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>> test_class
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Evaluation Form DIAG Outputs
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| Label                                 | Value        | Units  |
|---------------------------------------|--------------|--------|
| Range BS - Near                       | 1.206675E+01 | km     |
| Range BS - Mid                        | 1.220413E+01 | km     |
| Range BS - Far                        | 1.234547E+01 | km     |
| Pulse Range Rez - Near                | 1.840255E+01 | m      |
| Pulse Range Rez - Mid                 | 1.829895E+01 | m      |
| Pulse Range Rez - Far                 | 1.819767E+01 | m      |
| Pulse Azimuth Rez - Near              | 5.674540E+01 | m      |
| Pulse Azimuth Rez - Mid               | 5.739146E+01 | m      |
| Pulse Azimuth Rez - Far               | 5.805615E+01 | m      |
| Pulse IFOV - Near                     | 1.044260E+03 | m^2    |
| Pulse IFOV - Mid                      | 1.050203E+03 | m^2    |
| Pulse IFOV - Far                      | 1.056486E+03 | m^2    |
| BS Tgt. Xsect. - Near                 | 1.028382E+01 | m^2    |
| BS Tgt. Xsect. - Mid                  | 1.024204E+01 | m^2    |
| BS Tgt. Xsect. - Far                  | 1.019525E+01 | m^2    |
| Clutter Eff. Xsect. - Near            | 1.634222E+01 | m^2    |
| Clutter Eff. Xsect. - Mid             | 1.622546E+01 | m^2    |
| Clutter Eff. Xsect. - Far             | 1.611413E+01 | m^2    |
| T/C - Near                            | -2.011568    | dB     |
| T/C - Mid                             | -1.998104    | dB     |
| T/C - Far                             | -1.988088    | dB     |
| T/N - Near                            | 15.828986    | dB     |
| T/N - Mid                             | 15.575393    | dB     |
| T/N - Far                             | 15.315084    | dB     |
| Cltr/N - Near                         | 17.840554    | dB     |
| Cltr/N - Mid                          | 17.573498    | dB     |
| Cltr/N - Far                          | 17.303172    | dB     |
| T/(C+N) - Near                        | -2.082393    | dB     |
| T/(C+N) - Mid                         | -2.073382    | dB     |
| T/(C+N) - Far                         | -2.068156    | dB     |
| TOT                                   | 5.283150E-04 | sec    |
| POT                                   | 184.000000   | pulses |
| P_det 1Look - Near                    | 0.758284     | prob   |
| P_det 1Look - Mid                     | 0.761840     | prob   |
| P_det 1Look - Far                     | 0.763891     | prob   |
| P_det (2 of 4) - Near                 | 0.953750     | prob   |
| P_det (2 of 4) - Mid                  | 0.955618     | prob   |
| P_det (2 of 4) - Far                  | 0.956673     | prob   |
| Doppler Precision W/C - Near          | 4.372025E+01 | Hz     |
| Doppler Precision W/C - Mid           | 4.501552E+01 | Hz     |
| Doppler Precision W/C - Far           | 4.638502E+01 | Hz     |
| Nyquist Req'd. for Doppler Max - Near | 8.558596E+04 | Hz     |
| Nyquist Req'd. for Doppler Max - Mid  | 8.607051E+04 | Hz     |

|                                      |              |     |
|--------------------------------------|--------------|-----|
| Nyquist Req'd. for Doppler Max - Far | 8.654956E+04 | Hz  |
| Ant. FP. Length                      | 3.402520E-01 | km  |
| Ant. Scan Overlap                    | 0.933728     | pct |
| B_elev                               | 9.160983E-01 | deg |
| B_azim                               | 2.694407E-01 | deg |
| Radar Xfactor - Near                 | 38.822862    | dB  |
| Radar Xfactor - Mid                  | 38.783610    | dB  |
| Radar Xfactor - Far                  | 38.743226    | dB  |

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Evaluation Form EVAL Outputs

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| Label                                | Value        | Units    |
|--------------------------------------|--------------|----------|
| Swath Width                          | 2.022679E+01 | km       |
| [IN] Tx Pulse Width                  | 1.000000E-07 | sec      |
| [IN] Ant Size Azimuth                | 8.500000E-01 | m        |
| [IN] Ant. Size Elevation             | 2.500000E-01 | m        |
| Min. Grazing Angle                   | 3.545805E+01 | deg      |
| Max PRF Supported                    | 5.377886E+05 | Hz       |
| [IN] Selected PRF                    | 3.500000E+05 | Hz       |
| T_spin / T_fa                        | 3.400000E+02 | spins/fa |
| [IN] Ant. Spin Rate                  | 8.500000E+01 | rpm      |
| [IN] Design Scan Qty. on Tgt.        | 5.000000E+00 | scans    |
| Min. Spin Rate Supported             | 8.262433E+01 | rpm      |
| Worst Case T_warn                    | 1.174166E+01 | sec      |
| Tx Duty Cycle                        | 3.500000E-02 | sec      |
| BS Range Resolution (far?)           | 1.819767E+01 | m        |
| BS Azimuth Resolution (far?)         | 5.805615E+01 | m        |
| P_det - Near                         | 0.758284     | ratio    |
| P_det - Mid                          | 0.761840     | ratio    |
| P_det - Far                          | 0.763891     | ratio    |
| Doppler TOT (incl. design scan qty.) | 2.641575E-03 | sec      |
| Nyquist PRF for Doppler Meas.        | 8.654956E+04 | Hz       |
| Max Req'd. Doppler Freq.             | 4.327478E+04 | Hz       |
| Worst Case Doppler Precision         | 4.638502E+01 | Hz       |

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Evaluation Form DPLR Outputs

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| Label                  | Value      | Units |
|------------------------|------------|-------|
| Case1   Center   Delta | 27.476050  | kHz   |
| Case1   Center   Total | 43.274779  | kHz   |
| Case1   Edge   Delta   | 27.476050  | kHz   |
| Case1   Edge   Total   | 29.127467  | kHz   |
| Case2   Center   Delta | -27.170146 | kHz   |
| Case2   Center   Total | -11.547312 | kHz   |
| Case2   Edge   Delta   | -27.170146 | kHz   |
| Case2   Edge   Total   | -25.537115 | kHz   |

|                                     |            |      |
|-------------------------------------|------------|------|
| Case3   Center+   Delta             | 13.738025  | kHz  |
| Case3   Center+   Total             | 29.536754  | kHz  |
| Case3   Center-   Delta             | -13.585073 | kHz  |
| Case3   Center-   Total             | 2.060704   | kHz  |
| Case3   Edge+   Delta               | 13.738025  | kHz  |
| Case3   Edge+   Total               | 15.389442  | kHz  |
| Case3   Edge-   Delta               | -13.585073 | kHz  |
| Case3   Edge-   Total               | -11.952042 | kHz  |
| Case4   Center   Delta              | 6.869012   | kHz  |
| Case4   Center   Total              | 22.667741  | kHz  |
| Min Delta Supported by Dplr. Prcsn. | 1.000000   | bool |
| Max Total Supported by PRF          | 1.000000   | bool |

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Requirements Check

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Warning: Couldn't find a spec to eval pulse width against!

> In UAVRadarModel\_NoSyms.get.requirements\_check (line 2170)

In test\_class (line 88)

dictionary (string  $\mapsto$  uint8) with 22 entries:

|                                     |             |
|-------------------------------------|-------------|
| "swath_width"                       | $\mapsto$ 1 |
| "ant_dim_azim"                      | $\mapsto$ 1 |
| "ant_dim_elev"                      | $\mapsto$ 1 |
| "ant_bs_grazing_ang_far"            | $\mapsto$ 1 |
| "prf_compat_with_delta_range"       | $\mapsto$ 1 |
| "tfa_tspin_ratio"                   | $\mapsto$ 1 |
| "ant_spin_rate"                     | $\mapsto$ 1 |
| "scan_qty_on_tgt_intent"            | $\mapsto$ 1 |
| "ant_spin_rate_ensures_nomissedtgt" | $\mapsto$ 1 |
| "t_warn"                            | $\mapsto$ 1 |
| "tx_duty_cycle_search"              | $\mapsto$ 1 |
| "tx_duty_cycle_doppler"             | $\mapsto$ 1 |
| "fov_range_gate"                    | $\mapsto$ 1 |
| "fov_azimuth"                       | $\mapsto$ 1 |
| "p_det_for_tot_near"                | $\mapsto$ 1 |
| "p_det_for_tot_mid"                 | $\mapsto$ 1 |
| "p_det_for_tot_far"                 | $\mapsto$ 1 |
| "tx_prf"                            | $\mapsto$ 1 |
| "prf_meets_nyquist_wc"              | $\mapsto$ 1 |
| "doppler_precision_wc"              | $\mapsto$ 1 |
| "tx_power"                          | $\mapsto$ 1 |
| "doppler_prcsn_detects_min_delta"   | $\mapsto$ 1 |

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Goals Check

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dictionary (string  $\mapsto$  single) with 9 entries:

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"ant_dim_elev"           ↪ 0.8300
"ant_dim_azim"           ↪ 0.1700
"scan_qty_on_tgt_intent" ↪ 0.1000
"ant_spin_rate"          ↪ 0.3700
"t_warn"                 ↪ 0.0200
"p_det_nofm_wc"          ↪ 1
"doppler_precision"      ↪ 1
"tx_power"               ↪ 0.7100
"swath_width"            ↪ 0.1200
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debug hold
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