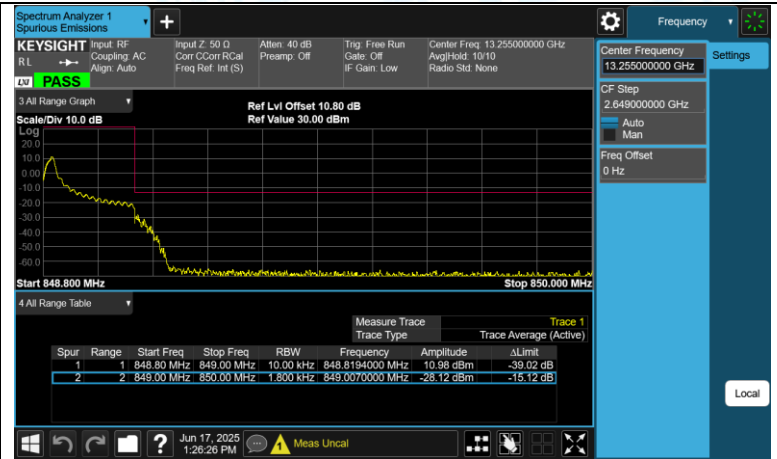
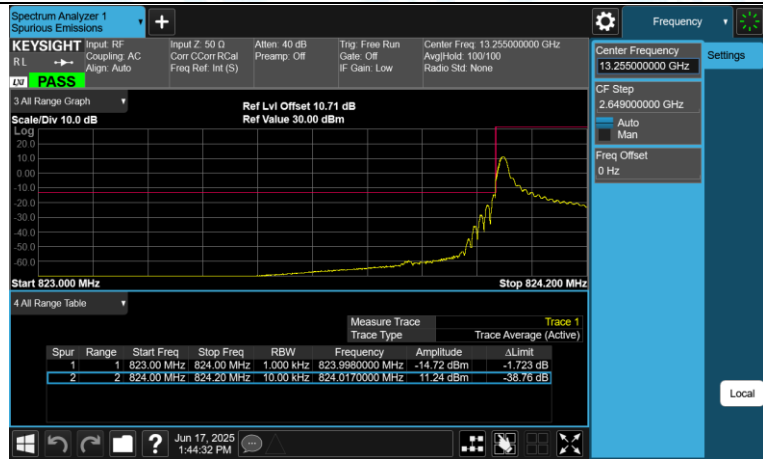
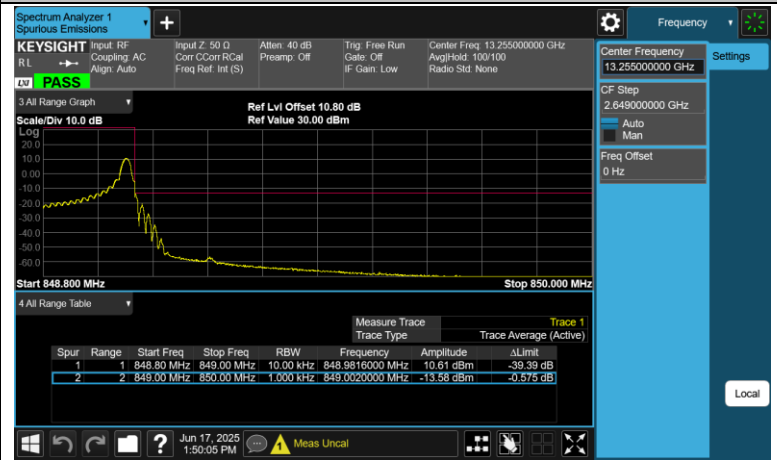
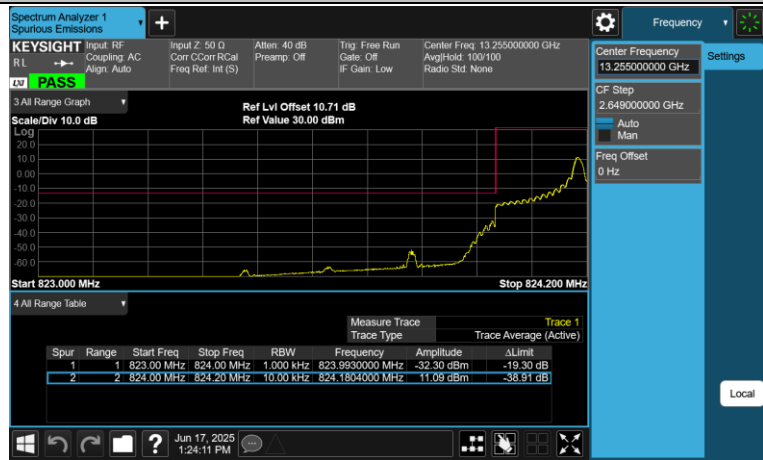




Band5\_Stand-Alone\_0.18\_QPSK\_20401\_1@0\_15kHz

Band5\_Stand-Alone\_0.18\_QPSK\_20649\_1@10\_15kHz



Band5\_Stand-Alone\_0.18\_QPSK\_20401\_1@11\_15kHz

Band5\_Stand-Alone\_0.18\_QPSK\_20649\_1@11\_15kHz



## 5: Conducted Spurious Emission for NB1

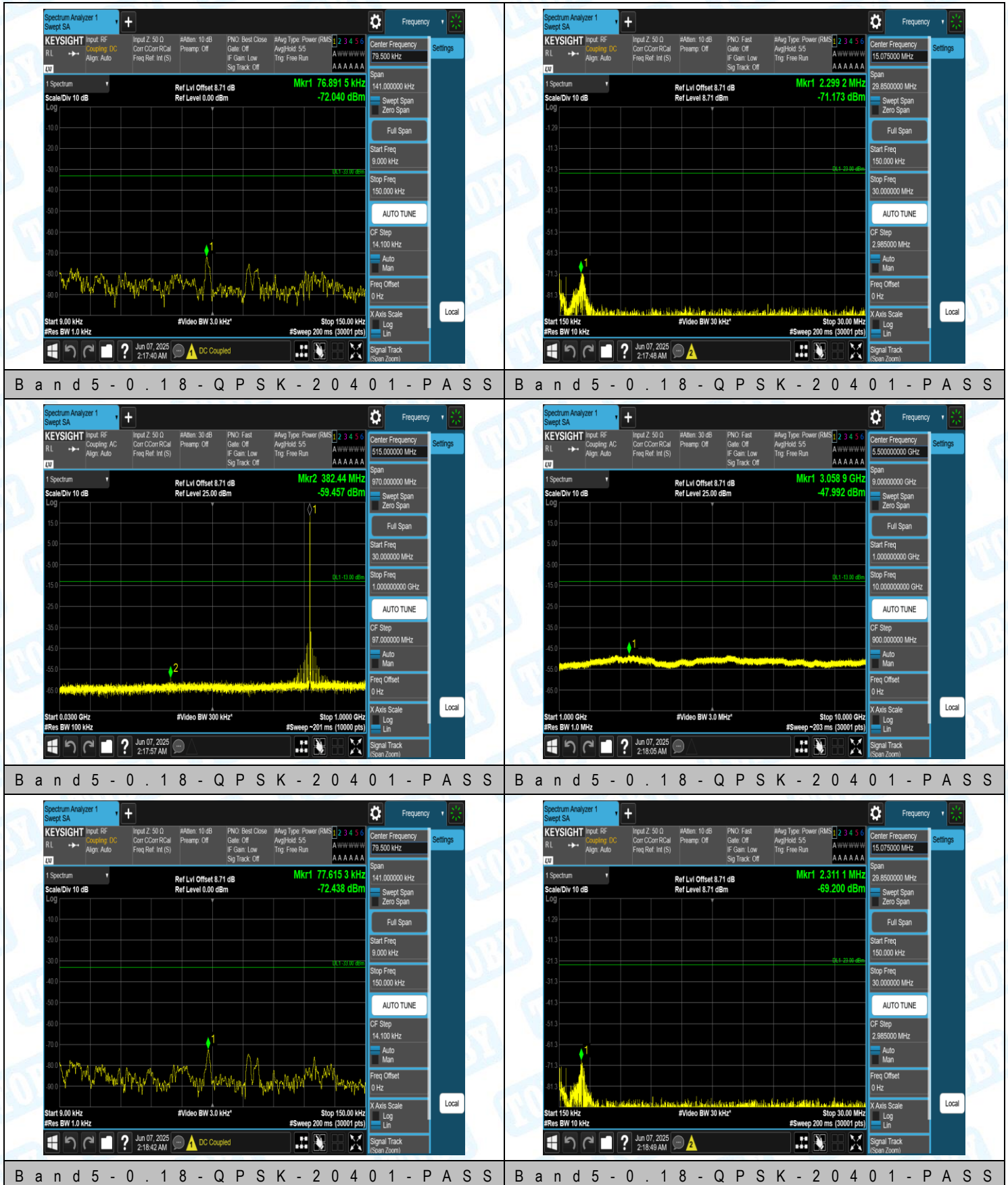
### Test Result

| Band  | OpMode      | SCS     | BW   | Modu | Channel | Tones | Freq Start [MHz] | Freq Stop [MHz] | Result (dBm) | Limit (dBm) | Verdict |
|-------|-------------|---------|------|------|---------|-------|------------------|-----------------|--------------|-------------|---------|
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@0   | 0.009            | 0.15            | -72.04       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@0   | 0.15             | 30              | -71.17       | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@0   | 30               | 1000            | -59.46       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@0   | 1000             | 10000           | -47.99       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@47  | 0.009            | 0.15            | -72.44       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@47  | 0.15             | 30              | -69.2        | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@47  | 30               | 1000            | -60.26       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20401   | 1@47  | 1000             | 10000           | -47.54       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@0   | 0.009            | 0.15            | -71.11       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@0   | 0.15             | 30              | -68.39       | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@0   | 30               | 1000            | -60.04       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@0   | 1000             | 10000           | -47.84       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@47  | 0.009            | 0.15            | -71.26       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@47  | 0.15             | 30              | -68.05       | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@47  | 30               | 1000            | -59.61       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20525   | 1@47  | 1000             | 10000           | -47.84       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@0   | 0.009            | 0.15            | -71.68       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@0   | 0.15             | 30              | -67.64       | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@0   | 30               | 1000            | -59.53       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@0   | 1000             | 10000           | -47.64       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@47  | 0.009            | 0.15            | -72.15       | -33         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@47  | 0.15             | 30              | -69.09       | -23         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@47  | 30               | 1000            | -59.73       | -13         | PASS    |
| Band5 | Stand-Alone | 3.75kHz | 0.18 | QPSK | 20649   | 1@47  | 1000             | 10000           | -47.85       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20401   | 12@0  | 0.009            | 0.15            | -71.59       | -33         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20401   | 12@0  | 0.15             | 30              | -72.19       | -23         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20401   | 12@0  | 30               | 1000            | -60.24       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20401   | 12@0  | 1000             | 10000           | -47.68       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20525   | 12@0  | 0.009            | 0.15            | -70.38       | -33         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20525   | 12@0  | 0.15             | 30              | -70.81       | -23         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20525   | 12@0  | 30               | 1000            | -60.04       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20525   | 12@0  | 1000             | 10000           | -47.71       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20649   | 12@0  | 0.009            | 0.15            | -70.95       | -33         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20649   | 12@0  | 0.15             | 30              | -64.77       | -23         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20649   | 12@0  | 30               | 1000            | -60.59       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | QPSK | 20649   | 12@0  | 1000             | 10000           | -47.46       | -13         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | BPSK | 20401   | 1@0   | 0.009            | 0.15            | -72.7        | -33         | PASS    |
| Band5 | Stand-Alone | 15kHz   | 0.18 | BPSK | 20401   | 1@0   | 0.15             | 30              | -68.24       | -23         | PASS    |

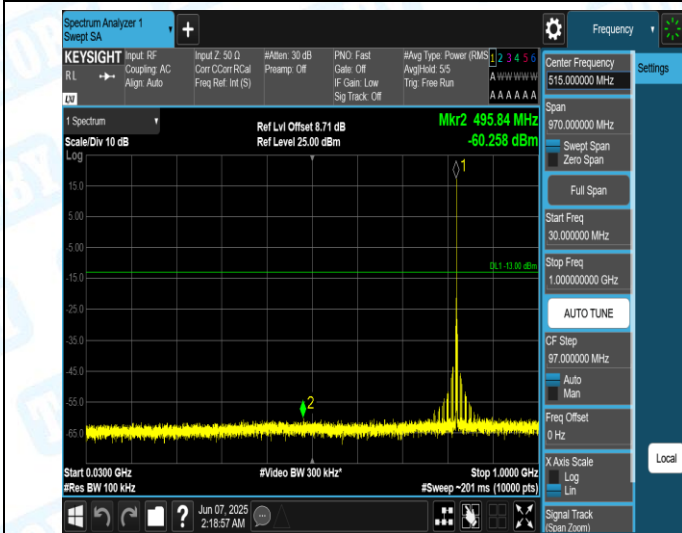


|       |             |       |      |      |       |      |       |       |        |     |      |
|-------|-------------|-------|------|------|-------|------|-------|-------|--------|-----|------|
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@0  | 30    | 1000  | -59.84 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@0  | 1000  | 10000 | -47.58 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@11 | 0.009 | 0.15  | -71.26 | -33 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@11 | 0.15  | 30    | -71.08 | -23 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@11 | 30    | 1000  | -57.7  | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20401 | 1@11 | 1000  | 10000 | -47.96 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@0  | 0.009 | 0.15  | -70.52 | -33 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@0  | 0.15  | 30    | -71.08 | -23 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@0  | 30    | 1000  | -60.46 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@0  | 1000  | 10000 | -47.85 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@11 | 0.009 | 0.15  | -72.22 | -33 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@11 | 0.15  | 30    | -69.45 | -23 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@11 | 30    | 1000  | -55.32 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20525 | 1@11 | 1000  | 10000 | -47.84 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@0  | 0.009 | 0.15  | -70.63 | -33 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@0  | 0.15  | 30    | -68.79 | -23 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@0  | 30    | 1000  | -59.91 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@0  | 1000  | 10000 | -47.75 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@11 | 0.009 | 0.15  | -70.23 | -33 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@11 | 0.15  | 30    | -68.91 | -23 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@11 | 30    | 1000  | -58.06 | -13 | PASS |
| Band5 | Stand-Alone | 15kHz | 0.18 | BPSK | 20649 | 1@11 | 1000  | 10000 | -47.91 | -13 | PASS |

## Test Graphs







B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



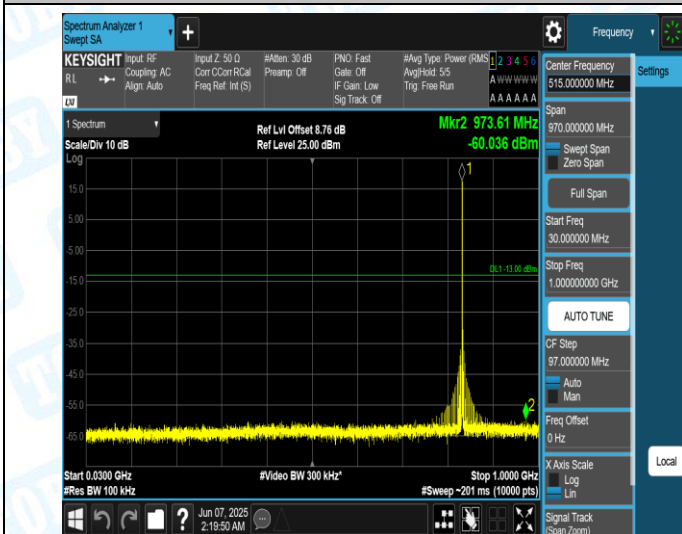
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



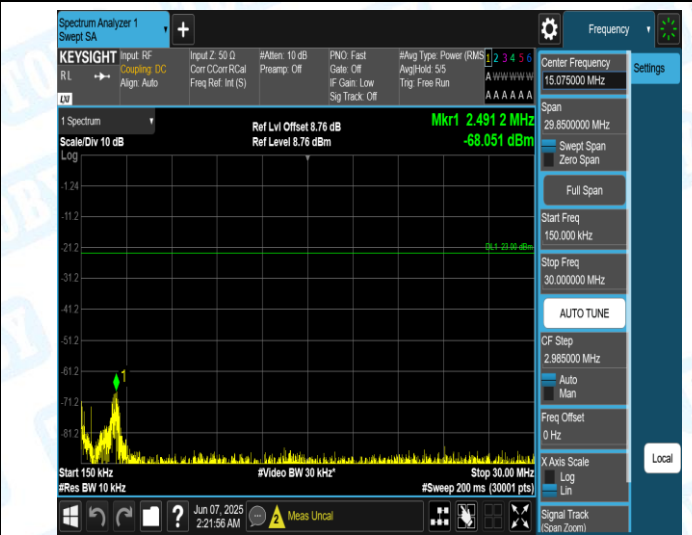
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



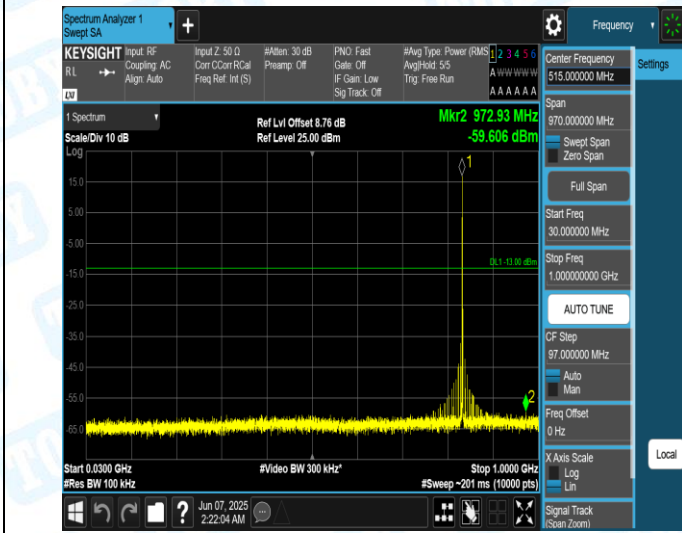
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



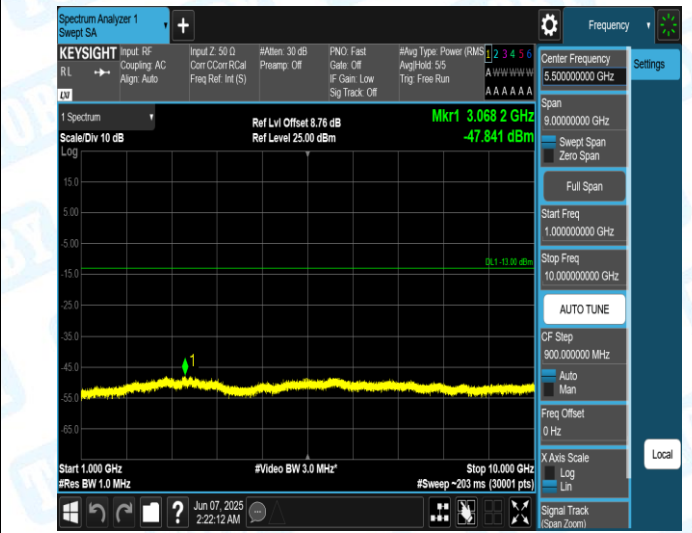
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



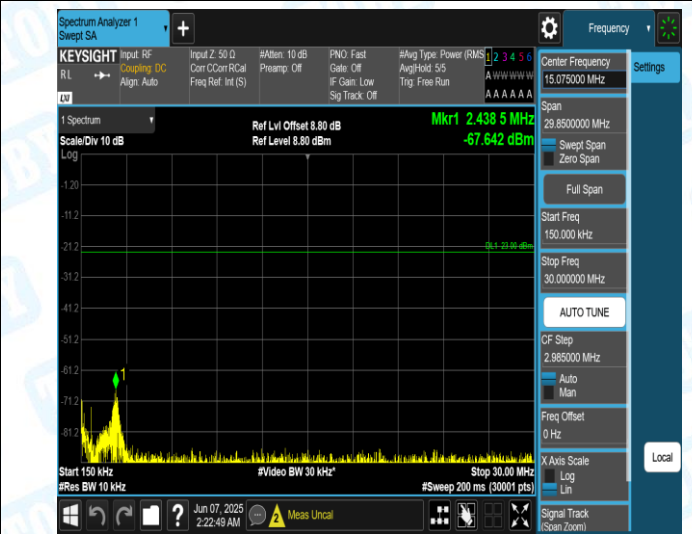
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S

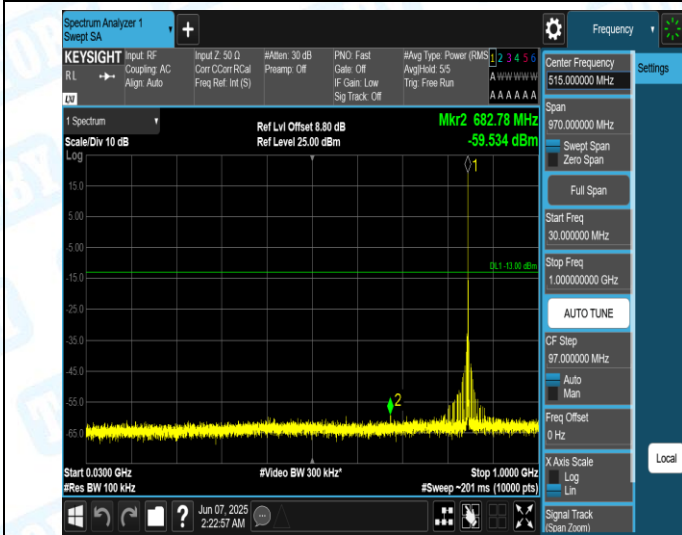


B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S





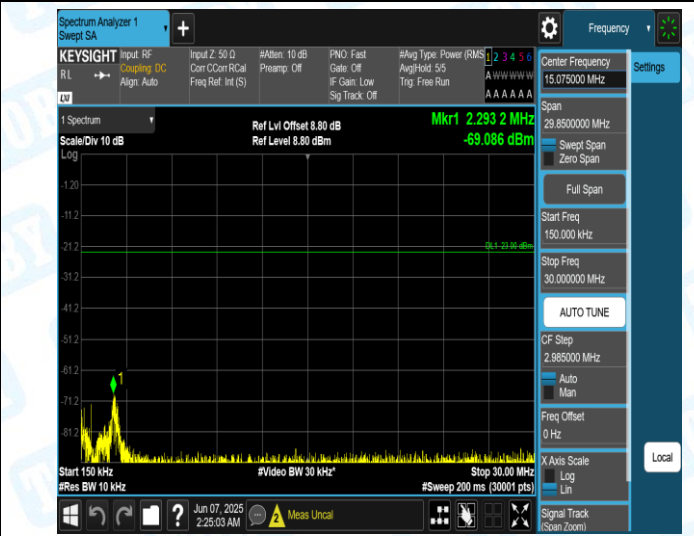
Band 5 - 0.18 - QPSK - 20649 - PASS



Band 5 - 0.18 - QPSK - 20649 - PASS



Band 5 - 0.18 - QPSK - 20649 - PASS



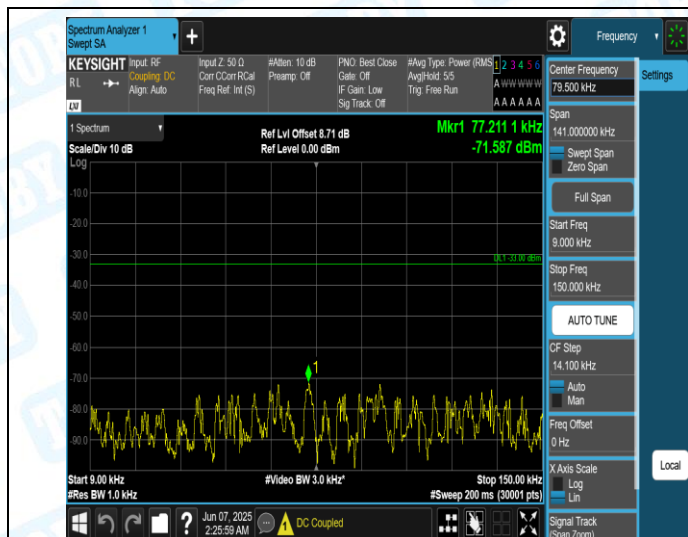
Band 5 - 0.18 - QPSK - 20649 - PASS



Band 5 - 0.18 - QPSK - 20649 - PASS



Band 5 - 0.18 - QPSK - 20649 - PASS



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 4 0 1 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S

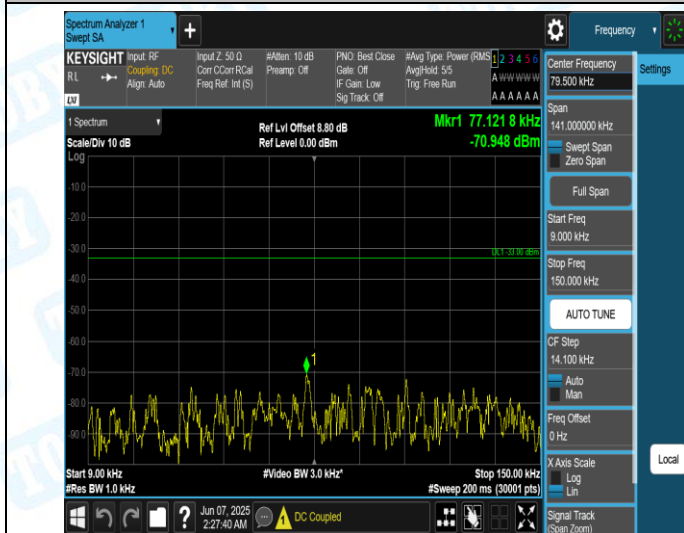




B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 - P A S S



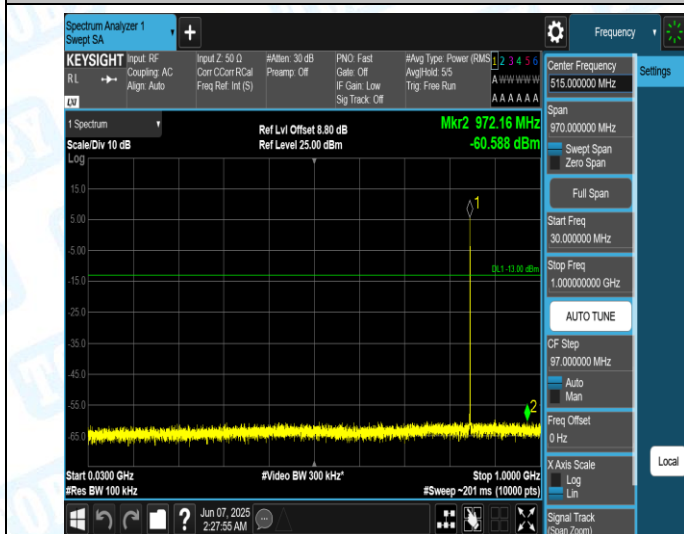
B a n d 5 - 0 . 1 8 - Q P S K - 2 0 5 2 5 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S



B a n d 5 - 0 . 1 8 - Q P S K - 2 0 6 4 9 - P A S S