

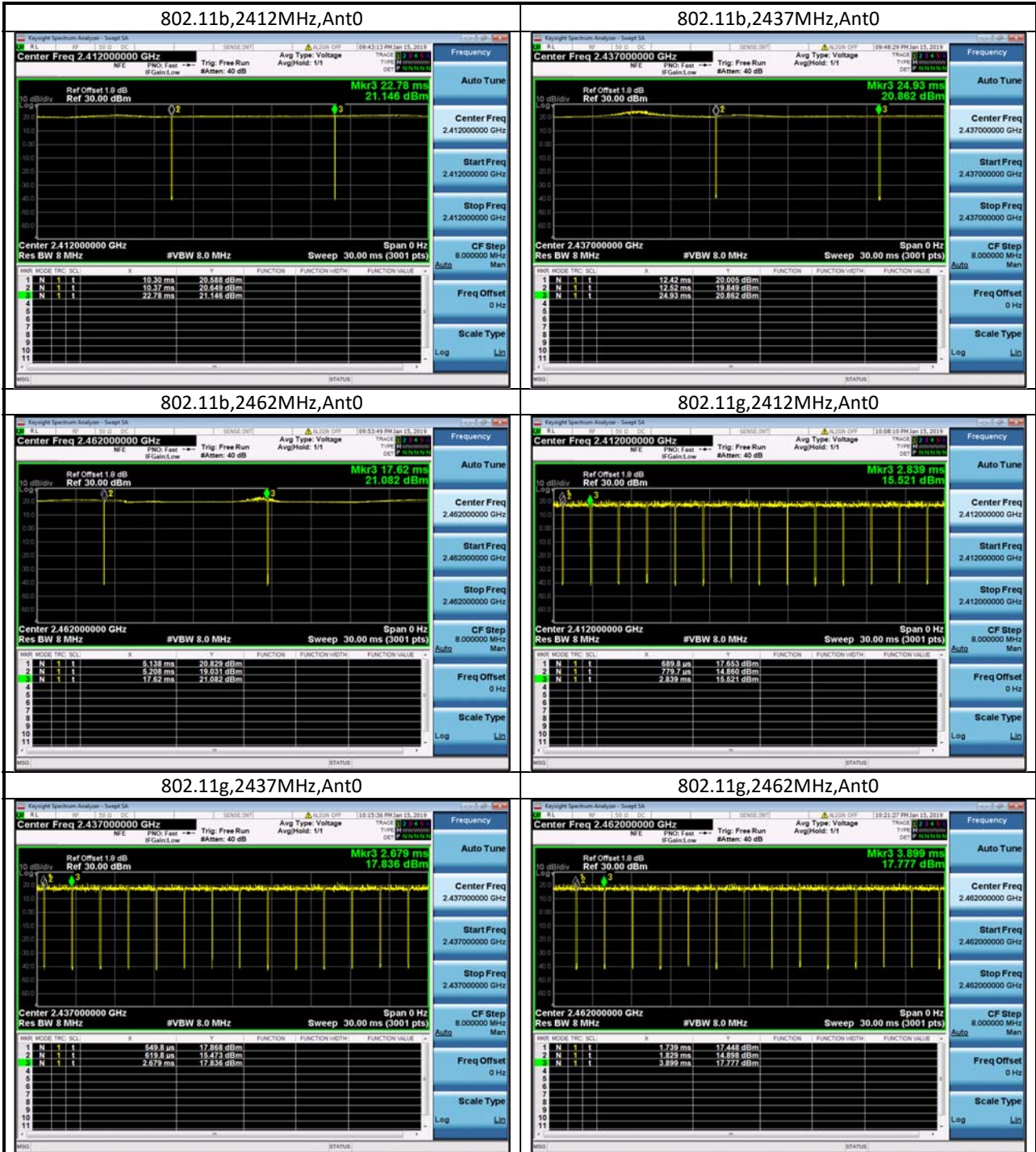
Appendix A: Test results

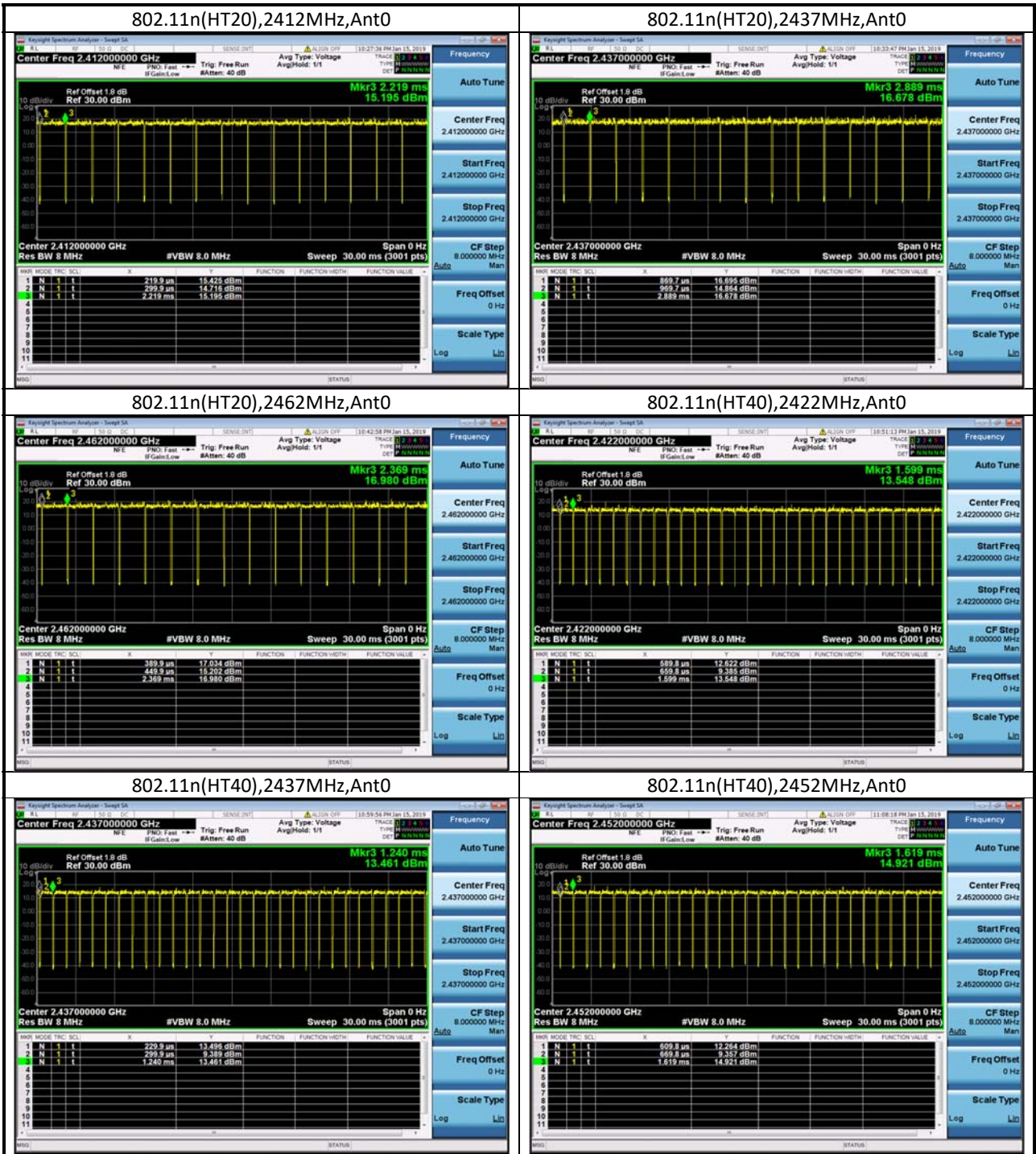
1 Duty Cycle

1.1 Test Data

| WLAN Duty Cycle | | | | |
|-----------------|----------------------|------|----------------|------------------------|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle (%) | Duty Cycle Factor (dB) |
| 802.11b | 2412 | Ant0 | 99.44 | 0.00 |
| 802.11b | 2437 | Ant0 | 99.20 | 0.00 |
| 802.11b | 2462 | Ant0 | 99.44 | 0.00 |
| 802.11g | 2412 | Ant0 | 95.81 | 0.19 |
| 802.11g | 2437 | Ant0 | 96.71 | 0.15 |
| 802.11g | 2462 | Ant0 | 95.83 | 0.18 |
| 802.11n (HT20) | 2412 | Ant0 | 96.00 | 0.18 |
| 802.11n (HT20) | 2437 | Ant0 | 95.05 | 0.22 |
| 802.11n (HT20) | 2462 | Ant0 | 96.97 | 0.13 |
| 802.11n (HT40) | 2422 | Ant0 | 93.07 | 0.31 |
| 802.11n (HT40) | 2437 | Ant0 | 93.07 | 0.31 |
| 802.11n (HT40) | 2452 | Ant0 | 94.06 | 0.27 |

1.2 Test Plots



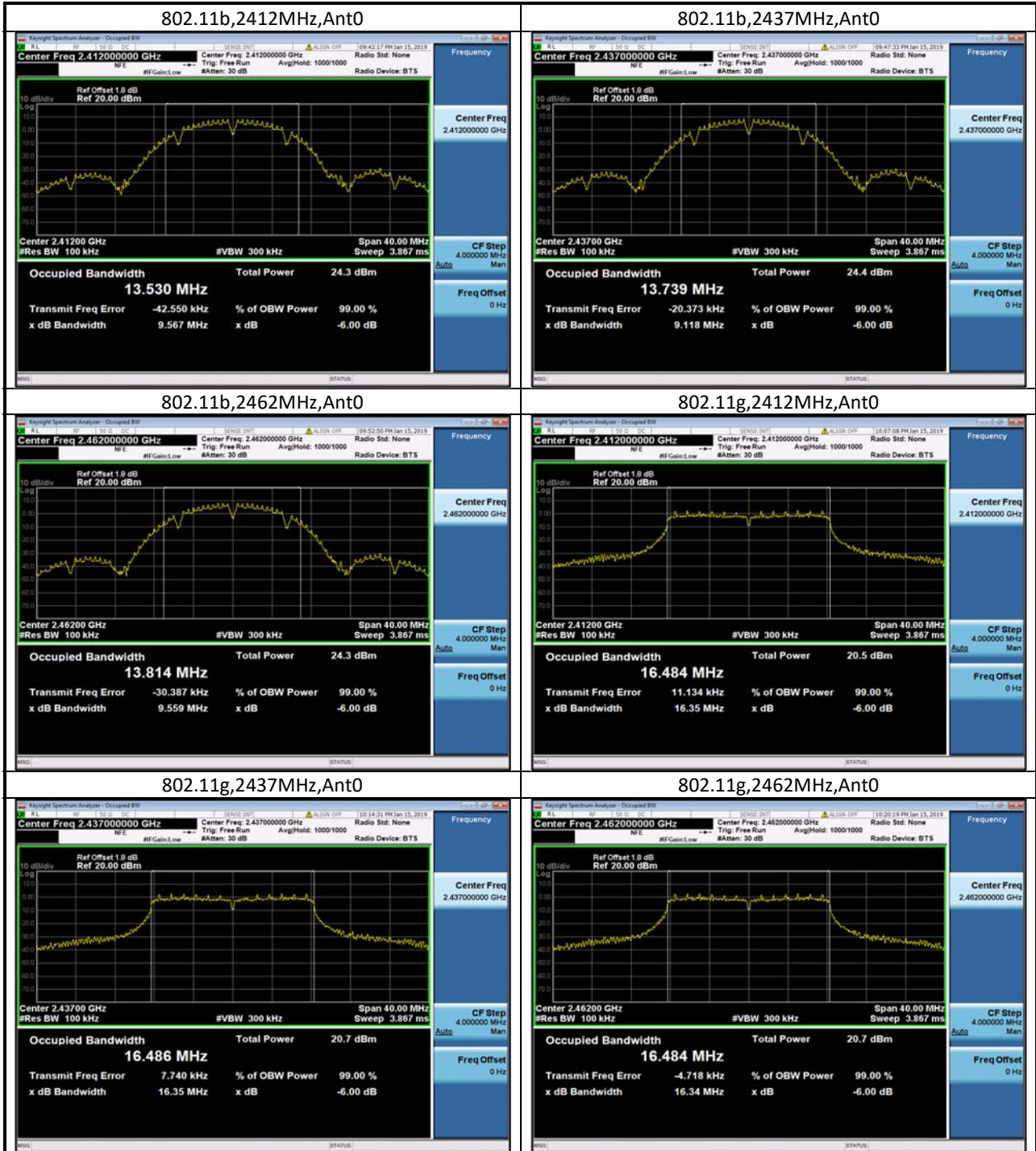


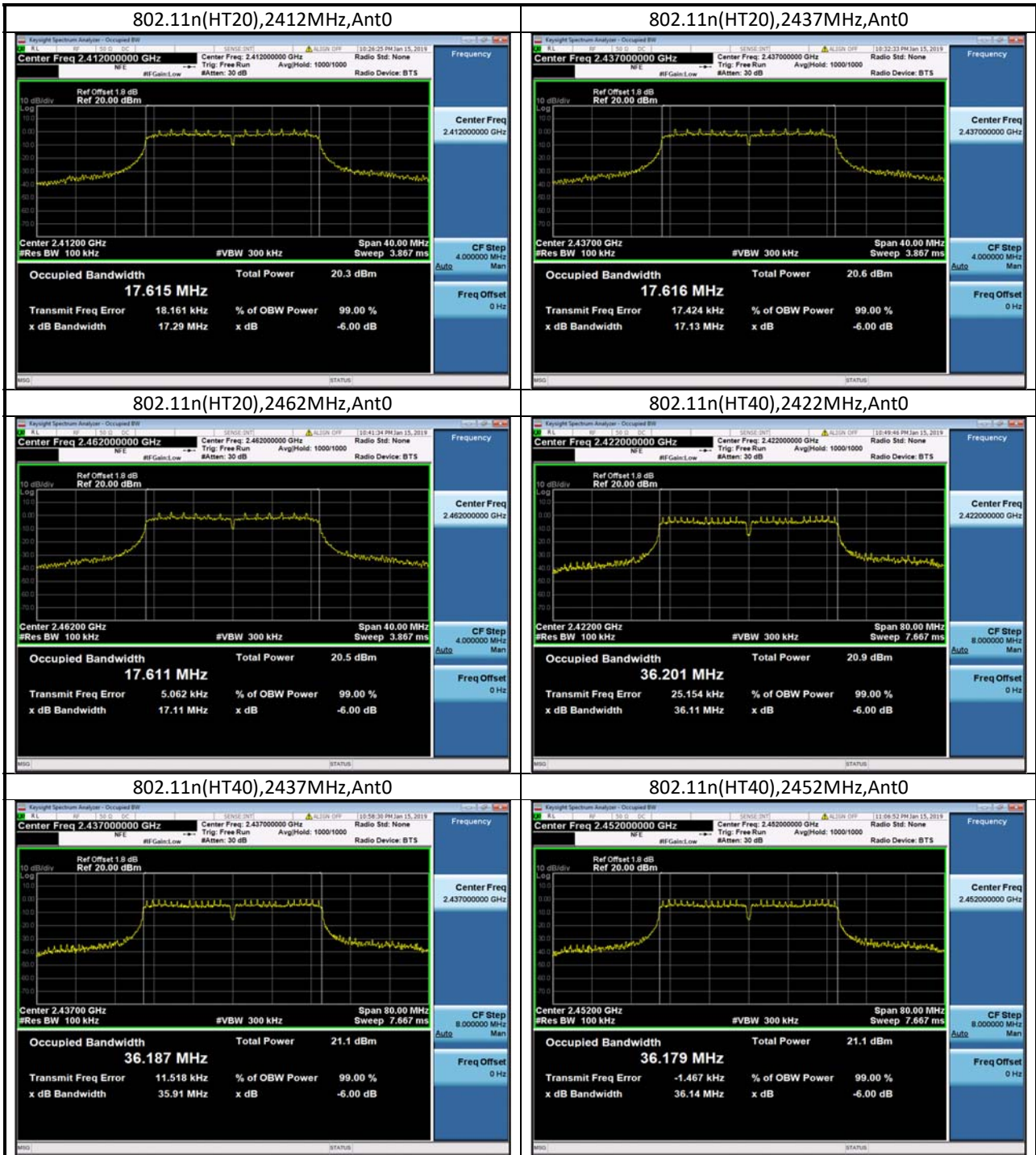
2 Minimum 6dB bandwidth

2.1 Test Data

| WLAN Occupied 6dB Bandwidth | | | | |
|-----------------------------|----------------------|------|--------------------------|--------|
| Mode | Test Frequency (MHz) | Ant | Occupied Bandwidth (MHz) | Result |
| 802.11b | 2412 | Ant0 | 9.57 | Pass |
| 802.11b | 2437 | Ant0 | 9.12 | Pass |
| 802.11b | 2462 | Ant0 | 9.56 | Pass |
| 802.11g | 2412 | Ant0 | 16.35 | Pass |
| 802.11g | 2437 | Ant0 | 16.35 | Pass |
| 802.11g | 2462 | Ant0 | 16.34 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 17.29 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 17.13 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 17.11 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 36.11 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 35.91 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 36.14 | Pass |

2.2 Test Plots





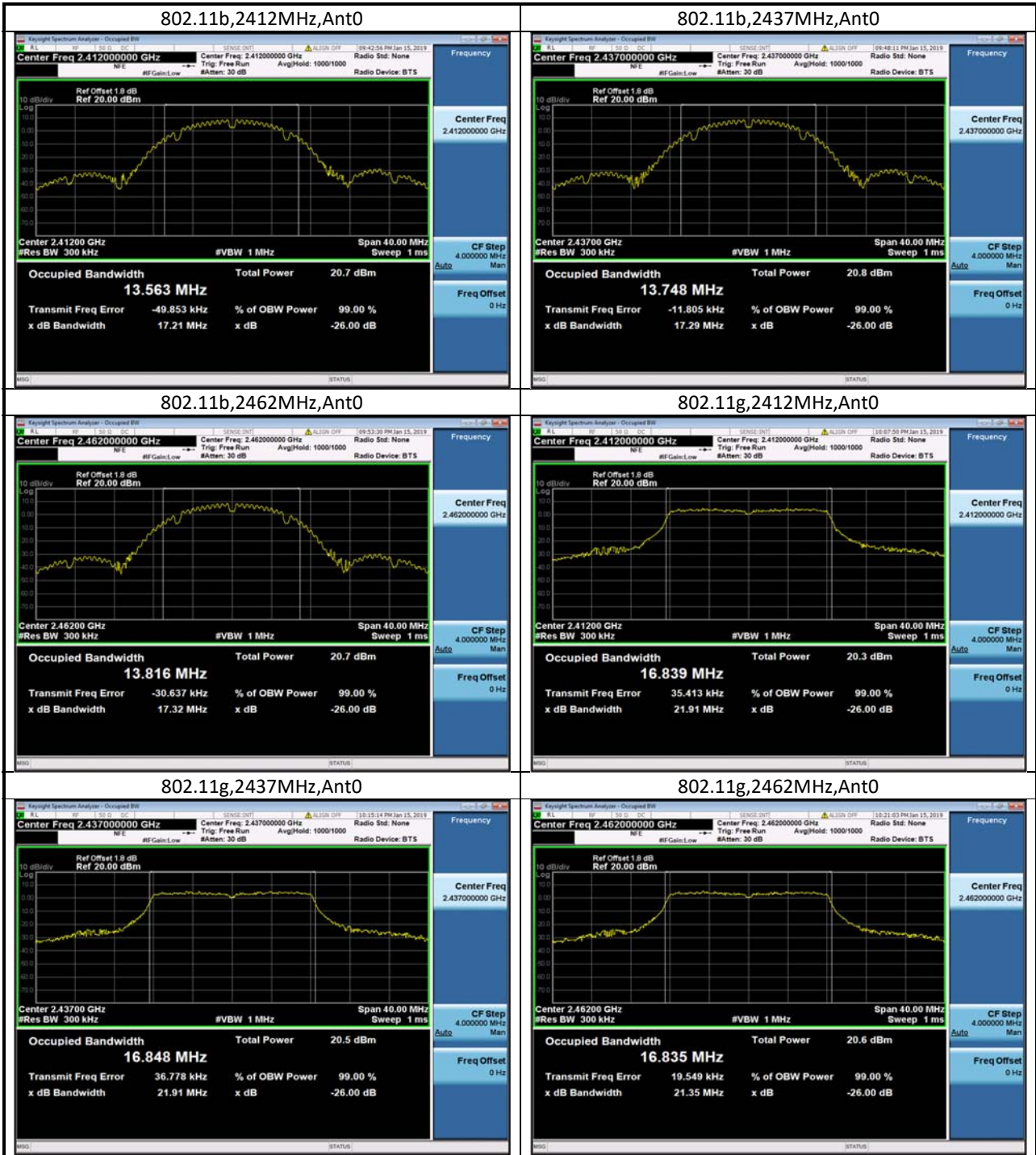
TEST REPORT

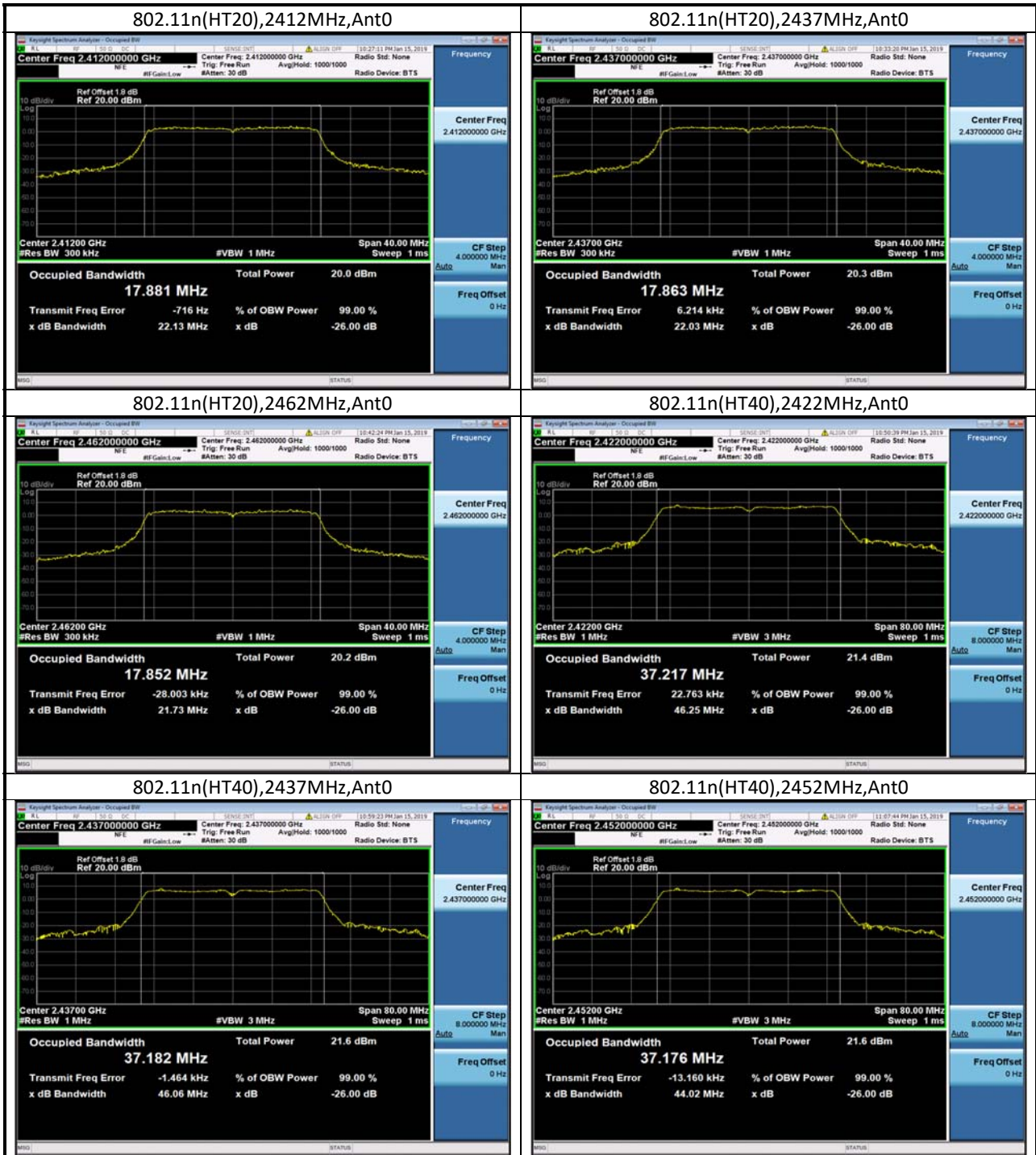
3 Occupied Bandwidth

3.1 Test Data

| WLAN 99% Occupied Bandwidth | | | | |
|-----------------------------|----------------------|------|------------------------------|--------|
| Mode | Test Frequency (MHz) | Ant | 99% Occupied Bandwidth (MHz) | Result |
| 802.11b | 2412 | Ant0 | 13.563 | Pass |
| 802.11b | 2437 | Ant0 | 13.748 | Pass |
| 802.11b | 2462 | Ant0 | 13.816 | Pass |
| 802.11g | 2412 | Ant0 | 16.839 | Pass |
| 802.11g | 2437 | Ant0 | 16.848 | Pass |
| 802.11g | 2462 | Ant0 | 16.835 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 17.881 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 17.863 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 17.852 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 37.217 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 37.182 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 37.176 | Pass |

3.2 Test Plots





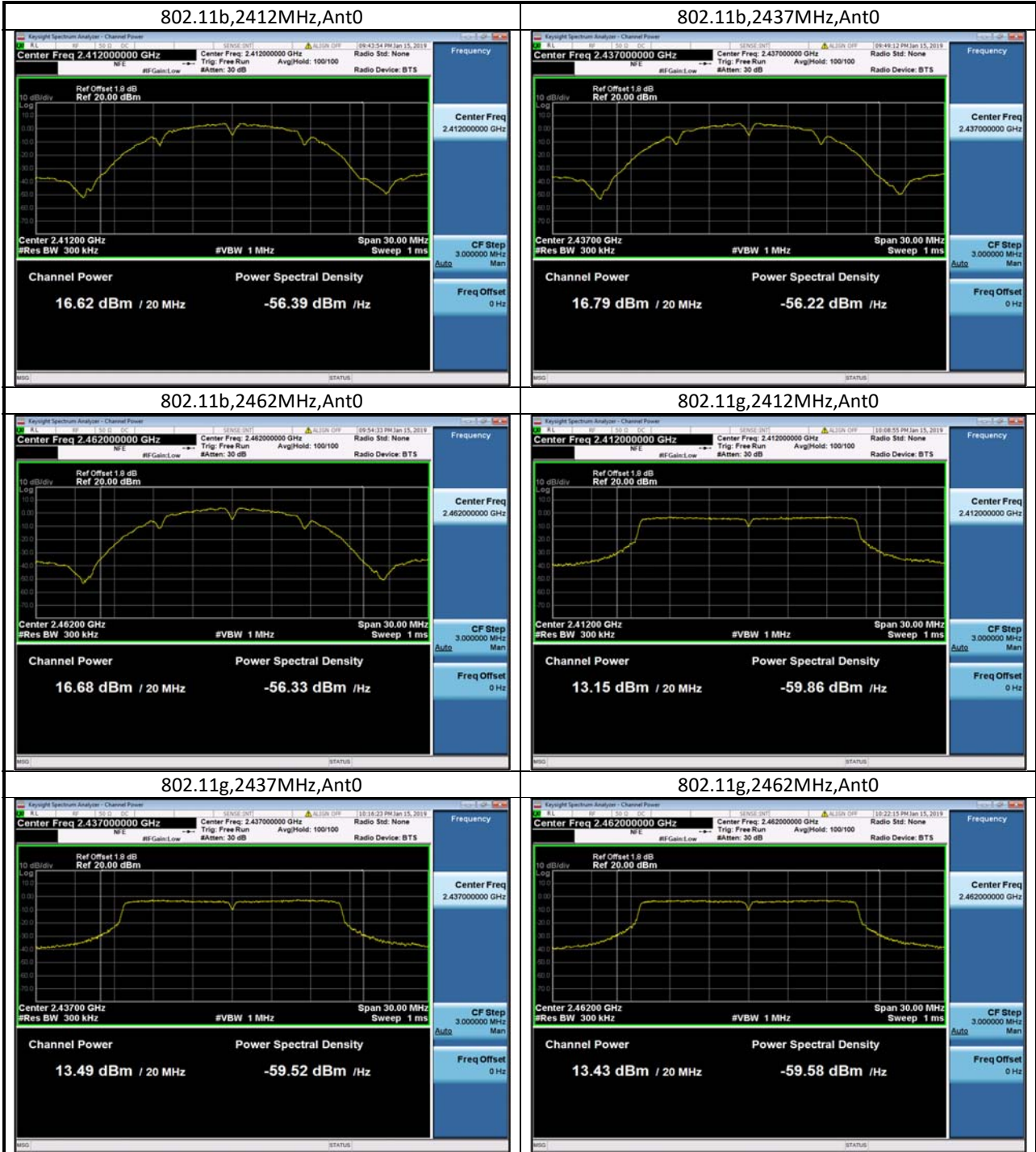
TEST REPORT

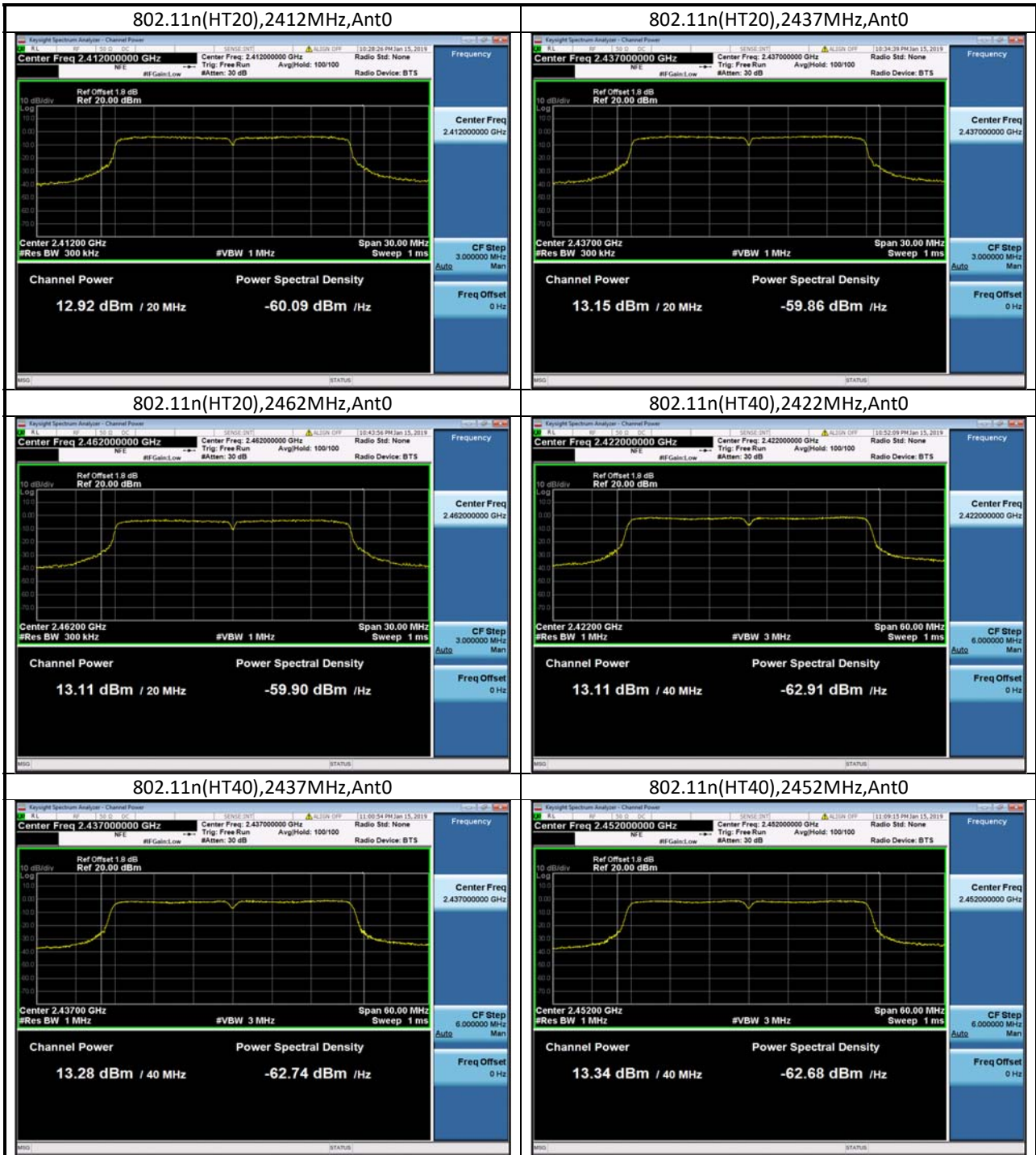
4 Maximum conducted output power and e.i.r.p

4.1 Test Data

| WLAN AVGSA Output Power | | | | | | | |
|-------------------------|----------------------|------|------------------------|-----------------|-------------|------------|--------|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle Factor (dB) | Max Power (dBm) | Limit (dBm) | EIRP (dBm) | Result |
| 802.11b | 2412 | Ant0 | 0.00 | 16.62 | 30 | 19.72 | Pass |
| 802.11b | 2437 | Ant0 | 0.00 | 16.79 | 30 | 19.89 | Pass |
| 802.11b | 2462 | Ant0 | 0.00 | 16.68 | 30 | 19.78 | Pass |
| 802.11g | 2412 | Ant0 | 0.19 | 13.34 | 30 | 16.44 | Pass |
| 802.11g | 2437 | Ant0 | 0.15 | 13.64 | 30 | 16.74 | Pass |
| 802.11g | 2462 | Ant0 | 0.18 | 13.61 | 30 | 16.71 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 0.18 | 13.10 | 30 | 16.20 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 0.22 | 13.37 | 30 | 16.47 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 0.13 | 13.24 | 30 | 16.34 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 0.31 | 13.42 | 30 | 16.52 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 0.31 | 13.59 | 30 | 16.69 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 0.27 | 13.61 | 30 | 16.71 | Pass |

4.2 Test Plots





TEST REPORT

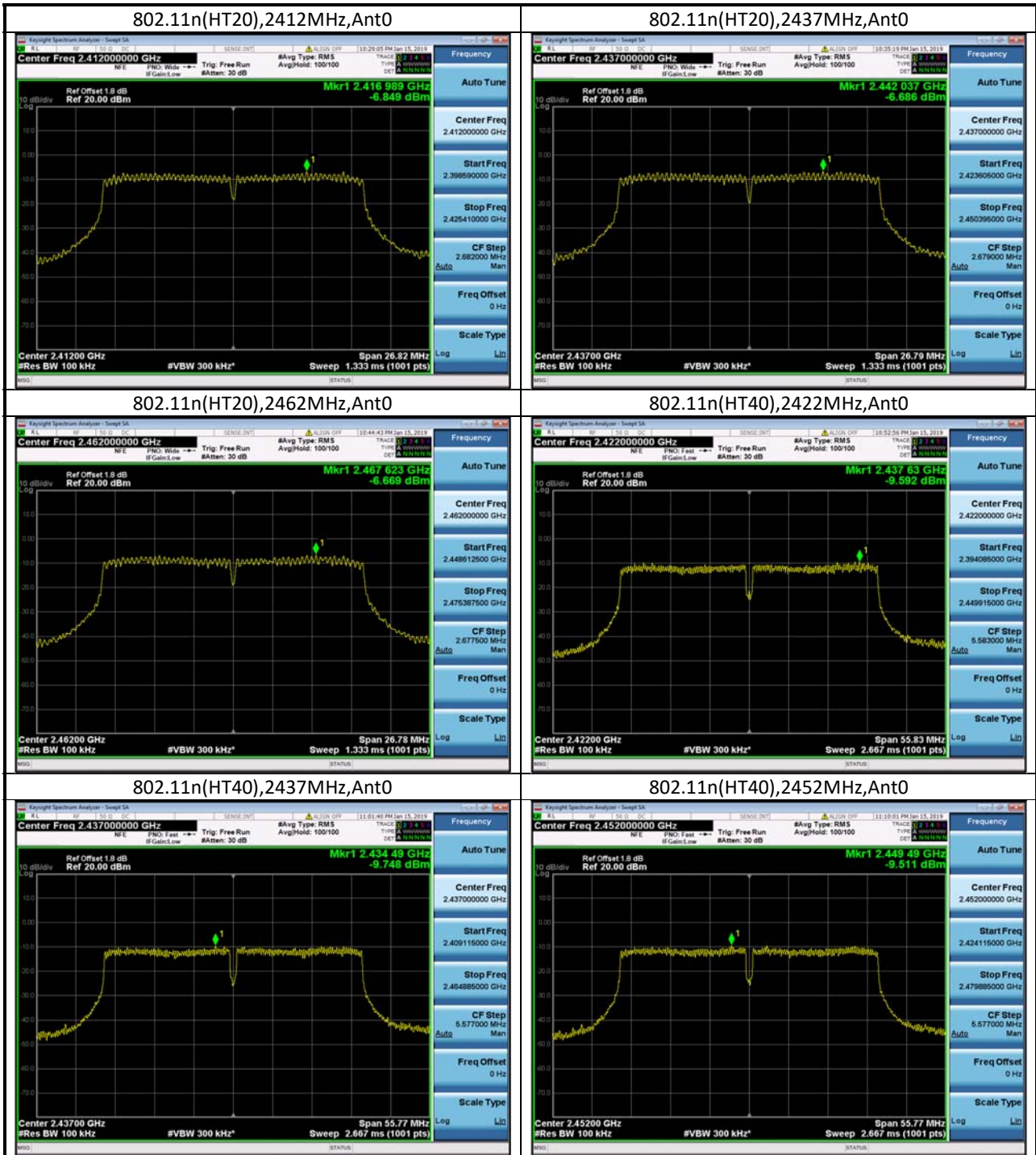
5 Power spectrum density

5.1 Test Data

| WLAN AVGSA Power Spectral Density | | | | | | | |
|-----------------------------------|----------------------|------|------------------------|------------------|-----------|------------------|--------|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle Factor (dB) | PSD (dBm/100KHz) | RBW (kHz) | Limit (dBm/3KHz) | Result |
| 802.11b | 2412 | Ant0 | 0.00 | -0.186 | 100 | 8 | Pass |
| 802.11b | 2437 | Ant0 | 0.00 | -0.251 | 100 | 8 | Pass |
| 802.11b | 2462 | Ant0 | 0.00 | -0.697 | 100 | 8 | Pass |
| 802.11g | 2412 | Ant0 | 0.19 | -5.972 | 100 | 8 | Pass |
| 802.11g | 2437 | Ant0 | 0.15 | -6.439 | 100 | 8 | Pass |
| 802.11g | 2462 | Ant0 | 0.18 | -5.984 | 100 | 8 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 0.18 | -6.669 | 100 | 8 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 0.22 | -6.466 | 100 | 8 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 0.13 | -6.539 | 100 | 8 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 0.31 | -9.282 | 100 | 8 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 0.31 | -9.438 | 100 | 8 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 0.27 | -9.241 | 100 | 8 | Pass |

5.2 Test Plots





6 Emission outside the frequency band

6.1 Test Data

| WLAN Transmitter Spurious Emission | | | | | | |
|------------------------------------|----------------------|------|----------|------------------|----------------|--------|
| Mode | Test Frequency (MHz) | Ant | Plot No. | Frequency Range | Emission (dBm) | Result |
| 802.11b | 2412 | Ant0 | 1 | Reference Level | 8.14 | Pass |
| 802.11b | 2412 | Ant0 | 2 | Band Edge | -32.62 | Pass |
| 802.11b | 2412 | Ant0 | 3 | 30MHz~2310MHz | -55.24 | Pass |
| 802.11b | 2412 | Ant0 | 4 | 2500MHz~5000MHz | -46.36 | Pass |
| 802.11b | 2412 | Ant0 | 5 | 5000MHz~25000MHz | -42.69 | Pass |
| 802.11b | 2437 | Ant0 | 1 | Reference Level | 8.27 | Pass |
| 802.11b | 2437 | Ant0 | 2 | Band Edge | -53.38 | Pass |
| 802.11b | 2437 | Ant0 | 3 | 30MHz~2310MHz | -55.19 | Pass |
| 802.11b | 2437 | Ant0 | 4 | 2500MHz~5000MHz | -47.24 | Pass |
| 802.11b | 2437 | Ant0 | 5 | 5000MHz~25000MHz | -42.81 | Pass |
| 802.11b | 2462 | Ant0 | 1 | Reference Level | 7.99 | Pass |
| 802.11b | 2462 | Ant0 | 2 | Band Edge | -44.46 | Pass |
| 802.11b | 2462 | Ant0 | 3 | 30MHz~2310MHz | -54.93 | Pass |
| 802.11b | 2462 | Ant0 | 4 | 2500MHz~5000MHz | -47.18 | Pass |
| 802.11b | 2462 | Ant0 | 5 | 5000MHz~25000MHz | -43.18 | Pass |
| 802.11g | 2412 | Ant0 | 1 | Reference Level | 2.20 | Pass |
| 802.11g | 2412 | Ant0 | 2 | Band Edge | -30.63 | Pass |
| 802.11g | 2412 | Ant0 | 3 | 30MHz~2310MHz | -54.79 | Pass |
| 802.11g | 2412 | Ant0 | 4 | 2500MHz~5000MHz | -52.93 | Pass |
| 802.11g | 2412 | Ant0 | 5 | 5000MHz~25000MHz | -42.92 | Pass |
| 802.11g | 2437 | Ant0 | 1 | Reference Level | 2.42 | Pass |
| 802.11g | 2437 | Ant0 | 2 | Band Edge | -53.52 | Pass |
| 802.11g | 2437 | Ant0 | 3 | 30MHz~2310MHz | -55.14 | Pass |
| 802.11g | 2437 | Ant0 | 4 | 2500MHz~5000MHz | -53.04 | Pass |
| 802.11g | 2437 | Ant0 | 5 | 5000MHz~25000MHz | -42.52 | Pass |

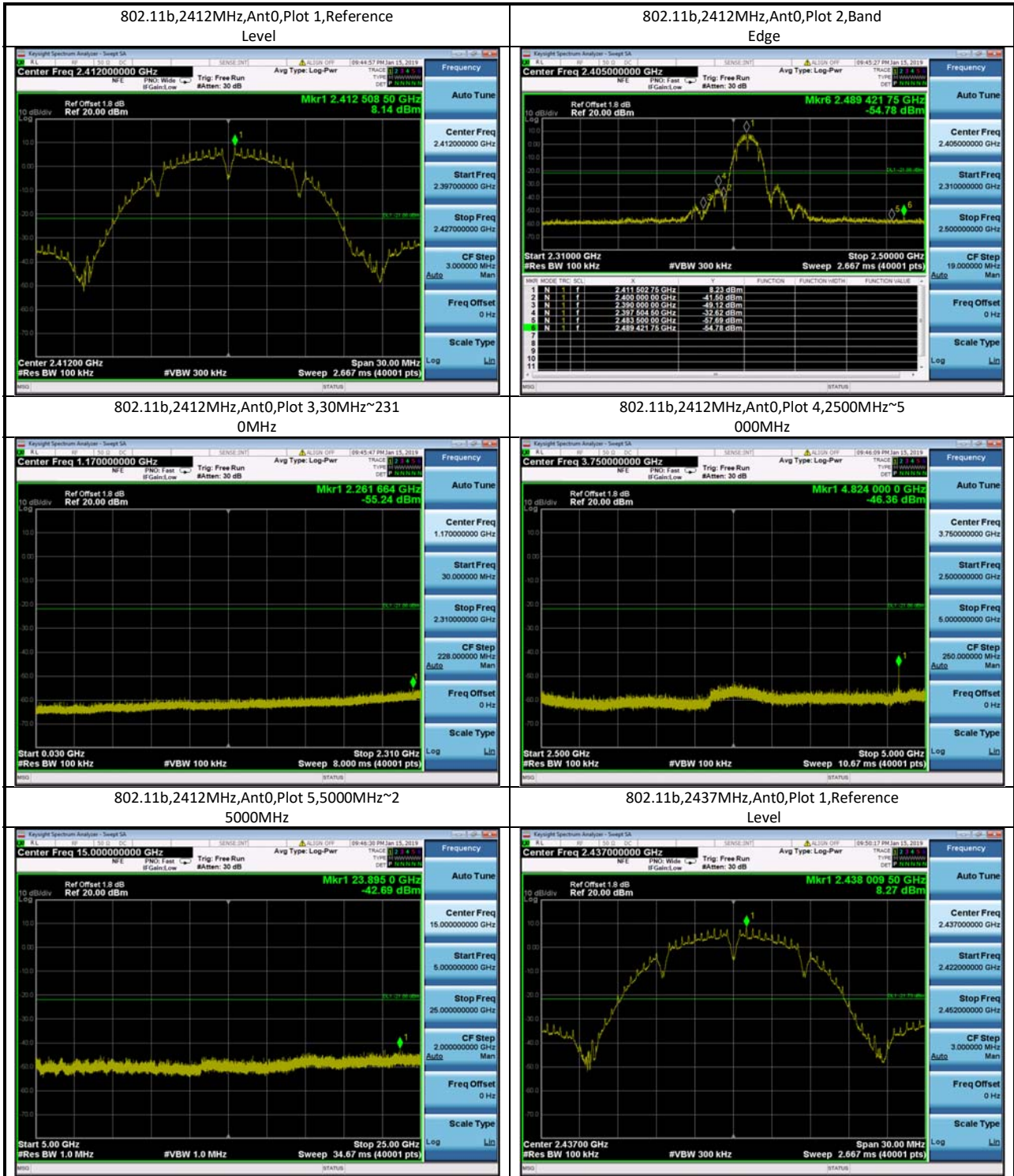
TEST REPORT

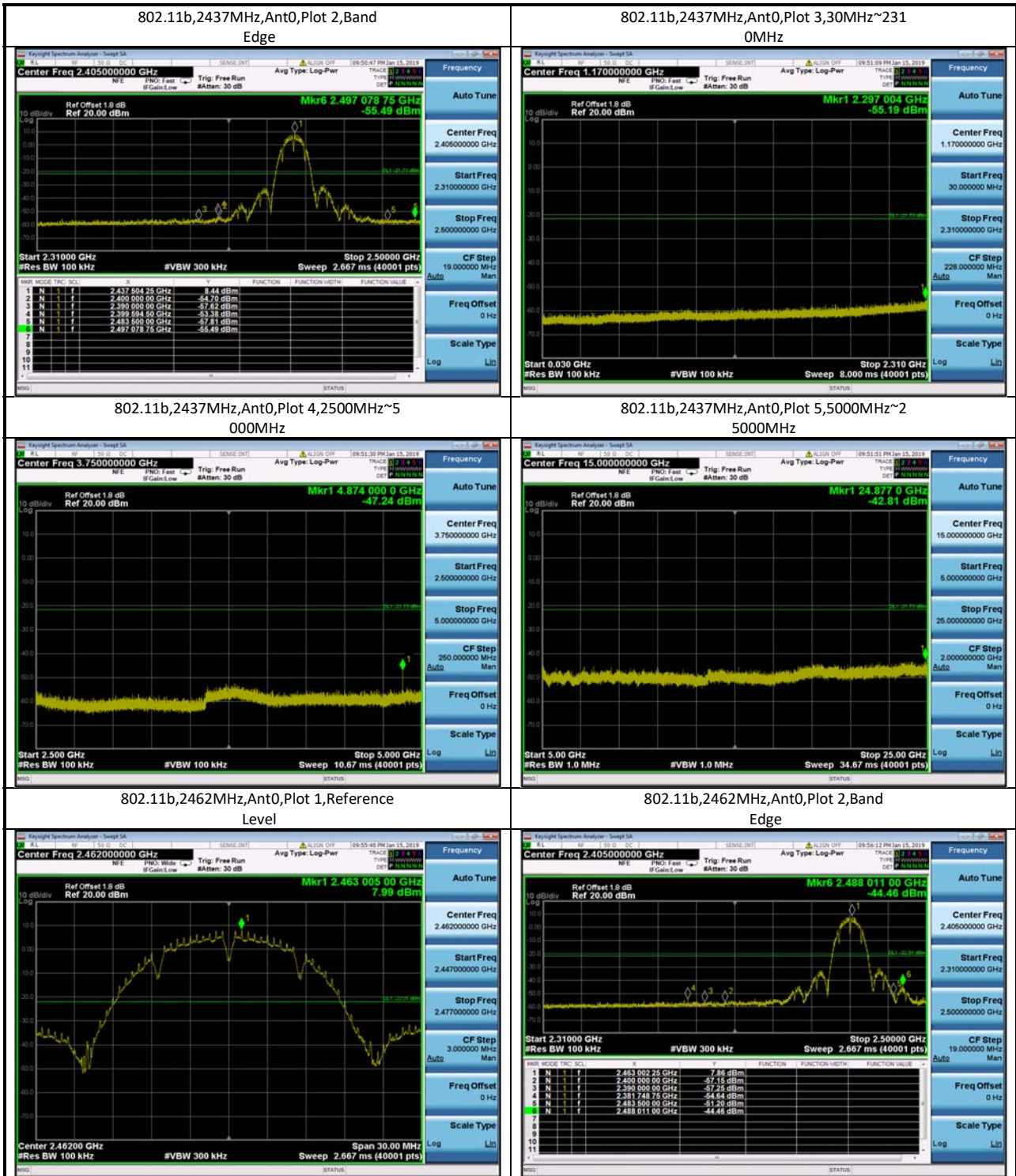
| | | | | | | |
|-------------------|------|------|---|------------------|--------|------|
| 802.11g | 2462 | Ant0 | 1 | Reference Level | 2.57 | Pass |
| 802.11g | 2462 | Ant0 | 2 | Band Edge | -41.06 | Pass |
| 802.11g | 2462 | Ant0 | 3 | 30MHz~2310MHz | -55.30 | Pass |
| 802.11g | 2462 | Ant0 | 4 | 2500MHz~5000MHz | -53.11 | Pass |
| 802.11g | 2462 | Ant0 | 5 | 5000MHz~25000MHz | -42.83 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 1 | Reference Level | 2.09 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 2 | Band Edge | -31.10 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 3 | 30MHz~2310MHz | -54.92 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 4 | 2500MHz~5000MHz | -53.36 | Pass |
| 802.11n (HT20) | 2412 | Ant0 | 5 | 5000MHz~25000MHz | -43.13 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 1 | Reference Level | 2.33 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 2 | Band Edge | -52.27 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 3 | 30MHz~2310MHz | -55.23 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 4 | 2500MHz~5000MHz | -52.48 | Pass |
| 802.11n (HT20) | 2437 | Ant0 | 5 | 5000MHz~25000MHz | -42.23 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 1 | Reference Level | 2.46 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 2 | Band Edge | -40.08 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 3 | 30MHz~2310MHz | -54.81 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 4 | 2500MHz~5000MHz | -52.45 | Pass |
| 802.11n (HT20) | 2462 | Ant0 | 5 | 5000MHz~25000MHz | -42.80 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 1 | Reference Level | -0.23 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 2 | Band Edge | -31.47 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 3 | 30MHz~2310MHz | -55.72 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 4 | 2500MHz~5000MHz | -52.69 | Pass |
| 802.11n (HT40) | 2422 | Ant0 | 5 | 5000MHz~25000MHz | -43.29 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 1 | Reference Level | -0.20 | Pass |

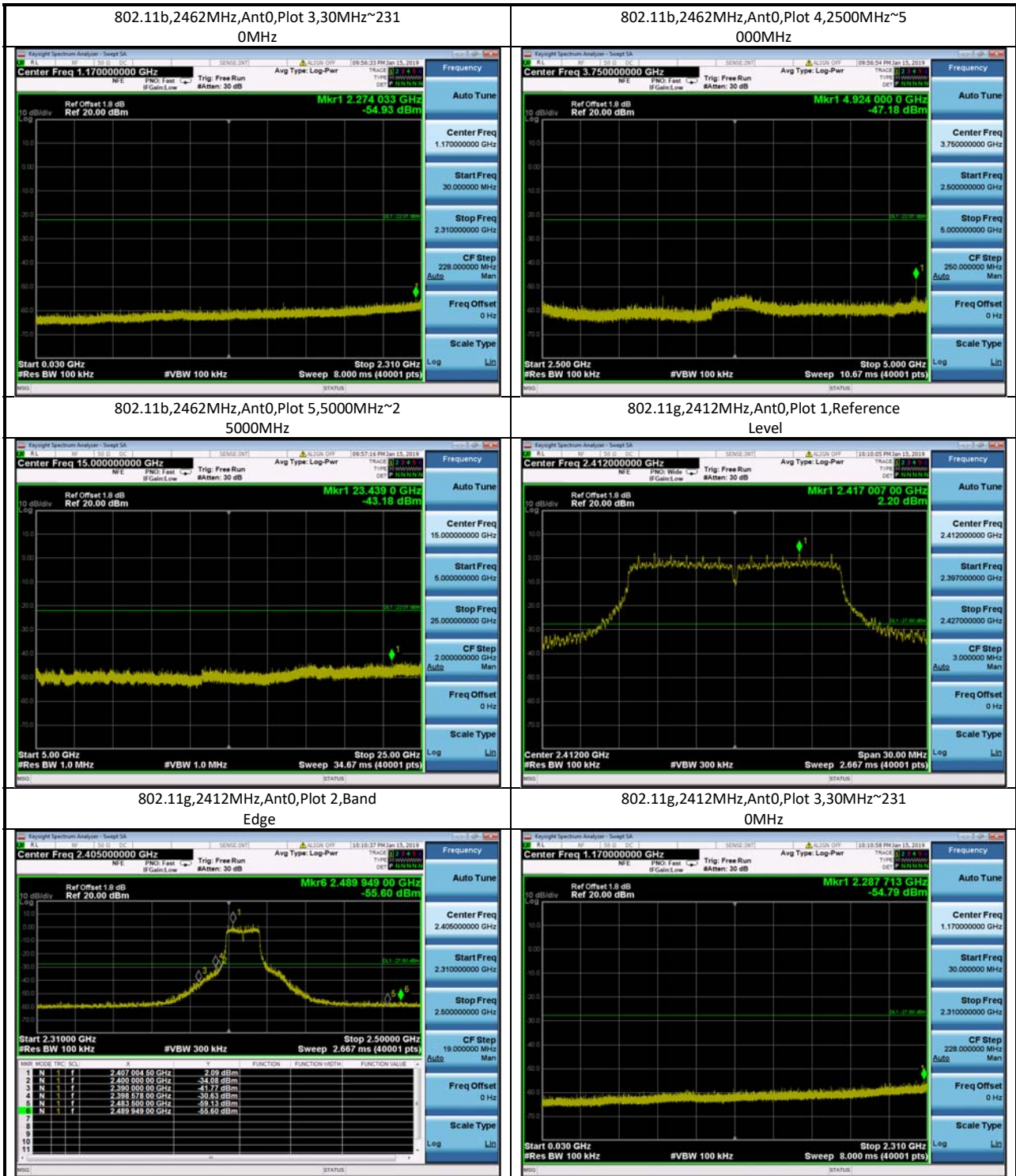
TEST REPORT

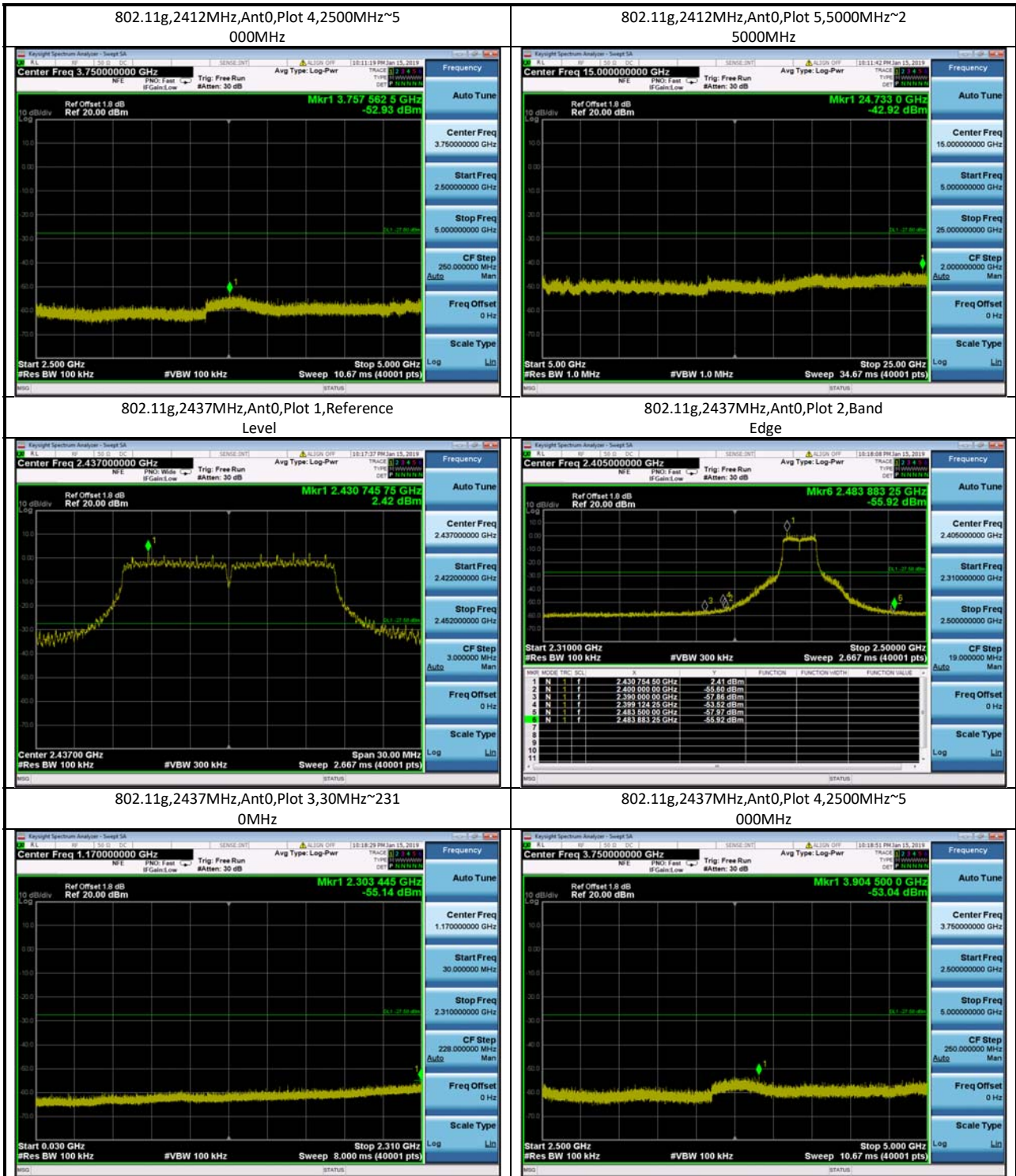
| | | | | | | |
|----------------|------|------|---|------------------|--------|------|
| 802.11n (HT40) | 2437 | Ant0 | 2 | Band Edge | -37.17 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 3 | 30MHz~2310MHz | -55.47 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 4 | 2500MHz~5000MHz | -53.01 | Pass |
| 802.11n (HT40) | 2437 | Ant0 | 5 | 5000MHz~25000MHz | -42.77 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 1 | Reference Level | -0.37 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 2 | Band Edge | -32.62 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 3 | 30MHz~2310MHz | -55.69 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 4 | 2500MHz~5000MHz | -46.53 | Pass |
| 802.11n (HT40) | 2452 | Ant0 | 5 | 5000MHz~25000MHz | -43.31 | Pass |

6.2 Test Plots

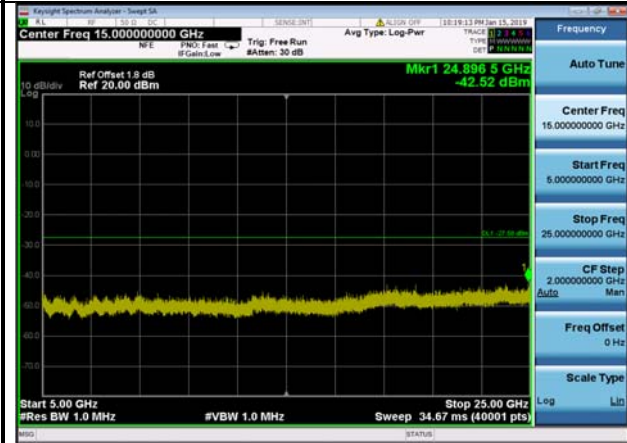




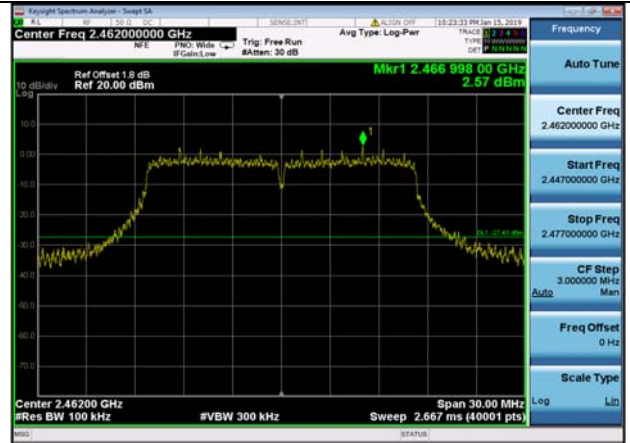




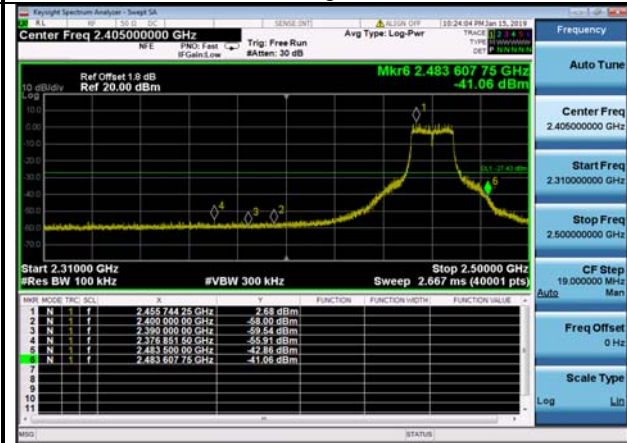
802.11g,2437MHz,Ant0,Plot 5,5000MHz~2
5000MHz



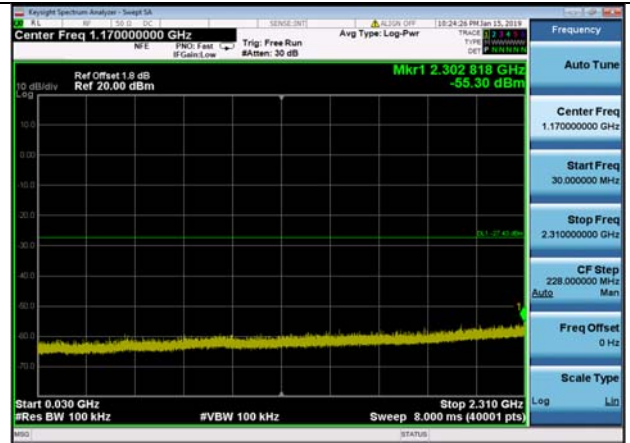
802.11g,2462MHz,Ant0,Plot 1,Reference
Level



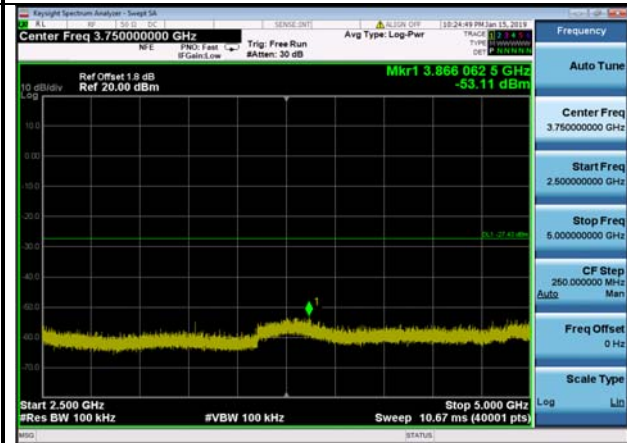
802.11g,2462MHz,Ant0,Plot 2,Band
Edge



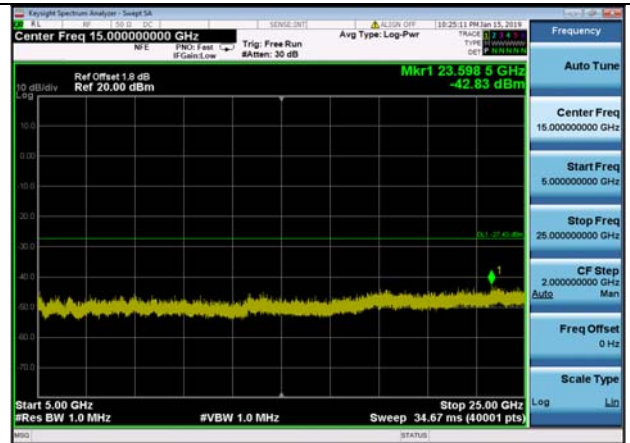
802.11g,2462MHz,Ant0,Plot 3,300MHz~231
0MHz

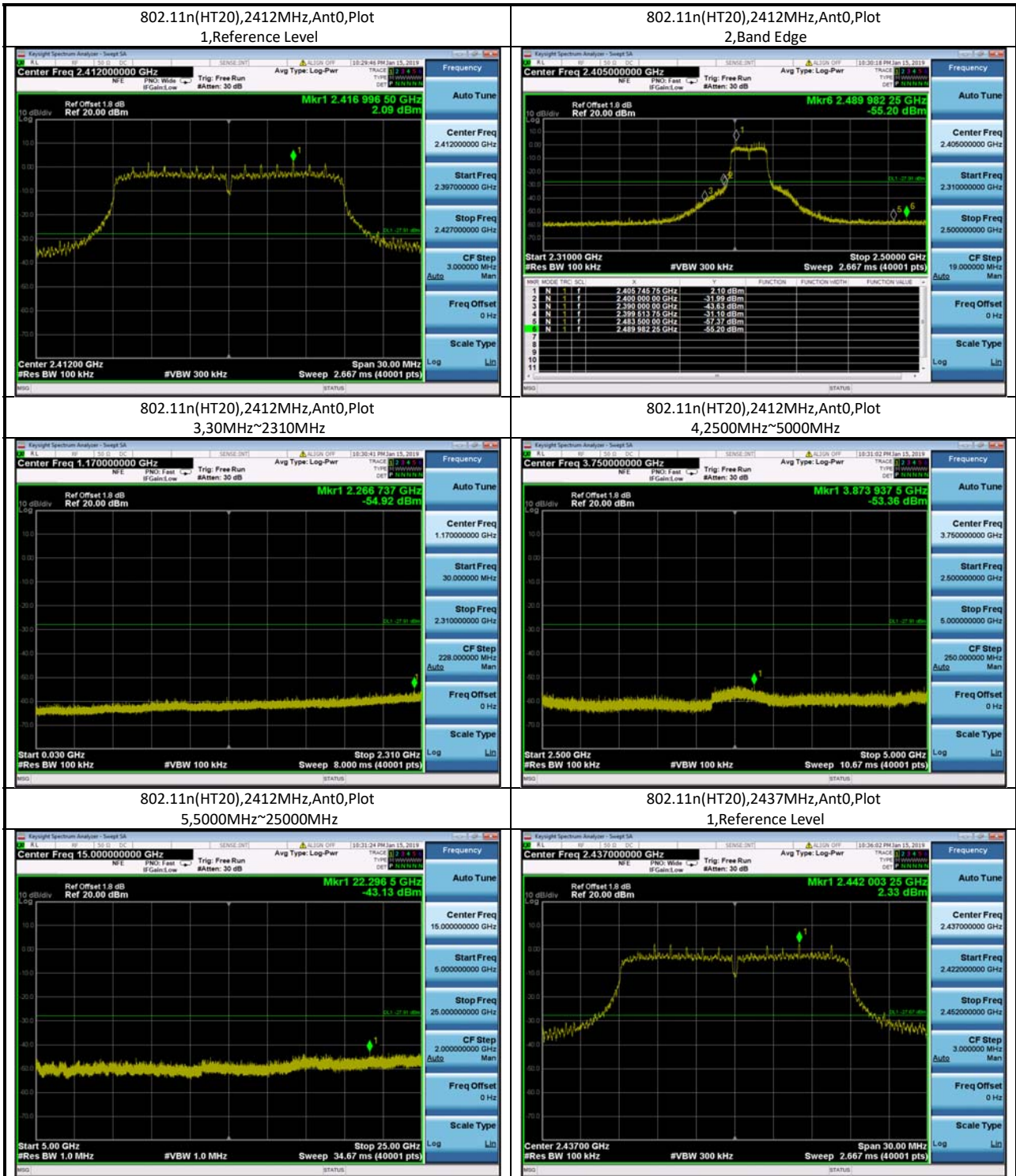


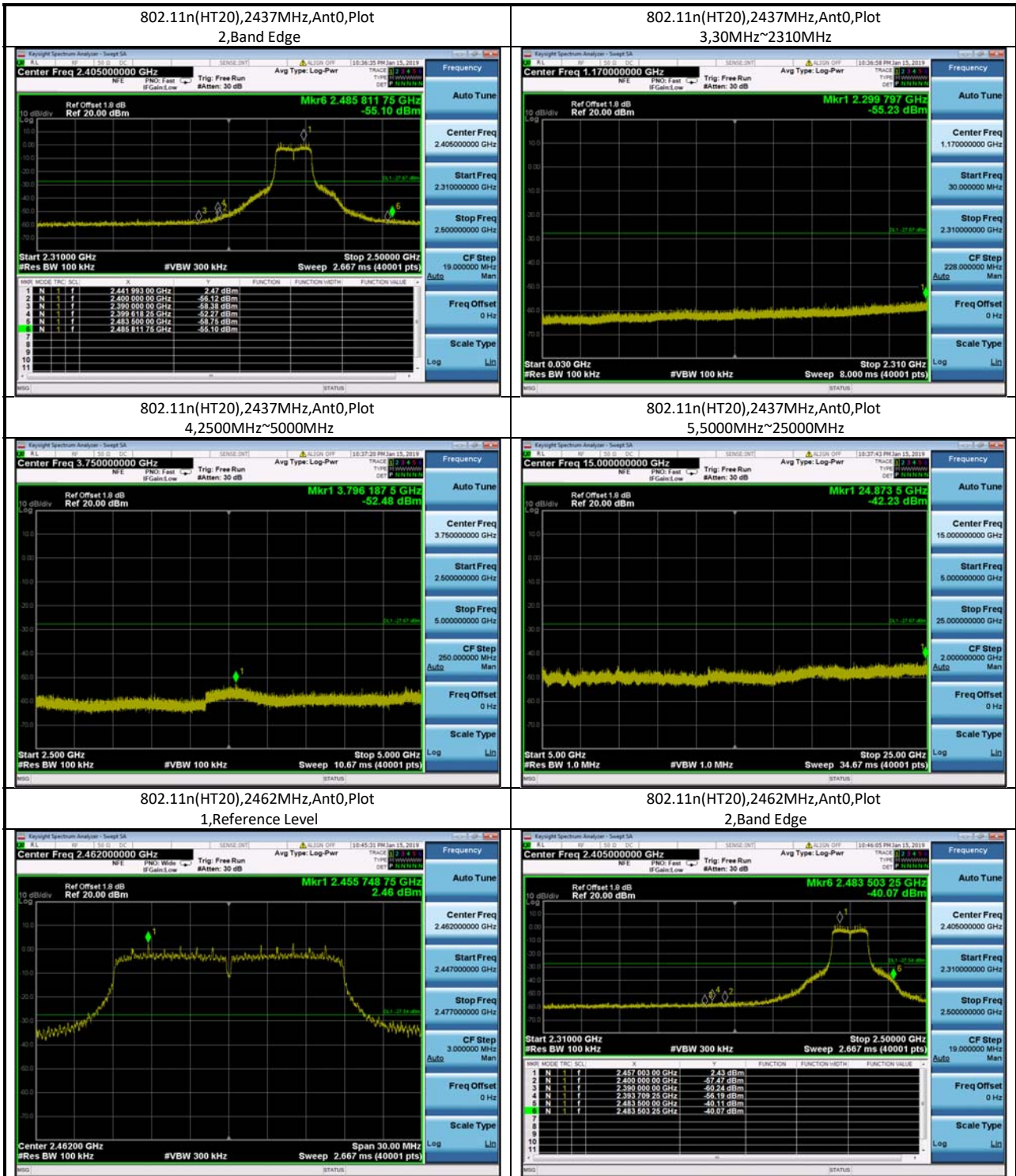
802.11g,2462MHz,Ant0,Plot 4,2500MHz~5
000MHz

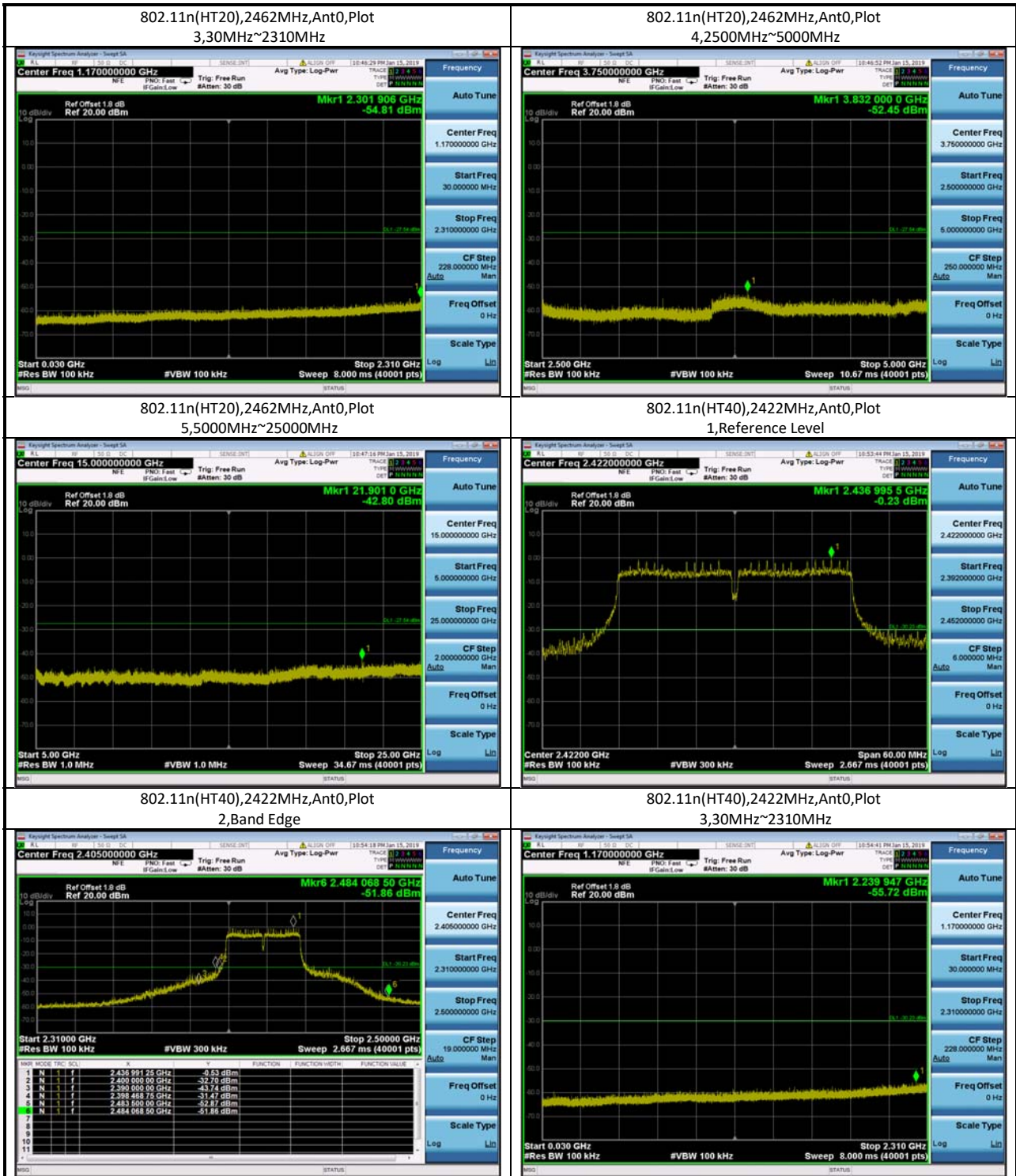


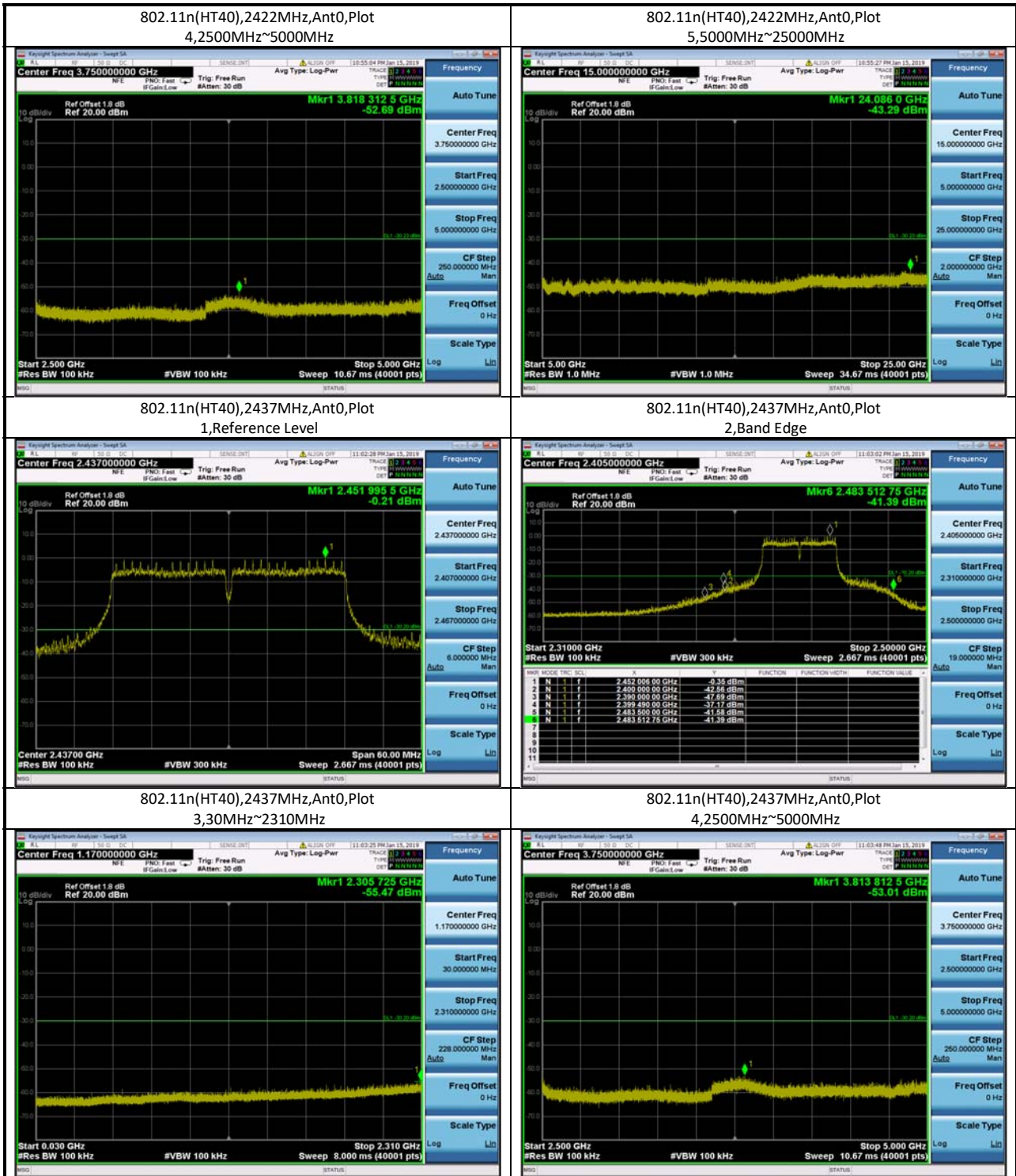
802.11g,2462MHz,Ant0,Plot 5,5000MHz~2
5000MHz

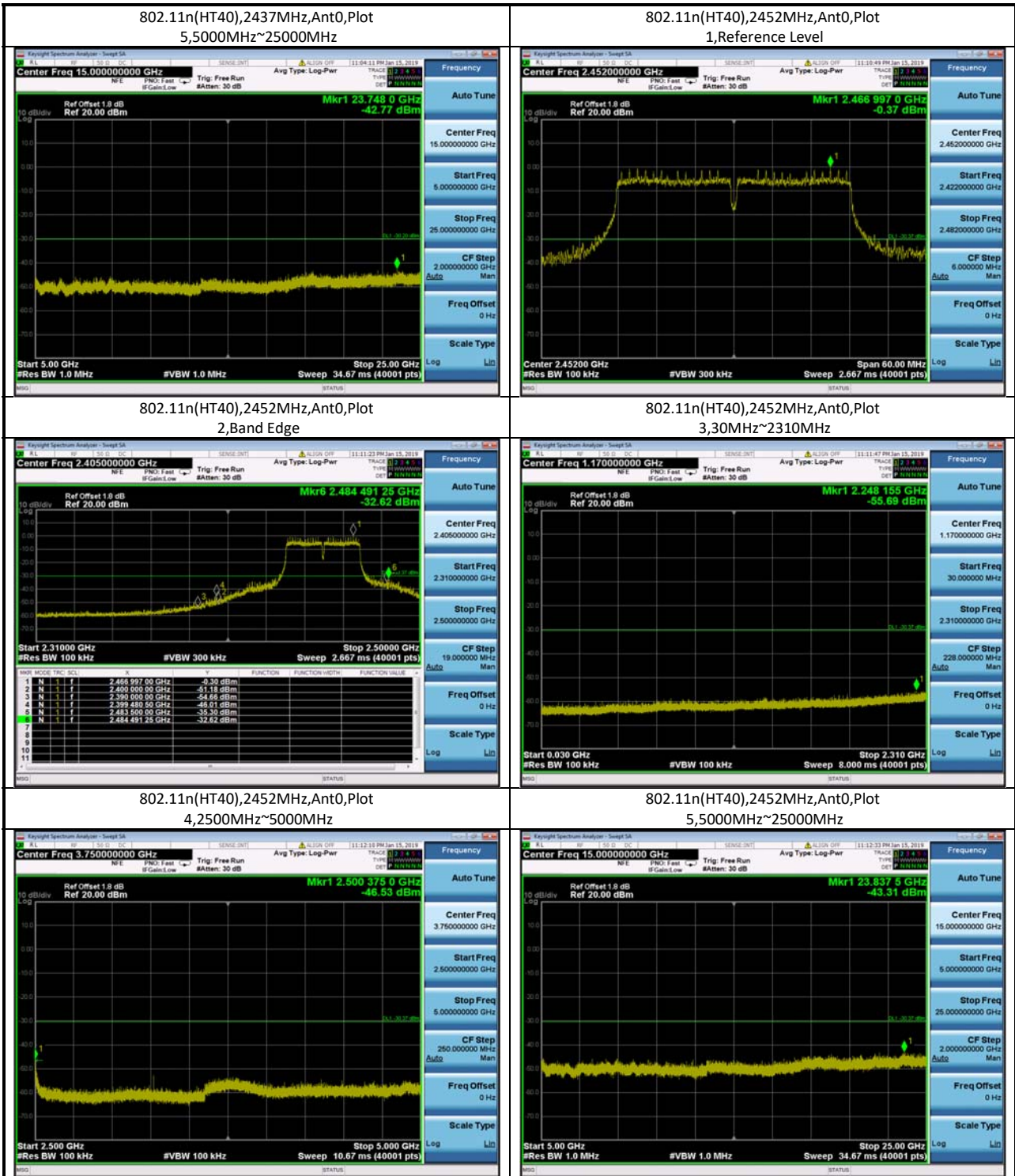












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