49
Model (A4, B4) > Modal (A5) > Initial Condition

| odo: (714, <b>5</b> 4) > moda: (710) > milia: oonailie |       |                   |  |  |  |
|--|-------|-------------------|--|--|--|
| Object Name  |       | Pre-Stress (None) |  |  |  |
|  | State | Fully Defined     |  |  |  |
| Definition   |       |                   |  |  |  |

Pre-Stress Environment None Available

TABLE 50
Model (A4, B4) > Modal (A5) > Analysis Settings

Analysis Settings

|                              | Model (A4, B4) > Modal (A5) > Analysis Settings  |
|------------------------------|--|
| Name                         | , v  |
| State                        | Fully Defined  |
|                              | Options  |
| des to<br>Find               | 15   |
| Search<br>Range              | No   |
| emand<br>ansion              | No   |
|                              | Solver Controls  |
| amped                        | No   |
| r Type                       |  |
|                              | Rotordynamics Controls   |
| Effect                       | Off  |
| mpbell<br>agram              | Off  |
|                              | Advanced   |
| ct Split<br>(DMP)            |  |
| (-                           | Output Controls  |
| Stress                       | Yes  |
| urface<br>Stress             | No   |
| Stress                       | No   |
| Strain                       | Yes  |
| t Data                       | No   |
| Forces                       | Constrained Nodes  |
| ne and<br>Energy             | No   |
| Angles                       | No   |
| lculate<br>actions           | Yes  |
| Modal<br>Results             | Program Controlled   |
| eneral<br>neous              | No   |
| ult File<br>ession           | Program Controlled   |
|                              | Analysis Data Management   |
| r Files<br>ectory            | \\iowa.uiowa.edu\shared\Engineering\Home\makaufman\windowsdata\Desktop\ASSEMBLIES_FINAL\clip_project_2_files\dp0\SYS |
| Future<br>nalysis            | MSUP Analyses  |
| cratch<br>r Files<br>rectory |  |
|                              |  |

| IAPDL<br>db              |                    |
|--------------------------|--------------------|
| ontact<br>mmary          | Program Controlled |
| Delete<br>eeded<br>Files | Yes                |
| r Units                  | Active System      |
| er Unit<br>System        |                    |

## TABLE 51 Model (A4, B4) > Modal (A5) > Loads

| Object Name    | Fixed Support      |  |  |  |
|----------------|--------------------|--|--|--|
| State          | e Fully Defined    |  |  |  |
| S              | cope               |  |  |  |
| Scoping Method | Geometry Selection |  |  |  |
| Geometry       | 24 Faces           |  |  |  |
| Definition     |                    |  |  |  |
| Туре           | Fixed Support      |  |  |  |
| Suppressed     | No                 |  |  |  |

## Solution (A6)

#### TABLE 52 Model (A4, B4) > Modal (A5) > Solution

|                        | , (0) × 00 lutio |  |  |  |  |
|------------------------|------------------|--|--|--|--|
| Object Name            | Solution (A6)    |  |  |  |  |
| State                  | Solved           |  |  |  |  |
| Adaptive Mesh Ref      | inement          |  |  |  |  |
| Max Refinement Loops   | 1.               |  |  |  |  |
| Refinement Depth       | 2.               |  |  |  |  |
| Information            |                  |  |  |  |  |
| Status                 | Done             |  |  |  |  |
| MAPDL Elapsed Time     | 2 m 56 s         |  |  |  |  |
| MAPDL Memory Used      | 16.268 GB        |  |  |  |  |
| MAPDL Result File Size | 1.1532 GB        |  |  |  |  |
| Post Processing        |                  |  |  |  |  |
| Beam Section Results   | No               |  |  |  |  |
|                        |                  |  |  |  |  |

The following bar chart indicates the frequency at each calculated mode.

FIGURE 3 Model (A4, B4) > Modal (A5) > Solution (A6)

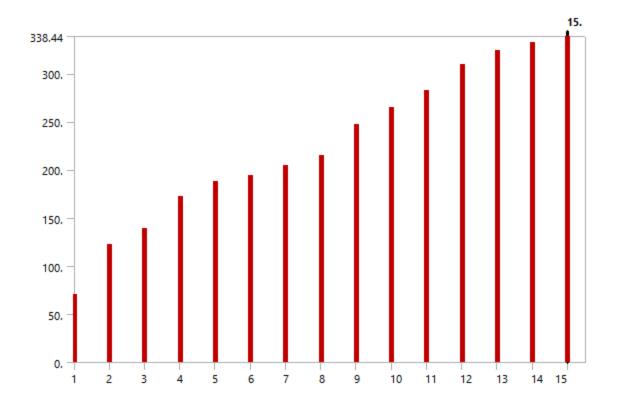


TABLE 53 Model (A4, B4) > Modal (A5) > Solution (A6)

| Frequency [Hz] |
|----------------|
| 70.532         |
| 122.24         |
| 138.75         |
| 172.           |
| 187.94         |
| 194.08         |
| 204.67         |
| 214.45         |
| 246.9          |
| 264.35         |
| 281.94         |
| 309.74         |
| 323.76         |
| 332.04         |
| 338.44         |
|                |

TABLE 54
Model (A4, B4) > Modal (A5) > Solution (A6) > Solution Information

| 11, 21, 110 000 (210, 2000) | 11, 21, 110 110, 110, 110, 110, 110, 110 |  |  |  |  |
|-----------------------------|--|--|--|--|--|
| Object Name                 | Solution Information                     |  |  |  |  |
| State                       | Solved                                   |  |  |  |  |
| Solution Information        |  |  |  |  |  |
| Solution Output             | Solver Output                            |  |  |  |  |

| Newton-Raphson Residuals     | 0                 |  |  |
|------------------------------|-------------------|--|--|
| Identify Element Violations  | 0                 |  |  |
| Update Interval              | 2.5 s             |  |  |
| Display Points               | All               |  |  |
| FE Connection Visibility     |                   |  |  |
| Activate Visibility          | Yes               |  |  |
| Display                      | All FE Connectors |  |  |
| Draw Connections Attached To | All Nodes         |  |  |
| Line Color                   | Connection Type   |  |  |
| Visible on Results           | No                |  |  |
| Line Thickness               | Single            |  |  |
| Display Type                 | Lines             |  |  |

TABLE 55
Model (A4, B4) > Modal (A5) > Solution (A6) > Results

| ()hiect Name         | Total   | Total         |                   |               |               |
|----------------------|---|---------------|-------------------|---------------|---------------|
|                      |   | Total         | Total             | Total         | Total         |
| Def                  | formation   | Deformation 2 | Deformation 3     | Deformation 4 | Deformation 5 |
| State                |   |               | Solved            |               |               |
|                      | Scope   |               |                   |               |               |
| Scoping Method       |   | G             | eometry Selection | n             |               |
| Geometry             |   |               | All Bodies        |               |               |
|                      |   | Defin         | ition             |               |               |
| Type                 | Total Deformation                                     |               |                   |               |               |
| Mode                 | 1.  | 2.            | 3.                | 4.            | 5.            |
| Identifier           |   |               |                   |               |               |
| Suppressed           | No  |               |                   |               |               |
|                      |   | Resi          | ults              |               |               |
| Minimum              | 0. m  |               |                   |               |               |
| Maximum 1.0          | 0126 m  | 1.2324 m      | 1.8732 m          | 1.3512 m      | 8.2815 m      |
| Average 0.4          | 1174 m  | 0.35539 m     | 0.39071 m         | 0.35397 m     | 0.27566 m     |
| Minimum<br>Occurs On | LEFT-MOUNTING-EAR\LEFT-MOUNTING-EAR                   |               |                   |               |               |
| Maximum<br>Occurs On | PLATE\PLATE   IMP-00393_D_1_1_2_1\IMP-00393_D_1_1_2_1 |               |                   |               |               |
| Information          |   |               |                   |               |               |
| Frequency 70.        | .532 Hz   | 122.24 Hz     | 138.75 Hz         | 172. Hz       | 187.94 Hz     |

TABLE 56
Model (A4, B4) > Modal (A5) > Solution (A6) > Total Deformation

| Mode | Frequency [Hz] |
|------|----------------|
| 1.   | 70.532         |
| 2.   | 122.24         |
| 3.   | 138.75         |
| 4.   | 172.           |
| 5.   | 187.94         |
| 6.   | 194.08         |
| 7.   | 204.67         |
| 8.   | 214.45         |
| 9.   | 246.9          |
|      |                |

| 10. | 264.35 |
|-----|--------|
| 11. | 281.94 |
| 12. | 309.74 |
| 13. | 323.76 |
| 14. | 332.04 |
| 15. | 338.44 |

TABLE 57
Model (A4, B4) > Modal (A5) > Solution (A6) > Total Deformation 2

| Mode | Frequency [Hz] |
|------|----------------|
| 1.   | 70.532         |
| 2.   | 122.24         |
| 3.   | 138.75         |
| 4.   | 172.           |
| 5.   | 187.94         |
| 6.   | 194.08         |
| 7.   | 204.67         |
| 8.   | 214.45         |
| 9.   | 246.9          |
| 10.  | 264.35         |
| 11.  | 281.94         |
| 12.  | 309.74         |
| 13.  | 323.76         |
| 14.  | 332.04         |
| 15.  | 338.44         |

TABLE 58
Model (A4, B4) > Modal (A5) > Solution (A6) > Total Deformation 3

| Mode | Frequency [Hz] |
|------|----------------|
| 1.   | 70.532         |
| 2.   | 122.24         |
| 3.   | 138.75         |
| 4.   | 172.           |
| 5.   | 187.94         |
| 6.   | 194.08         |
| 7.   | 204.67         |
| 8.   | 214.45         |
| 9.   | 246.9          |
| 10.  | 264.35         |
| 11.  | 281.94         |
| 12.  | 309.74         |
| 13.  | 323.76         |
| 14.  | 332.04         |
| 15.  | 338.44         |

TABLE 59
Model (A4, B4) > Modal (A5) > Solution (A6) > Total Deformation 4

| , | (2.0) | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | •          |
|---|-------|---|------------|
|   | Mode  | Frequency [Hz                           | <u>.</u> ] |
|   | 1.    | 70.532                                  |            |

| 2.  | 122.24 |
|-----|--------|
| 3.  | 138.75 |
| 4.  | 172.   |
| 5.  | 187.94 |
| 6.  | 194.08 |
| 7.  | 204.67 |
| 8.  | 214.45 |
| 9.  | 246.9  |
| 10. | 264.35 |
| 11. | 281.94 |
| 12. | 309.74 |
| 13. | 323.76 |
| 14. | 332.04 |
| 15. | 338.44 |
|     |        |

TABLE 60
Model (A4, B4) > Modal (A5) > Solution (A6) > Total Deformation 5

| Mode | Frequency [Hz] |
|------|----------------|
| 1.   | 70.532         |
| 2.   | 122.24         |
| 3.   | 138.75         |
| 4.   | 172.           |
| 5.   | 187.94         |
| 6.   | 194.08         |
| 7.   | 204.67         |
| 8.   | 214.45         |
| 9.   | 246.9          |
| 10.  | 264.35         |
| 11.  | 281.94         |
| 12.  | 309.74         |
| 13.  | 323.76         |
| 14.  | 332.04         |
| 15.  | 338.44         |

# **Harmonic Response (B5)**

TABLE 61 Model (A4, B4) > Analysis

|                     | ,                      |  |  |
|---------------------|------------------------|--|--|
| Object Name         | Harmonic Response (B5) |  |  |
| State               | Solved                 |  |  |
| Definition          |                        |  |  |
| Physics Type        | Structural             |  |  |
| Analysis Type       | Harmonic Response      |  |  |
| Solver Target       | Mechanical APDL        |  |  |
| Options             |                        |  |  |
| Generate Input Only | No                     |  |  |
|                     |                        |  |  |

#### TABLE 62 Model (A4, B4) > Harmonic Response (B5) > Initial Condition

| = 1, 1100111101111011100 (= 0, 1 11111101 |               |  |  |  |
|---|---------------|--|--|--|
| Object Name                               | Modal (Modal) |  |  |  |
| State                                     | Fully Defined |  |  |  |
| Definition                                |               |  |  |  |
| Modal Environment                         | Modal         |  |  |  |
| <b>Pre-Stress Environment</b>             | None          |  |  |  |

# TABLE 63 Model (A4, B4) > Harmonic Response (B5) > Analysis Settings Analysis Settings

| ect Name                          | Analysis Settings      |
|-----------------------------------|------------------------|
| State                             | Fully Defined          |
|                                   | Step Controls          |
| iple Steps                        | No                     |
|                                   | Options                |
| requency<br>Spacing               | Linear                 |
| Range<br>Minimum                  |                        |
| Range<br>Maximum                  | 100. Hz                |
| Solution<br>Intervals             | 50                     |
| er Defined<br>equencies           |                        |
| Solution<br>Method                |                        |
| Include<br>Residual<br>Vector     | No                     |
| Cluster<br>Results                | No                     |
| n Demand<br>Expansion             | No                     |
| re Results<br>At All<br>equencies | Yes                    |
| •                                 | Rotordynamics Controls |
| olis Effect                       |                        |
|                                   | Output Controls        |
| Stress                            | Yes                    |
| Surface<br>Stress                 |                        |
| ack Stress                        | No                     |
| Strain                            | Yes                    |
| ntact Data                        | Yes                    |
| al Forces                         | No                     |
| olume and<br>Energy               |                        |
| ler Angles                        |                        |
|                                   |                        |

| <u> </u>                              |   |
|---------------------------------------|---|
| Calculate<br>Reactions                | Yes   |
| General<br>ellaneous                  | No  |
| Expand sults From                     | Program Controlled  |
| Expansion                             | Modal Solution  |
| Result File mpression                 | Program Controlled  |
| пріосолі                              | Damping Controls  |
| Damping<br>Ratio From<br>Modal        | No  |
| Damping<br>Define By                  | Damping Ratio   |
| Damping<br>Ratio                      | 2.e-002   |
| Stiffness<br>Coefficient<br>Define By | Direct Input  |
| Stiffness<br>Coefficient              | 0.  |
| Mass<br>Coefficient                   | 0.  |
|                                       | Analysis Data Management  |
| olver Files<br>Directory              | \\iowa.uiowa.edu\shared\Engineering\Home\makaufman\windowsdata\Desktop\ASSEMBLIES_FINAL\clip_project_2_files\dp0\S<br>1\MECH\ |
| Future<br>Analysis                    | None  |
| Scratch olver Files Directory         |   |
| re MAPDL<br>db                        | No  |
| Contact<br>Summary                    | Program Controlled  |
| Delete<br>Jnneeded<br>Files           | Yes   |
| lver Units                            | Active System   |
| Solver Unit<br>System                 | mks   |

## TABLE 64 Model (A4, B4) > Harmonic Response (B5) > Accelerations

System

| Object Name     | Acceleration  |  |  |
|-----------------|---------------|--|--|
| State           | Fully Defined |  |  |
| Scope           |               |  |  |
| Geometry        | All Bodies    |  |  |
| Definition      |               |  |  |
| Base Excitation | No            |  |  |

| Define By         | Components               |
|-------------------|--------------------------|
| Coordinate System | Global Coordinate System |
| X Component       | 0. m/s²                  |
| Y Component       | 45.4 m/s <sup>2</sup>    |
| Z Component       | 0. m/s²                  |
| Suppressed        | No                       |

FIGURE 4
Model (A4, B4) > Harmonic Response (B5) > Acceleration > AccelerationCondition

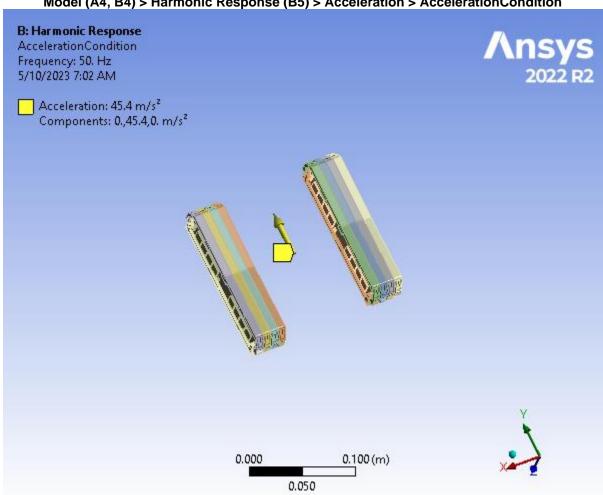
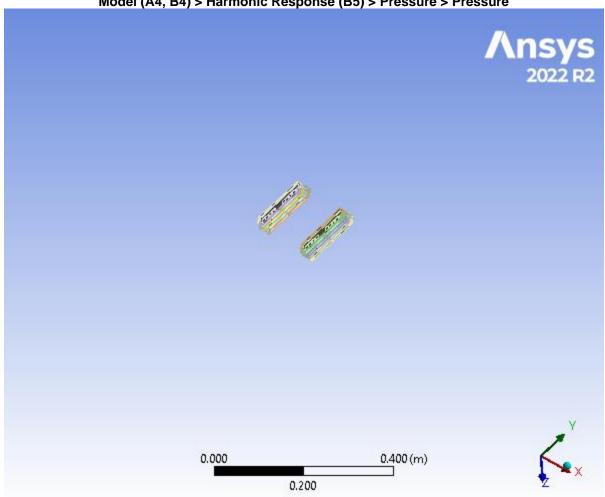


TABLE 65 Model (A4, B4) > Harmonic Response (B5) > Loads

| A4, B4) > Harmonio Response (Bo) |                    |  |  |
|----------------------------------|--------------------|--|--|
| Object Name                      | Pressure           |  |  |
| State                            | Suppressed         |  |  |
| Scope                            |                    |  |  |
| Scoping Method                   | Geometry Selection |  |  |
| Geometry                         | 1 Face             |  |  |
| Definition                       |                    |  |  |
| Type                             | Pressure           |  |  |
| Define By                        | Normal To          |  |  |

| Applied By  | Direct  |
|-------------|---------|
| Loaded Area | Initial |
| Magnitude   | 400. Pa |
| Phase Angle | 0. °    |
| Suppressed  | Yes     |

FIGURE 5
Model (A4, B4) > Harmonic Response (B5) > Pressure > Pressure



## Solution (B6)

TABLE 66 Model (A4, B4) > Harmonic Response (B5) > Solution

| Object Name            | Solution (B6) |  |  |
|------------------------|---------------|--|--|
| State                  | Solved        |  |  |
| Information            |               |  |  |
| Status                 | Done          |  |  |
| MAPDL Elapsed Time     | 12 m 16 s     |  |  |
| MAPDL Memory Used      | 4.4141 GB     |  |  |
| MAPDL Result File Size | 11.53 GB      |  |  |

| Post Processing      |    |  |
|----------------------|----|--|
| Beam Section Results | No |  |

FIGURE 6
Model (A4, B4) > Harmonic Response (B5) > Solution (B6)

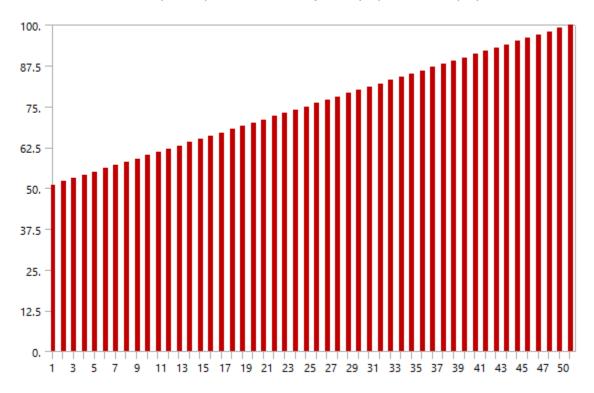


TABLE 67
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Solution Information

| Clation (Bo) > Colat |  |
|----------------------|--|
| Solution Information |  |
| Solved               |  |
| ation                |  |
| Solver Output        |  |
| 0                    |  |
| 0                    |  |
| 2.5 s                |  |
| All                  |  |
| isibility            |  |
| Yes                  |  |
| All FE Connectors    |  |
| All Nodes            |  |
| Connection Type      |  |
| No                   |  |
| Single               |  |
| Onigio               |  |
|                      |  |

TABLE 68 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

|                                     | Widder (A4, D4) > Harriton          | ic Response (D3) > Solution         |                                      |                            |
|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|----------------------------|
| elocityFrequencyRespons/<br>eDIMM1x | VelocityFrequencyRespons<br>eDIMM1y | VelocityFrequencyRespons<br>eDIMM1z | AccelerationFrequencyRespon seDIMM1x | AccelerationFreque seDIMM1 |
|                                     |                                     | Solved                              |                                      |                            |
|                                     |                                     | Scope                               |                                      |                            |
|                                     |                                     | Geometry Selection                  |                                      |                            |
|                                     |                                     | 1 Body                              |                                      |                            |
|                                     |                                     | Use Average                         |                                      |                            |
|                                     |                                     | Definition                          |                                      |                            |
|                                     | Directional Velocity                |                                     |                                      | Directional Acce           |
| X Axis                              | Y Axis                              | Z Axis                              | X Axis                               | Y Axis                     |
|                                     |                                     | Global Coordinate Syste             | m                                    |                            |
|                                     |                                     | No                                  |                                      |                            |
|                                     |                                     | Options                             |                                      |                            |
|                                     |                                     | Use Parent                          |                                      |                            |
|                                     |                                     | 50. Hz                              |                                      |                            |
|                                     |                                     | 100. Hz                             |                                      |                            |
|                                     |                                     | Bode                                |                                      |                            |
|                                     |                                     | Log Y                               |                                      |                            |
|                                     |                                     | Results                             |                                      |                            |
|                                     |                                     |                                     |                                      |                            |
| 3.3182e-003 m/s                     | 4.6193e-003 m/s                     | 5.815e-002 m/s                      | 1.4803 m/s²                          | 2.0317 m/                  |
|                                     | 70. Hz                              | 7                                   | 1. Hz                                | 70. Hz                     |
| 159.36 °                            | -153.88 °                           | -20.499 °                           | -110.64 °                            | -63.876 °                  |
| -3.1051e-003 m/s                    | -4.1474e-003 m/s                    | 5.4468e-002 m/s                     | -0.52189 m/s <sup>2</sup>            | 0.89458 m                  |
| 1.1699e-003 m/s                     | -2.034e-003 m/s                     | -2.0363e-002 m/s                    | -1.3852 m/s²                         | -1.8241 m/                 |

FIGURE 7
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM1x

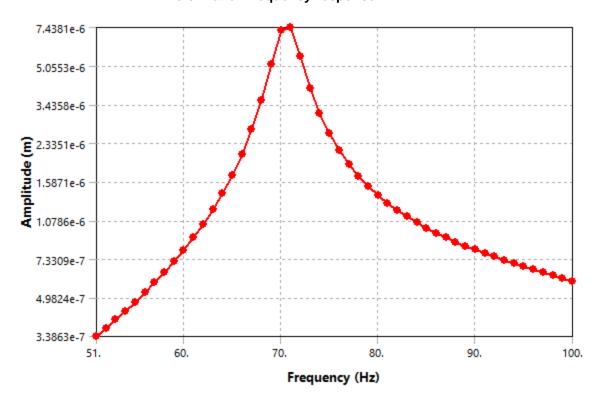


FIGURE 8
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) >
DeformationFrequencyResponseDIMM1y

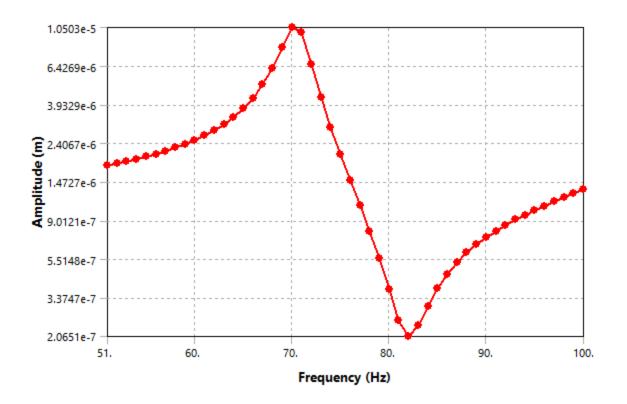


FIGURE 9
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) >
DeformationFrequencyResponseDIMM1z

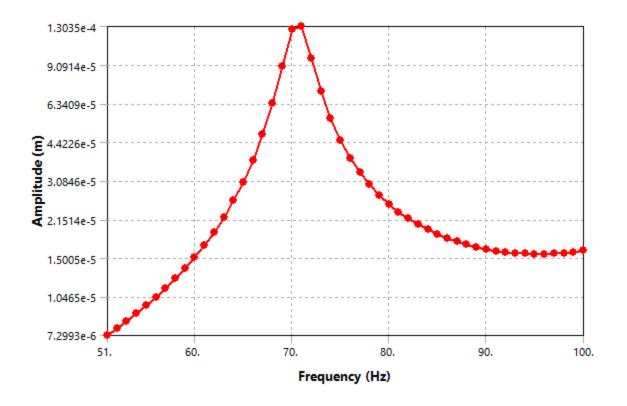


FIGURE 10
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM1x

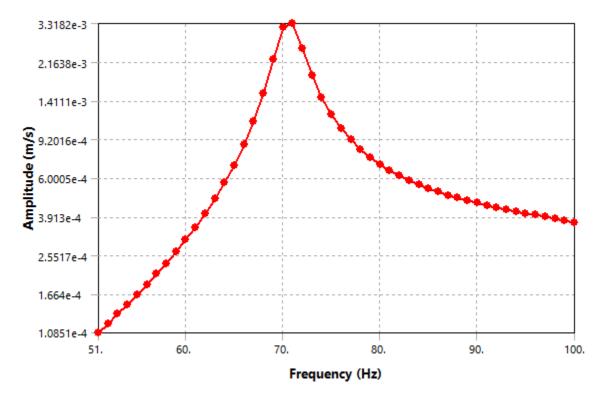


FIGURE 11
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM1y

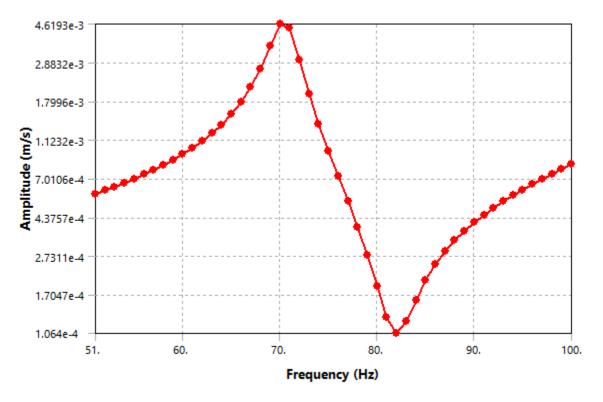


FIGURE 12 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM1z

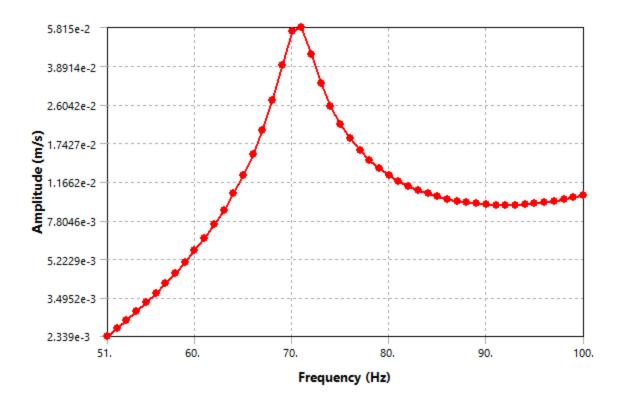


FIGURE 13
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM1x

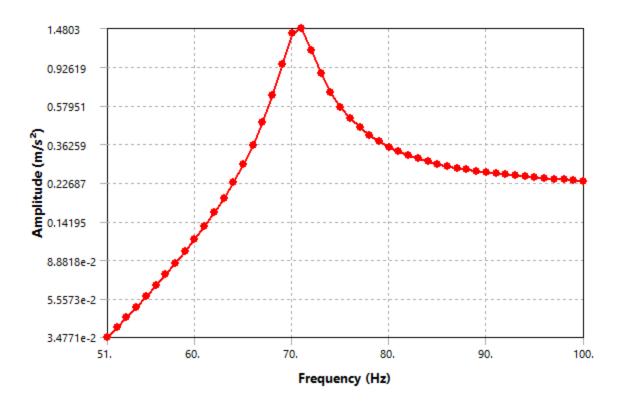


FIGURE 14
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM1y

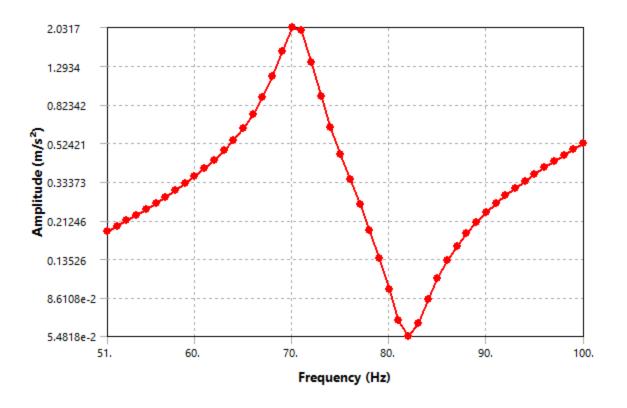


FIGURE 15
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM1z

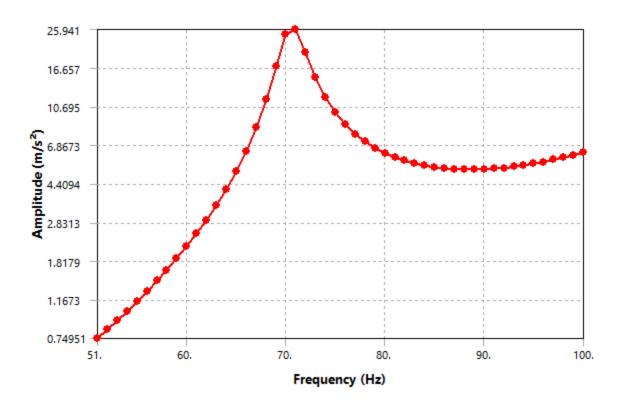


FIGURE 16
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM2x

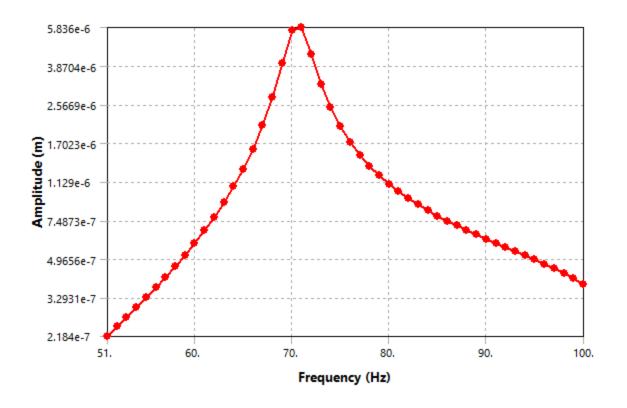


FIGURE 17
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM2y

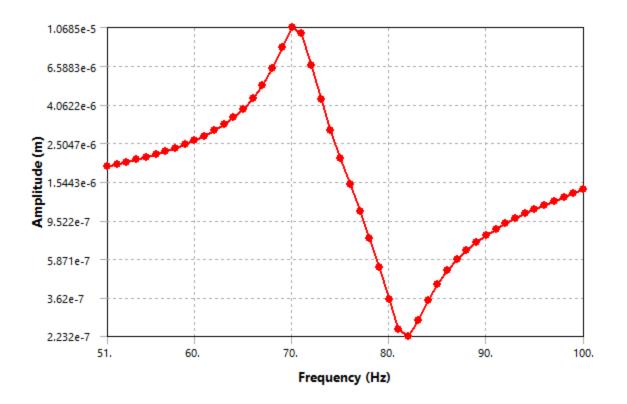


TABLE 69
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

| ormationFrequencyRespo | DeformationFrequencyRespo | DeformationFrequencyRespo | DeformationFrequencyRespo | DeformationFre |
|------------------------|---------------------------|---------------------------|---------------------------|----------------|
| nseDIMM3z              | nseDIMM4x                 | nseDIMM4y                 | nseDIMM4z                 | nseDIN         |
|                        |                           | Solved                    |                           |                |
|                        |                           | Scope                     |                           |                |
|                        |                           | Geometry Selection        |                           |                |
|                        |                           | 1 Body                    |                           |                |
|                        |                           | Use Average               |                           |                |
|                        |                           | Definition                |                           |                |

| <u>Definition</u>       |        |        |        |      |
|-------------------------|--------|--------|--------|------|
| Directional Deformation |        |        |        |      |
| Z Axis                  | X Axis | Y Axis | Z Axis | X Ax |

Global Coordinate System

No

#### **Options**

**Use Parent** 

Bode

| Results        |               |               |                |          |  |  |
|----------------|---------------|---------------|----------------|----------|--|--|
| 1.3463e-004 m  | 2.5264e-006 m | 1.0993e-005 m | 1.3511e-004 m  | 6.2264e- |  |  |
| 71. Hz         |               | 70. Hz        | 71. Hz         |          |  |  |
| -110.48 °      | 68.167 °      | 116.82 °      | -110.48 °      | -115.4   |  |  |
| -4.7106e-005 m | 9.3956e-007 m | -4.96e-006 m  | -4.7262e-005 m | -2.672e- |  |  |
| -1.2612e-004 m | 2.3451e-006 m | 9.8103e-006 m | -1.2657e-004 m | -5.6239e |  |  |

FIGURE 18
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM2z

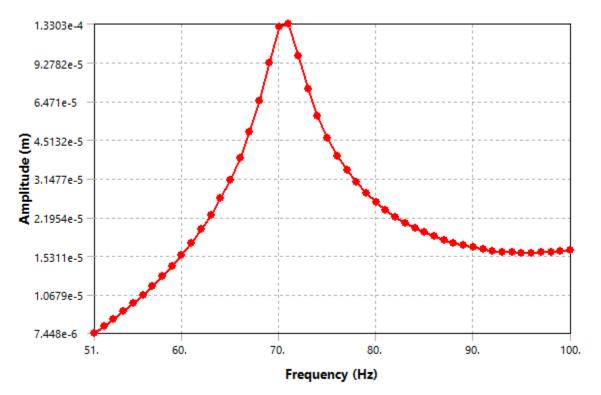


FIGURE 19
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM3x

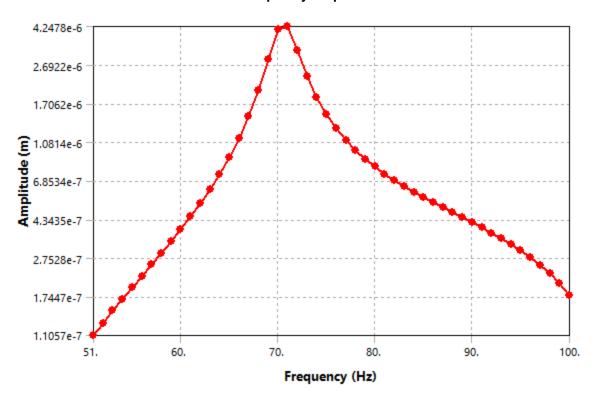


FIGURE 20 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM3y

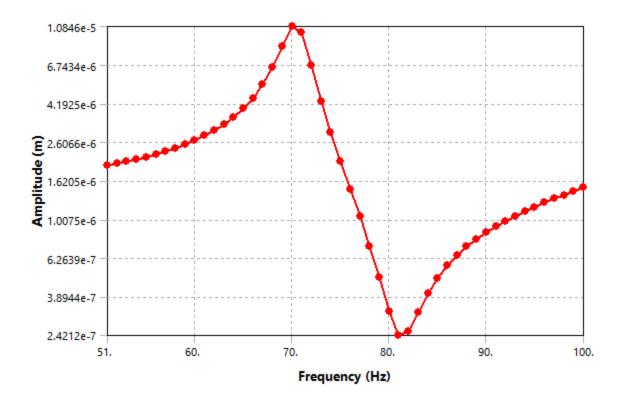


FIGURE 21 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM3z

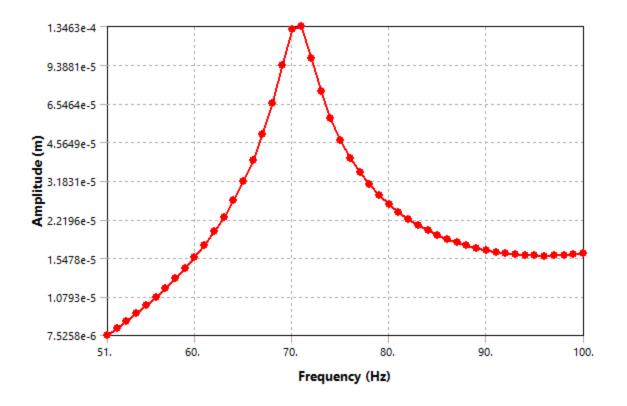


FIGURE 22 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM4x

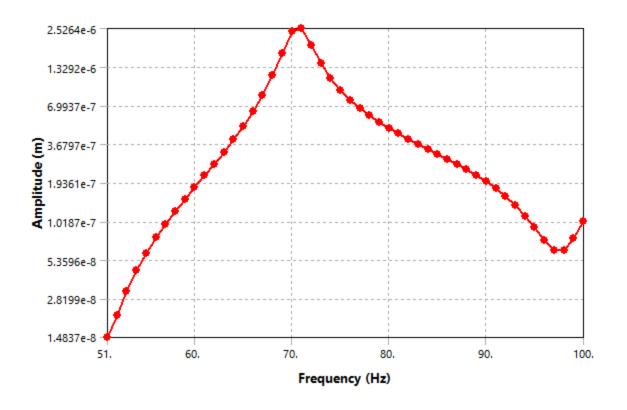


FIGURE 23 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM4y

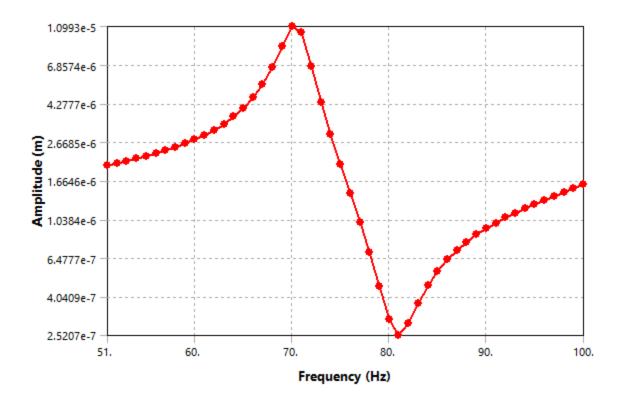


FIGURE 24
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM4z

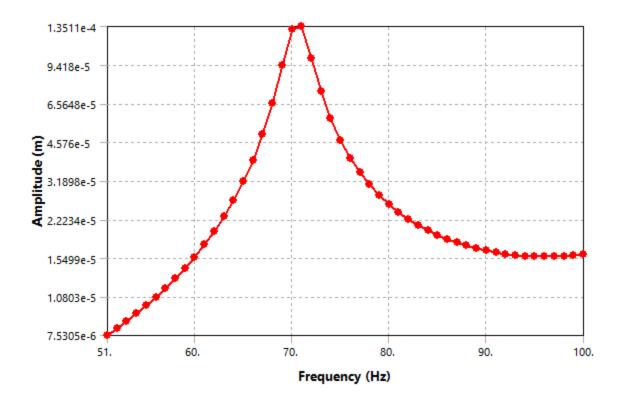


FIGURE 25
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM5x

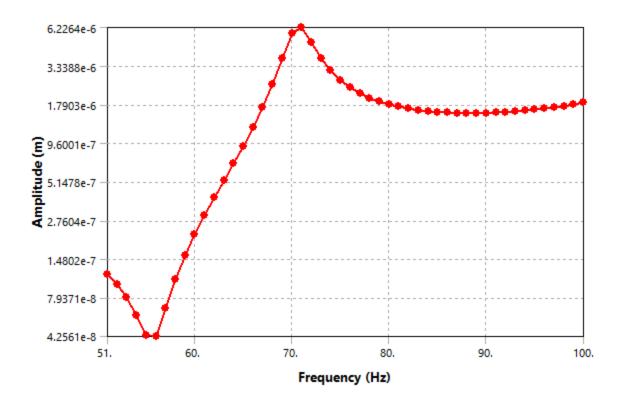


FIGURE 26 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM5y

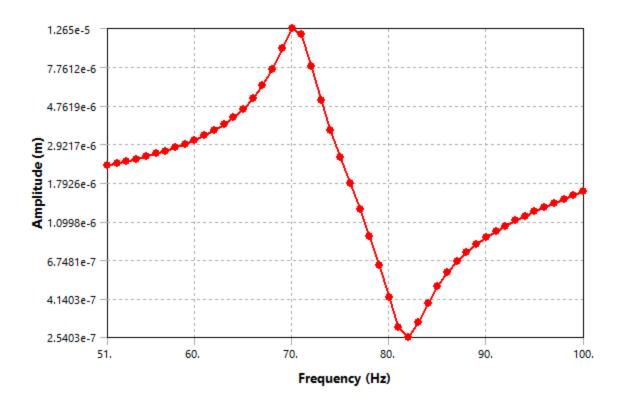


FIGURE 27
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM5z

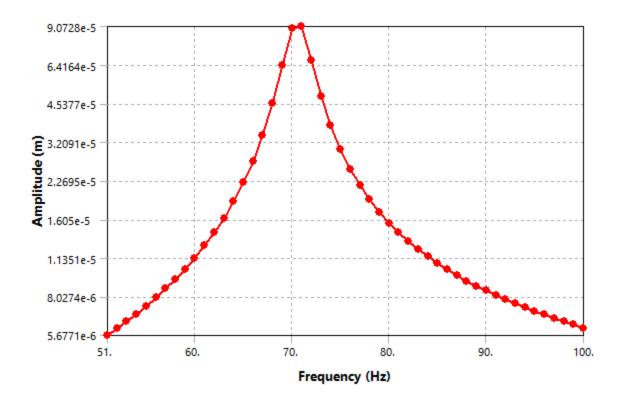


FIGURE 28 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM6x

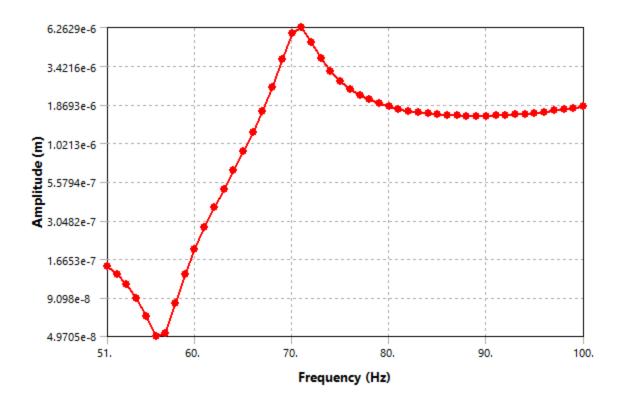


TABLE 70 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

| <b>DeformationFrequencyRespons</b> | DeformationFrequencyRespons | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFi |  |  |
|------------------------------------|-----------------------------|---------------------------|---------------------------|------------|--|--|
| eDIMM7y                            | eDIMM7z                     | DIMM2x                    | DIMM2y                    | -          |  |  |
| Solved                             |                             |                           |                           |            |  |  |
| Scope                              |                             |                           |                           |            |  |  |
| Geometry Selection                 |                             |                           |                           |            |  |  |
| 1 Body                             |                             |                           |                           |            |  |  |
| Use Average                        |                             |                           |                           |            |  |  |

| Definition |        |        |        |        |  |
|------------|--------|--------|--------|--------|--|
|            |        |        |        |        |  |
|            | Y Axis | Z Axis | X Axis | Y Axis |  |

Global Coordinate System

No

## **Options**

**Use Parent** 

100. Hz

Bode

| Results        |                |                 |                  |      |  |  |
|----------------|----------------|-----------------|------------------|------|--|--|
| 1.2743e-005 m  | 8.3438e-005 m  | 2.6035e-003 m/s | 4.6996e-003 m/s  | 5.93 |  |  |
| 70. Hz         | 71. F          | 70. Hz          |                  |      |  |  |
| 115.98 °       | -109.26 °      | 159.09°         | -153.67 °        |      |  |  |
| -5.5822e-006 m | -2.7519e-005 m | -2.432e-003 m/s | -4.2119e-003 m/s | 5.55 |  |  |
| 1.1455e-005 m  | -7.877e-005 m  | 9.2923e-004 m/s | -2.0847e-003 m/s | -2.0 |  |  |

FIGURE 29 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM6y

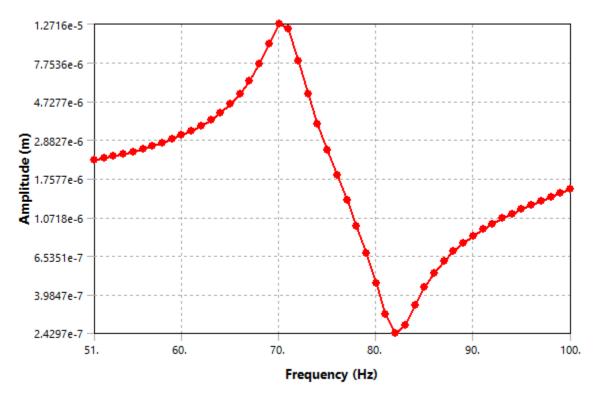


FIGURE 30 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM6z

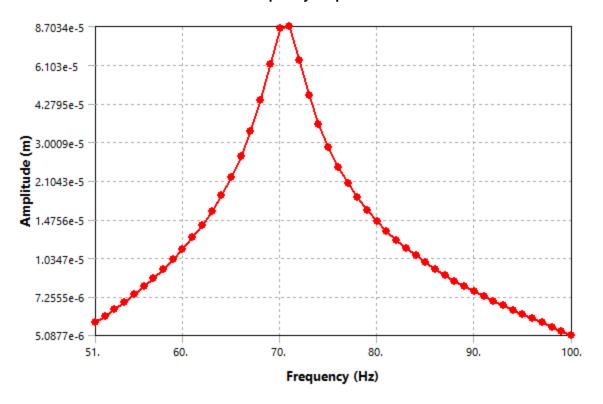


FIGURE 31
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM7x

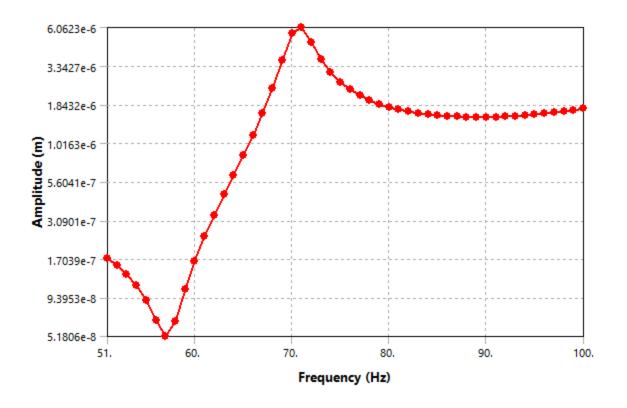


FIGURE 32 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM7y

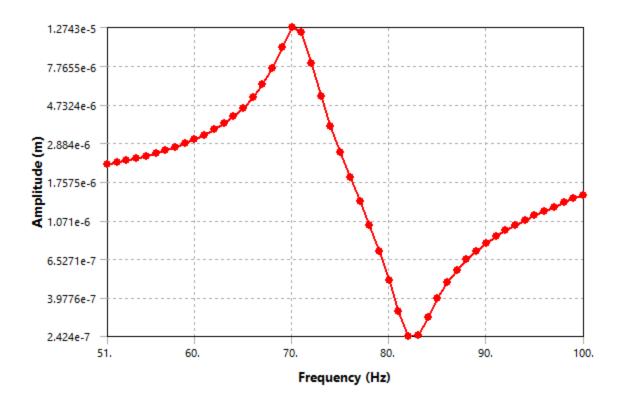


FIGURE 33
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) >
DeformationFrequencyResponseDIMM7z

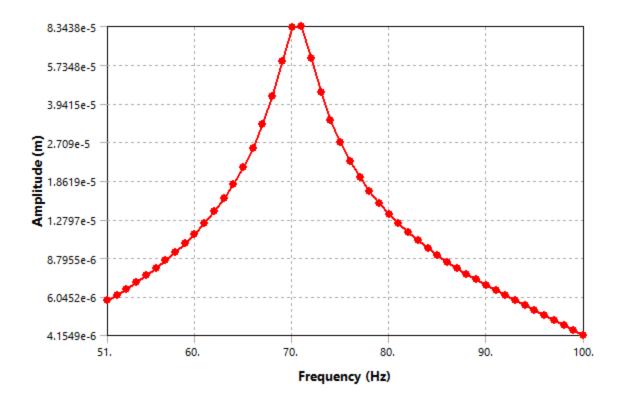


FIGURE 34
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM2x

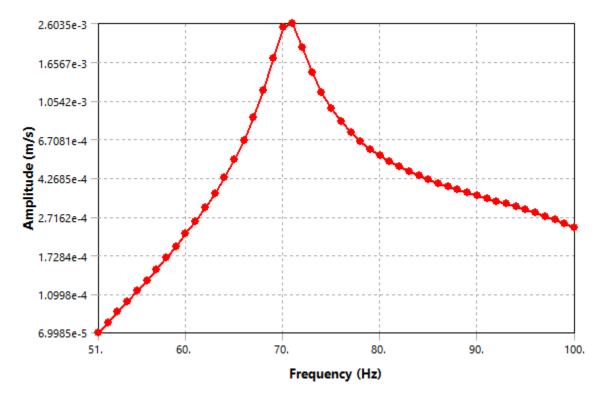


FIGURE 35
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM2y

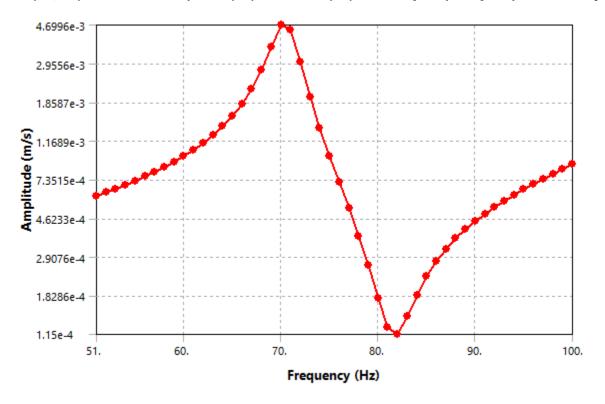


FIGURE 36
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM2z

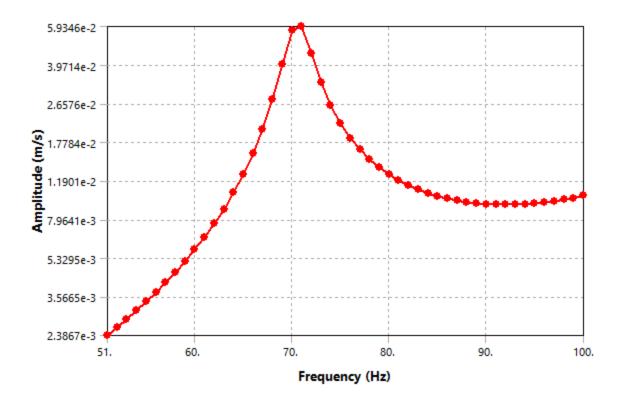


FIGURE 37
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM3x

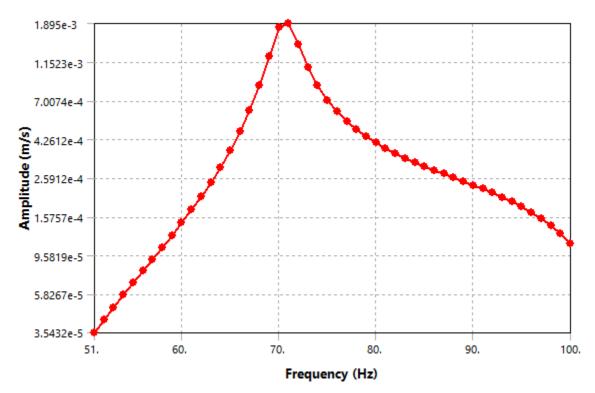


FIGURE 38
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM3y

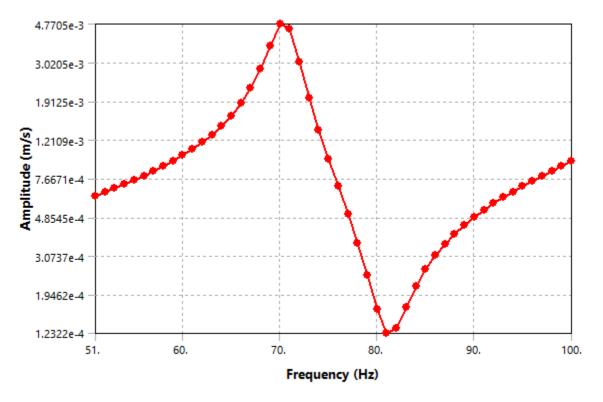


FIGURE 39
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM3z

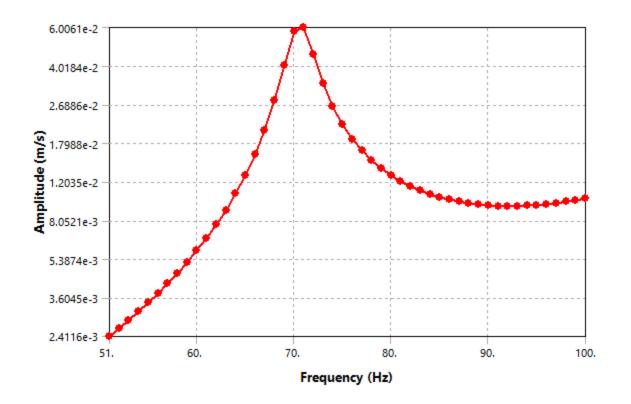


TABLE 71

Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | VelocityFrequencyResponse | Vel

VelocityFreque

locityFrequencyResponse

| DIMM5x | DIMM5y | DIMM5z                   | DIMM6x | ĎІМІ |
|--------|--------|--------------------------|--------|------|
|        |        | Solved                   |        |      |
|        |        | Scope                    |        |      |
|        |        | Geometry Selection       |        |      |
|        |        | 1 Body                   |        |      |
|        |        | Use Average              |        |      |
|        |        | Definition               |        |      |
|        |        | Directional Velocity     |        |      |
| X Axis | Y Axis | Z Axis                   | X Axis | Y A: |
|        |        | Global Coordinate System |        |      |
|        |        | No                       |        |      |

**Options** 

**Use Parent** 

100. Hz

Bode

| Results         |                  |                  |                  |           |  |  |
|-----------------|------------------|------------------|------------------|-----------|--|--|
| 2.7776e-003 m/s | 5.5636e-003 m/s  | 4.0474e-002 m/s  | 2.7939e-003 m/s  | 5.5928e-  |  |  |
|                 | 70. Hz           | 71. Hz           |                  | 70.       |  |  |
| -25.413 °       | -153.65 °        | -19.734 °        | -25.612 °        | -153.     |  |  |
| 2.5089e-003 m/s | -4.9857e-003 m/s | 3.8097e-002 m/s  | 2.5194e-003 m/s  | -5.0205e- |  |  |
| -1.192e-003 m/s | -2.469e-003 m/s  | -1.3666e-002 m/s | -1.2077e-003 m/s | -2.4645e- |  |  |

FIGURE 40
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM4x

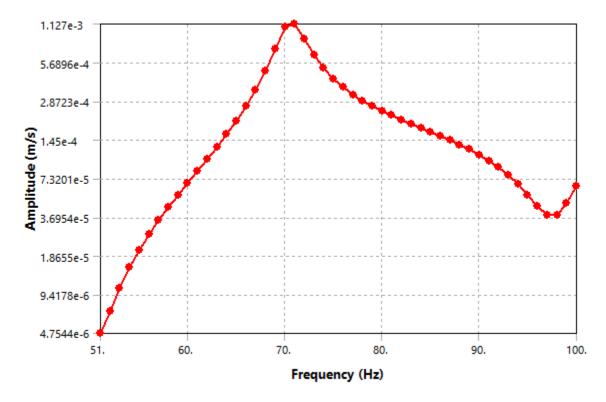


FIGURE 41
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM4y

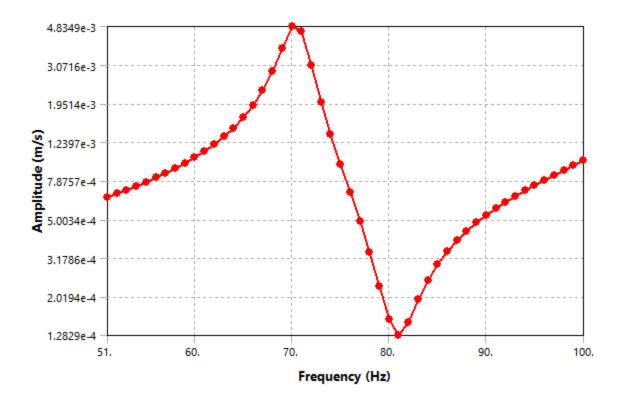


FIGURE 42
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM4z

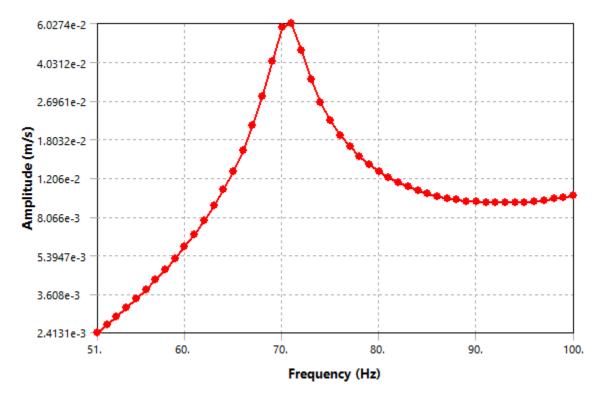


FIGURE 43
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM5x

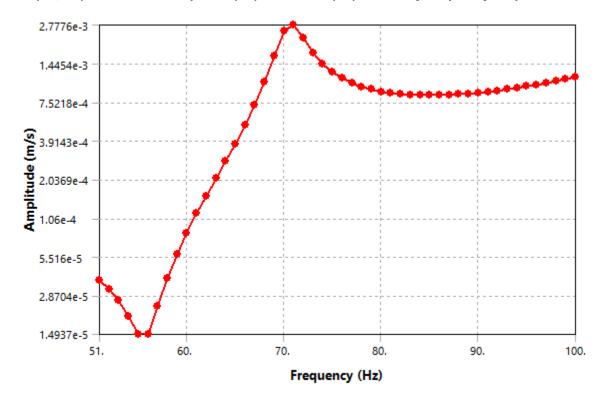


FIGURE 44
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM5y

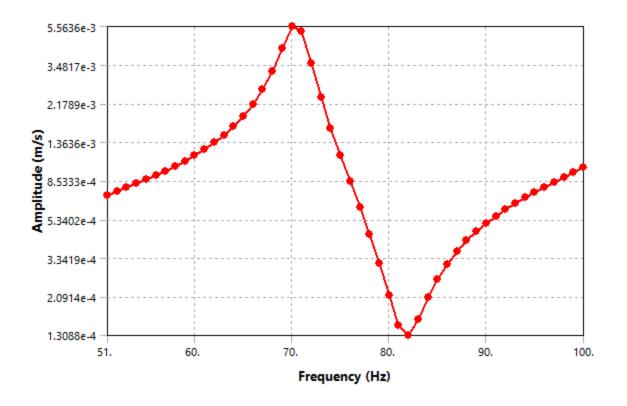


FIGURE 45
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM5z

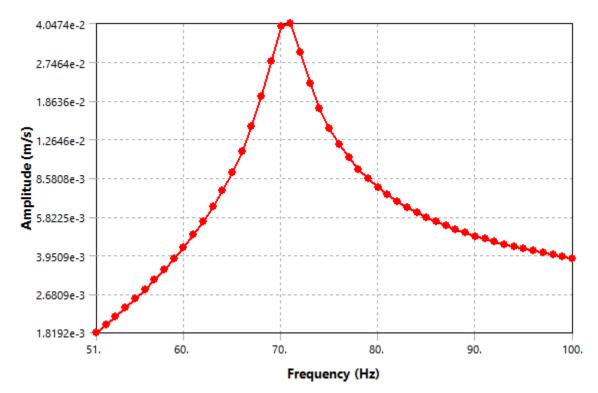


FIGURE 46
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM6x

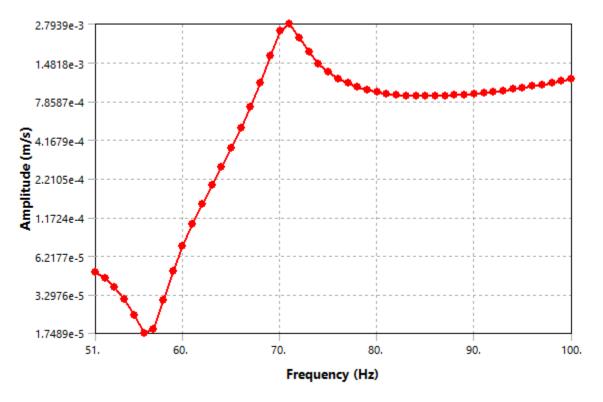


FIGURE 47
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM6y

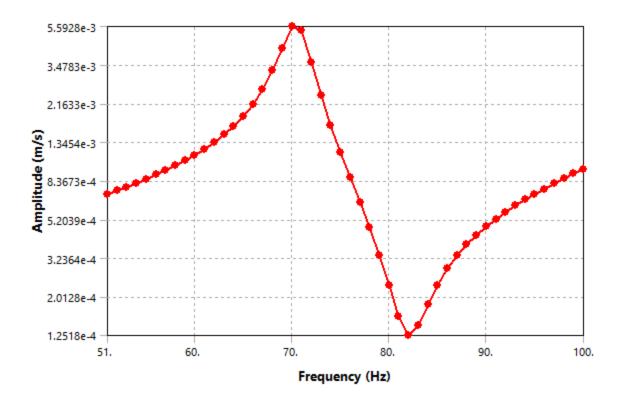


FIGURE 48
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM6z

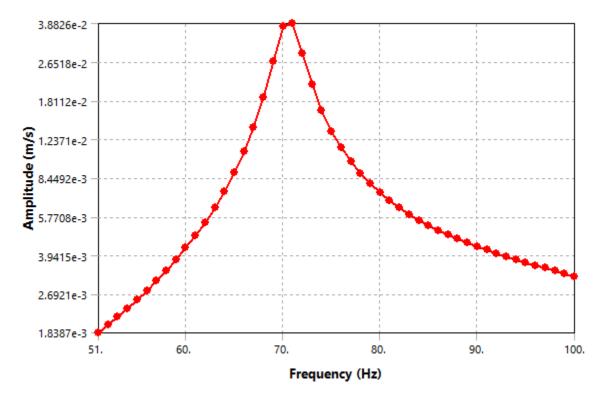


FIGURE 49
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM7x

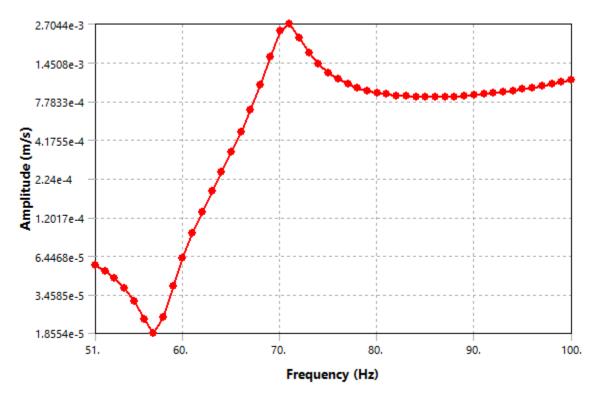


FIGURE 50
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM7y

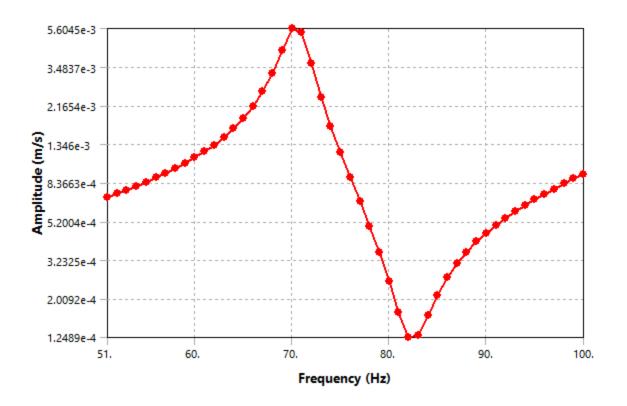


TABLE 72 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

|                    | , , ,                       | . ,                         |                             |                     |  |  |
|--------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|--|--|
| equencyRespons     | AccelerationFrequencyRespon | AccelerationFrequencyRespon | AccelerationFrequencyRespon | AccelerationFrequen |  |  |
| DIMM8z             | seDIMM2x                    | seDIMM2y                    | seDIMM2z                    | seDIMM3x            |  |  |
|                    | Solved                      |                             |                             |                     |  |  |
|                    | Scope                       |                             |                             |                     |  |  |
| Geometry Selection |                             |                             |                             |                     |  |  |
| 1 Body             |                             |                             |                             |                     |  |  |
|                    |                             |                             |                             |                     |  |  |

## Use Average

| <b>Definition</b> |        |        |        |                   |  |
|-------------------|--------|--------|--------|-------------------|--|
|                   |        |        |        | Directional Accel |  |
| Z Axis            | X Axis | Y Axis | Z Axis | X Axis            |  |

## Global Coordinate System

No

## **Options**

**Use Parent** 

100. Hz

Bode

| Results     |               |              |                         |              |  |
|-------------|---------------|--------------|-------------------------|--------------|--|
| 5e-002 m/s  | 1.1614 m/s²   | 2.067 m/s²   | 26.474 m/s²             | 0.84536 m/s  |  |
| 71. Hz      |               | 70. Hz       | 71. Hz                  |              |  |
| 19.001 °    | -110.91 °     | -63.667 °    | 69.512 °                | -111.24 °    |  |
| 02e-002 m/s | -0.41454 m/s² | 0.91689 m/s² | 9.2663 m/s <sup>2</sup> | -0.30627 m/s |  |
| 64e-002 m/s | -1.0849 m/s²  | -1.8525 m/s² | 24.8 m/s²               | -0.78793 m/s |  |

FIGURE 51
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM7z

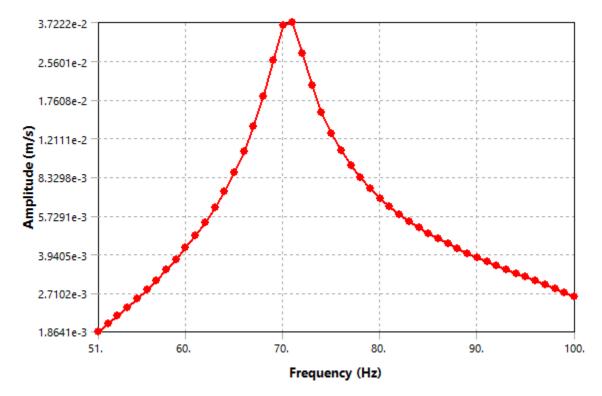


FIGURE 52
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM8x

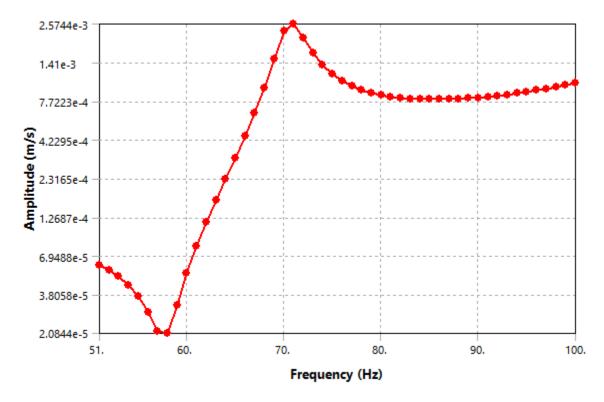


FIGURE 53
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM8y

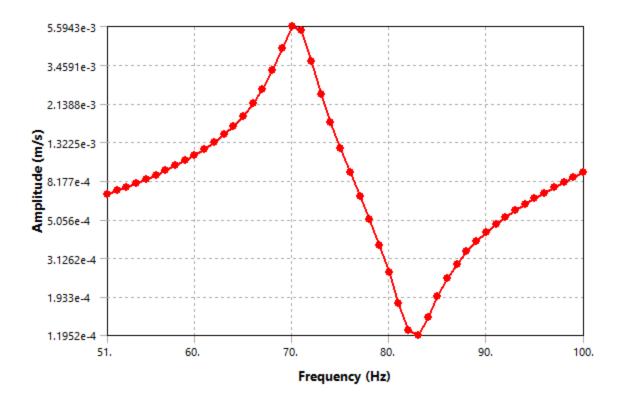


FIGURE 54
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > VelocityFrequencyResponseDIMM8z

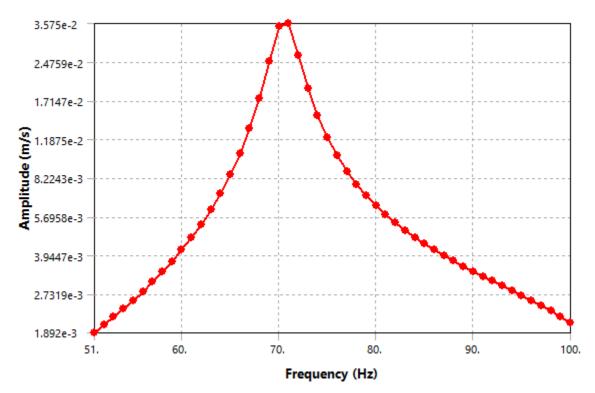


FIGURE 55
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM2x

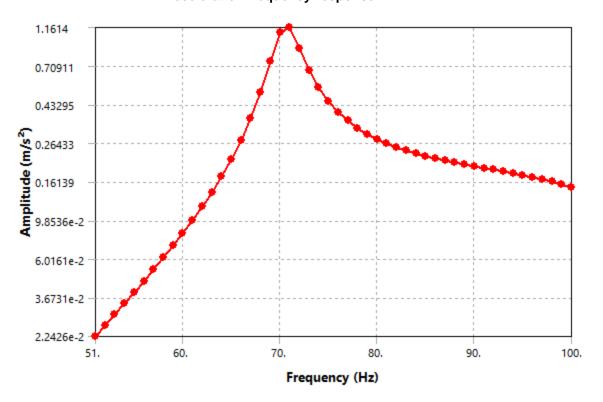


FIGURE 56
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM2y

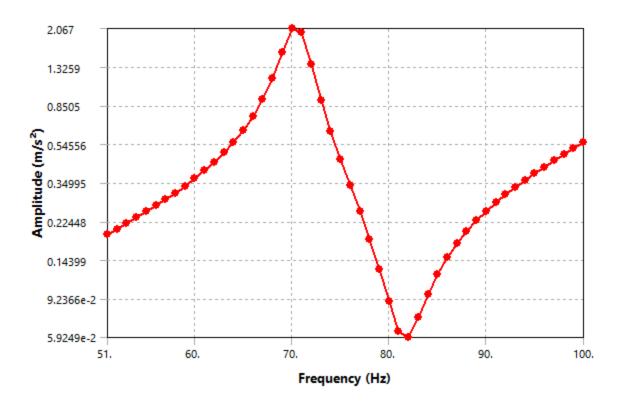


FIGURE 57
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM2z

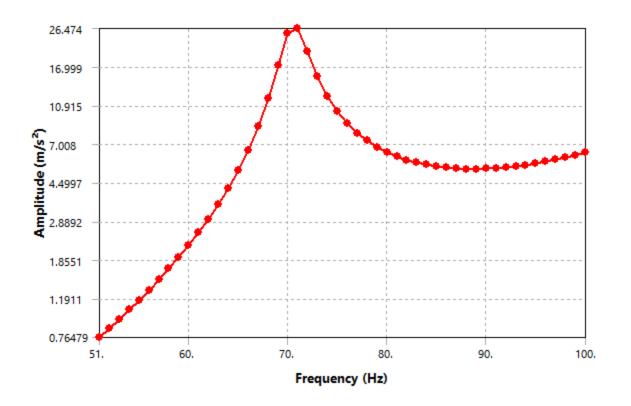


FIGURE 58
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM3x

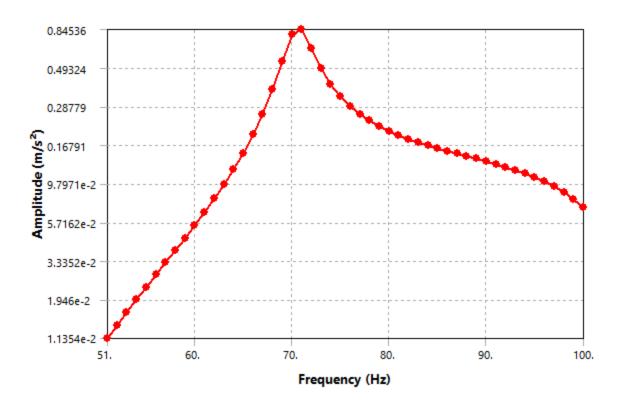


FIGURE 59
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM3y

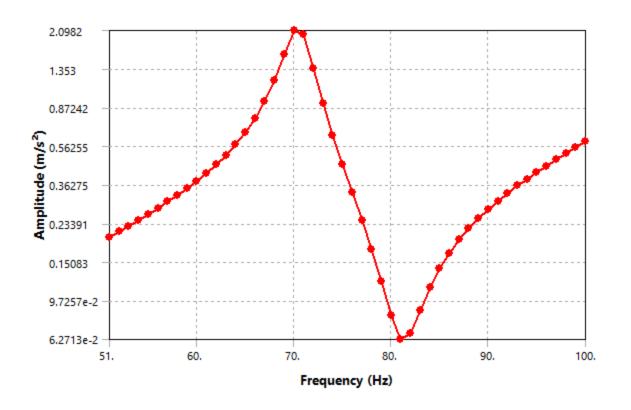


FIGURE 60 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM3z

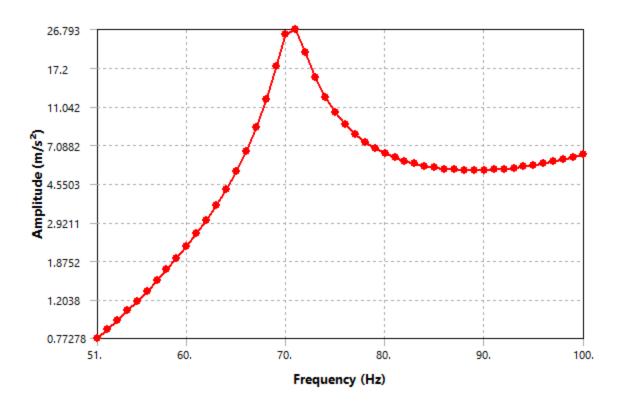


FIGURE 61
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM4x

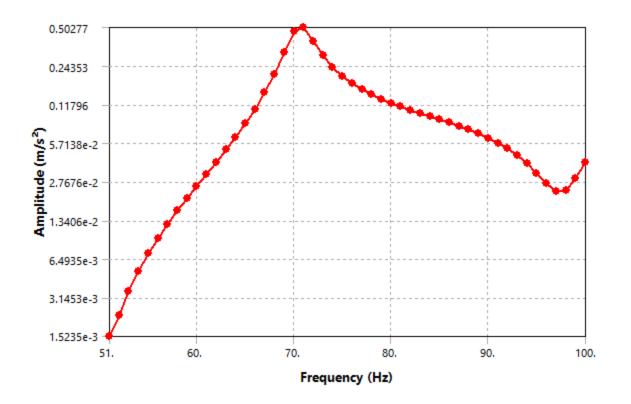


TABLE 73
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

AccelerationFrequencyRespo

elerationFrequencyRespo

AccelerationFrequencyRespo AccelerationFrequencyRespo

AccelerationFre

| olorationii roquonoyi toopo | 7 toootorationii roquonoyi toopo | 7 lood or all of it requestions 1 loops | 1 toootorationii roquonoyi toopo | 710001014110111 10 |
|-----------------------------|----------------------------------|---|----------------------------------|--------------------|
| nseDIMM5y                   | nseDIMM5z                        | nseDIMM6x                               | nseDIMM6y                        |                    |
|                             |                                  | Solved                                  |                                  |                    |
|                             |                                  | Scope                                   |                                  |                    |
|                             |                                  | Geometry Selection                      |                                  |                    |
|                             |                                  | 1 Body                                  |                                  |                    |
|                             |                                  | Use Average                             |                                  |                    |
|                             |                                  | Definition                              |                                  |                    |
|                             |                                  | Directional Acceleration                |                                  |                    |
| Y Axis                      | Z Axis                           | X Axis                                  | Y Axis                           | ZA                 |
|                             |                                  |   |                                  |                    |
|                             |                                  |   |                                  |                    |

Global Coordinate System

No

# Options

Use Parent

100. Hz

Bode

Log Y

|                          |                         | Results                  |                        |        |
|--------------------------|-------------------------|--------------------------|------------------------|--------|
| 2.447 m/s²               | 18.056 m/s²             | 1.2464 m/s²              | 2.4598 m/s²            | 17.321 |
| 70. Hz                   | 71.                     | . Hz                     | 70. Hz                 |        |
| -63.655 °                | 70.266 °                | 64.388 °                 | -63.854 °              | 70.49  |
| 1.0859 m/s <sup>2</sup>  | 6.0967 m/s <sup>2</sup> | 0.53877 m/s <sup>2</sup> | 1.084 m/s <sup>2</sup> | 5.7837 |
| -2.1928 m/s <sup>2</sup> | 16.995 m/s <sup>2</sup> | 1.1239 m/s²              | -2.2081 m/s²           | 16.326 |

FIGURE 62 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM4y

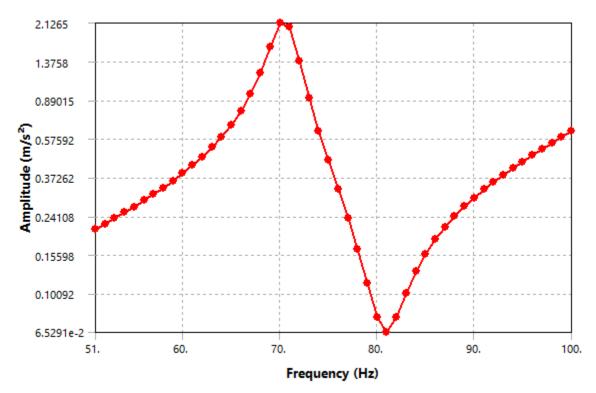


FIGURE 63
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM4z

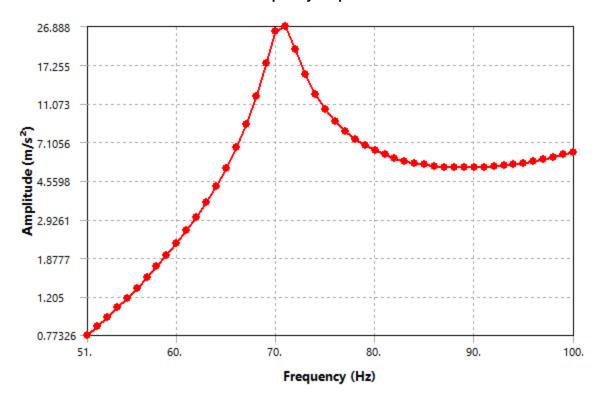


FIGURE 64
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM5x

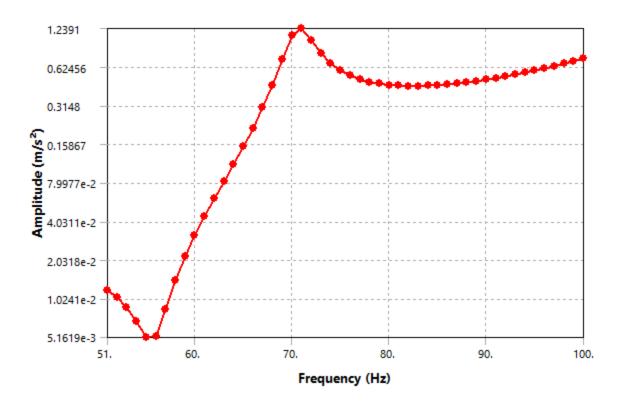


FIGURE 65
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM5y

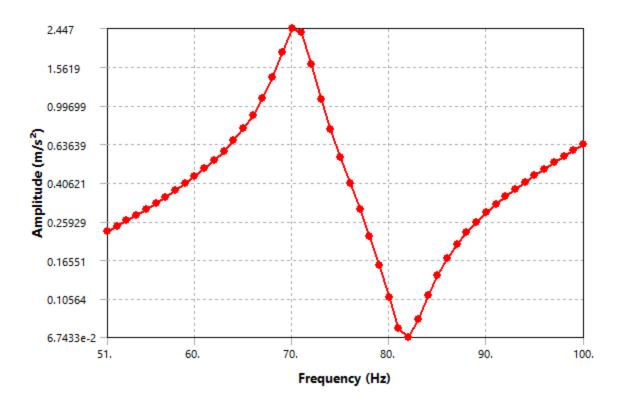


FIGURE 66
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM5z

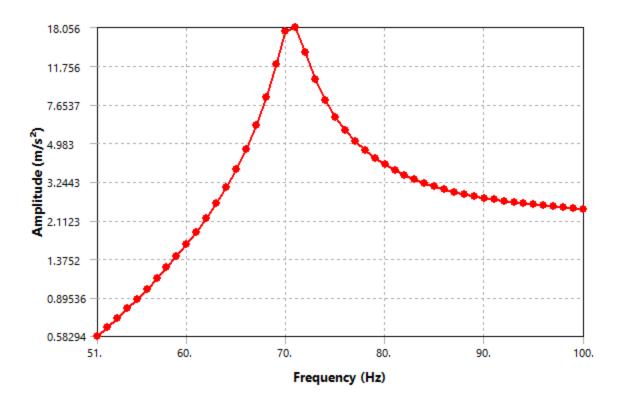


FIGURE 67
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM6x

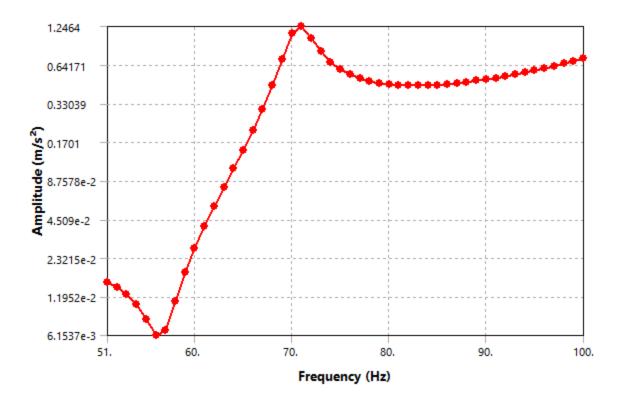


FIGURE 68
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM6y

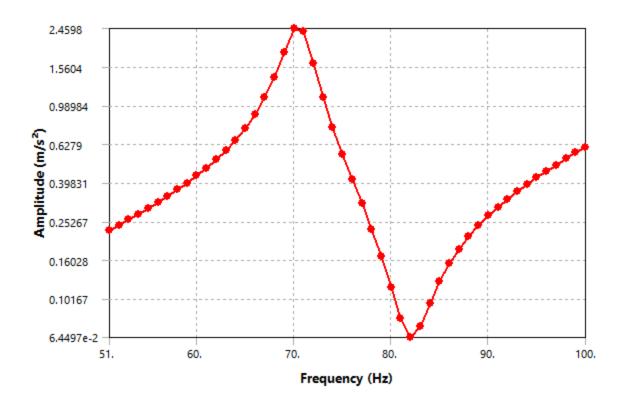


FIGURE 69
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM6z

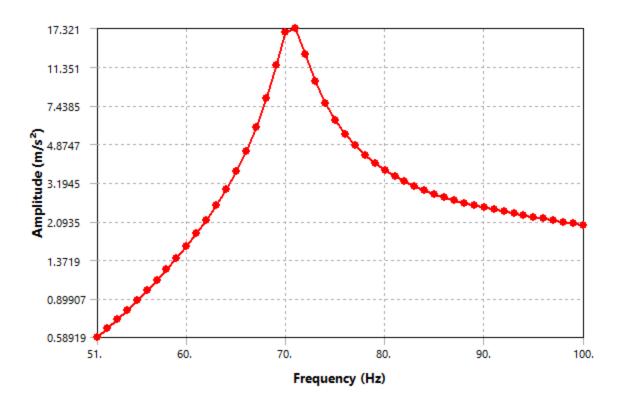


FIGURE 70
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM7x

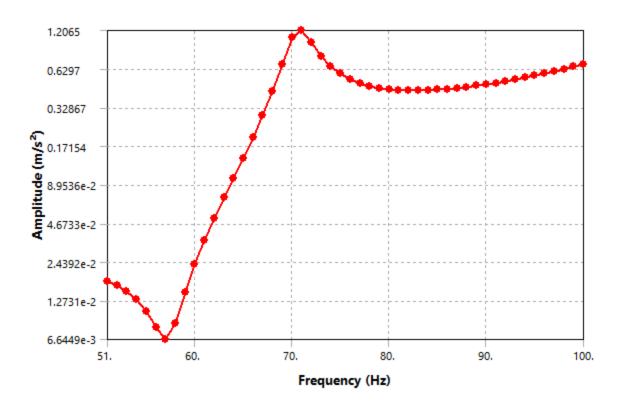


FIGURE 71
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM7y

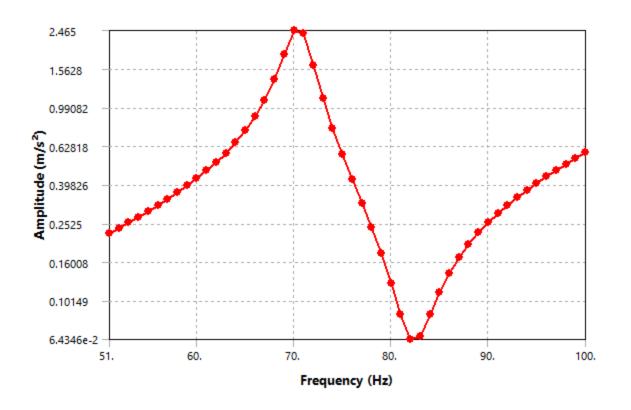


FIGURE 72 Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM7z

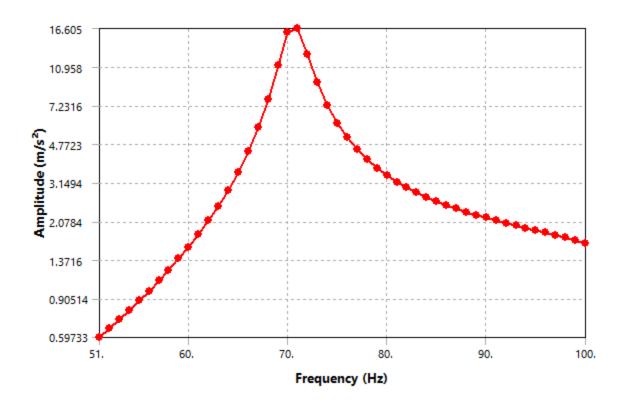


TABLE 74
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > Result Charts

tionFrequencyResponseDIMM8y | AccelerationFrequencyResponseDIMM8z | DeformationFrequencyResponseDIMM8x | DeformationFrequencyResponseDIMM8x

|                          | Sol          | ved          |            |
|--------------------------|--------------|--------------|------------|
|                          | Scope        |              |            |
|                          | Geometry     | Selection    |            |
|                          | 1 B          | ody          |            |
|                          | Use A        | verage       |            |
|                          | Definition   |              |            |
| Directional Acceleration |              |              | Directiona |
| Y Axis                   | Z Axis       | X Axis       | Y          |
|                          | Global Coord | inate System |            |
|                          | N            | 0            |            |
|                          | Options      |              |            |
|                          | Use F        | Parent       |            |
|                          | 50.          | Hz           |            |
|                          | 100          | . Hz         |            |

Bode

Log Y

|                         | Results                 |                |        |
|-------------------------|-------------------------|----------------|--------|
| 2.4605 m/s <sup>2</sup> | 15.948 m/s²             | 5.7707e-006 m  | 1.271  |
| 70. Hz                  | 71.                     | . Hz           | 7(     |
| -64.138 °               | 70.999 °                | -115.96 °      | 11     |
| 1.0733 m/s²             | 5.1927 m/s <sup>2</sup> | -2.5257e-006 m | -5.548 |
| -2.2141 m/s²            | 15.079 m/s²             | -5.1886e-006 m | 1.144  |

FIGURE 73
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM8x

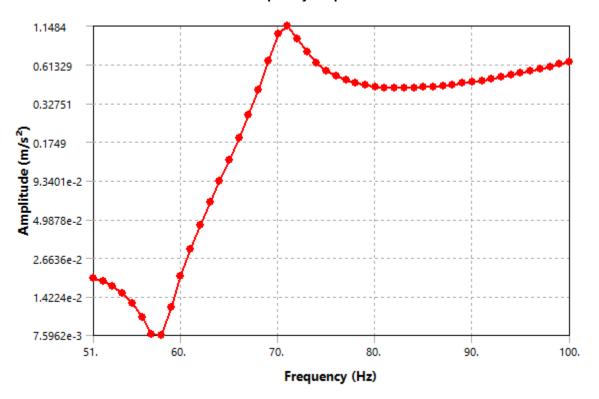


FIGURE 74
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM8y

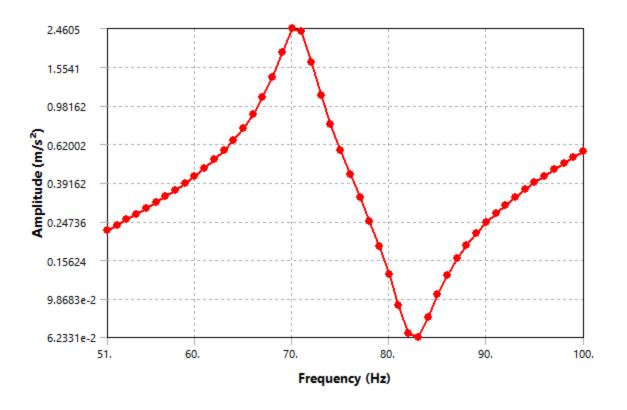


FIGURE 75
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > AccelerationFrequencyResponseDIMM8z

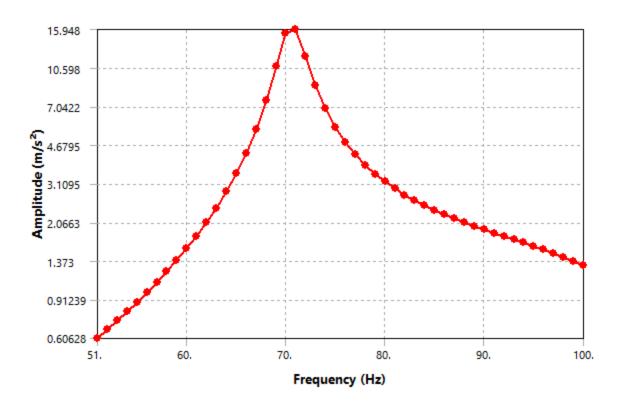


FIGURE 76
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM8x

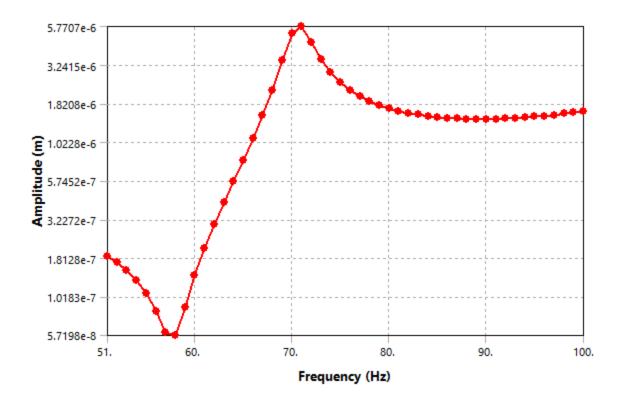


FIGURE 77
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM8y

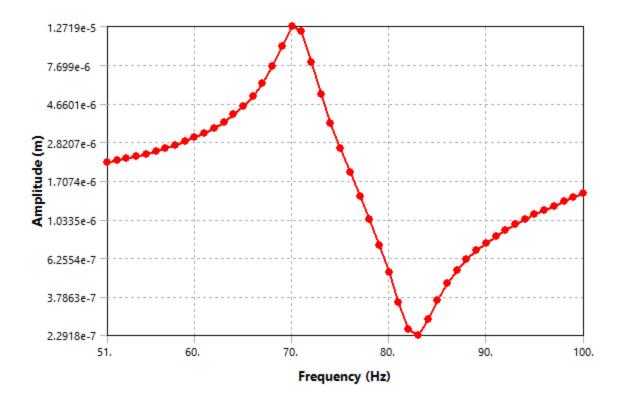
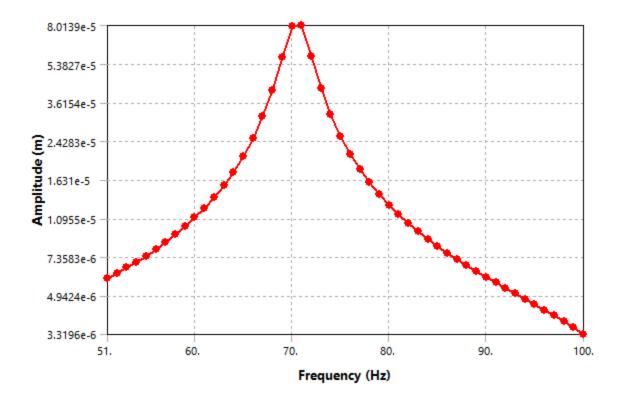


FIGURE 78
Model (A4, B4) > Harmonic Response (B5) > Solution (B6) > DeformationFrequencyResponseDIMM8z



# **Material Data**

# Steel

TABLE 75 Steel > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 2.05e+011          | 0.29            | 1.627e+011      | 7.9457e+010      |

TABLE 76 Steel > Density

Density kg m^-3 7870

TABLE 77
Steel > Isotropic Secant Coefficient of Thermal Expansion

Coefficient of Thermal Expansion C^-1
Zero-Thermal-Strain Reference Temperature C
22

TABLE 78
Steel > Tensile Yield Strength
Tensile Yield Strength Pa

# TABLE 79 Steel > Tensile Ultimate Strength

Tensile Ultimate Strength Pa 4.2e+008

## TABLE 80

**Steel > Specific Heat Constant Pressure** 

Specific Heat J kg^-1 C^-1 486

#### **TABLE 81**

**Steel > Isotropic Thermal Conductivity** 

Thermal Conductivity W m^-1 C^-1 51.9

# Aluminum 6061-T6; 6061-T651

#### **TABLE 82**

Aluminum 6061-T6; 6061-T651 > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 6.895e+010         | 0.33            | 6.7598e+010     | 2.5921e+010      |

#### **TABLE 83**

Aluminum 6061-T6; 6061-T651 > Density

Density kg m^-3 2700

#### **TABLE 84**

Aluminum 6061-T6; 6061-T651 > Isotropic Secant Coefficient of Thermal Expansion

| ,   |
|---|
| Coefficient of Thermal Expansion C^-1       |
| Zero-Thermal-Strain Reference Temperature C |
| 22  |

#### **TABLE 85**

Aluminum 6061-T6; 6061-T651 > Tensile Yield Strength

Tensile Yield Strength Pa

#### **TABLE 86**

Aluminum 6061-T6; 6061-T651 > Tensile Ultimate Strength

Tensile Ultimate Strength Pa 3.103e+008

#### **TABLE 87**

Aluminum 6061-T6; 6061-T651 > Specific Heat Constant Pressure

Specific Heat J kg^-1 C^-1 896

## **TABLE 88**

Aluminum 6061-T6; 6061-T651 > Isotropic Thermal Conductivity

| Th | ermal Conductivity W m^-1 C^-1 |
|----|--------------------------------|
|    | 167.2                          |

# Structural Steel

# TABLE 89 Structural Steel > Constants

| Density                          | 7850 kg m^-3     |
|----------------------------------|------------------|
| Coefficient of Thermal Expansion | 1.2e-005 C^-1    |
| Specific Heat                    | 434 J kg^-1 C^-1 |
| Thermal Conductivity             | 60.5 W m^-1 C^-1 |
| Resistivity                      | 1.7e-007 ohm m   |

# TABLE 90 Structural Steel > Color

| Red | Green | Blue |
|-----|-------|------|
| 132 | 139   | 179  |

#### TABLE 91

# **Structural Steel > Compressive Ultimate Strength**

| Compressive Ultimate Strength Pa | 3 |
|----------------------------------|---|
| 0                                |   |

## TABLE 92

# **Structural Steel > Compressive Yield Strength**

| Compressive Yield Strength Pa |
|-------------------------------|
| 2.5e+008                      |

# TABLE 93

# Structural Steel > Tensile Yield Strength

| Tensile Yield Strength Pa | ì |  |  |
|---------------------------|---|--|--|
| 2.5e+008                  |   |  |  |

## **TABLE 94**

# **Structural Steel > Tensile Ultimate Strength**

| Tensile Ultimate Strength Pa |
|------------------------------|
| 4.6e+008                     |

## TABLE 95

# Structural Steel > Isotropic Secant Coefficient of Thermal Expansion

| Zero-Thermal-Strain F | Reference | Temperature C |  |
|-----------------------|-----------|---------------|--|
| 22                    |           |               |  |

# TABLE 96 Structural Steel > S-N Curve

|            | Alternating Stress Pa | Cycles | Mean Stress Pa |
|------------|-----------------------|--------|----------------|
| 3.999e+009 |                       | 10     | 0              |
|            | 2.827e+009            | 20     | 0              |
|            | 1.896e+009            | 50     | 0              |

| 1.413e+009 | 100     | 0 |
|------------|---------|---|
| 1.069e+009 | 200     | 0 |
| 4.41e+008  | 2000    | 0 |
| 2.62e+008  | 10000   | 0 |
| 2.14e+008  | 20000   | 0 |
| 1.38e+008  | 1.e+005 | 0 |
| 1.14e+008  | 2.e+005 | 0 |
| 8.62e+007  | 1.e+006 | 0 |

# TABLE 97 Structural Steel > Strain-Life Parameters

| Strength       | Strength | Ductility   | Ductility | Cyclic Strength | Cyclic Strain      |
|----------------|----------|-------------|-----------|-----------------|--------------------|
| Coefficient Pa | Exponent | Coefficient | Exponent  | Coefficient Pa  | Hardening Exponent |
| 9.2e+008       | -0.106   | 0.213       | -0.47     | 1.e+009         | 0.2                |

# TABLE 98 Structural Steel > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa | Temperature C |
|--------------------|-----------------|-----------------|------------------|---------------|
| 2.e+011            | 0.3             | 1.6667e+011     | 7.6923e+010      |               |

# TABLE 99 Structural Steel > Isotropic Relative Permeability

Relative Permeability 10000

# **Nylon**

# TABLE 100 Nylon > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 3.e+009            | 0.42            | 6.25e+009       | 1.0563e+009      |

# TABLE 101 Nylon > Density Density kg m^-3

Density kg m^-3

# **TABLE 102**

Nylon > Isotropic Secant Coefficient of Thermal Expansion

Coefficient of Thermal Expansion C^-1
Zero-Thermal-Strain Reference Temperature C
22

TABLE 103

Nylon > Tensile Yield Strength

Tensile Yield Strength Pa

TABLE 104
Nylon > Tensile Ultimate Strength

# Tensile Ultimate Strength Pa 7.e+007

# TABLE 105 Nylon > Specific Heat Constant Pressure

Specific Heat J kg^-1 C^-1 950

#### **TABLE 106**

## Nylon > Isotropic Thermal Conductivity

Thermal Conductivity W m^-1 C^-1 0.285

# Aluminum Scaled

#### **TABLE 107**

## Aluminum Scaled > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 6.895e+010         | 0.33            | 6.7598e+010     | 2.5921e+010      |

#### **TABLE 108**

#### Aluminum Scaled > Density

Density kg m^-3 1000

#### **TABLE 109**

## Aluminum Scaled > Isotropic Secant Coefficient of Thermal Expansion

Coefficient of Thermal Expansion C^-1
Zero-Thermal-Strain Reference Temperature C
22

## **TABLE 110**

# Aluminum Scaled > Tensile Yield Strength

Tensile Yield Strength Pa

## **TABLE 111**

# Aluminum Scaled > Tensile Ultimate Strength

Tensile Ultimate Strength Pa 3.103e+008

#### **TABLE 112**

# Aluminum Scaled > Specific Heat Constant Pressure

Specific Heat J kg^-1 C^-1 896

## **TABLE 113**

## **Aluminum Scaled > Isotropic Thermal Conductivity**

Thermal Conductivity W m^-1 C^-1 167.2

# TABLE 114 LCP > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 2.e+009            | 0.36            | 2.381e+009      | 7.3529e+008      |

# TABLE 115 LCP > Density

Density kg m^-3 1760

#### **TABLE 116**

LCP > Isotropic Secant Coefficient of Thermal Expansion

Coefficient of Thermal Expansion C^-1
Zero-Thermal-Strain Reference Temperature C
22

#### TABLE 117

LCP > Tensile Yield Strength

Tensile Yield Strength Pa

#### **TABLE 118**

LCP > Tensile Ultimate Strength

Tensile Ultimate Strength Pa 1.17e+008

#### **TABLE 119**

LCP > Specific Heat Constant Pressure

Specific Heat J kg^-1 C^-1 1850

#### **TABLE 120**

LCP > Isotropic Thermal Conductivity

Thermal Conductivity W m^-1 C^-1 0.18

# Glass Epoxy Composite

## **TABLE 121**

Glass Epoxy Composite > Isotropic Elasticity

| Young's Modulus Pa | Poisson's Ratio | Bulk Modulus Pa | Shear Modulus Pa |
|--------------------|-----------------|-----------------|------------------|
| 2.14e+010          | 0.3             | 1.7833e+010     | 8.2308e+009      |

TABLE 122
Glass Epoxy Composite > Density

Density kg m^-3 7300

# **TABLE 123**

# Glass Epoxy Composite > Isotropic Secant Coefficient of Thermal Expansion

Coefficient of Thermal Expansion C^-1
Zero-Thermal-Strain Reference Temperature C
22

## **TABLE 124**

# Glass Epoxy Composite > Tensile Yield Strength

Tensile Yield Strength Pa

# **TABLE 125**

**Glass Epoxy Composite > Tensile Ultimate Strength** 

Tensile Ultimate Strength Pa 3.19e+008

## **TABLE 126**

**Glass Epoxy Composite > Specific Heat Constant Pressure** 

Specific Heat J kg^-1 C^-1 1620

#### **TABLE 127**

Glass Epoxy Composite > Isotropic Thermal Conductivity

Thermal Conductivity W m^-1 C^-1 1.19