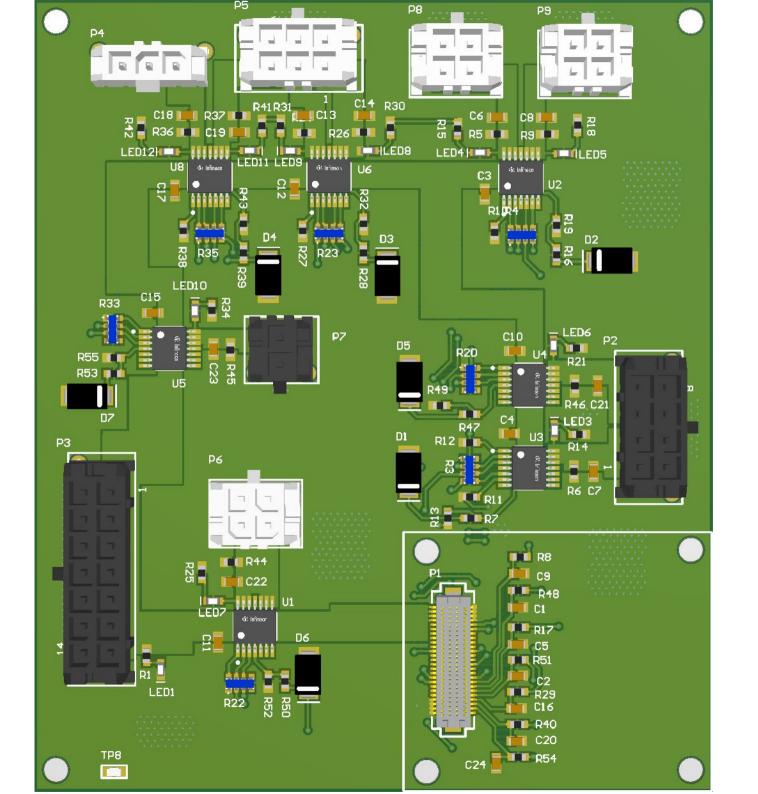
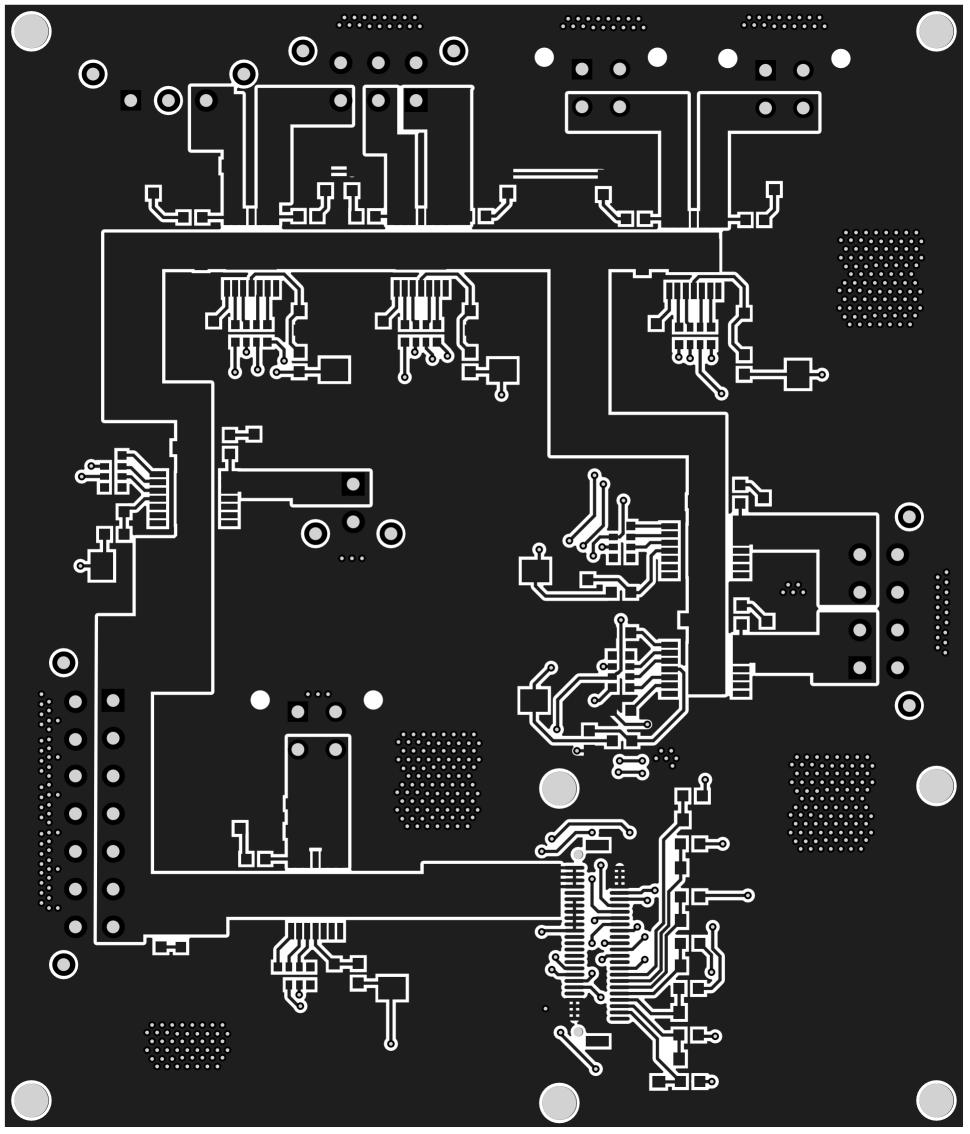


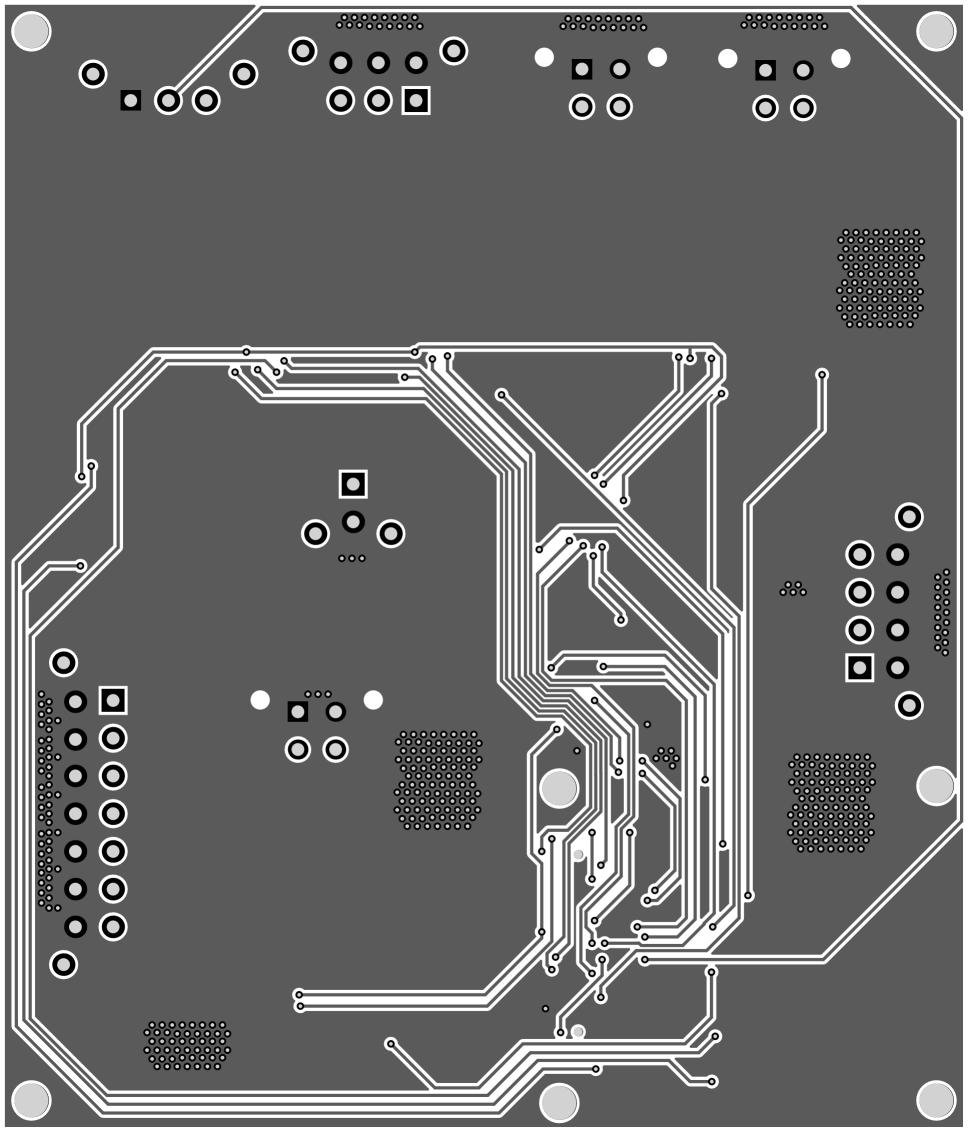
| Bill of Materials    |  |  |
|----------------------|--|--|
| Project:             | SXIV_Front_Pow er_Distribution.PrjPcb                    |  |
| Revision:            | Parameter ProjectRevision not found>                     |  |
| Project Lead:        | <parameter found="" not="" projectauthor=""></parameter> |  |
| Generated On:        | 2020-01-16 8:33 PM                                       |  |
| Production Quantity: | 1  |  |
| Currency             | CAD  |  |
| Total Parts Count:   | 113  |  |



| LibRef                                | Designator                                  | Manufacturer 1     | Manufacturer Part Number 1 | Supplier 1 | Supplier Part Number 1 | Supplier Unit Price 1 | Quantity | Supplier Subtotal 1 |
|---------------------------------------|---|--------------------|----------------------------|------------|------------------------|-----------------------|----------|---------------------|
| CAP CER 220PF 50V C0G/NP0 0603        | C1, C2, C5, C9, C16, C20, C24               | KEMET              | C0603C221J5GACAUTO         | Digi-Key   | 399-6868-1-ND          | 0.1565                | 7        | \$ 1.10             |
| C AP CER 0.1UF 50V 10% X7R 0603       | C3,C4,C10,C11,C12,C15,C17                   | Kyocera AVX        | 06035C104KAT2A             | Digi-Key   | 478-5052-1-ND          | 0.19563               | 7        | \$ 1.37             |
| CAP CER 10nF 50V 5% X7R 0603          | 6, C7, C8, C13, C14, C18, C19, C21, C22, C2 | KEMET              | C0603C103J5JACTU           | Digi-Key   | 399-13384-1-ND         | 0.29213               | 10       | \$ 2.92             |
| DIODEZENER 5.1V 500MW SOD123          | D1, D2, D3, D4, D5, D6, D7                  | ON Semiconductor   | MMSZ5231BT1G               | Digi-Key   | MSZ5231BT1GOSCT-N      | 0.26083               | 7        | \$ 1.83             |
| LED GREEN CLEAR 2V 0603               | LED1  | Wurth Electronics  | 150060VS75000              | Digi-Key   | 732-4980-1-ND          | 0.18258               | 1        | \$ 0.18             |
| LEDYELLOWCLEAR 2.1V 0603              | LED5, LED6, LED7, LED8, LED9, LED10, LE     | Wurth Electronics  | 150060YS75000              | Digi-Key   | 732-4981-1-ND          | 0.18258               | 10       | \$ 1.83             |
| CONN 50POS Bergstak Plug 0.02"        | P1  | Amphenol FCI       | 10132797-055100LF          | Digi-Key   | 609-5226-1-ND          | 1.88                  | 1        | \$ 1.88             |
| CONN 8POS MICRO-FIT3mm                | P2  | Molex              | 43045-0827                 | Digi-Key   | WM10684-ND             | 2.18                  | 1        | \$ 2.18             |
| CONN 14POS MICRO-FIT3mm               | P3  | Molex              | 43045-1427                 | Digi-Key   | WM10707-ND             | 4.25                  | 1        | \$ 4.25             |
| CONN 3POS MICROFIT                    | P4  | Molex              | 43650-0315                 | Digi-Key   | WM1918-ND              | 1.34                  | 1        | \$ 1.34             |
| CONN 6POS MICRO-FIT3mm                | P5  | Molex              | 0430450627                 | Digi-Key   | WM10673-ND             | 2.06                  | 1        | \$ 2.06             |
| CONN 4POS MICRO-FIT3mm                | P6, P8, P9                                  | Molex              | 43045-0427                 | Digi-Key   | WM10667-ND             | 1.75                  | 3        | \$ 5.24             |
| CONN 2POS MICRO-FIT3mm                | P7  | Molex              | 0430450227                 | Digi-Key   | WM10657-ND             | 1.1                   | 1        | \$ 1.10             |
| R ES 4.7K OHM1% 1/10W 0603            | 6, R17, R28, R29, R39, R40, R47, R48, R50,  | Yageo Phycomp      | RC0603FR-074K7L            | Digi-Key   | 311-4.70KHRCT-ND       | 0.03                  | 15       | \$ 0.45             |
| RES ARRAY 4 RES 4.7K OHM1206          | R3, R4, R20, R22, R23, R33, R35             | Panasonic          | EXB-38V472JV               | Digi-Key   | Y9472CT-ND             | 0.13042               | 7        | \$ 0.91             |
| R ES 47K OHM1% 1/10W 0603             | R10, R12, R24, R26, R27, R36, R37, R38, R4  | Panasonic          | ERJ3EKF4702V               | Digi-Key   | P47.0KHCT-ND           | 0.07434               | 14       | \$ 1.04             |
| R ES 10K OHM1% 1/10W 0603             | 14, R15, R18, R21, R25, R30, R31, R34, R41  | Yageo Phycomp      | RC0603FR-0710KL            | Digi-Key   | 311-10.0KHRCT-ND       | 0.03                  | 11       | \$ 0.33             |
| R ES 1.21K OHM1% 1/10W 0603           | R13, R19, R32, R43, R49, R52, R55           | Yageo              | RC0603FR-071K21L           | Digi-Key   | 311-1.21KHRCT-ND       | 0.13042               | 7        | \$ 0.91             |
| Test Point 0603 SMD                   | TP8   | CGS-TECONNECTIVITY | RCU-0C                     | Digi-Key   | A106145CT-ND           | 0.313                 | 1        | \$ 0.31             |
| IC LOAD SWITCH BTS70081EPPXUMA1       | U1  | Infineon           | BTS70081EPPXUMA1           | Digi-Key   | S70081EPPXUMA1CT-      | 2.73                  | 1        | \$ 2.73             |
| LOAD SWITCH BTS7200-2EPA PG-TSDSO-14  | U2, U3, U6, U8                              | Infineon           | BTS72002EPAXUMA1           | Digi-Key   | S72002EPAXUMA1CT-N     | 1.7                   | 4        | \$ 6.78             |
| LOAD SWITCH BTS70401EPA PG-TSDSO-14-2 | U4, U5                                      | Infineon           | BTS70401EPAXUMA1           | Digi-Key   | S70401EPAXUMA1CT-N     | 1.73                  | 2        | \$ 3.47             |
|                                       |   | ·                  |                            |            |                        |                       | Total:   | \$ 44.22            |







**Design Rules Verification Report**Filename: D:\Josh9\Documents\Midnight Sun\hardware\MSXIV\_FrontPowerDistribution\Fr

Warnings 0 Rule Violations 207

| Warnings |   |
|----------|---|
| Total    | 0 |

| Rule Violations  |     |
|--|-----|
| Clearance Constraint (Gap=0.254mm) (All),(All)   | 0   |
| Short-Circuit Constraint (Allowed=No) (All),(All)  | 0   |
| Un-Routed Net Constraint ( (All) )   | 0   |
| Modified Polygon (Allow modified: No), (Allow shelved: No)   | 0   |
| Width Constraint (Min=0.254mm) (Max=0.254mm) (Preferred=0.254mm) (All)                                   | 0   |
| Power Plane Connect Rule(Relief Connect )(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm) | 0   |
| Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)  | 7   |
| Hole To Hole Clearance (Gap=0.254mm) (All),(All)   | 0   |
| Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)   | 128 |
| Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)  | 60  |
| Silk to Silk (Clearance=0.254mm) (All),(All)   | 12  |
| Net Antennae (Tolerance=0mm) (All)   | 0   |
| Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)   | 0   |
| Total  | 207 |

| Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)   |
|---|
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(2.5mm,2.5mm) on Multi-Layer Actual Hole Size = 2.7mm   |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(2.5mm,87.5mm) on Multi-Layer Actual Hole Size = 2.7mm  |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(44.5mm,2.3mm) on Multi-Layer Actual Hole Size = 2.7mm  |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(44.5mm,27.3mm) on Multi-Layer Actual Hole Size = 2.7mm |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(74.5mm, 2.5mm) on Multi-Layer Actual Hole Size = 2.7mm |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(74.5mm,27.5mm) on Multi-Layer Actual Hole Size = 2.7mm |
| Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(74.5mm,87.5mm) on Multi-Layer Actual Hole Size = 2.7mm |

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Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All) Minimum Solder Mask Sliver Constraint: (0.105mm < 0.254mm) Between Pad P1-(46mm,22.05mm) on Multi-Layer And Pad P1-(47.5mm,22.8mm) on Top. Minimum Solder Mask Sliver Constraint: (0.105mm < 0.254mm) Between Pad P1-(46mm, 7.95mm) on Multi-Layer And Pad P1-(47.5mm, 7.2mm) on Top Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R20-1(48.8mm,48.18mm) on Top Layer And Pad R20-2(48.8mm,47.3mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R20-2(48.8mm,47.3mm) on Top Layer And Pad R20-3(48.8mm,46.5mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R20-3(48.8mm, 46.5mm) on Top Layer And Pad R20-4(48.8mm, 45.62mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R20-5(50.2mm, 45.62mm) on Top Layer And Pad R20-6(50.2mm, 46.5mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R20-6(50.2mm,46.5mm) on Top Layer And Pad R20-7(50.2mm,47.3mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R20-7(50.2mm,47.3mm) on Top Layer And Pad R20-8(50.2mm,48.18mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R22-1(22.12mm,11.7mm) on Top Layer And Pad R22-2(23mm,11.7mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R22-2(23mm, 11.7mm) on Top Layer And Pad R22-3(23.8mm, 11.7mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R22-3(23.8mm,11.7mm) on Top Layer And Pad R22-4(24.68mm,11.7mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R22-5(24.68mm, 13.1mm) on Top Layer And Pad R22-6(23.8mm, 13.1mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R22-6(23.8mm,13.1mm) on Top Layer And Pad R22-7(23mm,13.1mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R22-7(23mm, 13.1mm) on Top Layer And Pad R22-8(22.12mm, 13.1mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R23-1(32.22mm,62.8mm) on Top Layer And Pad R23-2(33.1mm,62.8mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R23-2(33.1mm.62.8mm) on Top Layer And Pad R23-3(33.9mm.62.8mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R23-3(33.9mm,62.8mm) on Top Layer And Pad R23-4(34.78mm,62.8mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R23-5(34.78mm,64.2mm) on Top Layer And Pad R23-6(33.9mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R23-6(33.9mm,64.2mm) on Top Layer And Pad R23-7(33.1mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R23-7(33.1mm,64.2mm) on Top Layer And Pad R23-8(32.22mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R3-1(48.7mm, 37.88mm) on Top Layer And Pad R3-2(48.7mm, 37mm) on Top. Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R3-2(48.7mm.37mm) on Top Layer And Pad R3-3(48.7mm.36.2mm) on Tor Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R3-3(48.7mm, 36.2mm) on Top Layer And Pad R3-4(48.7mm, 35.32mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R33-1(8.3mm,53.8mm) on Top Layer And Pad R33-2(8.3mm,52.92mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R33-2(8.3mm,52.92mm) on Top Layer And Pad R33-3(8.3mm,52.12mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R33-3(8.3mm,52.12mm) on Top Layer And Pad R33-4(8.3mm,51.24mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R33-5(9.7mm,51.24mm) on Top Layer And Pad R33-6(9.7mm,52.12mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R33-6(9.7mm,52.12mm) on Top Layer And Pad R33-7(9.7mm,52.92mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R33-7(9.7mm,52.92mm) on Top Layer And Pad R33-8(9.7mm,53.8mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R3-5(50.1mm, 35.32mm) on Top Layer And Pad R3-6(50.1mm, 36.2mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R35-1(18.72mm,62.8mm) on Top Layer And Pad R35-2(19.6mm,62.8mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R35-2(19.6mm,62.8mm) on Top Layer And Pad R35-3(20.4mm,62.8mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R35-3(20.4mm,62.8mm) on Top Layer And Pad R35-4(21.28mm,62.8mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R35-5(21.28mm,64.2mm) on Top Layer And Pad R35-6(20.4mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R35-6(20.4mm,64.2mm) on Top Layer And Pad R35-7(19.6mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R35-7(19.6mm,64.2mm) on Top Layer And Pad R35-8(18.72mm,64.2mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R3-6(50.1mm,36.2mm) on Top Layer And Pad R3-7(50.1mm,37mm) on Top Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R3-7(50.1mm,37mm) on Top Layer And Pad R3-8(50.1mm,37.88mm) on Tor Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R4-1(54.02mm,62.6mm) on Top Layer And Pad R4-2(54.9mm,62.6mm) or Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R4-2(54.9mm,62.6mm) on Top Layer And Pad R4-3(55.7mm,62.6mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R4-3(55.7mm,62.6mm) on Top Layer And Pad R4-4(56.58mm,62.6mm) or Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R4-5(56.58mm,64mm) on Top Layer And Pad R4-6(55.7mm,64mm) on Top Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad R4-6(55.7mm,64mm) on Top Layer And Pad R4-7(54.9mm,64mm) on Top. Minimum Solder Mask Sliver Constraint: (0.107mm < 0.254mm) Between Pad R4-7(54.9mm, 64mm) on Top Layer And Pad R4-8(54.02mm, 64mm) on Top Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-1(23.15mm, 15.95mm) on Top Layer And Pad U1-2(23.8mm, 15.95mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-10(25.75mm,21.65mm) on Top Layer And Pad U1-11(25.1mm,21.65mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-10(25.75mm, 21.65mm) on Top Layer And Pad U1-9(26.4mm, 21.65mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-11(25.1mm, 21.65mm) on Top Layer And Pad U1-12(24.45mm, 21.65mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-12(24.45mm, 21.65mm) on Top Layer And Pad U1-13(23.8mm, 21.65mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-13(23.8mm,21.65mm) on Top Layer And Pad U1-14(23.15mm,21.65mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-2(23.8mm,15.95mm) on Top Layer And Pad U1-3(24.45mm,15.95mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-3(24.45mm, 15.95mm) on Top Layer And Pad U1-4(25.1mm, 15.95mm) or

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| Minimum Calder Mack Cliver (Can. 0.3F Ann) (All)   |
|--|
| Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All) Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-4(25.1mm,15.95mm) on Top Layer And Pad U1-5(25.75mm,15.95mm) or   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-5(25.75mm, 15.95mm) on Top Layer And Pad U1-6(26.4mm, 15.95mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-6(26.4mm,15.95mm) on Top Layer And Pad U1-7(27.05mm,15.95mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U1-8(27.05mm, 21.65mm) on Top Layer And Pad U1-9(26.4mm, 21.65mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-1(53.25mm,66.85mm) on Top Layer And Pad U2-2(53.9mm,66.85mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-10(55.85mm,72.55mm) on Top Layer And Pad U2-11(55.2mm,72.55mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-10(55.85mm,72.55mm) on Top Layer And Pad U2-9(56.5mm,72.55mm) or   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-10(55.2mm, 72.55mm) on Top Layer And Pad U2-12(54.55mm, 72.55mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-12(54.55mm, 72.55mm) on Top Layer And Pad U2-13(53.9mm, 72.55mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-12(54.35mm, 72.55mm) on Top Layer And Pad U2-13(53.25mm, 72.55mm) or   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-2(53.9mm,66.85mm) on Top Layer And Pad U2-3(54.55mm,66.85mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-3(54.55mm,66.85mm) on Top Layer And Pad U2-4(55.2mm,66.85mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-4(55.2mm,66.85mm) on Top Layer And Pad U2-4(55.85mm,66.85mm) or  |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-5(55.85mm,66.85mm) on Top Layer And Pad U2-6(56.5mm,66.85mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-6(56.5mm,66.85mm) on Top Layer And Pad U2-7(57.15mm,66.85mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U2-8(57.15mm,72.55mm) on Top Layer And Pad U2-9(56.5mm,72.55mm) or Top Layer  |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-1(53.25mm,38.737mm) on Top Layer And Pad U3-2(53.25mm,38.087mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-10(58.95mm, 36.137mm) on Top Layer And Pad   |
| Minimum Solder Mask Sliver Constraint (0.2mm < 0.254mm) Between Pad U3-10(58.95mm,36.137mm) on Top Layer And Pad U3-9(58.95mm,35.487mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-11(58.95mm, 36.787mm) on Top Layer And Pad   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-12(58.95mm,37.437mm) on Top Layer And Pad  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-13(58.95mm, 38.087mm) on Top Layer And Pad U3-2/53 2/52mm, 20-2/52mm, 2 |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-2(53.25mm,38.087mm) on Top Layer And Pad U3-3(53.25mm,37.437mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-3(53.25mm, 37.437mm) on Top Layer And Pad U3-4(53.25mm, 36.787mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-4(53.25mm, 36.787mm) on Top Layer And Pad U3-5(53.25mm, 36.137mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-5(53.25mm,36.137mm) on Top Layer And Pad U3-6(53.25mm,35.487mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-6(53.25mm, 35.487mm) on Top Layer And Pad U3-7(53.25mm, 34.837mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U3-8(58.95mm,34.837mm) on Top Layer And Pad U3-9(58.95mm,35.487mm)  Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-1(53.25mm,48.15mm) on Top Layer And Pad U4-2(53.25mm,47.5mm) or   |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-10(58.95mm, 45.55mm) on Top Layer And Pad U4-11(58.95mm, 46.2mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-10(58.95mm, 45.55mm) on Top Layer And Pad U4-9(58.95mm, 44.9mm) or   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-11(58.95mm, 46.2mm) on Top Layer And Pad U4-12(58.95mm, 46.85mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-12(58.95mm,46.85mm) on Top Layer And Pad U4-13(58.95mm,47.5mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-13(58.95mm,47.5mm) on Top Layer And Pad U4-14(58.95mm,48.15mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-2(53.25mm,47.5mm) on Top Layer And Pad U4-3(53.25mm,46.85mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-3(53.25mm,46.85mm) on Top Layer And Pad U4-4(53.25mm,46.2mm) or  |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-4(53.25mm,46.2mm) on Top Layer And Pad U4-5(53.25mm,45.55mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-5(53.25mm,45.55mm) on Top Layer And Pad U4-6(53.25mm,44.9mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-6(53.25mm,44.9mm) on Top Layer And Pad U4-7(53.25mm,44.25mm) or  |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U4-8(58.95mm,44.25mm) on Top Layer And Pad U4-9(58.95mm,44.9mm) or  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-1(12.55mm,52.294mm) on Top Layer And Pad U5-2(12.55mm,51.644mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-10(18.25mm,49.694mm) on Top Layer And Pad  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-10(18.25mm, 49.694mm) on Top Layer And Pad U5-9(18.25mm, 49.044mm)   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-11(18.25mm,50.344mm) on Top Layer And Pad  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-12(18.25mm,50.994mm) on Top Layer And Pad  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-13(18.25mm,51.644mm) on Top Layer And Pad Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-13(18.25mm,51.644mm) on Top Layer And Pad U5-2/13 55mm 50.004mm)   |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-2(12.55mm,51.644mm) on Top Layer And Pad U5-3(12.55mm,50.994mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-3(12.55mm,50.994mm) on Top Layer And Pad U5-4(12.55mm,50.344mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-4(12.55mm,50.344mm) on Top Layer And Pad U5-5(12.55mm,49.694mm)  Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-5(12.55mm,49.694mm) on Top Layer And Pad U5-6(12.55mm,49.044mm)   |
|  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-6(12.55mm,49.044mm) on Top Layer And Pad U5-7(12.55mm,48.394mm)  |
| Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U5-8(18.25mm,48.394mm) on Top Layer And Pad U5-9(18.25mm,49.044mm)  |

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## Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)

Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-1(31.55mm,67.05mm) on Top Layer And Pad U6-2(32.2mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-10(34.15mm,72.75mm) on Top Layer And Pad U6-11(33.5mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-10(34.15mm,72.75mm) on Top Layer And Pad U6-9(34.8mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-11(33.5mm,72.75mm) on Top Layer And Pad U6-12(32.85mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-12(32.85mm,72.75mm) on Top Layer And Pad U6-13(32.2mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-13(32.2mm,72.75mm) on Top Layer And Pad U6-14(31.55mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-2(32.2mm,67.05mm) on Top Layer And Pad U6-3(32.85mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-3(32.85mm,67.05mm) on Top Layer And Pad U6-4(33.5mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-4(33.5mm,67.05mm) on Top Layer And Pad U6-5(34.15mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-5(34.15mm,67.05mm) on Top Layer And Pad U6-6(34.8mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-6(34.8mm,67.05mm) on Top Layer And Pad U6-7(35.45mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U6-8(35.45mm, 72.75mm) on Top Layer And Pad U6-9(34.8mm, 72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-1(18.05mm,67.05mm) on Top Layer And Pad U8-2(18.7mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-10(20.65mm, 72.75mm) on Top Layer And Pad U8-11(20mm, 72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-10(20.65mm,72.75mm) on Top Layer And Pad U8-9(21.3mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-11(20mm, 72.75mm) on Top Layer And Pad U8-12(19.35mm, 72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-12(19.35mm, 72.75mm) on Top Layer And Pad U8-13(18.7mm, 72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-13(18.7mm,72.75mm) on Top Layer And Pad U8-14(18.05mm,72.75mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-2(18.7mm,67.05mm) on Top Layer And Pad U8-3(19.35mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-3(19.35mm,67.05mm) on Top Layer And Pad U8-4(20mm,67.05mm) on Top Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-4(20mm,67.05mm) on Top Layer And Pad U8-5(20.65mm,67.05mm) on Top Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-5(20.65mm.67.05mm) on Top Laver And Pad U8-6(21.3mm.67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-6(21.3mm,67.05mm) on Top Layer And Pad U8-7(21.95mm,67.05mm) or Minimum Solder Mask Sliver Constraint: (0.2mm < 0.254mm) Between Pad U8-8(21.95mm, 72.75mm) on Top Layer And Pad U8-9(21.3mm, 72.75mm) or

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| Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)  |
|--|
| Silk To Solder Mask Clearance Constraint: (0.012mm < 0.254mm) Between Arc (18.662mm,62.338mm) on Top Overlay And Pad R35-1(18.72mm,62.8mm)   |
| Silk To Solder Mask Clearance Constraint: (0.012mm < 0.254mm) Between Arc (22.062mm,11.238mm) on Top Overlay And Pad R22-1(22.12mm,11.7mm)   |
| Silk To Solder Mask Clearance Constraint: (0.012mm < 0.254mm) Between Arc (32.162mm,62.338mm) on Top Overlay And Pad R23-1(32.22mm,62.8mm)   |
| Silk To Solder Mask Clearance Constraint: (0.169mm < 0.254mm) Between Arc (48.238mm, 37.938mm) on Top Overlay And Pad R3-1(48.7mm, 37.88mm)  |
| Silk To Solder Mask Clearance Constraint: (0.169mm < 0.254mm) Between Arc (48.338mm, 48.238mm) on Top Overlay And Pad R20-1(48.8mm, 48.18mm)   |
| Silk To Solder Mask Clearance Constraint: (0.109/mm < 0.254mm) Between Arc (53.962mm,62.138mm) on Top Overlay And Pad R4-1(54.02mm,62.6mm)   |
|  |
| Silk To Solder Mask Clearance Constraint: (0.169mm < 0.254mm) Between Arc (7.838mm,53.858mm) on Top Overlay And Pad R33-1(8.3mm,53.8mm) or   |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad C13-1(31.275mm,76.8mm) on Top Layer And Text "R24"   |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad C13-2(29.925mm,76.8mm) on Top Layer And Text "R24"   |
| Silk To Solder Mask Clearance Constraint: (0.25mm < 0.254mm) Between Pad C13-2(29.925mm,76.8mm) on Top Layer And Text "R31" (27.3mm,77.4mm)  |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D1-2(42.5mm,34.3mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D2-2(63.489mm,60.225mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D3-2(40mm,60.536mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D4-2(26.6mm,60.6mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D5-2(42.6mm,44.6mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D6-2(31.2mm,11.436mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.247mm < 0.254mm) Between Pad D7-2(8.1mm,45mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED10-2(18.3mm,55.4mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED11-2(25.25mm,72.81mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED1-2(14.4mm, 13.2mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED12-2(14.6mm,72.7mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED3-2(58.99mm,41.85mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED4-2(49.8mm, 72.6mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED5-2(60.8mm, 72.5mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED6-2(58.89mm,51.45mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED7-2(19.6mm,21.7mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED8-2(38.65mm,72.81mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED9-2(28.35mm,72.79mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.223mm < 0.254mm) Between Pad P1-1(49.3mm,21mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.223mm < 0.254mm) Between Pad P1-25(49.3mm,9mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.239mm < 0.254mm) Between Pad P1-26(45.7mm,9mm) on Top Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.239mm < 0.254mm) Between Pad P1-50(45.7mm,21mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.187mm < 0.254mm) Between Pad P2-0(72.34mm,33.9mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P2-0(72.34mm,33.9mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.252mm < 0.254mm) Between Pad P2-0(72.34mm,48.9mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P2-0(72.34mm,48.9mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.187mm < 0.254mm) Between Pad P3-0(5.06mm, 13.3mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P3-0(5.06mm, 13.3mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P3-0(5.06mm, 37.3mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.252mm < 0.254mm) Between Pad P3-0(5.06mm,37.3mm) on Multi-Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.229mm < 0.254mm) Between Pad P5-0(24.1mm,85.94mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P5-0(24.1mm,85.94mm) on Multi-Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.236mm < 0.254mm) Between Pad P5-0(36.1mm,85.94mm) on Multi-Layer And Track  |
| ·  |
| Silk To Solder Mask Clearance Constraint: (0.213mm < 0.254mm) Between Pad P5-0(36.1mm,85.94mm) on Multi-Layer And Track  Silk To Solder Mask Clearance Constraint: (0.179mm < 0.254mm) Between Pad P7-0(25.1mm,47.56mm) on Multi-Layer And Track |
| ·  |
| Silk To Solder Mask Clearance Constraint: (0.147mm < 0.254mm) Between Pad P7-0(25.1mm, 47.56mm) on Multi-Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.147mm < 0.254mm) Between Pad P7-0(31.1mm, 47.56mm) on Multi-Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.213mm < 0.254mm) Between Pad P7-0(31.1mm, 47.56mm) on Multi-Layer And Track   |
| Silk To Solder Mask Clearance Constraint: (0.148mm < 0.254mm) Between Pad TP8-1(8.35mm, 2.3mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.123mm < 0.254mm) Between Pad TP8-1(8.35mm, 2.3mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.148mm < 0.254mm) Between Pad TP8-1(8.35mm, 2.3mm) on Top Layer And Track  |
| Silk To Solder Mask Clearance Constraint: (0.123mm < 0.254mm) Between Pad TP8-1(9.9mm, 2.3mm) on Top Layer And Track   |

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| Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)   |
|---|
| Silk To Solder Mask Clearance Constraint: (0.148mm < 0.254mm) Between Pad TP8-1(9.9mm, 2.3mm) on Top Layer And Track          |
| Silk To Solder Mask Clearance Constraint: (0.148mm < 0.254mm) Between Pad TP8-1(9.9mm, 2.3mm) on Top Layer And Track          |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad U2-1(53.25mm,66.85mm) on Top Layer And Text "R10" |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad U2-1(53.25mm,66.85mm) on Top Layer And Text "R4"  |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad U2-2(53.9mm,66.85mm) on Top Layer And Text "R10"  |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad U2-2(53.9mm,66.85mm) on Top Layer And Text "R4"   |
| Silk To Solder Mask Clearance Constraint: (Collision < 0.254mm) Between Pad U2-3(54.55mm,66.85mm) on Top Layer And Text "R4"  |
| Silk To Solder Mask Clearance Constraint: (0.176mm < 0.254mm) Between Pad U2-4(55.2mm,66.85mm) on Top Layer And Text "R4"     |

| Silk to Silk (Clearance=0.254mm) (AII),(AII)  |
|---|
| Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Arc (53.25mm,65.6mm) on Top Overlay And Text "R10" (51.629mm,65.634mm) on Top. |
| Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Arc (53.25mm,65.6mm) on Top Overlay And Text "R4" (53.508mm,65.583mm) on Top   |
| Silk To Silk Clearance Constraint: (0.198mm < 0.254mm) Between Text "1" (12.7mm,34.2mm) on Top Overlay And Track                                |
| Silk To Silk Clearance Constraint: (0.098mm < 0.254mm) Between Text "1" (28.3mm,46.1mm) on Top Overlay And Track                                |
| Silk To Silk Clearance Constraint: (0.198mm < 0.254mm) Between Text "1" (33mm,78.3mm) on Top Overlay And Track                                  |
| Silk To Silk Clearance Constraint: (0.198mm < 0.254mm) Between Text "1" (64.7mm,37mm) on Top Overlay And Track                                  |
| Silk To Silk Clearance Constraint: (0.198mm < 0.254mm) Between Text "14" (3.5mm, 15.7mm) on Top Overlay And Track                               |
| Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Text "6" (26.85mm,87.25mm) on Top Overlay And Track                            |
| Silk To Silk Clearance Constraint: (0.198mm < 0.254mm) Between Text "8" (73.9mm, 46.1mm) on Top Overlay And Track                               |
| Silk To Silk Clearance Constraint: (0.168mm < 0.254mm) Between Text "LED12" (10mm,72.3mm) on Top Overlay And Track                              |
| Silk To Silk Clearance Constraint: (0.216mm < 0.254mm) Between Text "LED8" (39.7mm,72.4mm) on Top Overlay And Track                             |
| Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Text "R10" (51.629mm,65.634mm) on Top Overlay And Text "R4"                    |

