



## 7 APPENDIX:

### CA\_5B

### 26DB BANDWIDTH AND OCCUPIED BANDWIDTH

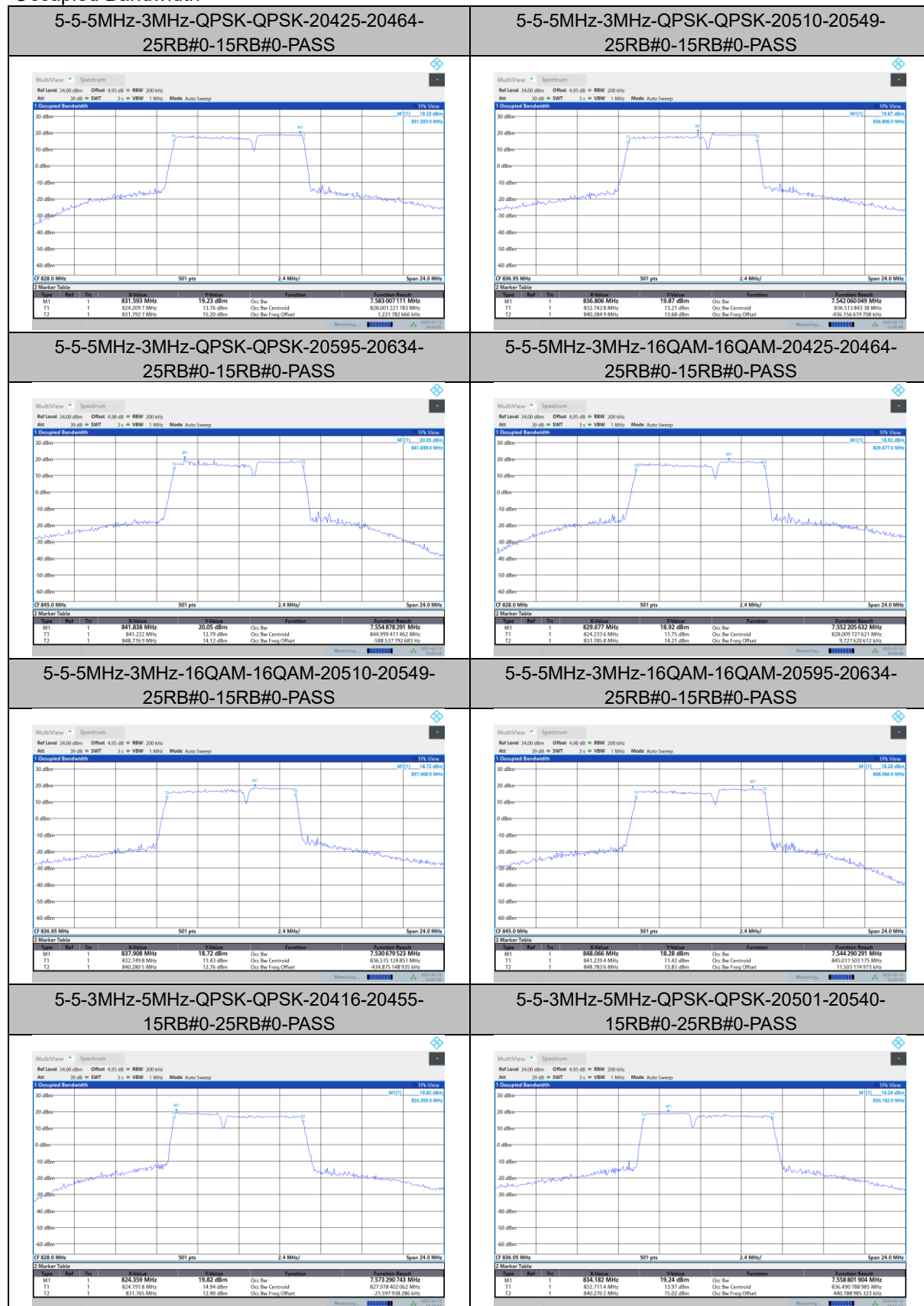
#### Test Result

| Band | Bandwidth   | Modulation  | Channel     | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|------|-------------|-------------|-------------|------------------|--------------------------|----------------------|---------|
| 5-5  | 5MHz-3MHz   | QPSK-QPSK   | 20425-20464 | 25RB#0-15RB#0    | 7.583                    | 8.06                 | PASS    |
| 5-5  | 5MHz-3MHz   | QPSK-QPSK   | 20510-20549 | 25RB#0-15RB#0    | 7.542                    | 8.06                 | PASS    |
| 5-5  | 5MHz-3MHz   | QPSK-QPSK   | 20595-20634 | 25RB#0-15RB#0    | 7.555                    | 8.01                 | PASS    |
| 5-5  | 5MHz-3MHz   | 16QAM-16QAM | 20425-20464 | 25RB#0-15RB#0    | 7.552                    | 8.06                 | PASS    |
| 5-5  | 5MHz-3MHz   | 16QAM-16QAM | 20510-20549 | 25RB#0-15RB#0    | 7.531                    | 8.01                 | PASS    |
| 5-5  | 5MHz-3MHz   | 16QAM-16QAM | 20595-20634 | 25RB#0-15RB#0    | 7.544                    | 8.01                 | PASS    |
| 5-5  | 3MHz-5MHz   | QPSK-QPSK   | 20416-20455 | 15RB#0-25RB#0    | 7.573                    | 8.03                 | PASS    |
| 5-5  | 3MHz-5MHz   | QPSK-QPSK   | 20501-20540 | 15RB#0-25RB#0    | 7.559                    | 8.01                 | PASS    |
| 5-5  | 3MHz-5MHz   | QPSK-QPSK   | 20586-20625 | 15RB#0-25RB#0    | 7.549                    | 8.03                 | PASS    |
| 5-5  | 3MHz-5MHz   | 16QAM-16QAM | 20416-20455 | 15RB#0-25RB#0    | 7.550                    | 7.96                 | PASS    |
| 5-5  | 3MHz-5MHz   | 16QAM-16QAM | 20501-20540 | 15RB#0-25RB#0    | 7.556                    | 8.03                 | PASS    |
| 5-5  | 3MHz-5MHz   | 16QAM-16QAM | 20586-20625 | 15RB#0-25RB#0    | 7.550                    | 8.01                 | PASS    |
| 5-5  | 10MHz-5MHz  | QPSK-QPSK   | 20450-20522 | 50RB#0-25RB#0    | 14.211                   | 14.88                | PASS    |
| 5-5  | 10MHz-5MHz  | QPSK-QPSK   | 20500-20572 | 50RB#0-25RB#0    | 14.152                   | 14.84                | PASS    |
| 5-5  | 10MHz-5MHz  | QPSK-QPSK   | 20550-20622 | 50RB#0-25RB#0    | 14.166                   | 14.84                | PASS    |
| 5-5  | 10MHz-5MHz  | 16QAM-16QAM | 20450-20522 | 50RB#0-25RB#0    | 14.175                   | 14.88                | PASS    |
| 5-5  | 10MHz-5MHz  | 16QAM-16QAM | 20500-20572 | 50RB#0-25RB#0    | 14.096                   | 14.88                | PASS    |
| 5-5  | 10MHz-5MHz  | 16QAM-16QAM | 20550-20622 | 50RB#0-25RB#0    | 14.144                   | 14.88                | PASS    |
| 5-5  | 5MHz-10MHz  | QPSK-QPSK   | 20428-20500 | 25RB#0-50RB#0    | 14.211                   | 14.88                | PASS    |
| 5-5  | 5MHz-10MHz  | QPSK-QPSK   | 20478-20550 | 25RB#0-50RB#0    | 14.153                   | 14.84                | PASS    |
| 5-5  | 5MHz-10MHz  | QPSK-QPSK   | 20528-20600 | 25RB#0-50RB#0    | 14.161                   | 14.79                | PASS    |
| 5-5  | 5MHz-10MHz  | 16QAM-16QAM | 20428-20500 | 25RB#0-50RB#0    | 14.169                   | 14.84                | PASS    |
| 5-5  | 5MHz-10MHz  | 16QAM-16QAM | 20478-20550 | 25RB#0-50RB#0    | 14.109                   | 14.79                | PASS    |
| 5-5  | 5MHz-10MHz  | 16QAM-16QAM | 20528-20600 | 25RB#0-50RB#0    | 14.108                   | 14.84                | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20450-20549 | 50RB#0-50RB#0    | 19.010                   | 20.08                | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20476-20575 | 50RB#0-50RB#0    | 18.965                   | 20.02                | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20501-20600 | 50RB#0-50RB#0    | 18.959                   | 20.02                | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20450-20549 | 50RB#0-50RB#0    | 19.041                   | 20.02                | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20476-20575 | 50RB#0-50RB#0    | 18.971                   | 19.96                | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20501-20600 | 50RB#0-50RB#0    | 18.928                   | 19.96                | PASS    |



## Test Graphs

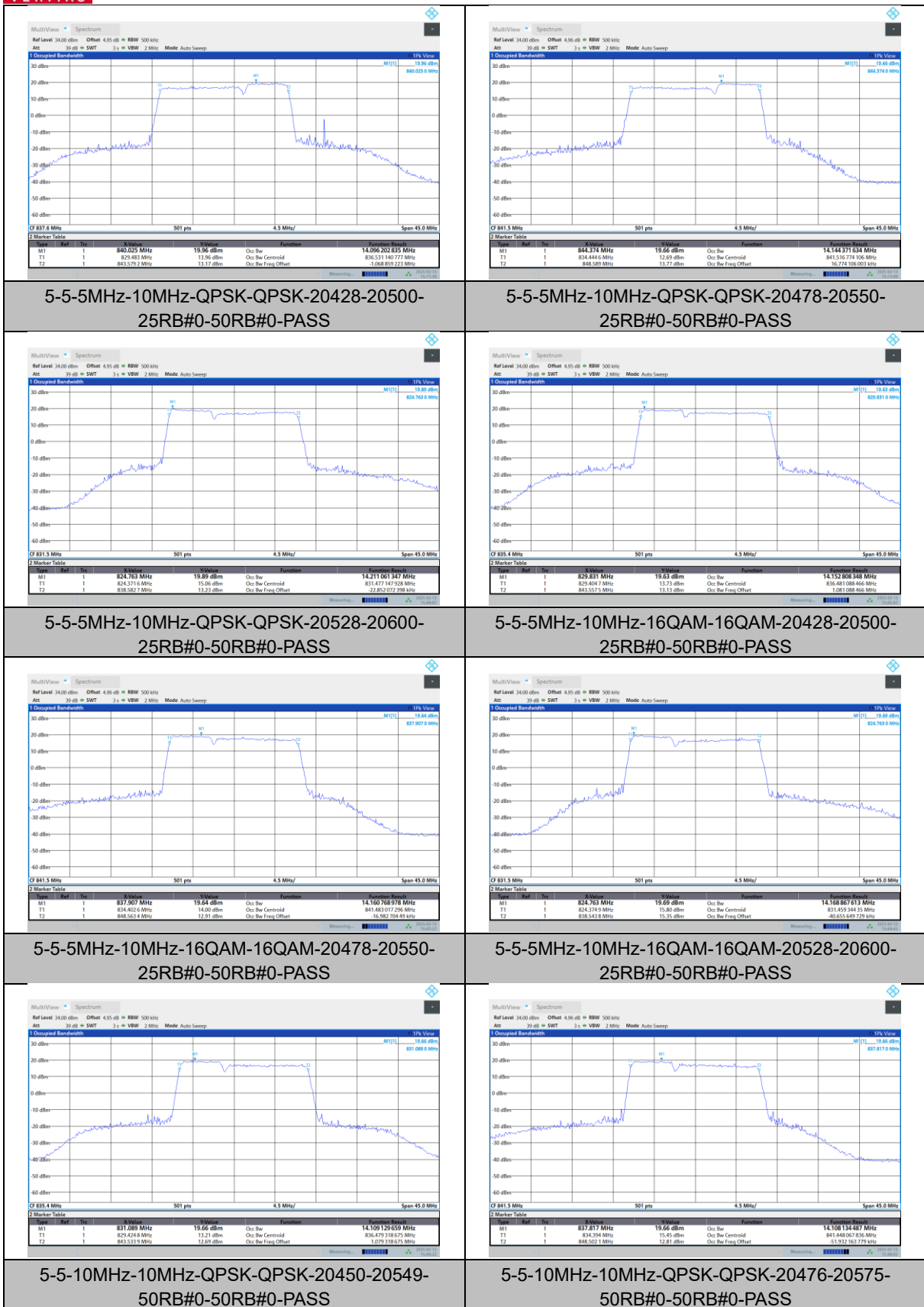
### Occupied Bandwidth

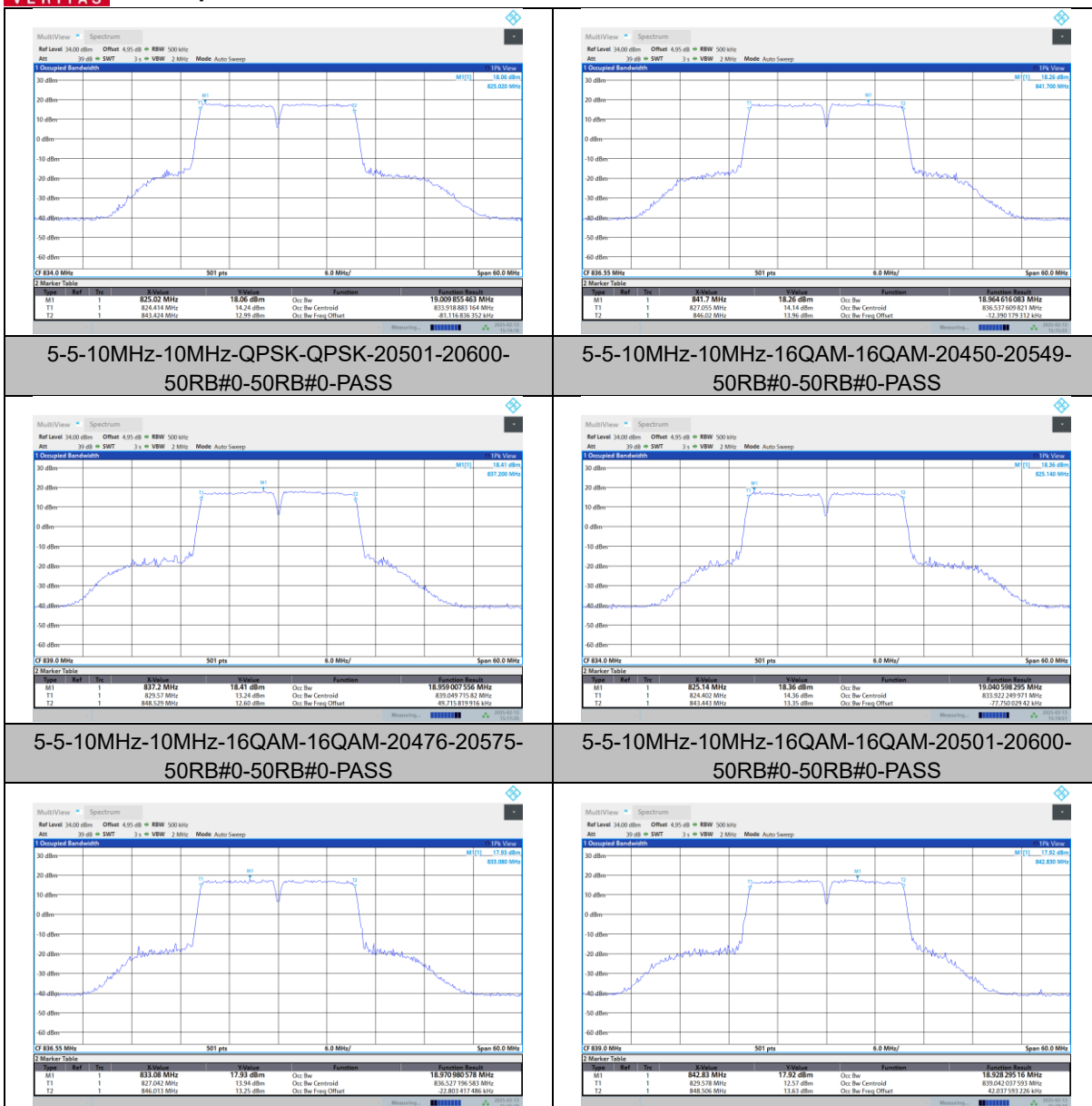




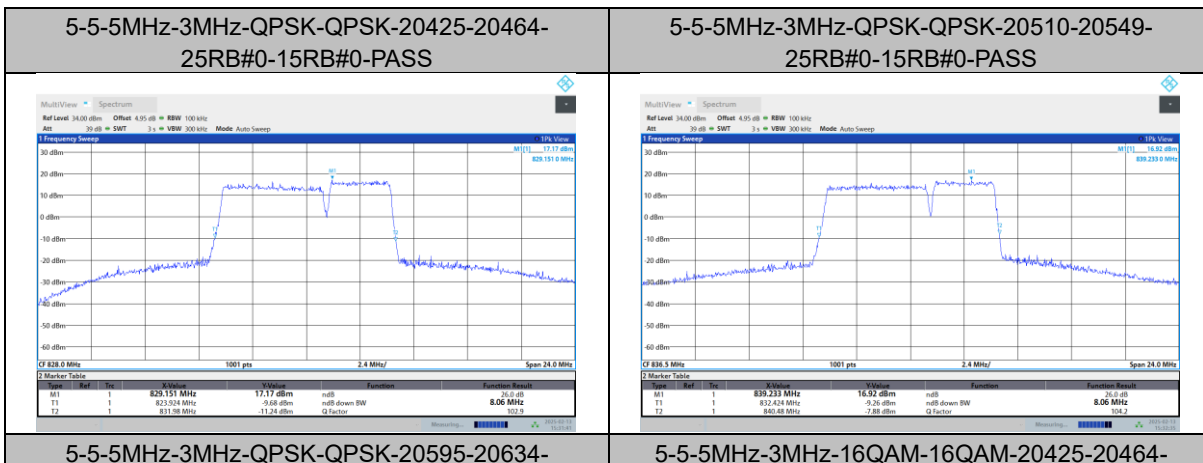


**BUREAU VERITAS** Test Report No.: PSU-NQN2412090210RF06



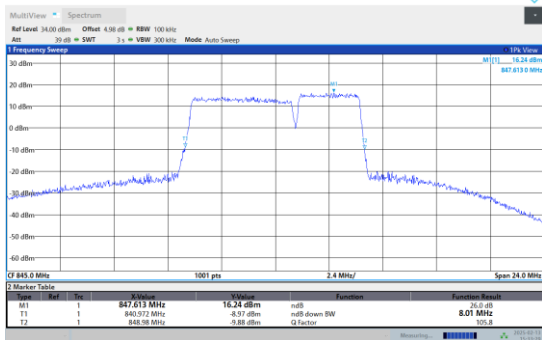


26dB Bandwidth

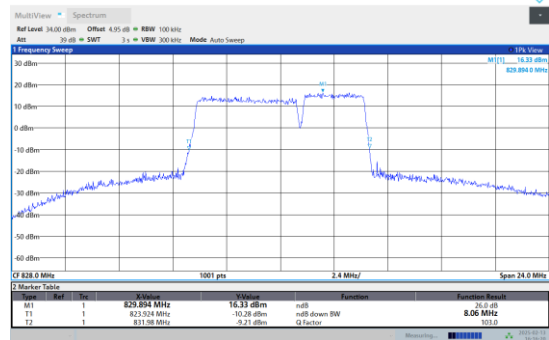




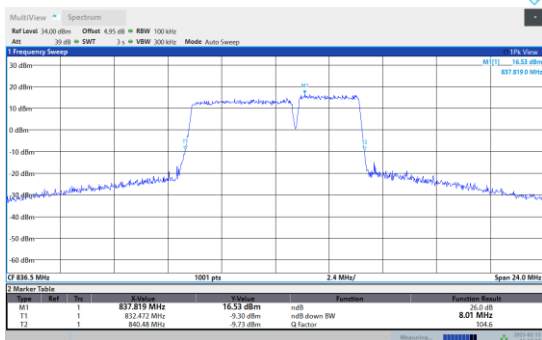
25RB#0-15RB#0-PASS



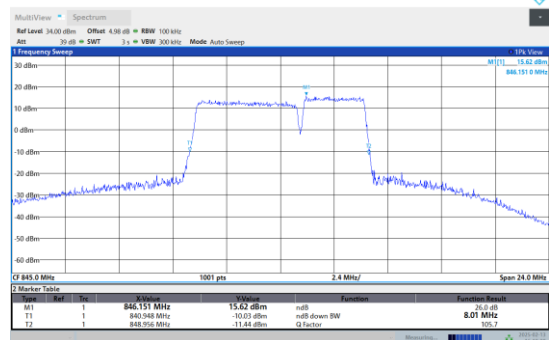
25RB#0-15RB#0-PASS



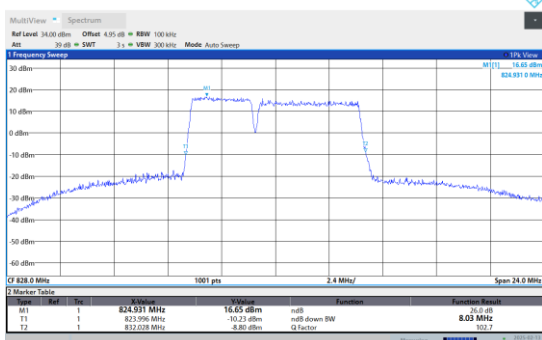
5-5-5MHz-3MHz-16QAM-16QAM-20510-20549-  
25RB#0-15RB#0-PASS



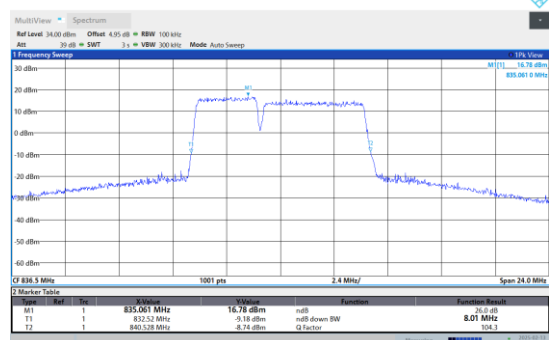
5-5-5MHz-3MHz-16QAM-16QAM-20595-20634-  
25RB#0-15RB#0-PASS



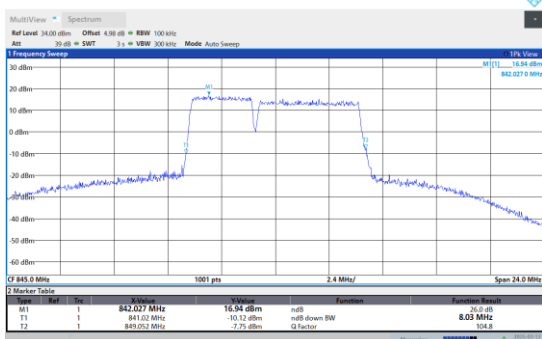
5-5-3MHz-5MHz-QPSK-QPSK-20416-20455-  
15RB#0-25RB#0-PASS



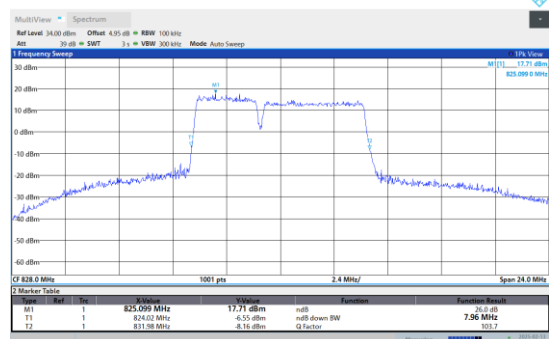
5-5-3MHz-5MHz-QPSK-QPSK-20501-20540-  
15RB#0-25RB#0-PASS



5-5-3MHz-5MHz-QPSK-QPSK-20586-20625-  
15RB#0-25RB#0-PASS

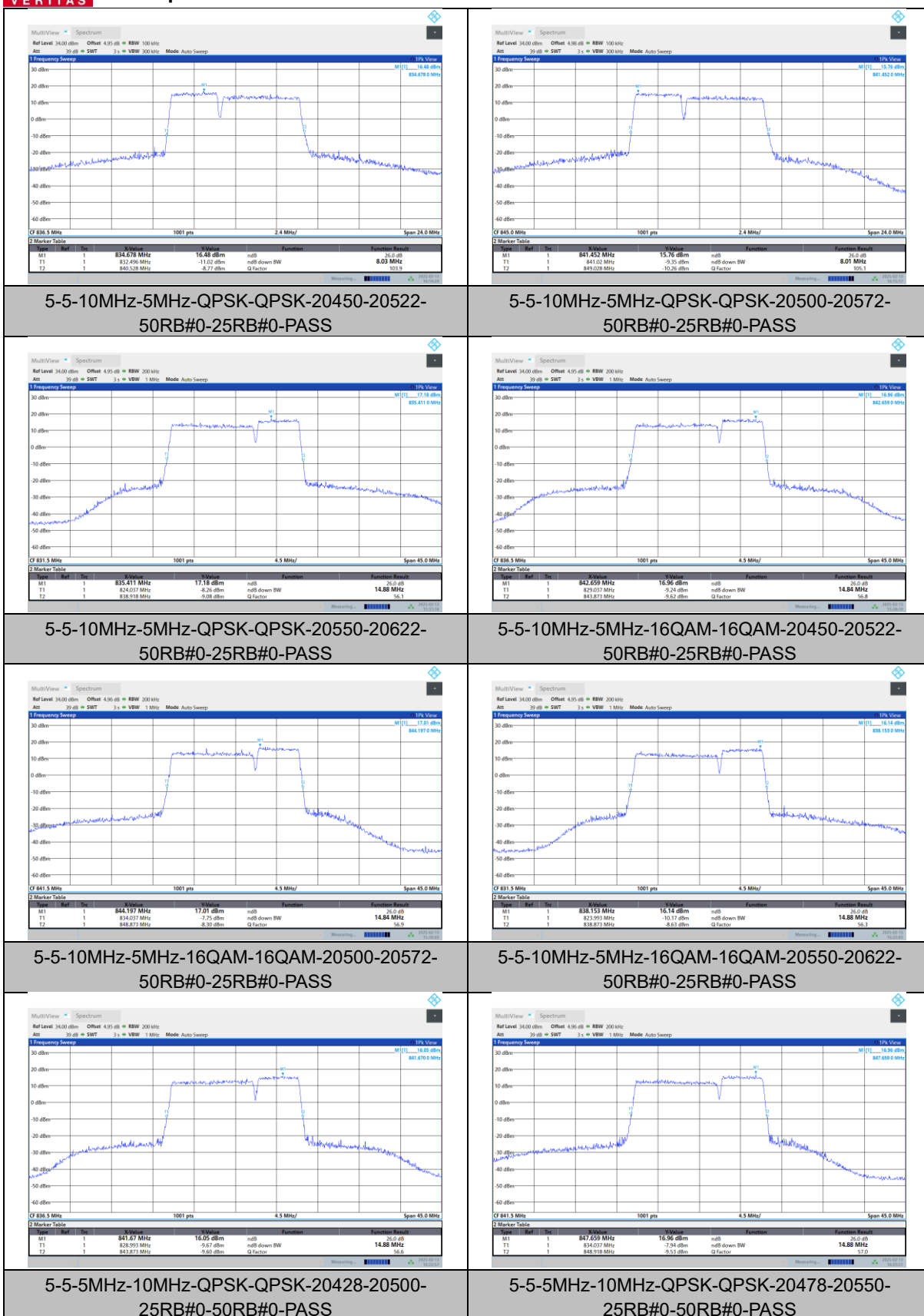


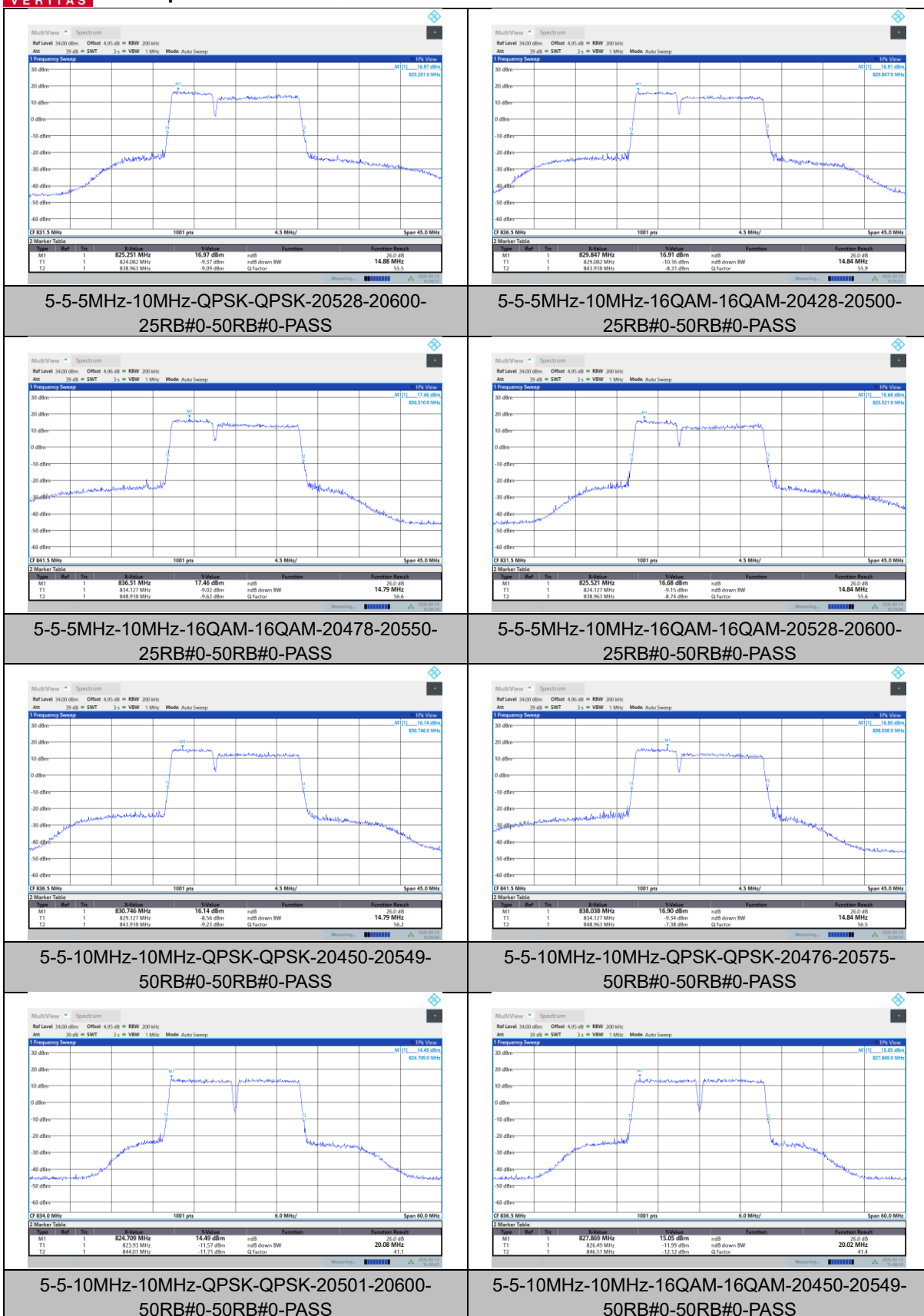
5-5-3MHz-5MHz-16QAM-16QAM-20416-20455-  
15RB#0-25RB#0-PASS



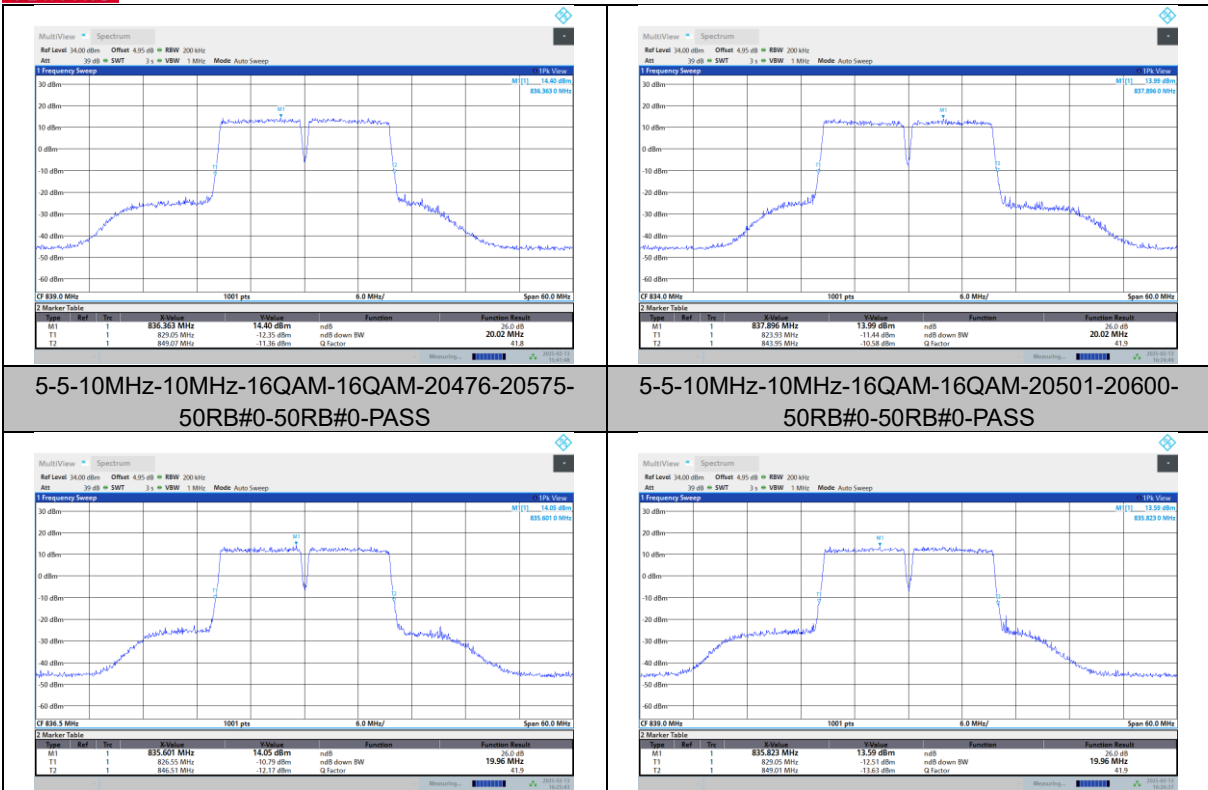
5-5-3MHz-5MHz-16QAM-16QAM-20501-20540-  
15RB#0-25RB#0-PASS

5-5-3MHz-5MHz-16QAM-16QAM-20586-20625-  
15RB#0-25RB#0-PASS











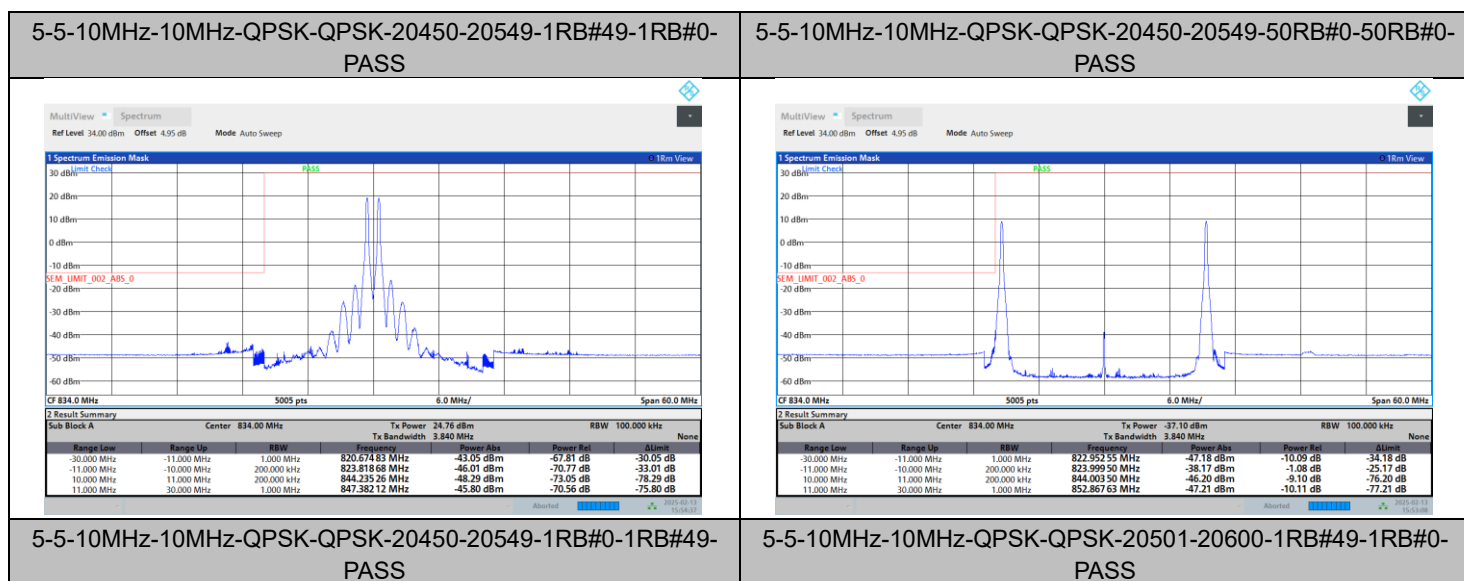
## BAND EDGE

### Test Result

NOTE: Pre-scan QPSK,16QAM,64QAM, 256QAM four modulations modes, only the worst mode and data reflected in the report.

| Band | Bandwidth   | Modulation  | Channel     | RB Configuration | Result(dBm) | Verdict |
|------|-------------|-------------|-------------|------------------|-------------|---------|
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20450-20549 | 1RB#49-1RB#0     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20450-20549 | 50RB#0-50RB#0    | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20450-20549 | 1RB#0-1RB#49     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20501-20600 | 1RB#49-1RB#0     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20501-20600 | 50RB#0-50RB#0    | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK   | 20501-20600 | 1RB#0-1RB#49     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20450-20549 | 1RB#49-1RB#0     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20450-20549 | 50RB#0-50RB#0    | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20450-20549 | 1RB#0-1RB#49     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20501-20600 | 1RB#49-1RB#0     | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20501-20600 | 50RB#0-50RB#0    | See Graph   | PASS    |
| 5-5  | 10MHz-10MHz | 16QAM-16QAM | 20501-20600 | 1RB#0-1RB#49     | See Graph   | PASS    |

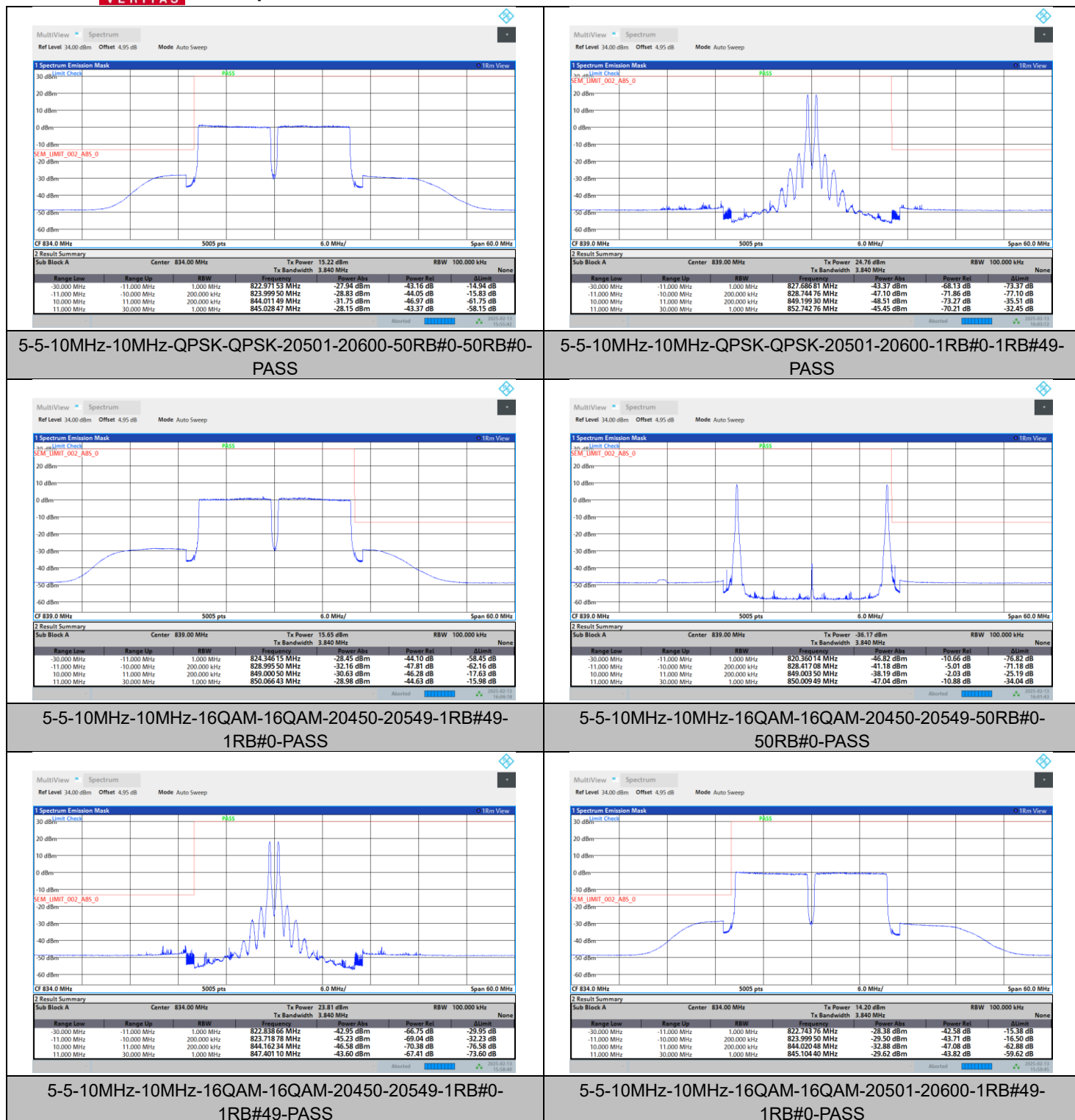
### Test Graphs





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VERITAS

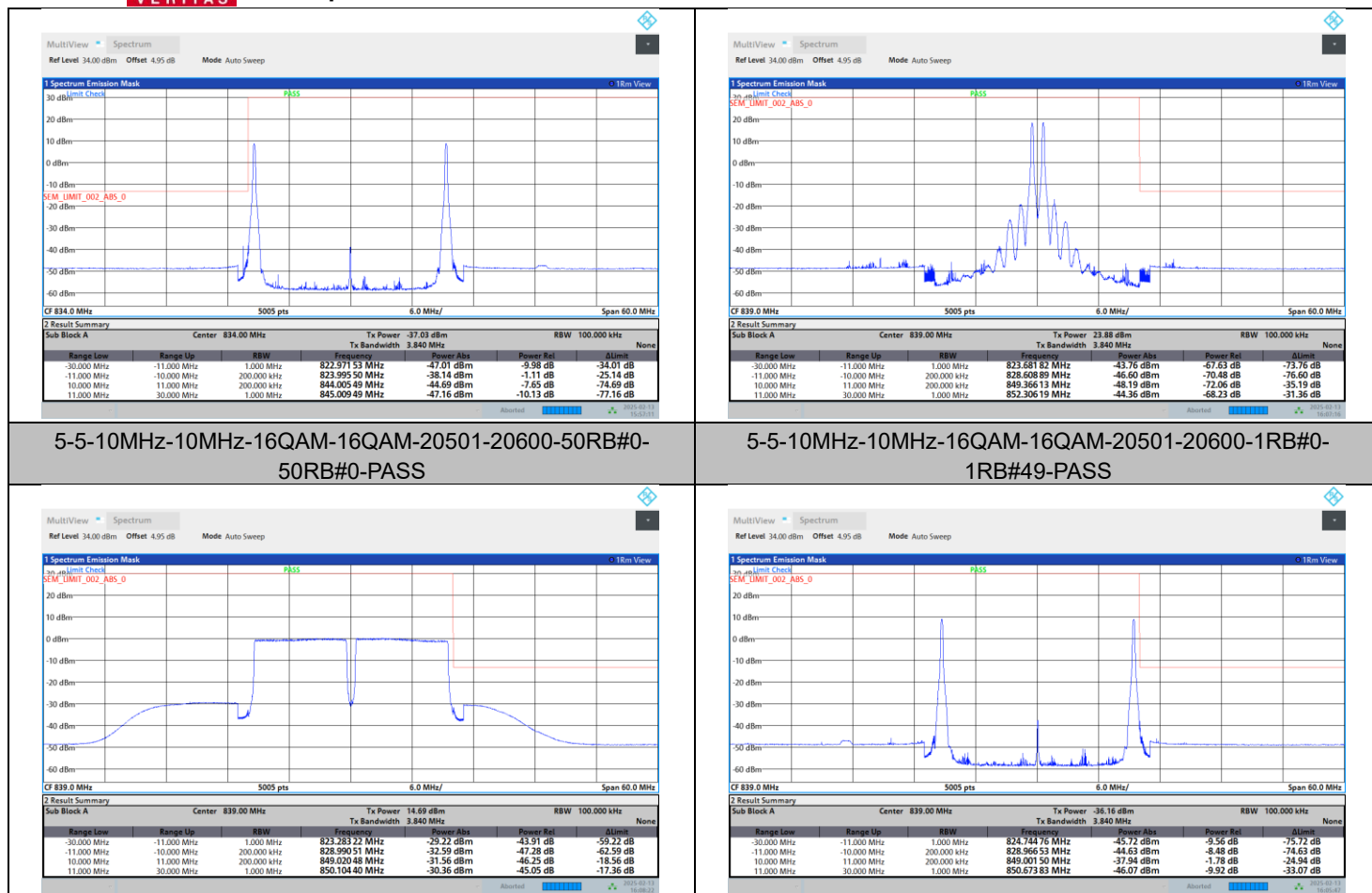
Test Report No.: PSU-NQN2412090210RF06





BUREAU  
VERITAS

Test Report No.: PSU-NQN2412090210RF06



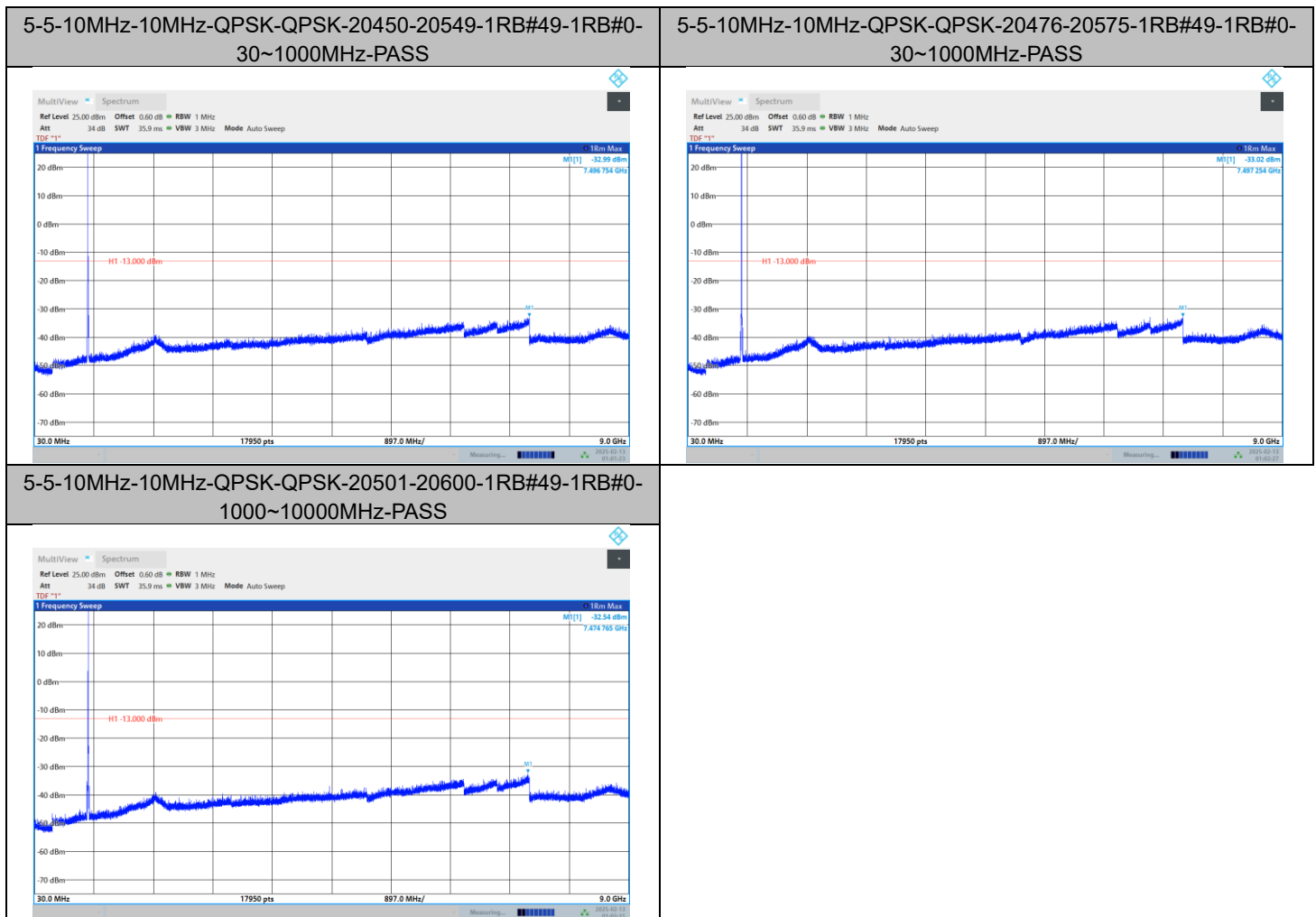


**BUREAU VERITAS** Test Report No.: PSU-NQN2412090210RF06  
**CONDUCTED SPURIOUS EMISSION**

## Test Result

| Band | Bandwidth   | Modulation | Channel     | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|------|-------------|------------|-------------|------------------|-----------------|--------------|---------|
| 5-5  | 10MHz-10MHz | QPSK-QPSK  | 20450-20549 | 1RB#49-1RB#0     | 30~9000MHz      | See Graph    | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK  | 20476-20575 | 1RB#49-1RB#0     | 30~9000MHz      | See Graph    | PASS    |
| 5-5  | 10MHz-10MHz | QPSK-QPSK  | 20501-20600 | 1RB#49-1RB#0     | 30~9000MHz      | See Graph    | PASS    |

## Test Graphs



## FREQUENCY STABILITY

### Test Result

| Voltage |
|---------|
|---------|

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| Band            | Channel | Voltage (Vdc) | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-----------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| 5-5-10MHz-10MHz | L       | VL            | NT               | -0.32          | -0.0004         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | VN            | NT               | 2.52           | 0.0030          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | VH            | NT               | 9.11           | 0.0109          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | VL            | NT               | 3.11           | 0.0037          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | VN            | NT               | 4.95           | 0.0059          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | VH            | NT               | 8.91           | 0.0107          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | VL            | NT               | -7.50          | -0.0089         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | VN            | NT               | 8.23           | 0.0098          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | VH            | NT               | -1.72          | -0.0020         | ±2.5        | PASS    |

| Temperature     |         |               |                  |                |                 |             |         |
|-----------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band            | Channel | Voltage (Vdc) | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 5-5-10MHz-10MHz | L       | NV            | -30              | -9.11          | -0.0109         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | -20              | 4.40           | 0.0053          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | -10              | -8.88          | -0.0106         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 0                | -9.03          | -0.0108         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 10               | -5.99          | -0.0072         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 20               | -1.10          | -0.0013         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 30               | 8.87           | 0.0106          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 40               | -3.17          | -0.0038         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | L       | NV            | 50               | -6.40          | -0.0077         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | -30              | -4.34          | -0.0052         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | -20              | 1.20           | 0.0014          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | -10              | -0.30          | -0.0004         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 0                | 3.84           | 0.0046          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 10               | -5.03          | -0.0060         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 20               | -3.84          | -0.0046         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 30               | 7.81           | 0.0093          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 40               | 6.76           | 0.0081          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | M       | NV            | 50               | 2.86           | 0.0034          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | -30              | 7.94           | 0.0095          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | -20              | 8.65           | 0.0103          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | -10              | 4.29           | 0.0051          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 0                | 3.29           | 0.0039          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 10               | -1.04          | -0.0012         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 20               | -6.39          | -0.0076         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 30               | -3.73          | -0.0044         | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 40               | 1.07           | 0.0013          | ±2.5        | PASS    |
| 5-5-10MHz-10MHz | H       | NV            | 50               | -2.85          | -0.0034         | ±2.5        | PASS    |

--END--