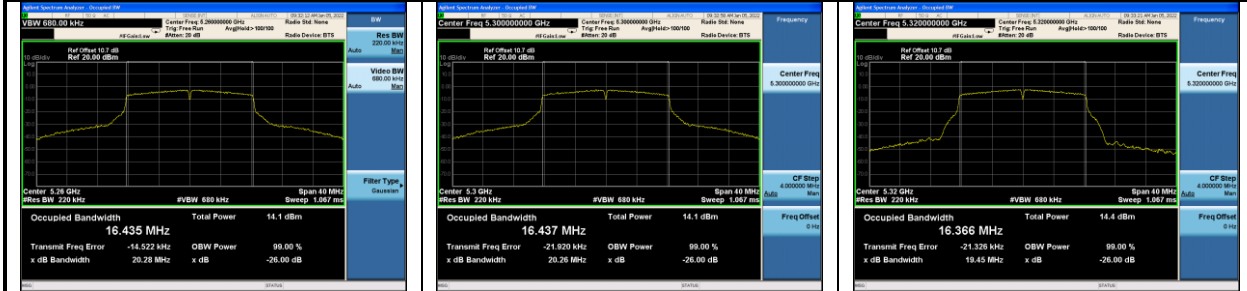


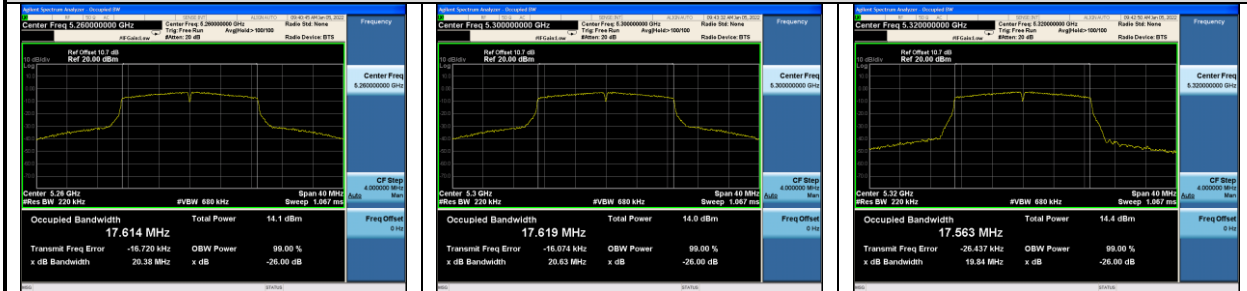
26dB bandwidth & 99% Occupied bandwidth

U-NII-2A Band: ANTA

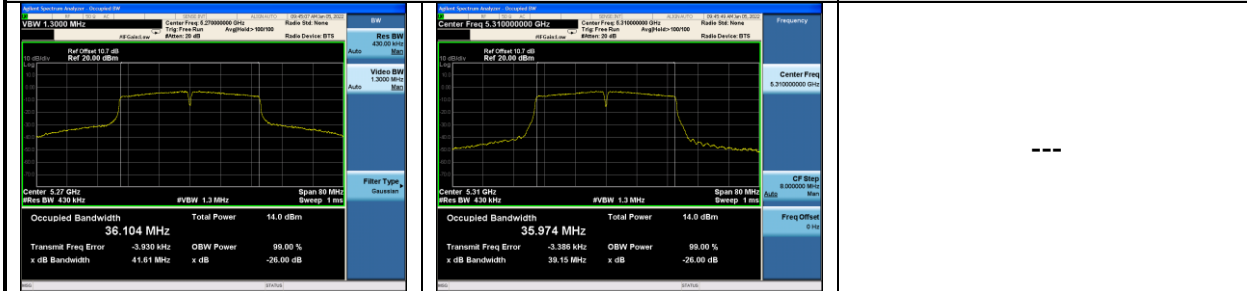
IEEE 802.11a



IEEE 802.11n HT20



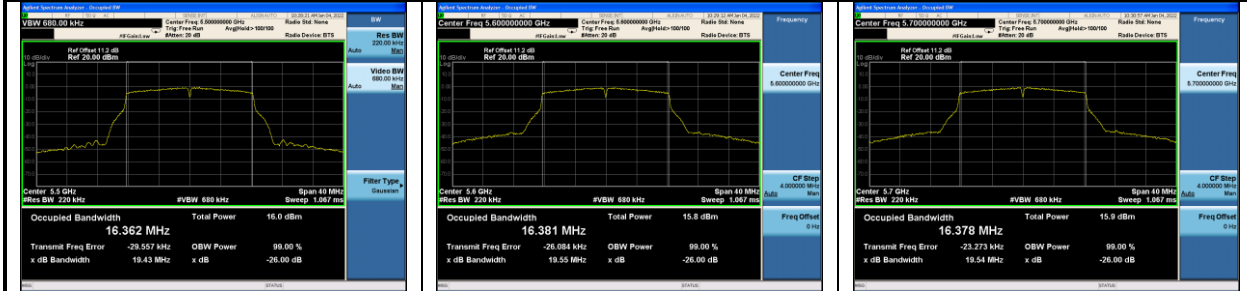
IEEE 802.11n HT40



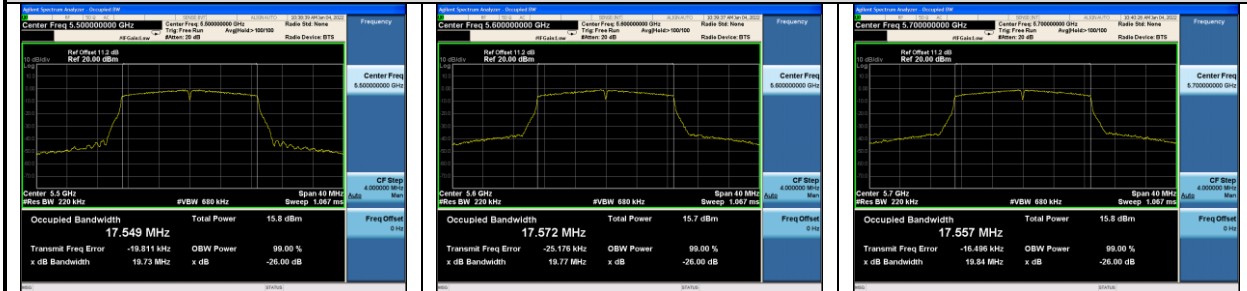
26dB bandwidth & 99% Occupied bandwidth

U-NII-2C Band: ANTB

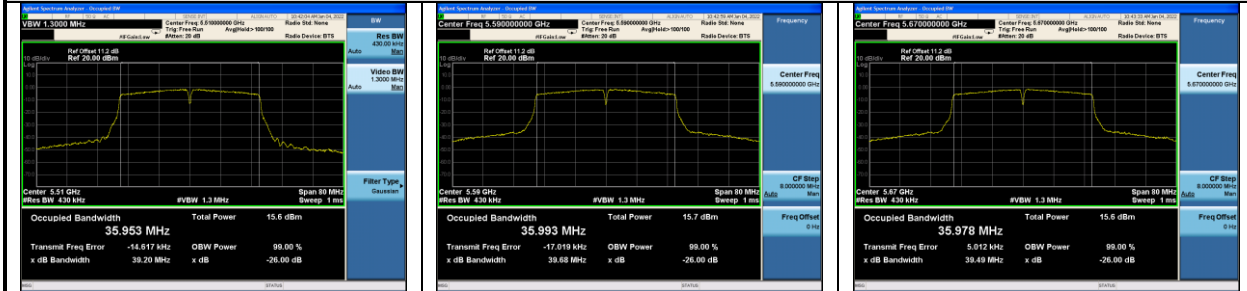
IEEE 802.11a



IEEE 802.11n HT20



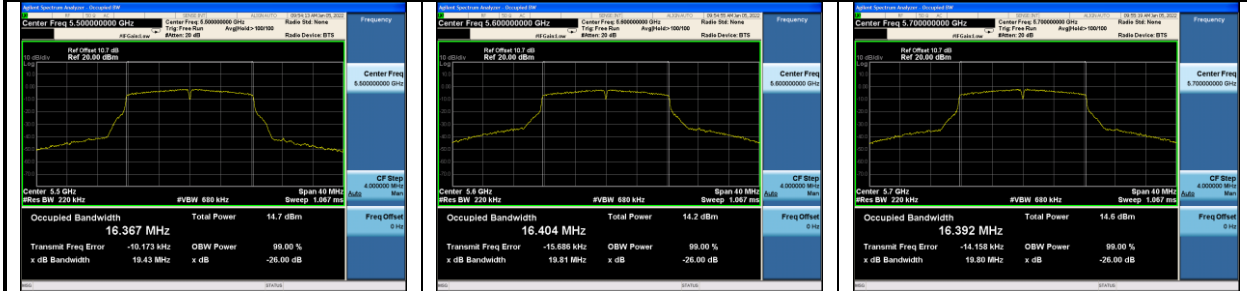
IEEE 802.11n HT40



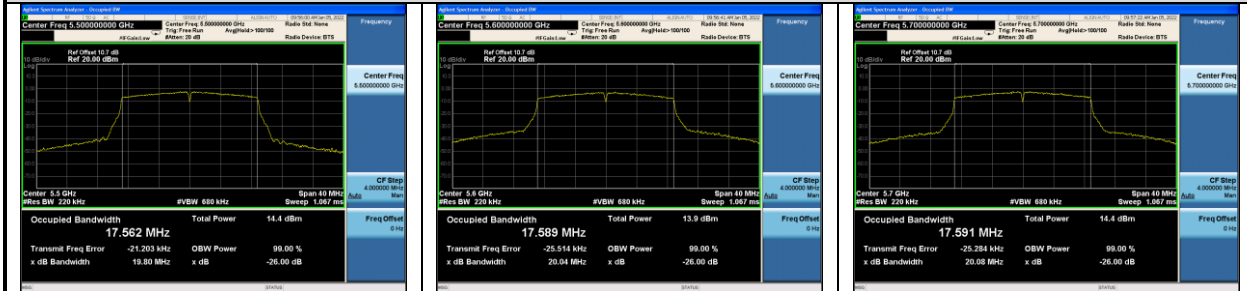
26dB bandwidth & 99% Occupied bandwidth

U-NII-2C Band: ANTA

IEEE 802.11a

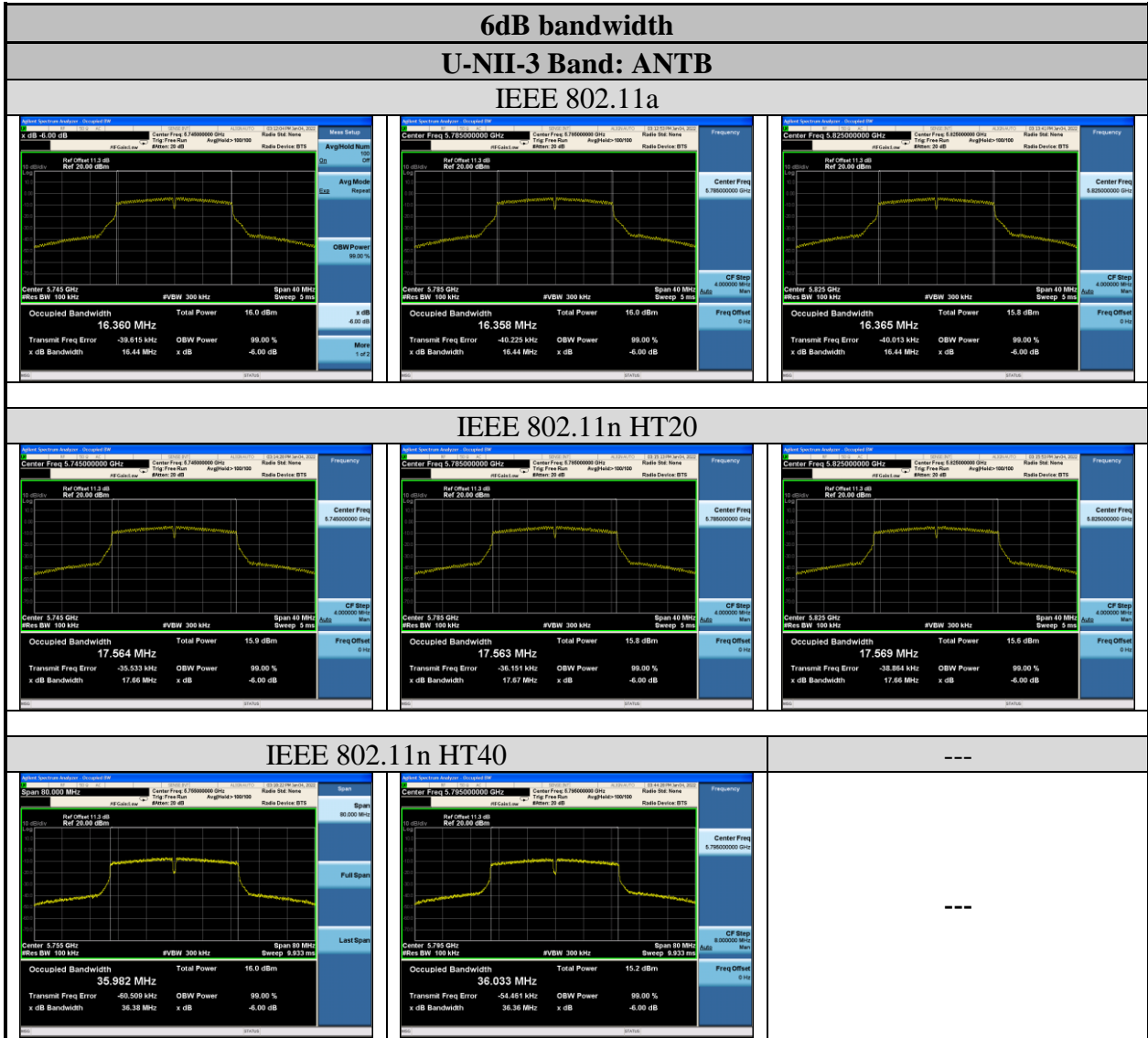


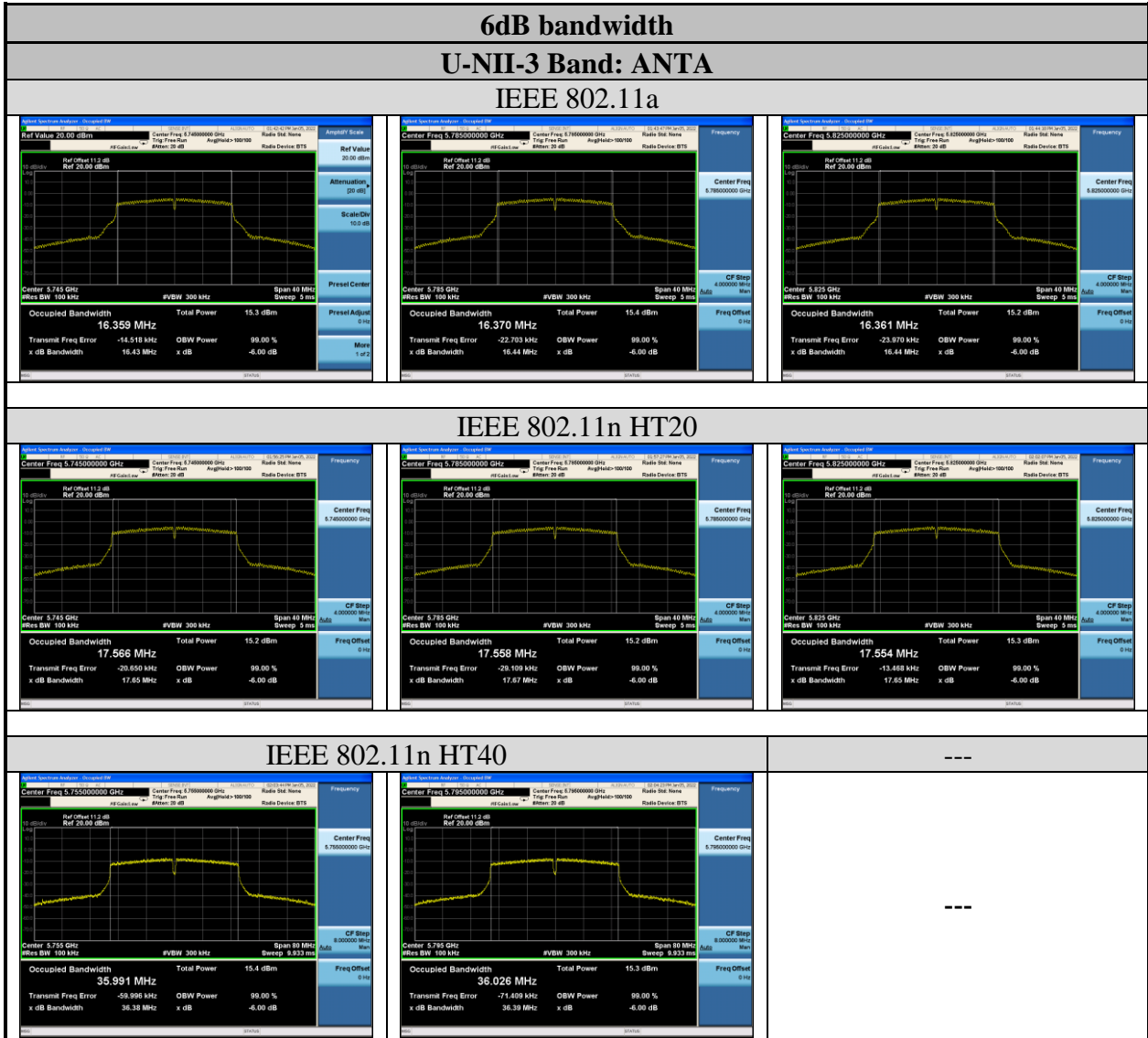
IEEE 802.11n HT20

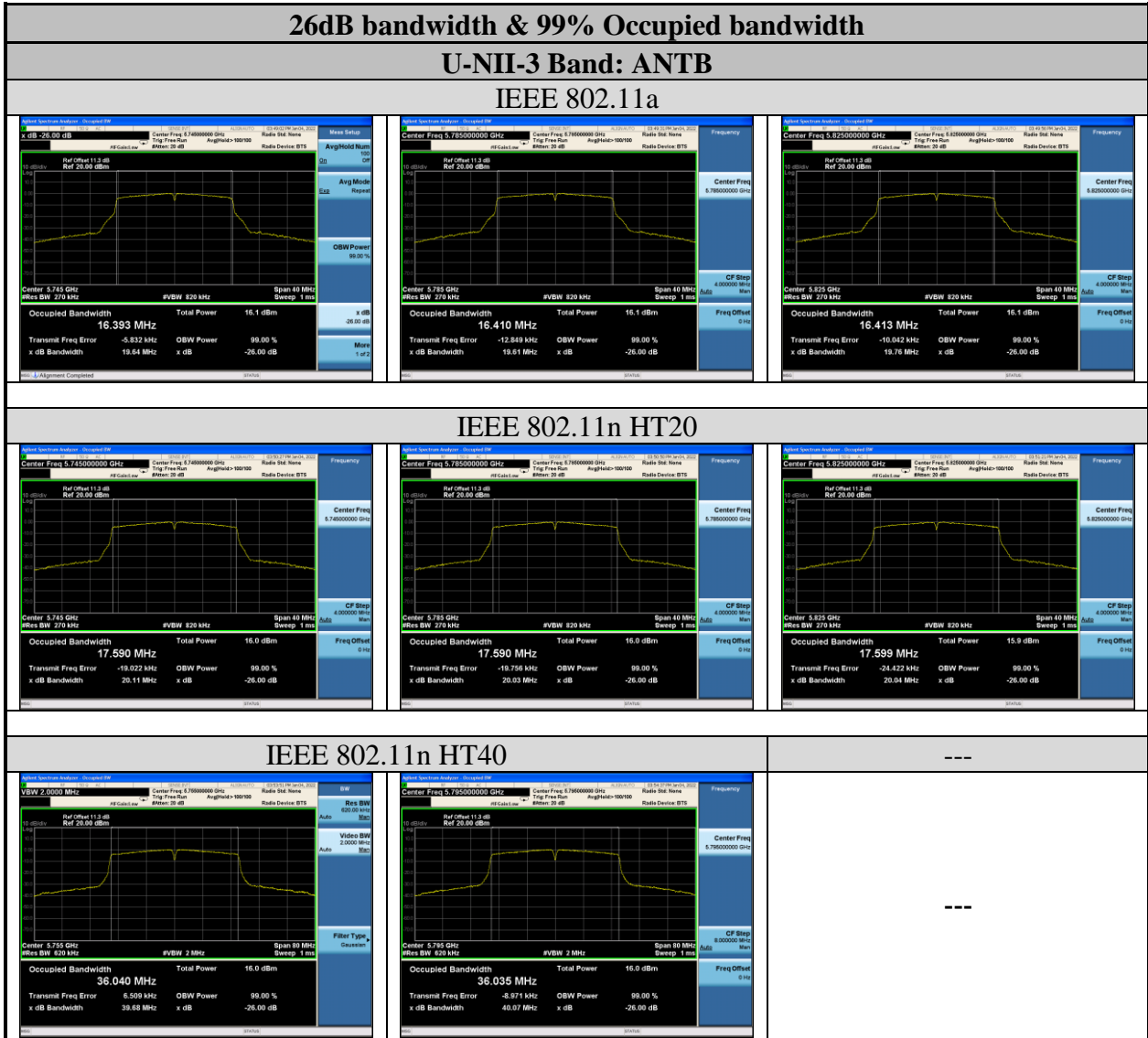


IEEE 802.11n HT40





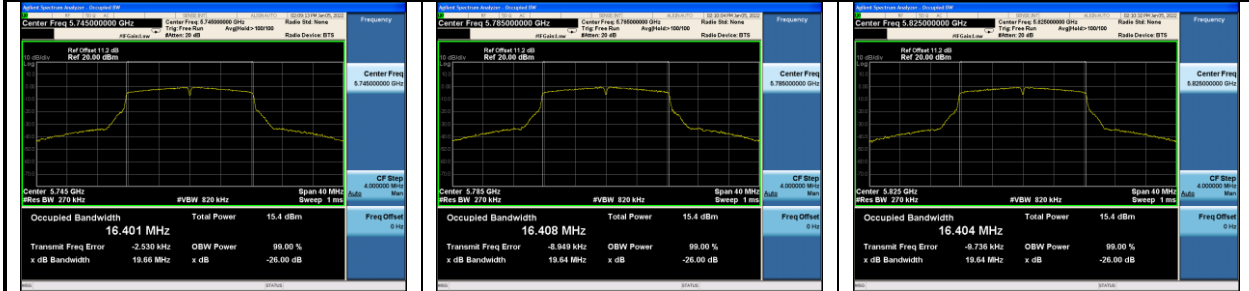




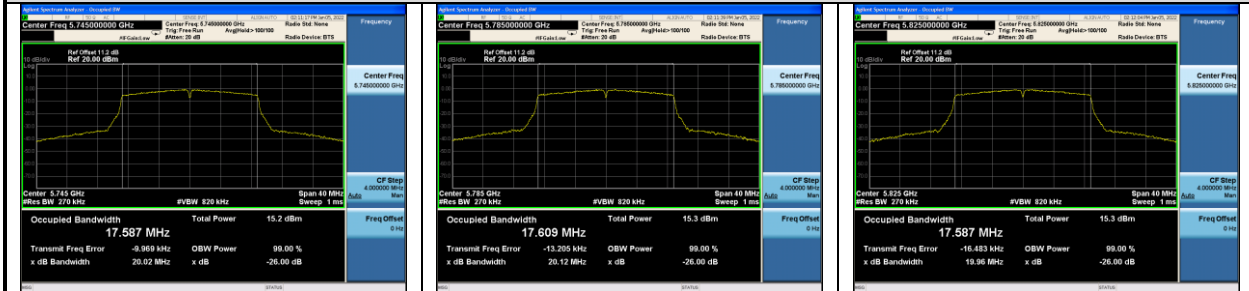
26dB bandwidth & 99% Occupied bandwidth

U-NII-3 Band: ANTA

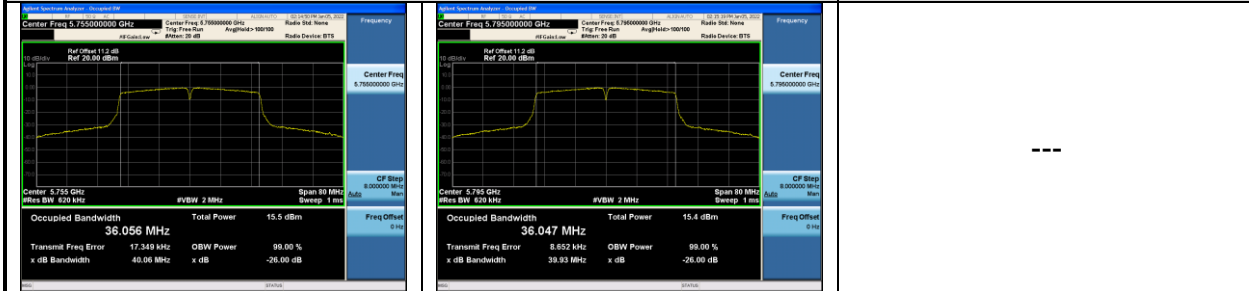
IEEE 802.11a



IEEE 802.11n HT20



IEEE 802.11n HT40



7. OUTPUT POWER TEST

7.1. Test Equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|---------------------|--------------|--------------|------------|-----------|---------------|
| 1. | PXA Signal Analyzer | Agilent | N9030A | MY51380221 | Apr.07,21 | 1 Year |
| 2. | Power meter | Anritsu | ML2487A | 6K00002472 | Apr.07,21 | 1 Year |
| 3. | Power sensor | Anritsu | MA2491A | 033005 | Apr.06,21 | 1 Year |
| 4. | Attenuator | Agilent | 8491B | MY39269201 | Oct.09,21 | 1 Year |
| 5. | RF Cable | HUBER+SUHNER | SUCOFLEX-106 | 505238/6 | Apr.07,21 | 1 Year |

7.2. Limit

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

7.3. Test Procedure

1. Connected the EUT's antenna port to measure device by 20dB attenuator.
2. Use the test method described in ANSI C63.10 clause 12.3 Method SA-1
 - 1) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
 - 2) Set RBW = 1 MHz.
 - 3) Set VBW ≥ 3 MHz.
 - 4) Number of points in sweep ≥ 2 × span / RBW.
 - 5) Sweep time = auto.
 - 6) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
 - 7) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
 - 8) Trace average at least 100 traces in power averaging (rms) mode.
 - 9) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

7.4. Test Results

U-NII-1 Band:

| | | |
|-----------------------------|-------------------------|--------------------------|
| EUT: WiFi module | | |
| M/N: U9W35 | | |
| Test date: 2022-01-04~02-16 | Pressure: 102.2±1.0 kpa | Humidity: 53.5±3.0% |
| Tested by: Lynn | Test site: RF site | Temperature: 25.7±0.6 °C |

SISO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------------|
| | | ANTB | ANTA | |
| 11a | 5180 | 15.48 | 14.28 | 23.98 |
| | 5200 | 15.32 | 14.37 | |
| | 5240 | 15.71 | 14.87 | |
| 11n HT20 | 5180 | 15.35 | 14.85 | 23.98 |
| | 5200 | 15.14 | 14.73 | |
| | 5240 | 15.50 | 15.12 | |
| 11n HT40 | 5190 | 15.32 | 15.00 | 23.98 |
| | 5230 | 15.46 | 15.26 | |

Conclusion: PASS

MIMO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------|-------------|
| | | ANTB | ANTA | Total | |
| 11n HT20 | 5180 | 15.35 | 13.63 | 17.58 | 23.98 |
| | 5200 | 15.14 | 13.23 | 17.30 | |
| | 5240 | 15.50 | 13.78 | 17.73 | |
| 11n HT40 | 5190 | 15.32 | 13.36 | 17.46 | 23.98 |
| | 5230 | 15.46 | 13.71 | 17.68 | |

Conclusion: PASS

Note: Directional Gain= $10 \log[(10^{1.42/20} + 10^{-4.67/20})^2 / 2]$ dBi = 1.91 dBi < 6 dBi.

U-NII-2A Band:

| | | |
|-----------------------------|-------------------------|--------------------------|
| EUT: WiFi module | | |
| M/N: U9W35 | | |
| Test date: 2022-01-04~02-16 | Pressure: 102.2±1.0 kpa | Humidity: 53.5±3.0% |
| Tested by: Lynn | Test site: RF site | Temperature: 25.7±0.6 °C |

SISO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------------|
| | | ANTB | ANTA | |
| 11a | 5260 | 15.82 | 14.93 | 23.98 |
| | 5300 | 15.85 | 14.97 | |
| | 5320 | 15.96 | 14.85 | |
| 11n HT20 | 5260 | 15.21 | 14.77 | 23.98 |
| | 5300 | 15.24 | 14.85 | |
| | 5320 | 15.33 | 14.85 | |
| 11n HT40 | 5270 | 15.26 | 14.87 | 23.98 |
| | 5310 | 15.26 | 14.88 | |

Conclusion: PASS

MIMO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------|-------------|
| | | ANTB | ANTA | Total | |
| 11n HT20 | 5260 | 15.55 | 13.91 | 17.82 | 23.98 |
| | 5300 | 15.74 | 13.83 | 17.90 | |
| | 5320 | 15.85 | 14.11 | 18.08 | |
| 11n HT40 | 5270 | 15.61 | 14.00 | 17.89 | 23.98 |
| | 5310 | 15.70 | 13.91 | 17.91 | |

Conclusion: PASS

Notes: 1. Directional Gain= $10 \log[(10^{-4.34/20} + 10^{-0.16/20})^2 / 2]$ dBi = 1.01 dBi < 6 dBi .

2. For 11n HT20 Mode

Limit=11 dBm + 10 log B

where B is the 26 dB emission bandwidth in megahertz.

For 11a/11n HT40 Mode

Limit=23.98 dBm

U-NII-2C Band:

| | | |
|-----------------------------|-------------------------|--------------------------|
| EUT: WiFi module | | |
| M/N: U9W35 | | |
| Test date: 2022-01-04~02-16 | Pressure: 102.2±1.0 kpa | Humidity: 53.5±3.0% |
| Tested by: Lynn | Test site: RF site | Temperature: 25.7±0.6 °C |

SISO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------------|
| | | ANTB | ANTA | |
| 11a | 5500 | 15.96 | 14.50 | 23.98 |
| | 5600 | 15.76 | 14.06 | |
| | 5700 | 15.93 | 14.56 | |
| 11n HT20 | 5500 | 15.35 | 14.84 | 23.98 |
| | 5600 | 15.02 | 14.58 | |
| | 5700 | 15.07 | 14.92 | |
| 11n HT40 | 5510 | 15.12 | 14.67 | 23.98 |
| | 5590 | 15.17 | 14.72 | |
| | 5670 | 14.99 | 14.83 | |

Conclusion: PASS

MIMO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------|-------------|
| | | ANTB | ANTA | Total | |
| 11n HT20 | 5500 | 15.78 | 14.40 | 18.15 | 23.95 |
| | 5600 | 15.70 | 13.89 | 17.90 | |
| | 5700 | 15.77 | 14.34 | 18.12 | |
| 11n HT40 | 5510 | 15.59 | 14.07 | 17.91 | 23.98 |
| | 5590 | 15.71 | 14.01 | 17.95 | |
| | 5670 | 15.62 | 14.17 | 17.97 | |

Conclusion: PASS

Notes: 1. Directional Gain= $10 \log[(10^{-4.03/20} + 10^{0.09/20})^2/2]$ dBi= 1.28dBi < 6dBi.

2. For 11n HT20 Mode

Limit=11 dBm + 10 log B

where B is the 26 dB emission bandwidth in megahertz.

For 11a/11n HT40 Mode

Limit=23.98 dBm

U-NII-3 Band:

| | | |
|-----------------------------|-------------------------|--------------------------|
| EUT: WiFi module | | |
| M/N: U9W35 | | |
| Test date: 2022-01-04~02-16 | Pressure: 102.2±1.0 kpa | Humidity: 53.5±3.0% |
| Tested by: Lynn | Test site: RF site | Temperature: 25.7±0.6 °C |

SISO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------------|
| | | ANTB | ANTA | |
| 11a | 5745 | 16.12 | 15.40 | 30 |
| | 5785 | 16.00 | 15.32 | |
| | 5825 | 16.00 | 15.47 | |
| 11n HT20 | 5745 | 15.36 | 15.24 | 30 |
| | 5785 | 15.26 | 15.25 | |
| | 5825 | 15.10 | 15.25 | |
| 11n HT40 | 5755 | 15.28 | 15.41 | 30 |
| | 5795 | 15.40 | 15.37 | |

Conclusion: PASS

MIMO:

| Test Mode | Frequency (MHz) | Maximum Conducted output power (dBm) | | | Limit (dBm) |
|-----------|-----------------|--------------------------------------|-------|-------|-------------|
| | | ANTB | ANTA | Total | |
| 11n HT20 | 5745 | 15.92 | 15.24 | 18.60 | 30 |
| | 5785 | 15.92 | 15.25 | 18.61 | |
| | 5825 | 15.87 | 15.25 | 18.58 | |
| 11n HT40 | 5755 | 15.95 | 15.41 | 18.70 | 30 |
| | 5795 | 16.00 | 15.37 | 18.71 | |

Conclusion: PASS

Note: Directional Gain= $10 \log[(10^{0.98/20} + 10^{-4.36/20})^2 / 2]$ dBi = 1.72 dBi < 6 dBi.

U-NII-1 Band: ANTB

SISO

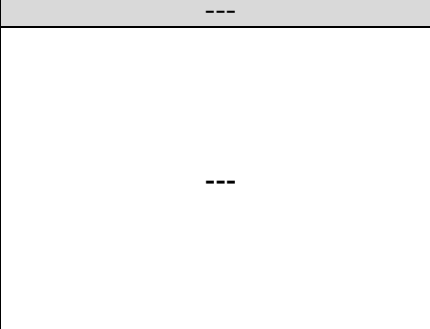
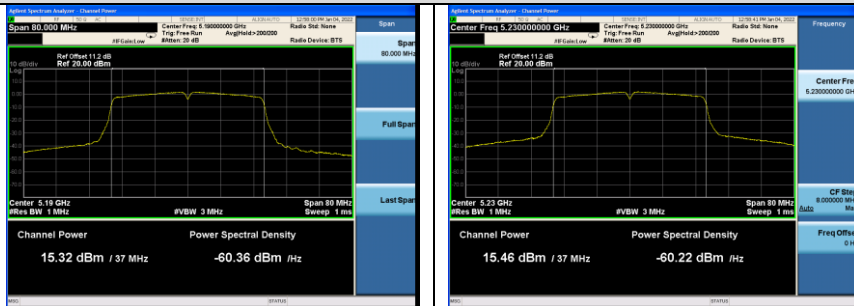
IEEE 802.11a



IEEE 802.11n HT20



IEEE 802.11n HT40

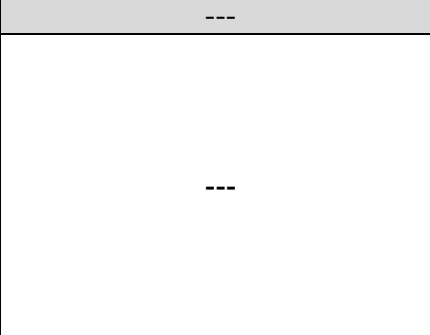
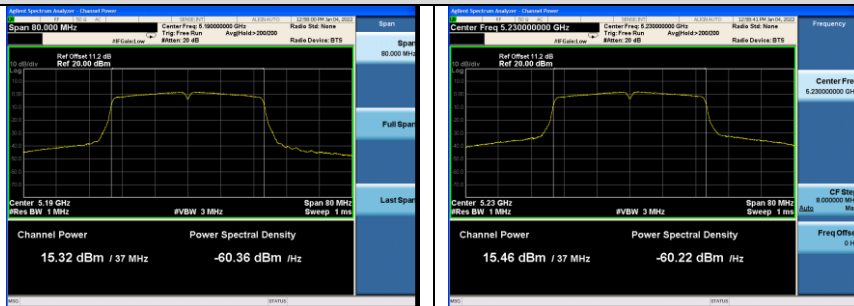


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U-NII-1 Band: ANTA

SISO

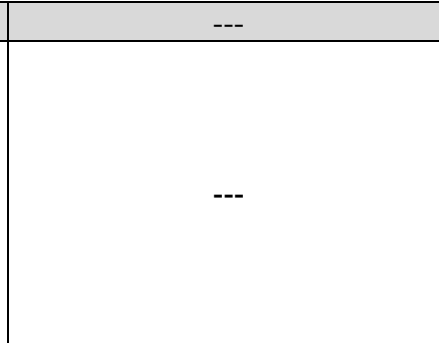
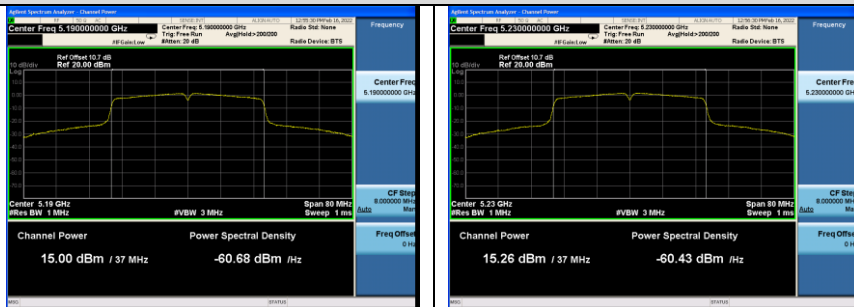
IEEE 802.11a



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IEEE 802.11n HT40

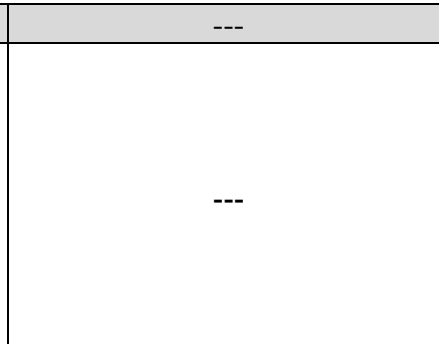


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IEEE 802.11n HT20



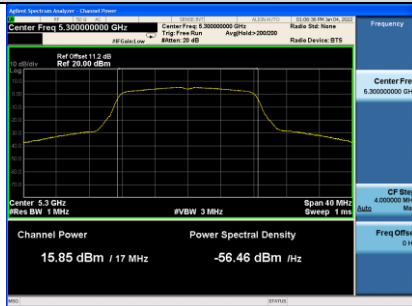
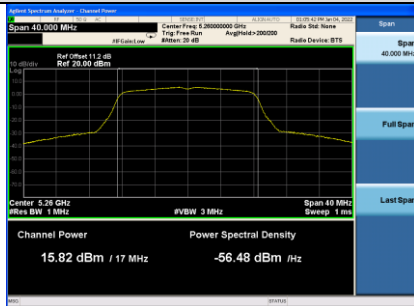
IEEE 802.11n HT40



U-NII-2A Band: ANTB

SISO

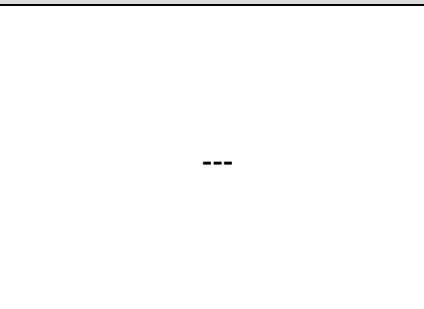
IEEE 802.11a



IEEE 802.11n HT20

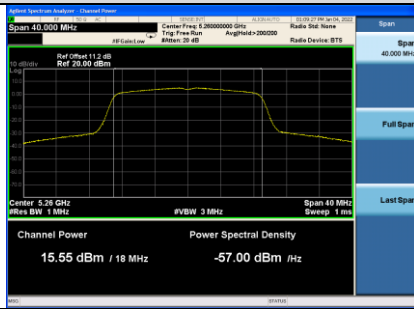


IEEE 802.11n HT40

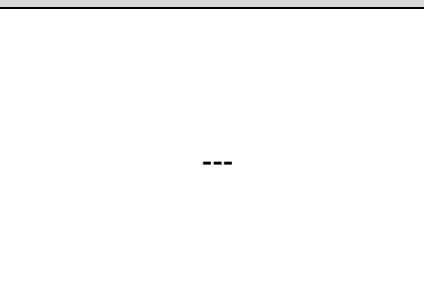
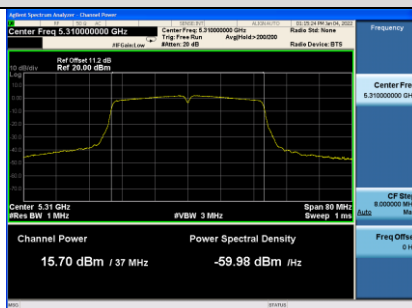


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U-NII-2A Band: ANTA

SISO

IEEE 802.11a



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IEEE 802.11n HT40

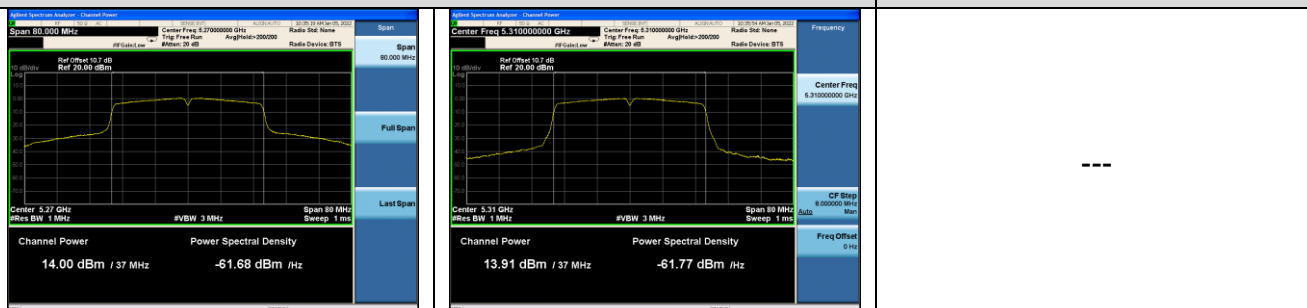


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U-NII-2C Band: ANTB

SISO

IEEE 802.11a



IEEE 802.11n HT20

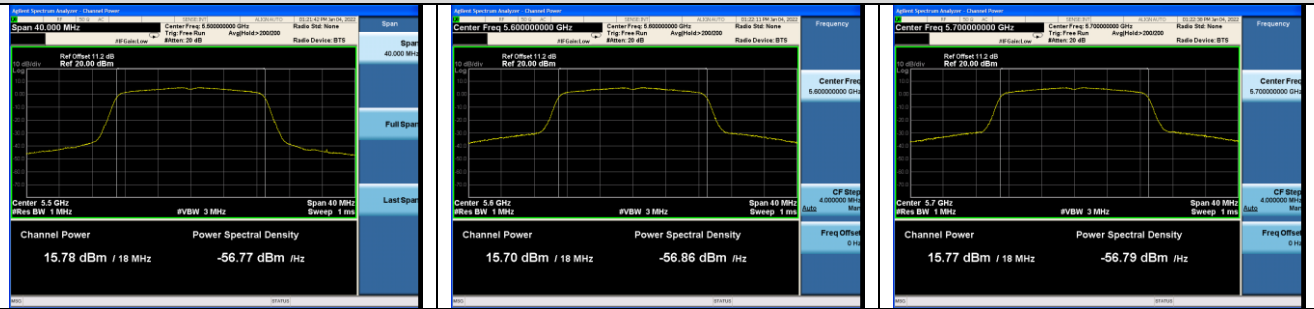


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U-NII-2C Band: ANTA

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