

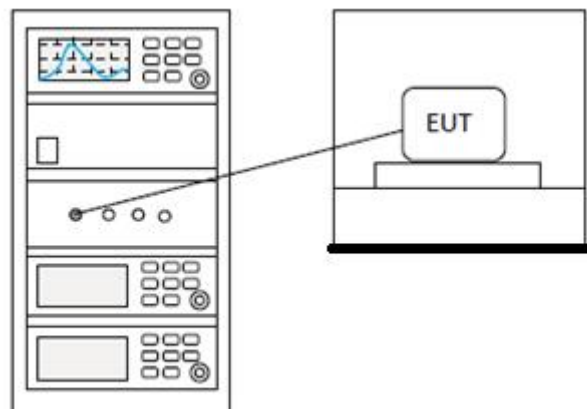
## 17 POWER SPECTRUM DENSITY

|                        |                                    |
|------------------------|------------------------------------|
| Test Standard          | 47 CFR Part 15, Subpart C 15.247   |
| Test Method            | ANSI C63.10 (2013) Section 11.10.2 |
| Test Mode (Pre-Scan)   | TX                                 |
| Test Mode (Final Test) | TX                                 |
| Tester                 | Charlie                            |
| Temperature            | 25°C                               |
| Humidity               | 60%                                |

### 17.1 LIMITS

|               |                                                                             |
|---------------|-----------------------------------------------------------------------------|
| <b>Limit:</b> | ≤8dBm in any 3 kHz band during any time interval of continuous transmission |
|---------------|-----------------------------------------------------------------------------|

### 17.2 BLOCK DIAGRAM OF TEST SETUP



### 17.3 TEST DATA

**Pass: Please Refer To Appendix: Appendix1 For Details**

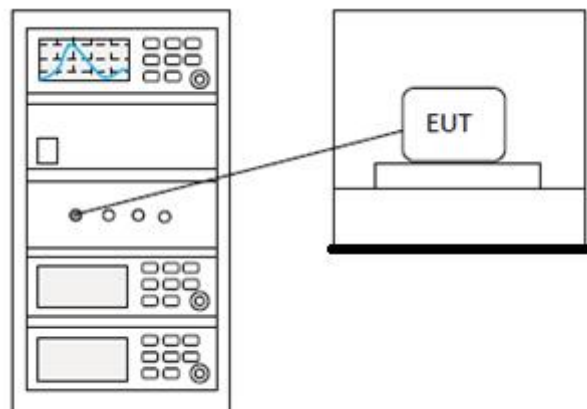
## 18 CONDUCTED PEAK OUTPUT POWER

|                        |                                  |
|------------------------|----------------------------------|
| Test Standard          | 47 CFR Part 15, Subpart C 15.247 |
| Test Method            | ANSI C63.10 (2013) Section 7.8.5 |
| Test Mode (Pre-Scan)   | TX                               |
| Test Mode (Final Test) | TX                               |
| Tester                 | Charlie                          |
| Temperature            | 25°C                             |
| Humidity               | 60%                              |

### 18.1 LIMITS

| Frequency range(MHz) | Output power of the intentional radiator(watt)         |
|----------------------|--------------------------------------------------------|
| 902-928              | 1 for $\geq 50$ hopping channels                       |
|                      | 0.25 for $25 \leq \text{hopping channels} < 50$        |
|                      | 1 for digital modulation                               |
| 2400-2483.5          | 1 for $\geq 75$ non-overlapping hopping channels       |
|                      | 0.125 for all other frequency hopping systems          |
|                      | 1 for digital modulation                               |
| 5725-5850            | 1 for frequency hopping systems and digital modulation |

### 18.2 BLOCK DIAGRAM OF TEST SETUP



**18.3 TEST DATA**

**Pass: Please Refer To Appendix: Appendix1 For Details**

BlueAsia

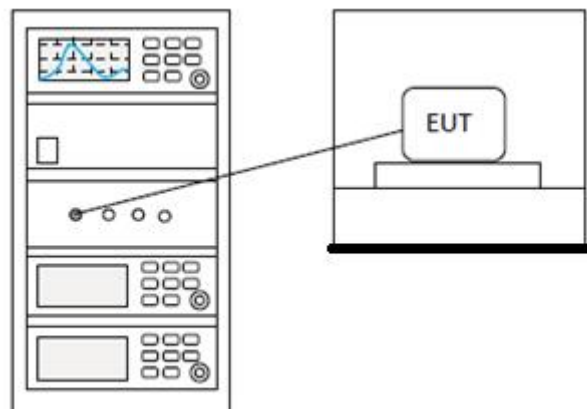
## 19 MINIMUM 6DB BANDWIDTH

|                        |                                   |
|------------------------|-----------------------------------|
| Test Standard          | 47 CFR Part 15, Subpart C 15.247  |
| Test Method            | ANSI C63.10 (2013) Section 11.8.1 |
| Test Mode (Pre-Scan)   | TX                                |
| Test Mode (Final Test) | TX                                |
| Tester                 | Charlie                           |
| Temperature            | 25°C                              |
| Humidity               | 60%                               |

### 19.1 LIMITS

|        |          |
|--------|----------|
| Limit: | ≥500 kHz |
|--------|----------|

### 19.2 BLOCK DIAGRAM OF TEST SETUP



### 19.3 TEST DATA

**Pass: Please Refer To Appendix: Appendix1 For Details**

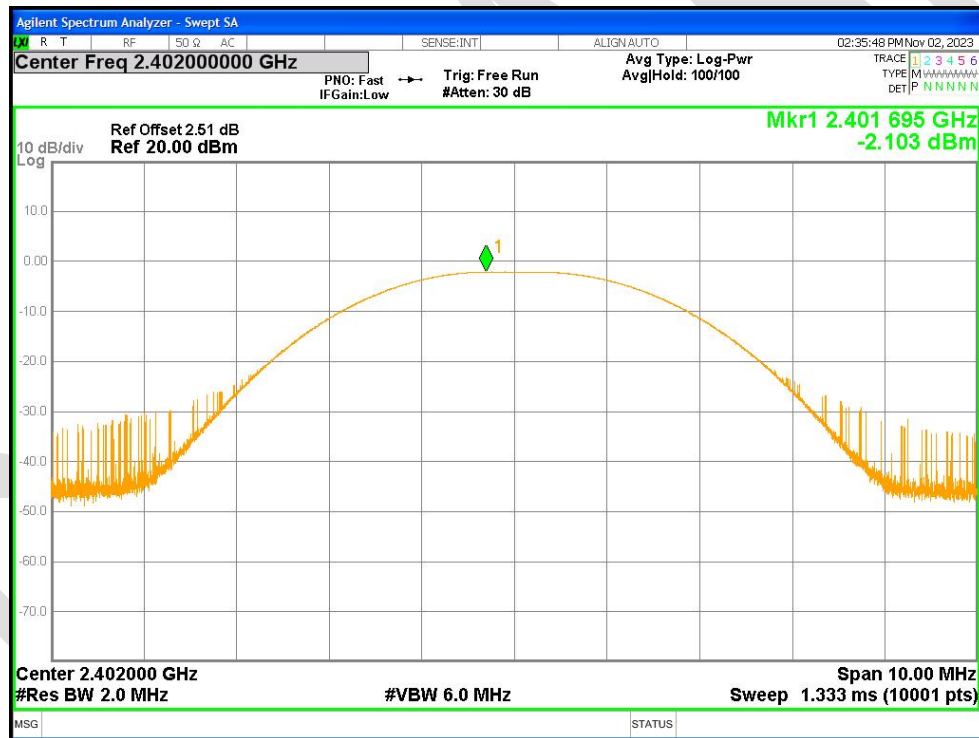
## 20 APPENDIX

### Appendix1

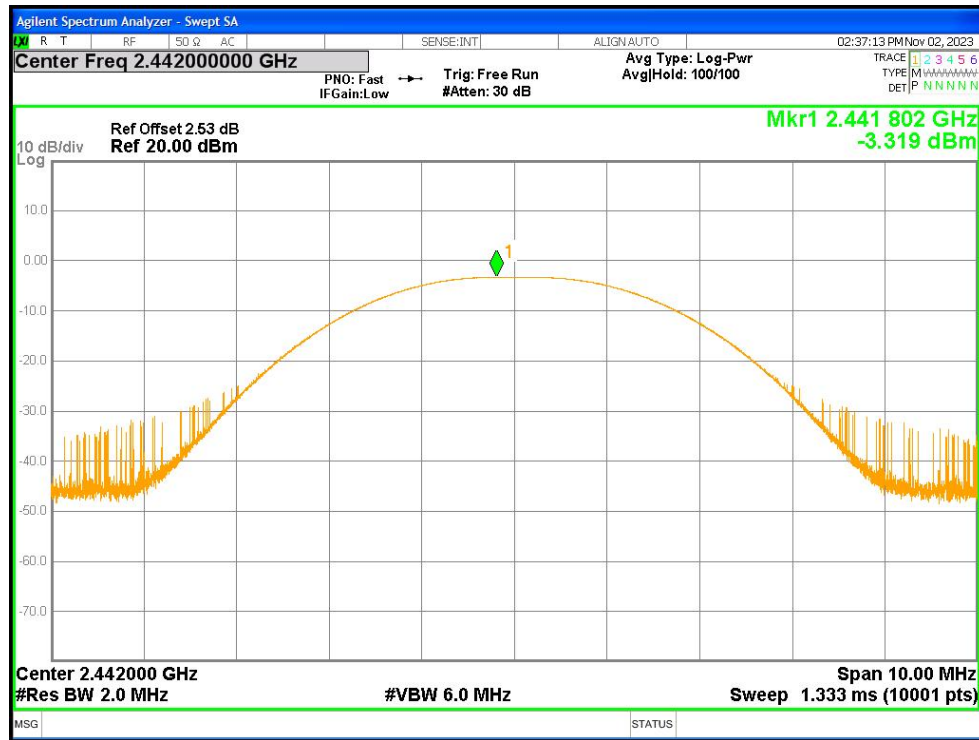
#### 20.1 MAXIMUM CONDUCTED OUTPUT POWER

| Condition | Mode   | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -2.103                | 30          | Pass    |
| NVNT      | BLE 1M | 2442            | Ant1    | -3.319                | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -2.643                | 30          | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -2.092                | 30          | Pass    |
| NVNT      | BLE 2M | 2442            | Ant1    | -3.336                | 30          | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -2.691                | 30          | Pass    |

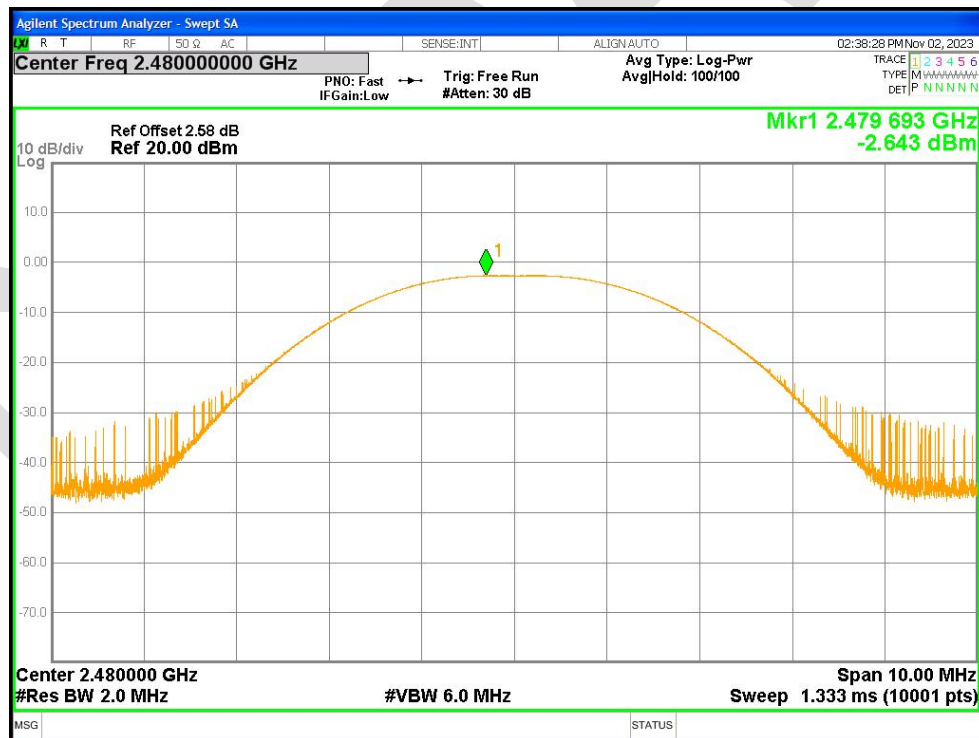
Power NVNT BLE 1M 2402MHz Ant1



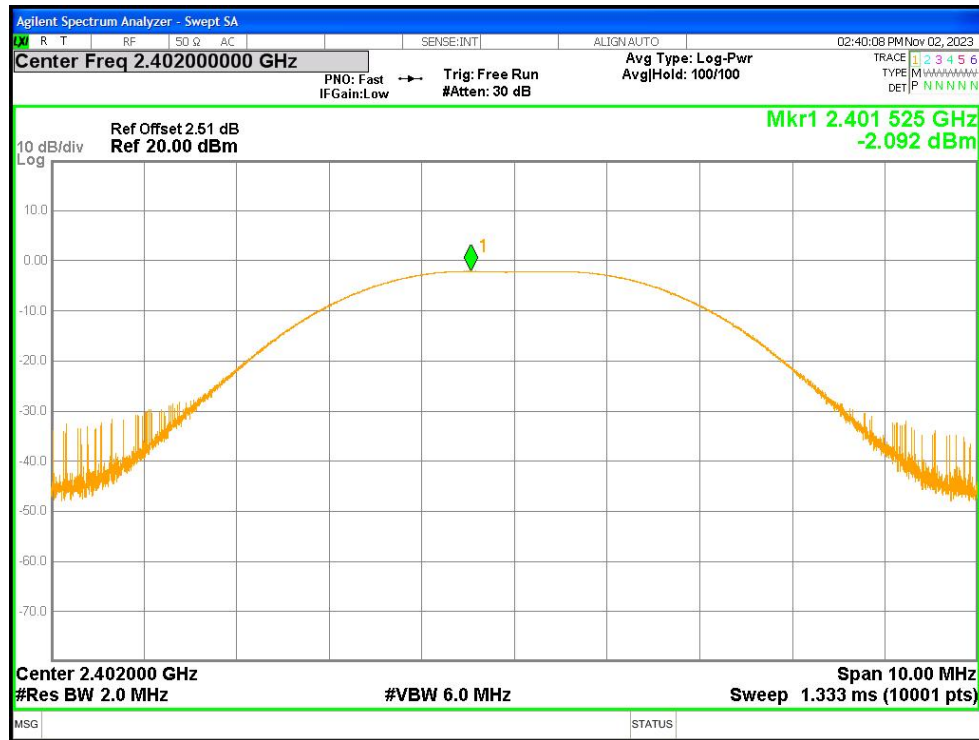
Power NVNT BLE 1M 2442MHz Ant1



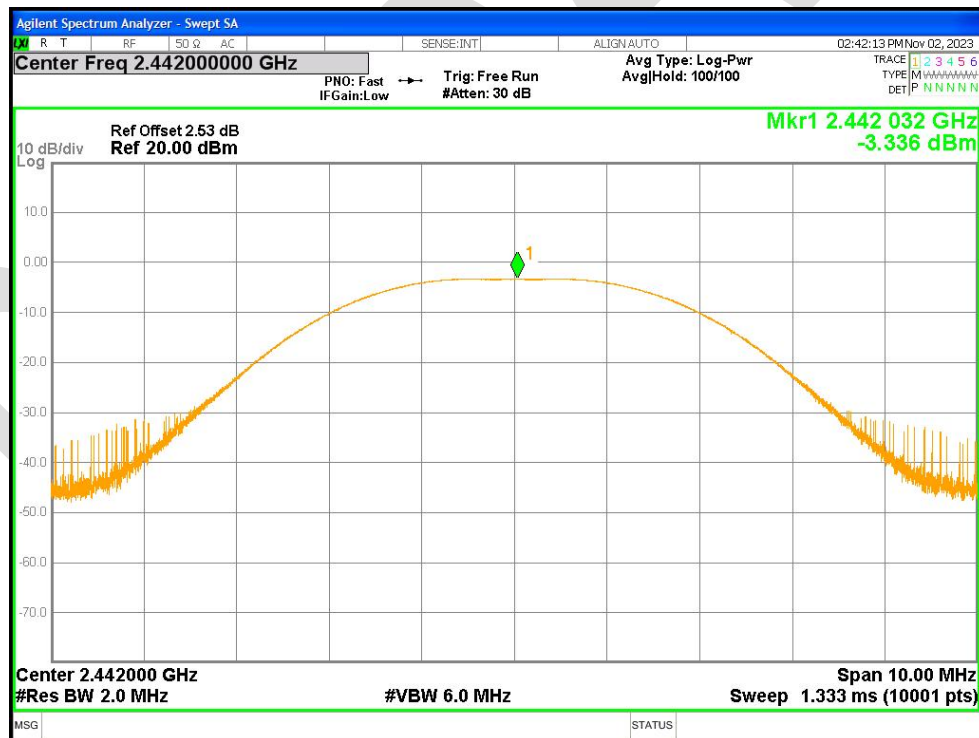
Power NVNT BLE 1M 2480MHz Ant1



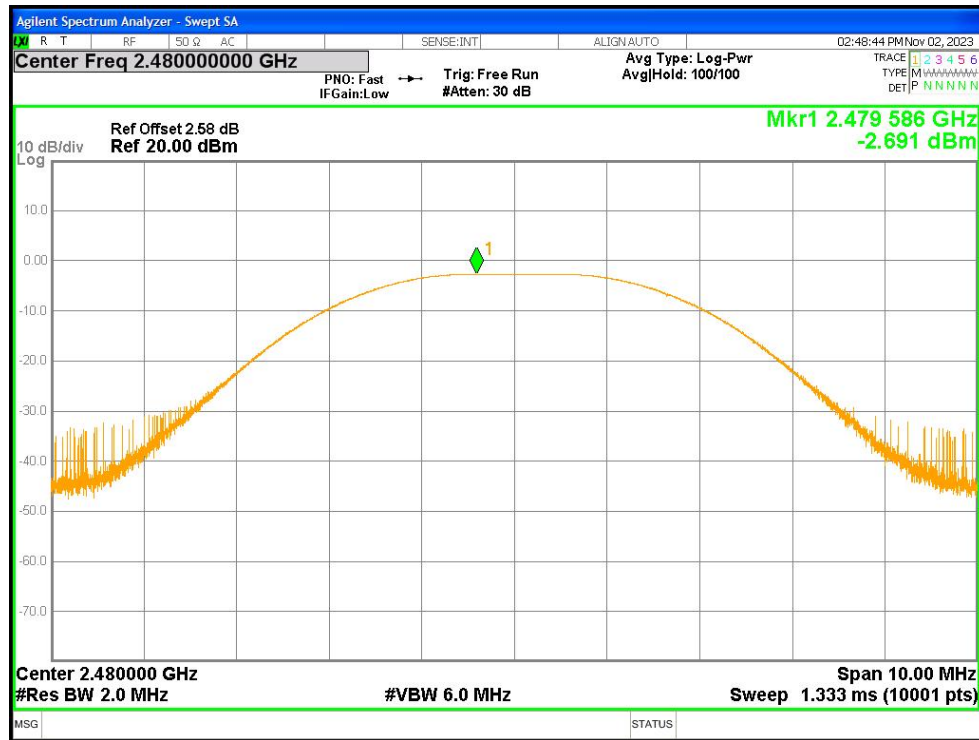
Power NVNT BLE 2M 2402MHz Ant1



Power NVNT BLE 2M 2442MHz Ant1



Power NVNT BLE 2M 2480MHz Ant1

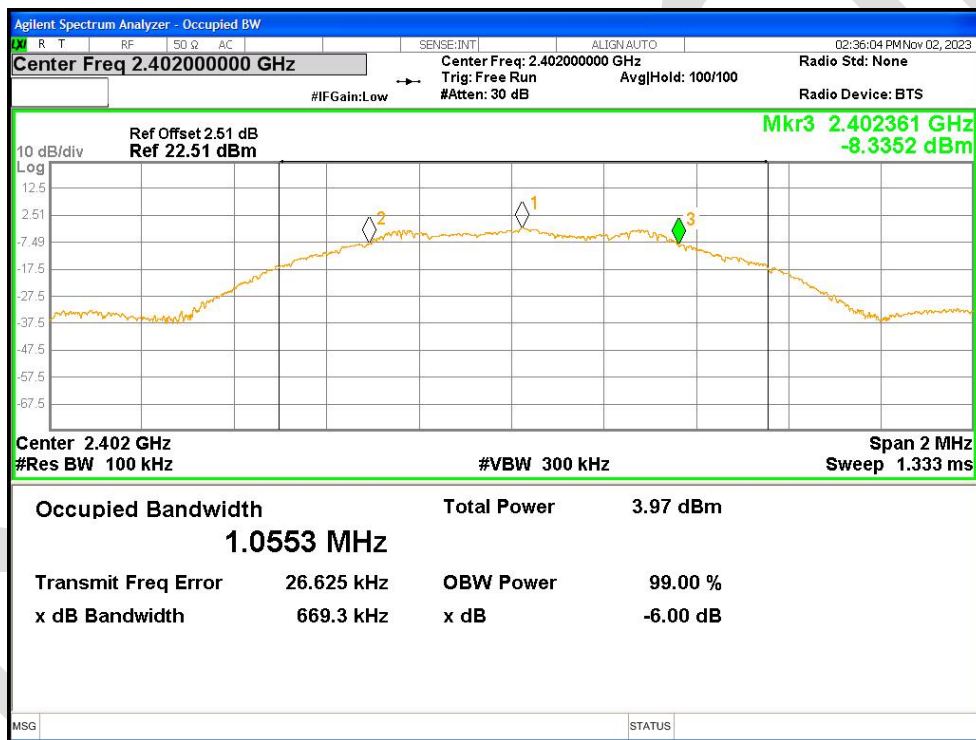




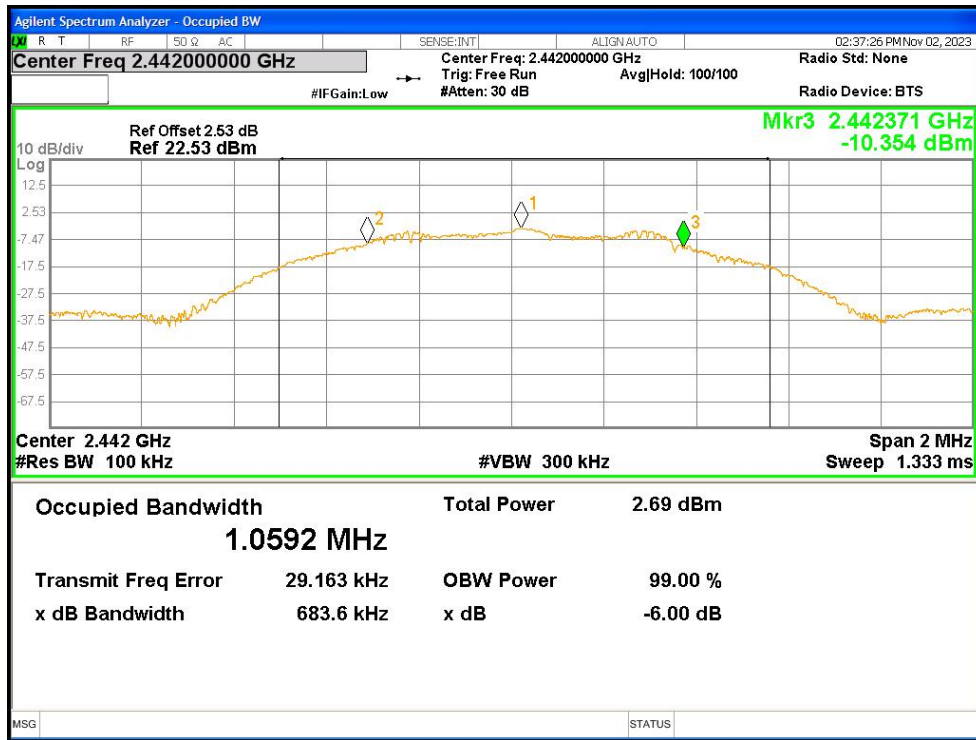
## 20.2 -6DB BANDWIDTH

| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.669                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2442            | Ant1    | 0.684                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.673                 | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 1.138                 | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2442            | Ant1    | 1.097                 | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 1.13                  | 0.5                         | Pass    |

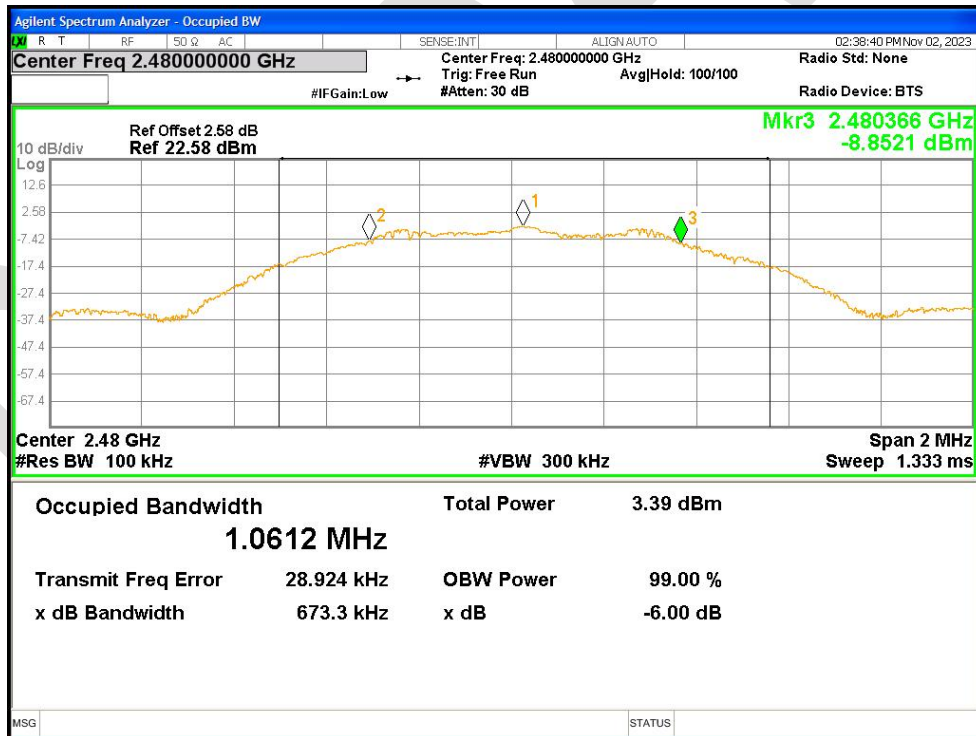
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



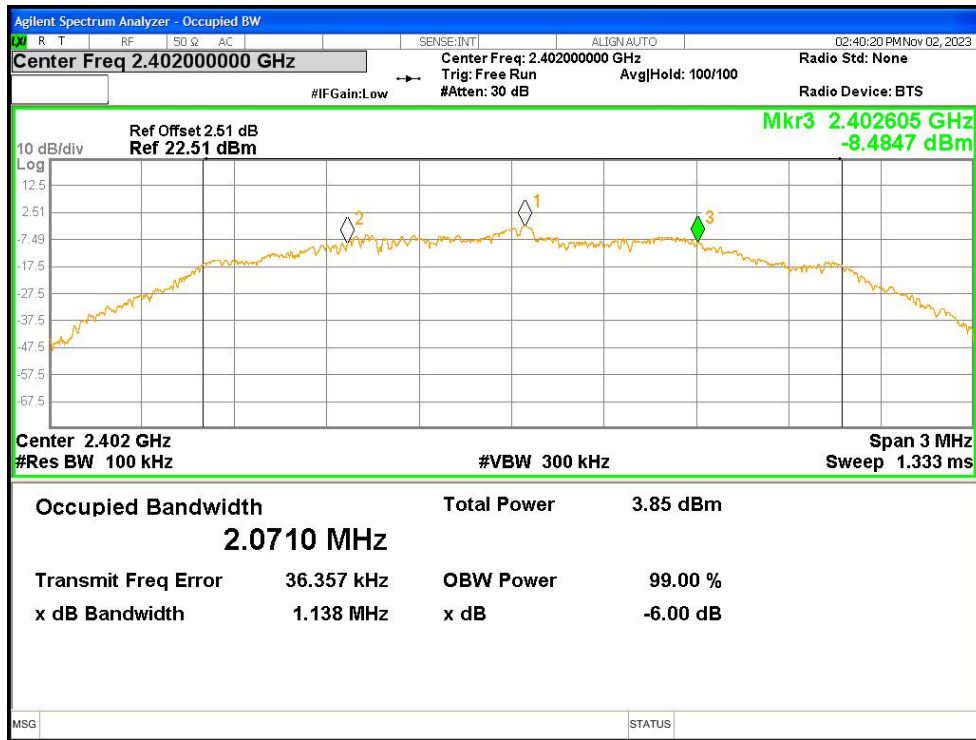
-6dB Bandwidth NVNT BLE 1M 2442MHz Ant1



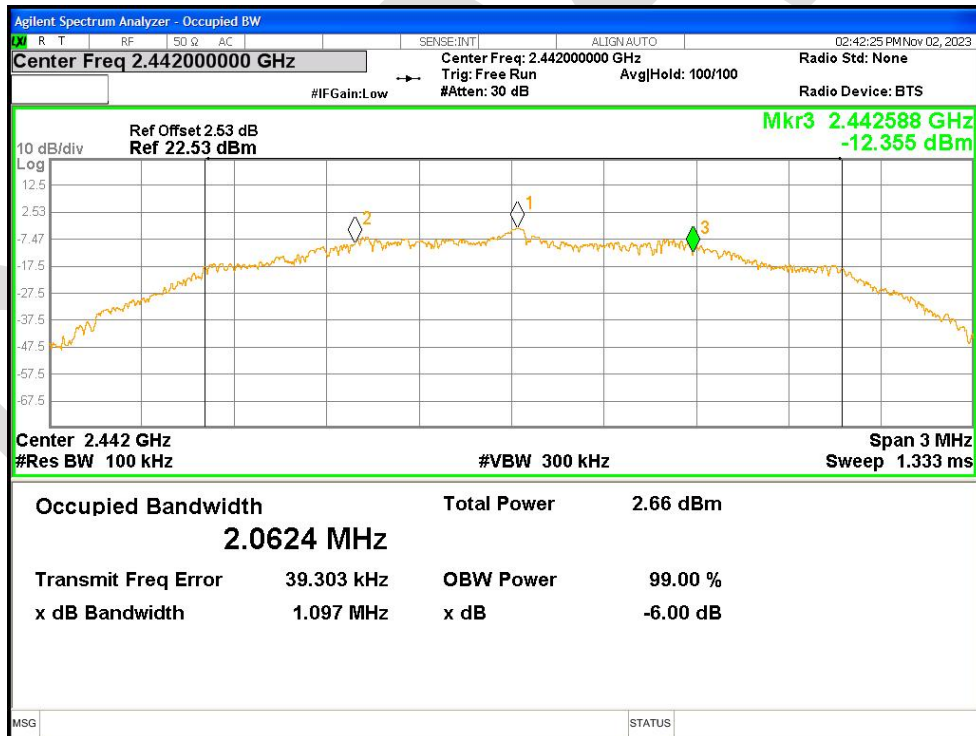
-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



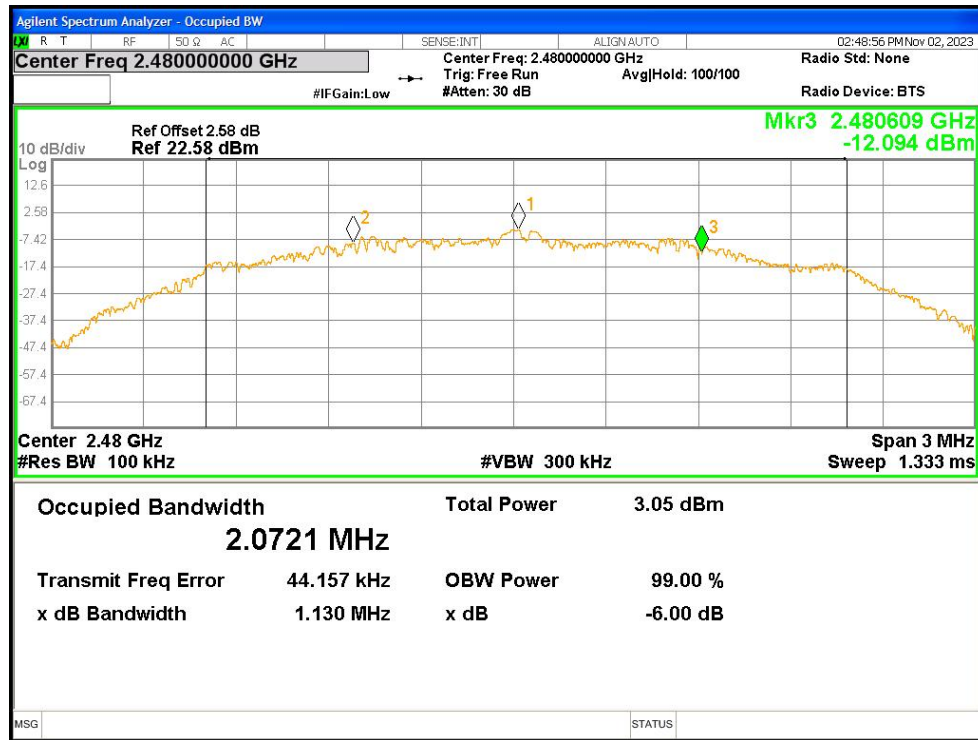
-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2442MHz Ant1



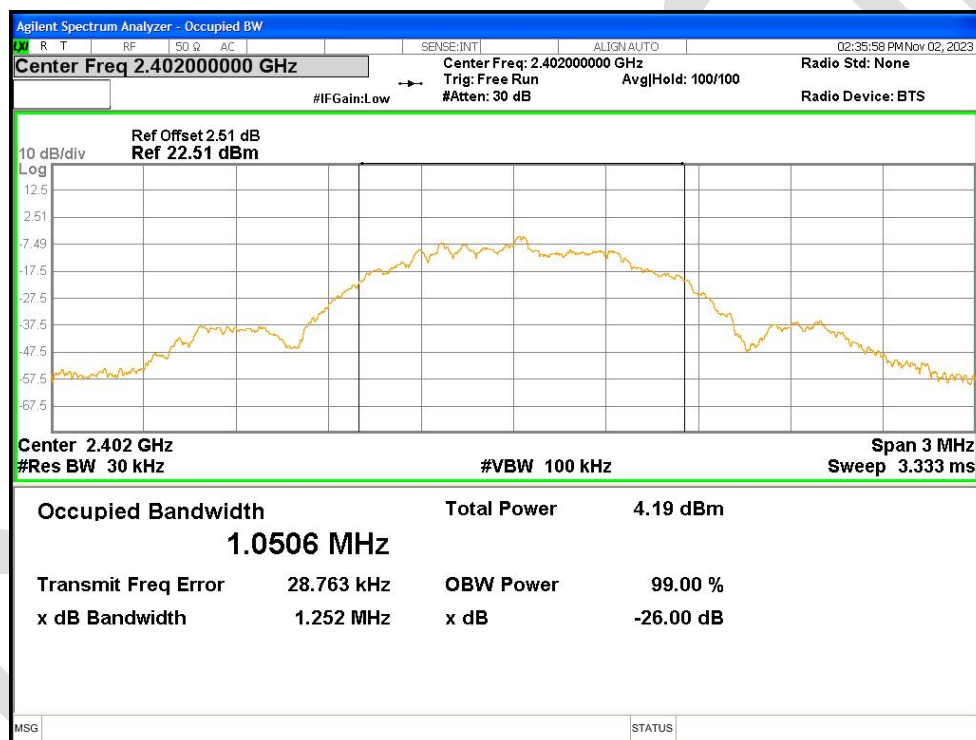
-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



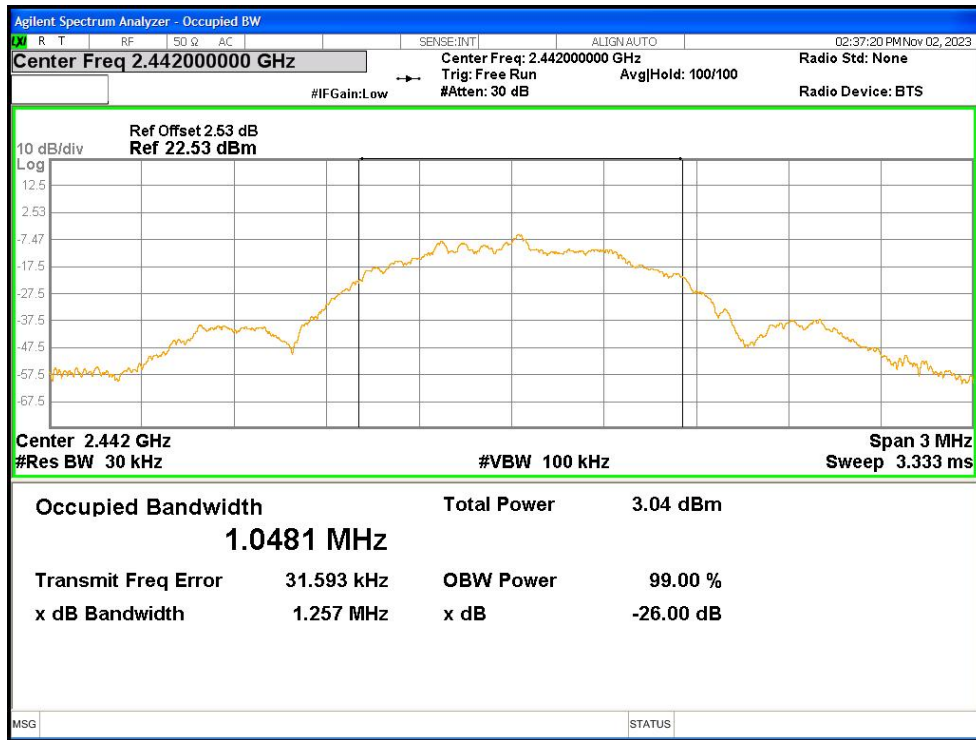
### 20.3 OCCUPIED CHANNEL BANDWIDTH

| Condition | Mode   | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|--------|-----------------|---------|---------------|
| NVNT      | BLE 1M | 2402            | Ant1    | 1.0506        |
| NVNT      | BLE 1M | 2442            | Ant1    | 1.0481        |
| NVNT      | BLE 1M | 2480            | Ant1    | 1.0448        |
| NVNT      | BLE 2M | 2402            | Ant1    | 2.0338        |
| NVNT      | BLE 2M | 2442            | Ant1    | 2.0416        |
| NVNT      | BLE 2M | 2480            | Ant1    | 2.0447        |

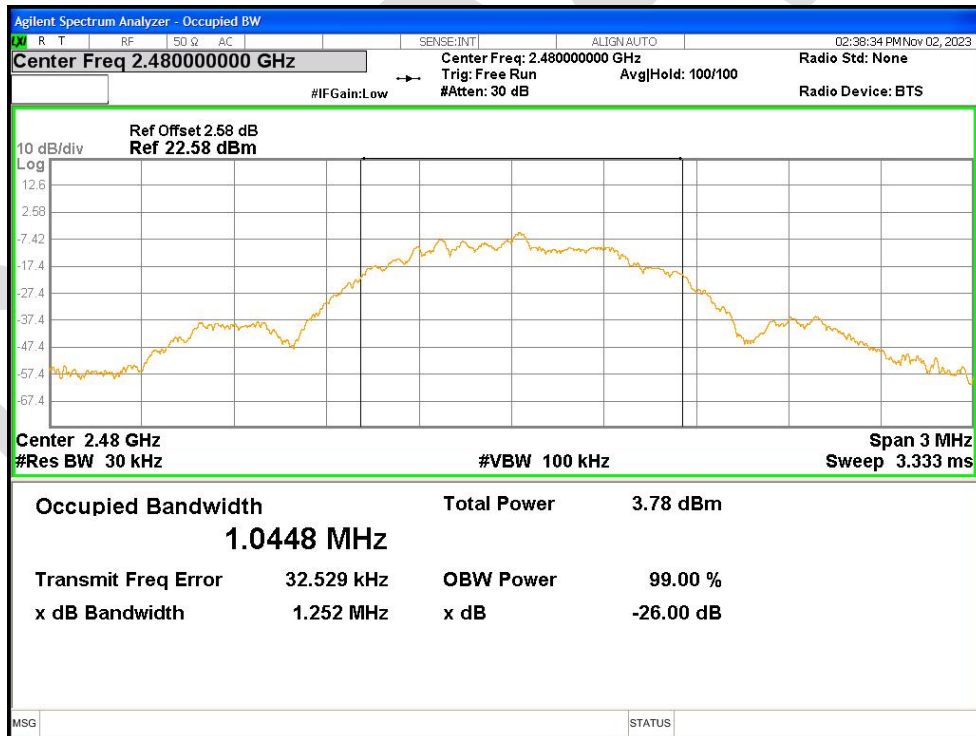
OBW NVNT BLE 1M 2402MHz Ant1



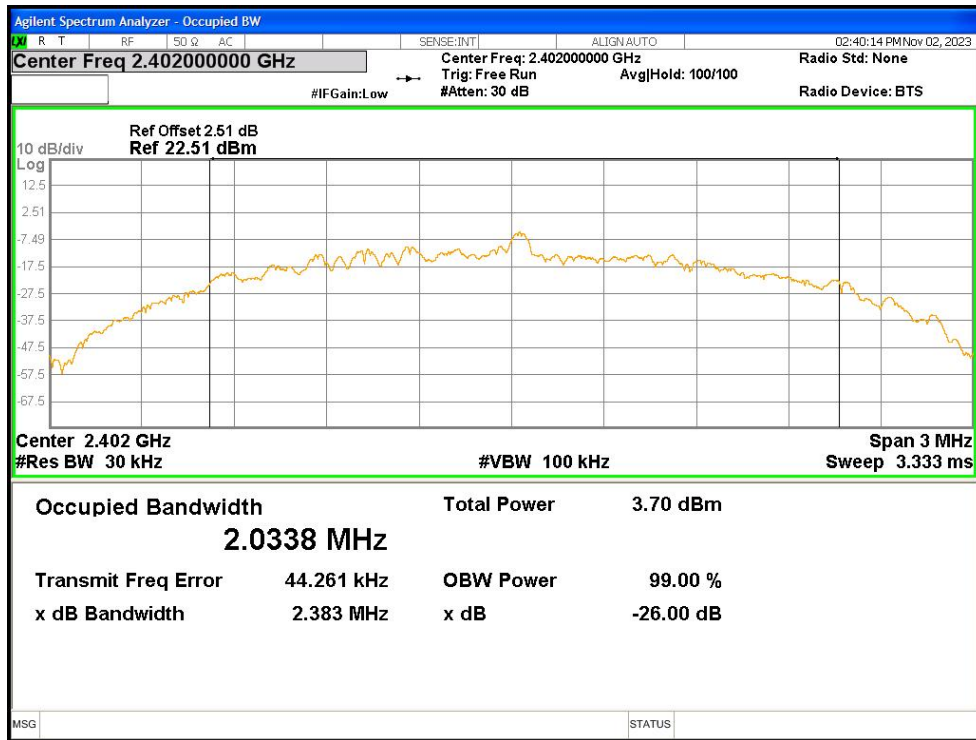
OBW NVNT BLE 1M 2442MHz Ant1



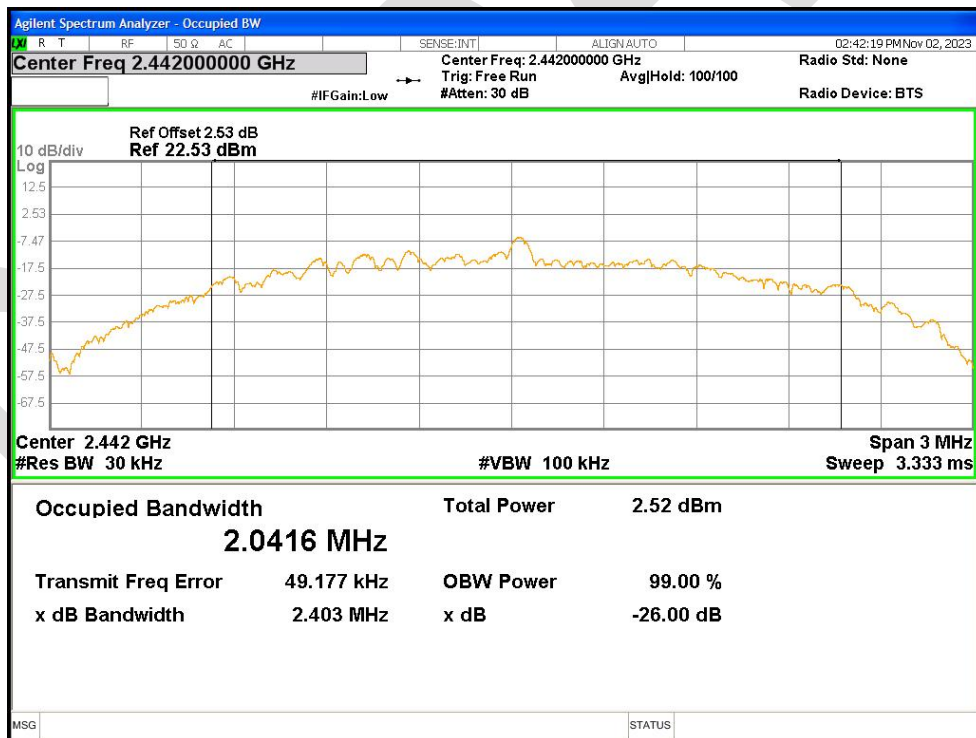
OBW NVNT BLE 1M 2480MHz Ant1



OBW NVNT BLE 2M 2402MHz Ant1

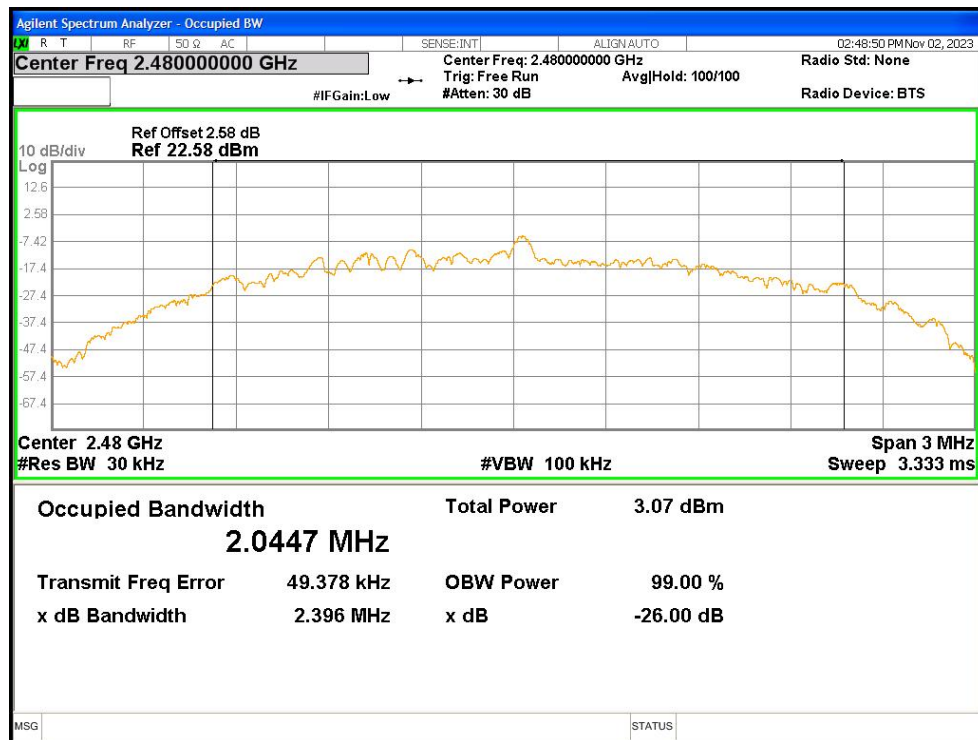


OBW NVNT BLE 2M 2442MHz Ant1



OBW NVNT BLE 2M 2480MHz Ant1



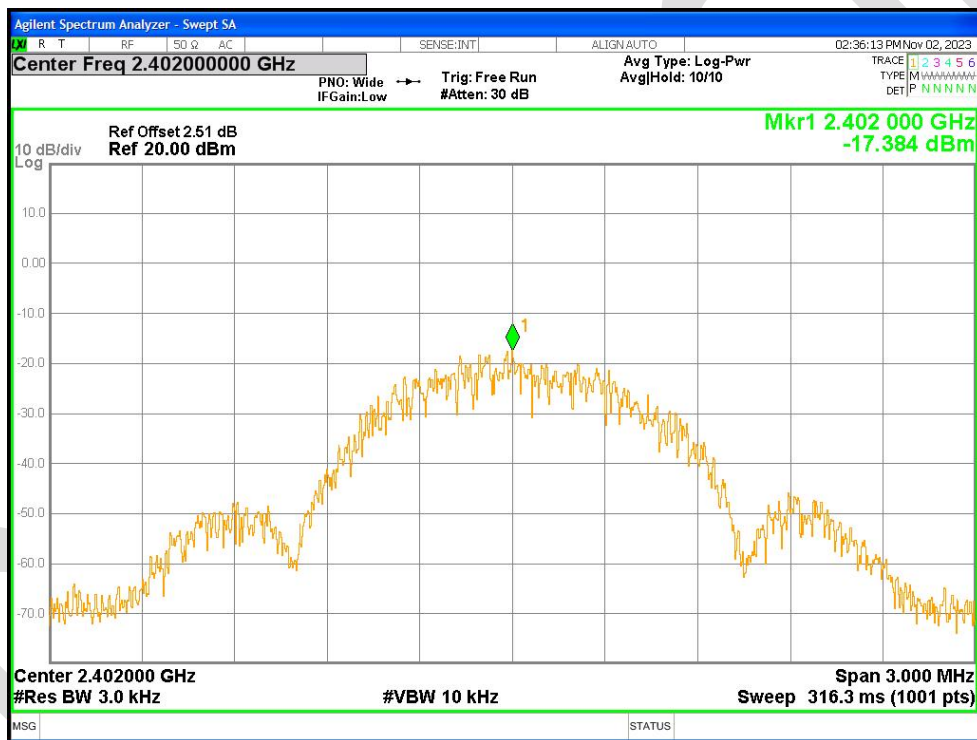




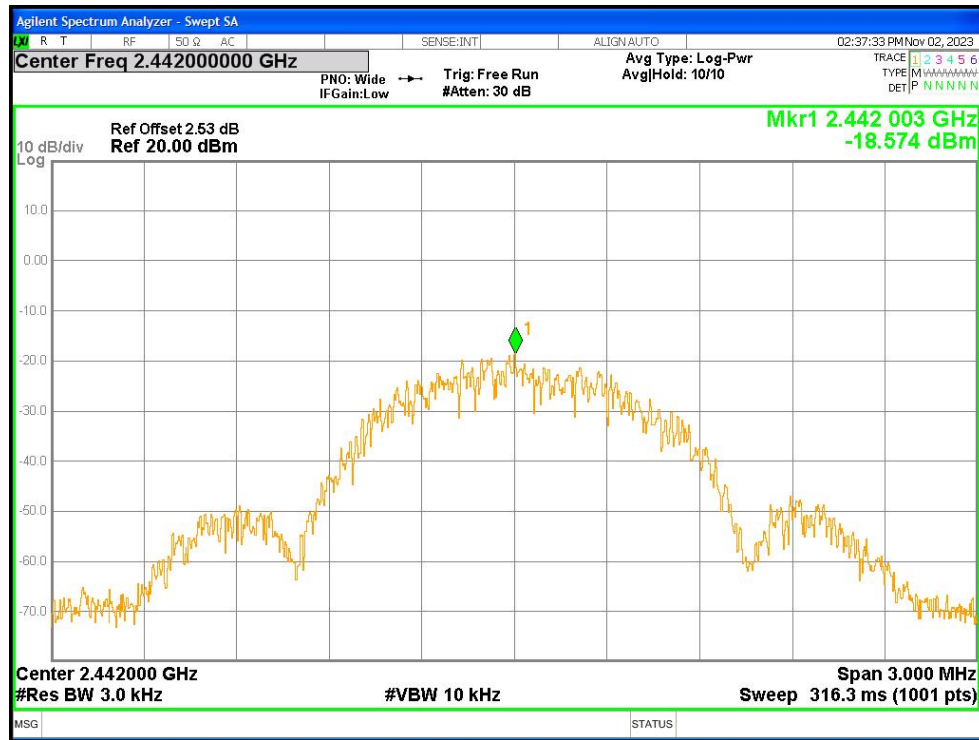
## 20.4 MAXIMUM POWER SPECTRAL DENSITY LEVEL

| Condition | Mode   | Frequency (MHz) | Antenna | Max PSD (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|---------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -17.384       | 8           | Pass    |
| NVNT      | BLE 1M | 2442            | Ant1    | -18.574       | 8           | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -18.154       | 8           | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -19.873       | 8           | Pass    |
| NVNT      | BLE 2M | 2442            | Ant1    | -21.248       | 8           | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -20.565       | 8           | Pass    |

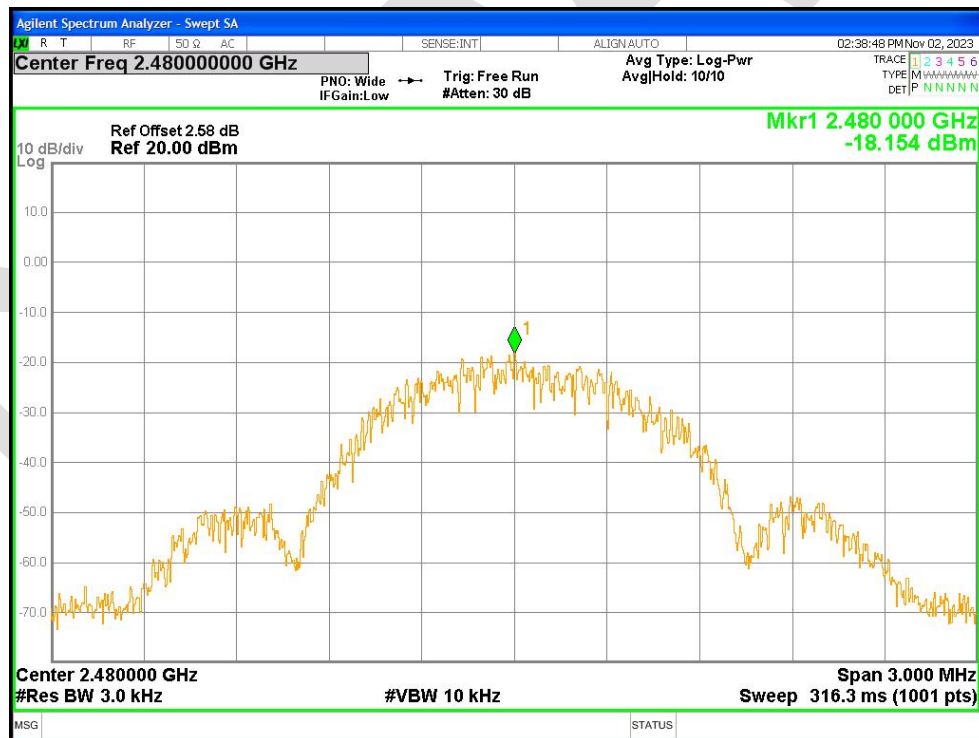
PSD NVNT BLE 1M 2402MHz Ant1



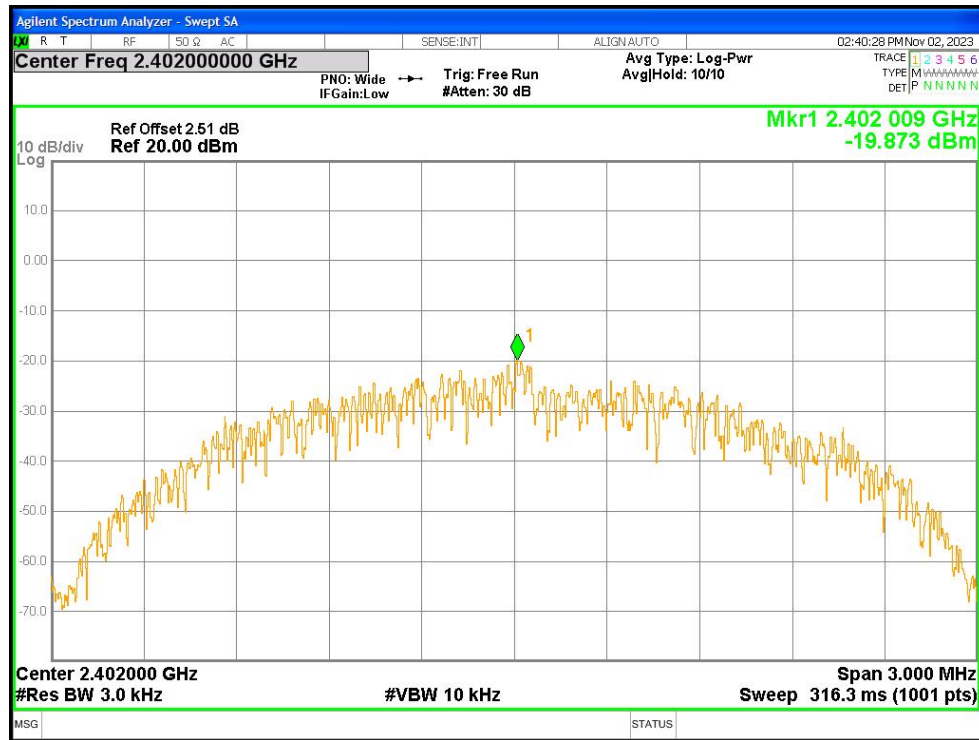
PSD NVNT BLE 1M 2442MHz Ant1



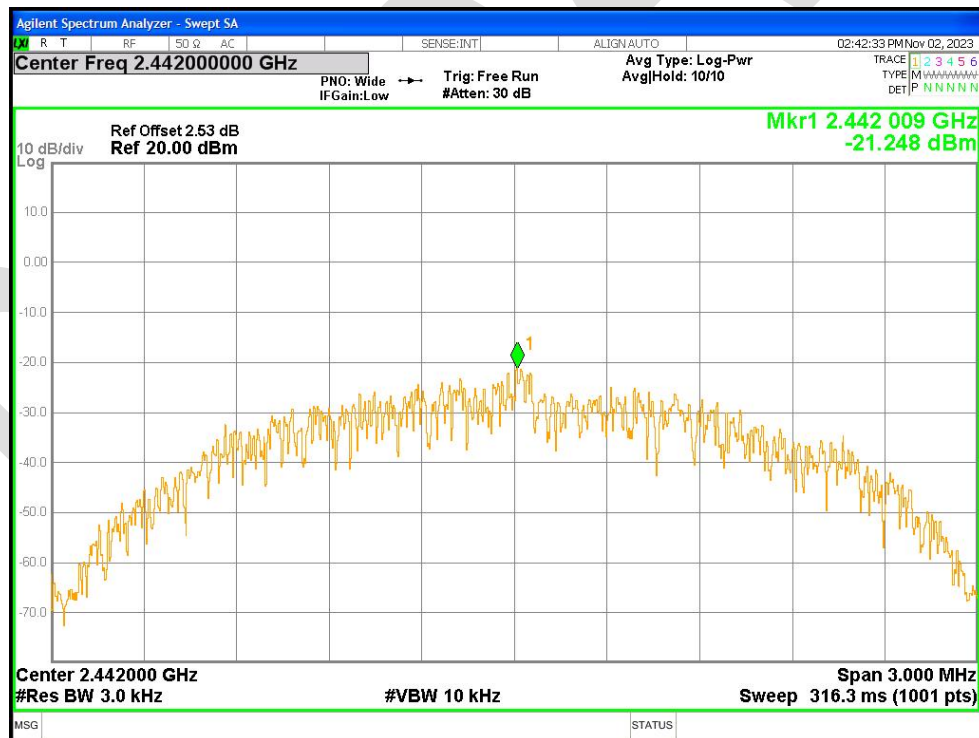
PSD NVNT BLE 1M 2480MHz Ant1



PSD NVNT BLE 2M 2402MHz Ant1



PSD NVNT BLE 2M 2442MHz Ant1



PSD NVNT BLE 2M 2480MHz Ant1

