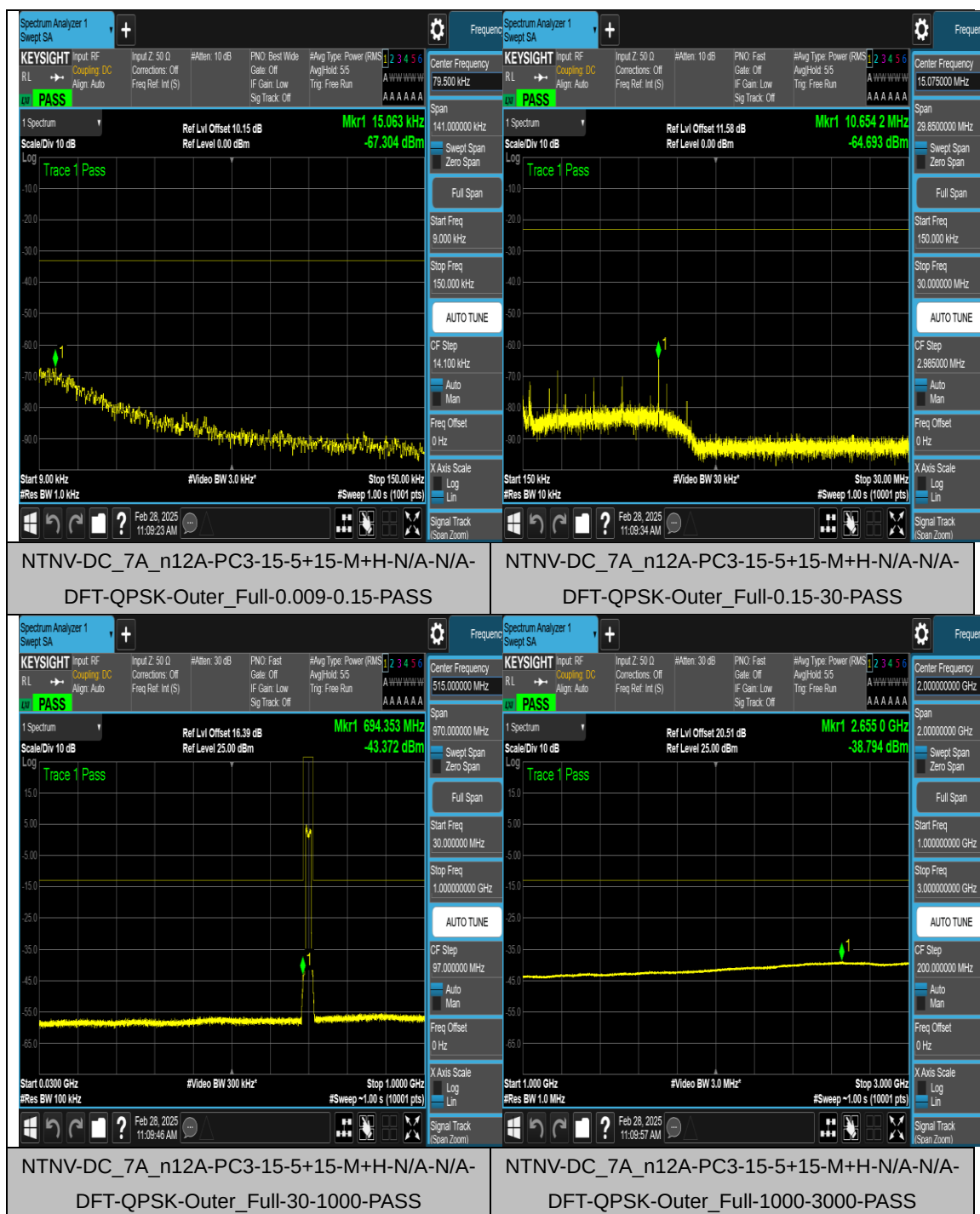




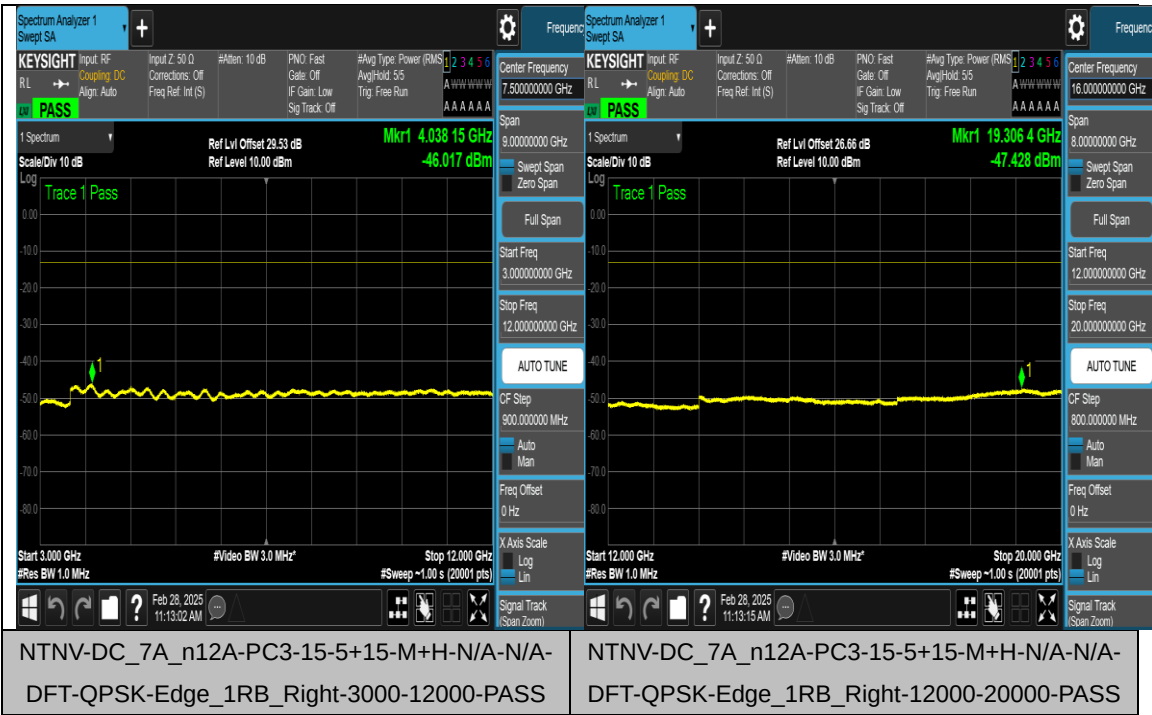












## Appendix F: Frequency Stability for NSA

### Test Result

#### Frequency Error VS. Voltage

| Band       | SCS | Bandwidth | Modulation | Channel | RB Config  | Voltage | Temperature | Deviation(Hz) | Deviation (ppm) | Verdict |
|------------|-----|-----------|------------|---------|------------|---------|-------------|---------------|-----------------|---------|
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | VL      | NT          | 0.630000      | 0.000898        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | VN      | NT          | 0.070000      | 0.000100        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | VH      | NT          | -0.290000     | -0.000413       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+L     | Outer_Full | VL      | NT          | -0.900000     | -0.001283       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+L     | Outer_Full | VN      | NT          | -0.440000     | -0.000627       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+L     | Outer_Full | VH      | NT          | 0.290000      | 0.000413        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+M     | Outer_Full | VL      | NT          | 0.020000      | 0.000028        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+M     | Outer_Full | VN      | NT          | 0.050000      | 0.000071        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+M     | Outer_Full | VH      | NT          | -0.250000     | -0.000353       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+M     | Outer_Full | VL      | NT          | -0.310000     | -0.000438       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+M     | Outer_Full | VN      | NT          | 0.200000      | 0.000283        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+M     | Outer_Full | VH      | NT          | 0.350000      | 0.000495        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+H     | Outer_Full | VL      | NT          | -0.150000     | -0.000210       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+H     | Outer_Full | VN      | NT          | -0.760000     | -0.001065       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+H     | Outer_Full | VH      | NT          | 0.050000      | 0.000070        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+H     | Outer_Full | VL      | NT          | 0.480000      | 0.000673        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+H     | Outer_Full | VN      | NT          | -0.230000     | -0.000322       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-16QAM  | M+H     | Outer_Full | VH      | NT          | -0.640000     | -0.000897       | PASS    |



|                |    |      |           |     |            |    |    |           |           |      |
|----------------|----|------|-----------|-----|------------|----|----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |    |           |           |      |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | VL | NT | -0.080000 | -0.000114 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | VN | NT | -0.450000 | -0.000639 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | VH | NT | -0.120000 | -0.000170 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | VL | NT | -0.170000 | -0.000241 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | VN | NT | 0.730000  | 0.001037  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | VH | NT | -0.310000 | -0.000440 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | VL | NT | -0.090000 | -0.000127 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | VN | NT | 0.080000  | 0.000113  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | VH | NT | 0.550000  | 0.000777  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | VL | NT | 0.050000  | 0.000071  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | VN | NT | -0.040000 | -0.000057 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | VH | NT | -0.510000 | -0.000721 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | VL | NT | -0.510000 | -0.000717 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | VN | NT | 0.530000  | 0.000745  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | VH | NT | -0.420000 | -0.000591 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | VL | NT | -0.040000 | -0.000056 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | VN | NT | -1.030000 | -0.001449 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | VH | NT | 0.260000  | 0.000366  | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | VL | NT | -3.140000 | -0.004444 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | VN | NT | -4.540000 | -0.006426 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | VH | NT | -4.000000 | -0.005662 | PASS |

|            |    |      |           |     |            |    |    |           |           |      |
|------------|----|------|-----------|-----|------------|----|----|-----------|-----------|------|
| n12A       |    |      |           |     |            |    |    |           |           |      |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | VL | NT | -3.950000 | -0.005591 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | VN | NT | -4.030000 | -0.005704 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | VH | NT | -3.810000 | -0.005393 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | VL | NT | -3.610000 | -0.005102 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | VN | NT | -4.170000 | -0.005894 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | VH | NT | -3.710000 | -0.005244 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | VL | NT | -3.760000 | -0.005314 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | VN | NT | -4.310000 | -0.006092 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | VH | NT | -4.110000 | -0.005809 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | VL | NT | -4.110000 | -0.005801 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | VN | NT | -4.030000 | -0.005688 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | VH | NT | -4.360000 | -0.006154 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | VL | NT | -3.950000 | -0.005575 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | VN | NT | -4.110000 | -0.005801 | PASS |
| DC_7A_n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | VH | NT | -3.620000 | -0.005109 | PASS |

### Frequency Error VS. Temperature

| Band       | SCS | Bandwidth | Modulation | Channel | RB Config  | Voltage | Temperature | Deviation(Hz) | Deviation (ppm) | Verdict |
|------------|-----|-----------|------------|---------|------------|---------|-------------|---------------|-----------------|---------|
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | NV      | -30         | -0.880000     | -0.001254       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | NV      | -20         | -0.590000     | -0.000841       | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | NV      | -10         | 0.050000      | 0.000071        | PASS    |
| DC_7A_n12A | 15  | 5+5       | DFT-QPSK   | M+L     | Outer_Full | NV      | 0           | -0.630000     | -0.000898       | PASS    |

|                |    |     |           |     |            |    |     |           |           |      |
|----------------|----|-----|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |     |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+L | Outer_Full | NV | 10  | -0.490000 | -0.000699 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+L | Outer_Full | NV | 20  | -0.680000 | -0.000969 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+L | Outer_Full | NV | 30  | -0.500000 | -0.000713 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+L | Outer_Full | NV | 40  | -0.630000 | -0.000898 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+L | Outer_Full | NV | 50  | -1.040000 | -0.001483 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | -30 | -0.230000 | -0.000328 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | -20 | -0.430000 | -0.000613 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | -10 | -0.040000 | -0.000057 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 0   | -0.970000 | -0.001383 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 10  | -0.210000 | -0.000299 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 20  | -0.340000 | -0.000485 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 30  | -0.390000 | -0.000556 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 40  | -0.760000 | -0.001083 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+L | Outer_Full | NV | 50  | 0.170000  | 0.000242  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | -30 | -0.310000 | -0.000438 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | -20 | -0.260000 | -0.000367 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | -10 | -0.360000 | -0.000509 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 0   | -0.190000 | -0.000269 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 10  | -0.800000 | -0.001131 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 20  | -0.410000 | -0.000580 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 30  | -0.110000 | -0.000155 | PASS |

|                |    |     |           |     |            |    |     |           |           |      |
|----------------|----|-----|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |     |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 40  | 0.240000  | 0.000339  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+M | Outer_Full | NV | 50  | -0.730000 | -0.001032 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | -30 | -0.930000 | -0.001314 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | -20 | 0.000000  | 0.000000  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | -10 | -0.040000 | -0.000057 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 0   | 0.500000  | 0.000707  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 10  | -0.240000 | -0.000339 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 20  | -0.440000 | -0.000622 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 30  | 0.240000  | 0.000339  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 40  | -0.520000 | -0.000735 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+M | Outer_Full | NV | 50  | 0.080000  | 0.000113  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | -30 | -0.940000 | -0.001317 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | -20 | -0.700000 | -0.000981 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | -10 | -0.730000 | -0.001023 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 0   | -0.300000 | -0.000420 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 10  | -0.560000 | -0.000785 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 20  | -0.800000 | -0.001121 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 30  | 0.210000  | 0.000294  | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 40  | -0.240000 | -0.000336 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-QPSK  | M+H | Outer_Full | NV | 50  | -0.060000 | -0.000084 | PASS |
| DC_7A_<br>n12A | 15 | 5+5 | DFT-16QAM | M+H | Outer_Full | NV | -30 | -1.610000 | -0.002256 | PASS |

|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | -20 | -0.270000 | -0.000378 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | -10 | -0.740000 | -0.001037 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 0   | -0.940000 | -0.001317 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 10  | -0.490000 | -0.000687 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 20  | -0.890000 | -0.001247 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 30  | -0.190000 | -0.000266 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 40  | -0.380000 | -0.000533 | PASS |
| DC_7A_<br>n12A | 15 | 5+5  | DFT-16QAM | M+H | Outer_Full | NV | 50  | -0.430000 | -0.000603 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | -30 | -0.390000 | -0.000554 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | -20 | 0.530000  | 0.000753  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | -10 | 0.120000  | 0.000170  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 0   | -0.060000 | -0.000085 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 10  | -0.330000 | -0.000469 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 20  | -0.130000 | -0.000185 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 30  | 0.050000  | 0.000071  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 40  | 0.090000  | 0.000128  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+L | Outer_Full | NV | 50  | -0.310000 | -0.000440 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | -30 | -0.930000 | -0.001321 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | -20 | -0.220000 | -0.000313 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | -10 | 0.210000  | 0.000298  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 0   | 0.230000  | 0.000327  | PASS |

|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 10  | -0.100000 | -0.000142 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 20  | -0.750000 | -0.001065 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 30  | -0.080000 | -0.000114 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 40  | -0.270000 | -0.000384 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+L | Outer_Full | NV | 50  | -0.310000 | -0.000440 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | -30 | -0.130000 | -0.000184 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | -20 | -0.900000 | -0.001272 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | -10 | 0.330000  | 0.000466  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 0   | -0.830000 | -0.001173 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 10  | -0.320000 | -0.000452 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 20  | 0.500000  | 0.000707  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 30  | -0.190000 | -0.000269 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 40  | -0.440000 | -0.000622 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+M | Outer_Full | NV | 50  | -0.340000 | -0.000481 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | -30 | -0.450000 | -0.000636 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | -20 | -0.490000 | -0.000693 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | -10 | -0.860000 | -0.001216 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 0   | 0.150000  | 0.000212  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 10  | -0.760000 | -0.001074 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 20  | 0.250000  | 0.000353  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 30  | 0.210000  | 0.000297  | PASS |

|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 40  | -1.050000 | -0.001484 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+M | Outer_Full | NV | 50  | 1.050000  | 0.001484  | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | -30 | -0.640000 | -0.000900 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | -20 | -0.590000 | -0.000830 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | -10 | -0.330000 | -0.000464 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 0   | -1.020000 | -0.001435 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 10  | -0.260000 | -0.000366 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 20  | -0.220000 | -0.000309 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 30  | -0.280000 | -0.000394 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 40  | -0.650000 | -0.000914 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-QPSK  | M+H | Outer_Full | NV | 50  | -0.680000 | -0.000956 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | -30 | -0.670000 | -0.000942 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | -20 | -0.010000 | -0.000014 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | -10 | -1.080000 | -0.001519 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 0   | -0.240000 | -0.000338 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 10  | -0.050000 | -0.000070 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 20  | -0.570000 | -0.000802 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 30  | -0.200000 | -0.000281 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 40  | -0.440000 | -0.000619 | PASS |
| DC_7A_<br>n12A | 15 | 5+10 | DFT-16QAM | M+H | Outer_Full | NV | 50  | 0.330000  | 0.000464  | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | -30 | -4.240000 | -0.006001 | PASS |

|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | -20 | -3.680000 | -0.005209 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | -10 | -3.240000 | -0.004586 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 0   | -4.090000 | -0.005789 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 10  | -3.670000 | -0.005195 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 20  | -4.830000 | -0.006837 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 30  | -3.610000 | -0.005110 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 40  | -3.660000 | -0.005180 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+L | Outer_Full | NV | 50  | -4.710000 | -0.006667 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | -30 | -3.800000 | -0.005379 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | -20 | -4.570000 | -0.006469 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | -10 | -3.860000 | -0.005464 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 0   | -3.630000 | -0.005138 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 10  | -4.280000 | -0.006058 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 20  | -3.760000 | -0.005322 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 30  | -3.950000 | -0.005591 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 40  | -3.120000 | -0.004416 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+L | Outer_Full | NV | 50  | -4.630000 | -0.006553 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | -30 | -4.040000 | -0.005710 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | -20 | -3.700000 | -0.005230 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | -10 | -4.200000 | -0.005936 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 0   | -4.920000 | -0.006954 | PASS |



|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 10  | -4.130000 | -0.005837 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 20  | -3.450000 | -0.004876 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 30  | -3.630000 | -0.005131 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 40  | -4.030000 | -0.005696 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+M | Outer_Full | NV | 50  | -4.170000 | -0.005894 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | -30 | -3.420000 | -0.004834 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | -20 | -3.270000 | -0.004622 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | -10 | -4.290000 | -0.006064 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 0   | -4.350000 | -0.006148 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 10  | -4.890000 | -0.006912 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 20  | -4.620000 | -0.006530 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 30  | -3.720000 | -0.005258 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 40  | -4.160000 | -0.005880 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+M | Outer_Full | NV | 50  | -3.680000 | -0.005201 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | -30 | -4.019999 | -0.005674 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | -20 | -4.090000 | -0.005773 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | -10 | -4.170000 | -0.005886 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 0   | -3.120000 | -0.004404 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 10  | -3.920000 | -0.005533 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 20  | -4.139999 | -0.005843 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 30  | -4.120000 | -0.005815 | PASS |

|                |    |      |           |     |            |    |     |           |           |      |
|----------------|----|------|-----------|-----|------------|----|-----|-----------|-----------|------|
| n12A           |    |      |           |     |            |    |     |           |           |      |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 40  | -4.630000 | -0.006535 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-QPSK  | M+H | Outer_Full | NV | 50  | -3.530000 | -0.004982 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | -30 | -3.120000 | -0.004404 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | -20 | -4.430000 | -0.006253 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | -10 | -3.920000 | -0.005533 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 0   | -3.430000 | -0.004841 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 10  | -3.880000 | -0.005476 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 20  | -3.860000 | -0.005448 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 30  | -3.550000 | -0.005011 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 40  | -3.490000 | -0.004926 | PASS |
| DC_7A_<br>n12A | 15 | 5+15 | DFT-16QAM | M+H | Outer_Full | NV | 50  | -3.460000 | -0.004884 | PASS |