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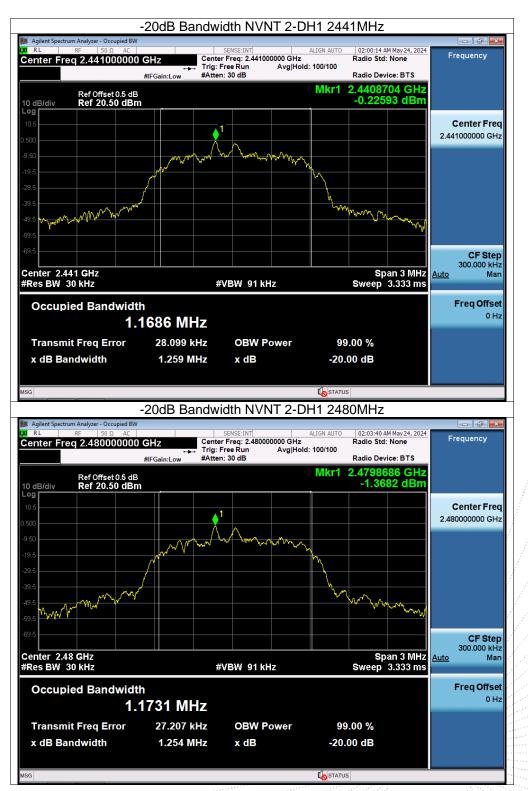




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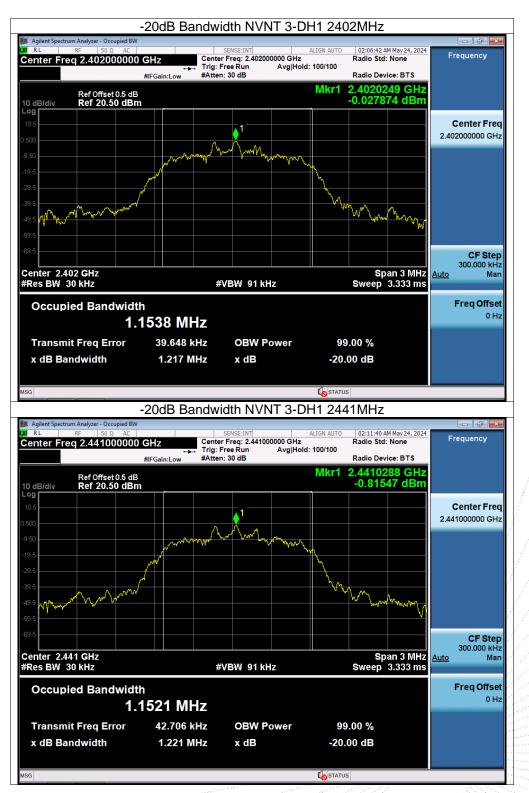




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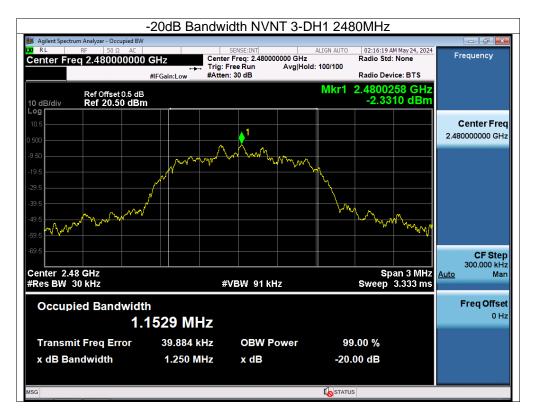






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#### 11. Maximum Peak Output Power

#### 11.1 Block Diagram Of Test Setup

| EUT | SPECTRUM |
|-----|----------|
|     | ANALYZER |

#### 11.2 Limit

| FCC Part15 (15.247) , Subpart C |  |                     |             |      |  |  |  |
|---------------------------------|--|---------------------|-------------|------|--|--|--|
| Section                         | n Test Item Limit Frequency Range (MHz) Result |                     |             |      |  |  |  |
| 15.247(b)(1)                    | Peak Output<br>Power                           | 0.125 watt or 21dBm | 2400-2483.5 | PASS |  |  |  |

#### 11.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 2MHz. VBW = 6MHz. Sweep = auto; Detector Function = Peak.

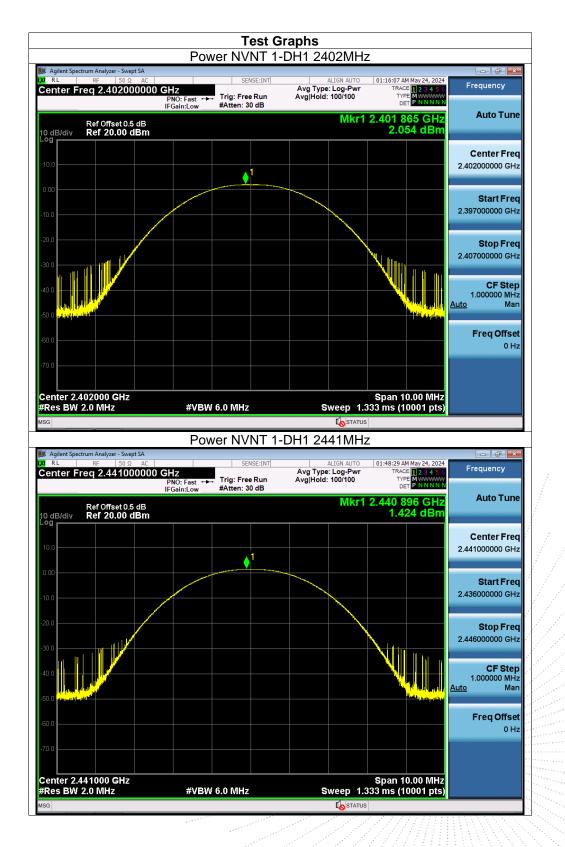
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

#### 11.4 Test Result

| Temperature:  | <b>26</b> °C | Relative Humidity: 54%          |
|---------------|--------------|---------------------------------|
| Test Voltage: | DC 3.7V      | Remark: N/A                     |
|               |              | $\sim$ NNNNNN H $HH///////////$ |

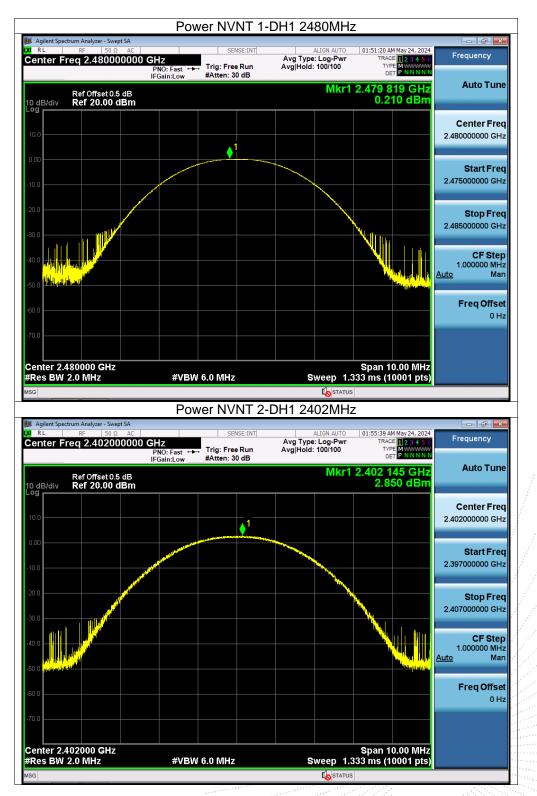
| Condition | Mode  | Frequency<br>(MHz) | Conducted<br>Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|--------------------|--------------------------|-------------|---------|
| NVNT      | 1-DH1 | 2402               | 2.05                     | 21          | Pass    |
| NVNT      | 1-DH1 | 2441               | 1.42                     | 21          | Pass    |
| NVNT      | 1-DH1 | 2480               | 0.21                     | 21          | Pass    |
| NVNT      | 2-DH1 | 2402               | 2.85                     | 21          | Pass    |
| NVNT      | 2-DH1 | 2441               | 2.11                     | 21          | Pass    |
| NVNT      | 2-DH1 | 2480               | 0.94                     | 21          | Pass    |
| NVNT      | 3-DH1 | 2402               | 3.21                     | 21          | Pass    |
| NVNT      | 3-DH1 | 2441               | 2.7                      | 21          | Pass    |
| NVNT      | 3-DH1 | 2480               | 1.47                     | 21          | Pass    |



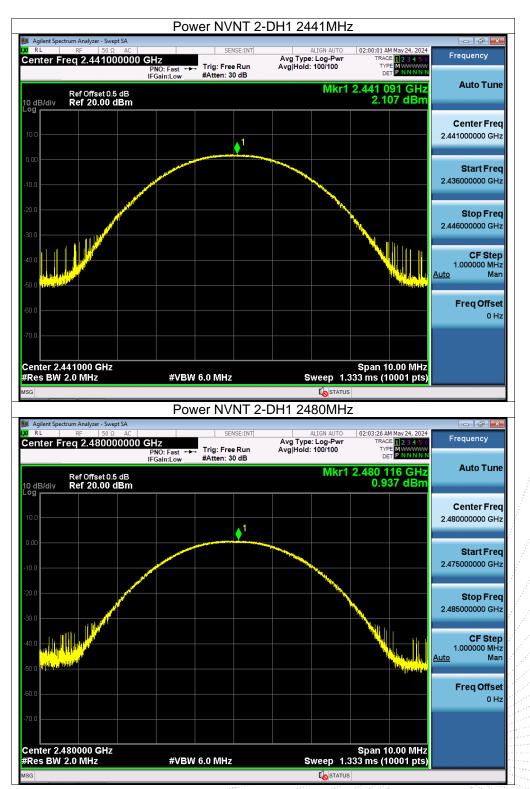










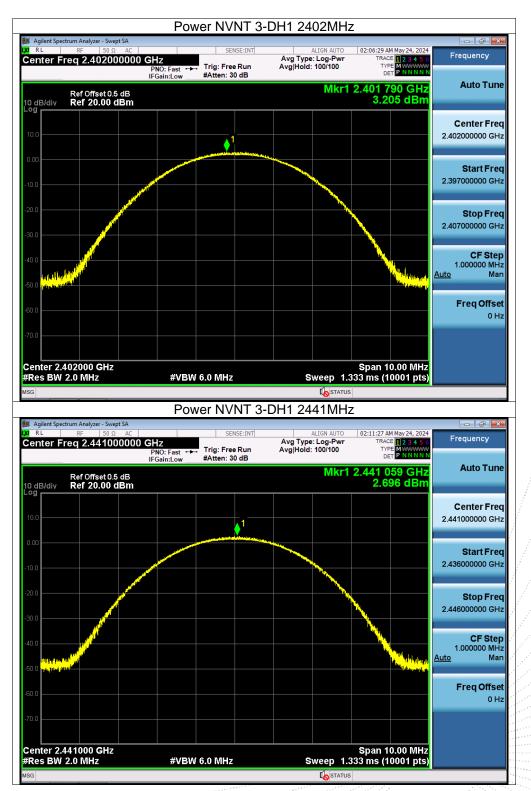


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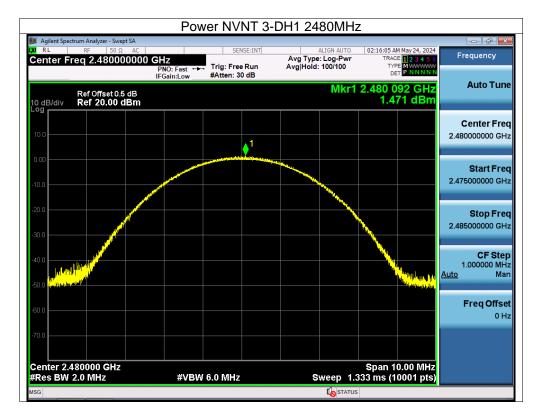
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#### 12. **Hopping Channel Separation**

#### 12.1 Block Diagram Of Test Setup



#### 12.2 Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 0.125W.

#### 12.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 30kHz. VBW = 100kHz , Span = 2.0MHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

0.814

0.833

| Temperature:  | <b>26</b> ℃ |                        |  | Relativ       | e Humidity: | 54%         |         |
|---------------|-------------|------------------------|--|---------------|-------------|-------------|---------|
| Test Voltage: | DC 3.7V     | 1000 A.                |  | Remar         | k:          | N/A         |         |
|               |             |                        | and the second sec |               |             |             |         |
| Condition     | Mode        | Hopping<br>Freq1 (MHz) | Hop<br>Freq2   | ping<br>(MHz) | HFS (MHz)   | Limit (MHz) | Verdict |
| NVNT          | 1-DH1       | 2401.868               | 2402   | .868          | 1           | 0.572       | Pass    |
| NVNT          | 1-DH1       | 2440.868               | 2441   | .868          | 1           | 0.609       | Pass    |
| NVNT          | 1-DH1       | 2478.868               | 2479   | .868          | 1           | 0.583       | Pass    |
| NVNT          | 2-DH1       | 2401.868               | 2402   | .868          | 1           | 0.834       | Pass    |
| NVNT          | 2-DH1       | 2440.868               | 2441   | .868          | 1           | 0.839       | Pass    |
| NVNT          | 2-DH1       | 2478.868               | 2479   | .868          | 1           | 0.836       | Pass    |
| NVNT          | 3-DH1       | 2402.024               | 2403   | .026          | 1.002       | 0.811       | Pass    |

2442.026

2480.028

#### 12.4 Test Result

3-DH1

3-DH1

2441.026

2479.028

**NVNT** 

NVNT

1

1

Pass

Pass







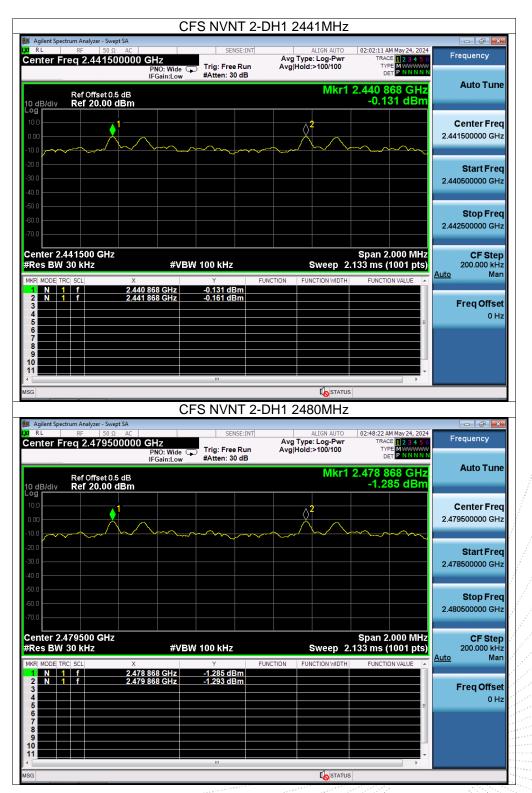
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| CFS NVNT 3-DH1 2480MHz   |                                  |  |   |                                      |  |  |  |
|--|----------------------------------|--|---|--------------------------------------|--|--|--|
|  | SENSE:INT                        | ALIGN AUTO<br>Avg Type: Log-Pwr<br>Avg Hold:>100/100 | 02:18:26 AM May 24, 2024<br>TRACE 1 2 3 4 5 6<br>TYPE M WWWWW | Frequency                            |  |  |  |
| Ref Offset 0.5 dB  | Atten: 30 dB                     | Mkr1   | 2.479 028 GHz<br>-2.008 dBm                                   | Auto Tune                            |  |  |  |
| Log<br>10.0<br>0.00<br>-10.0   |                                  | <sup>2</sup>   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~                       | Center Freq<br>2.479500000 GHz       |  |  |  |
| -20.0  |                                  |  |   | <b>Start Fred</b><br>2.478500000 GHz |  |  |  |
| -50.0<br>-60.0<br>-70.0  |                                  |  |   | <b>Stop Fred</b><br>2.480500000 GH:  |  |  |  |
| Center 2.479500 GHz<br>#Res BW 30 kHz #VBW 10  | 00 kHz                           | Sweep 2  | Span 2.000 MHz<br>.133 ms (1001 pts)                          | CF Step<br>200.000 kH<br>Auto Mar    |  |  |  |
| MKR         MODE         TRC         SCL         X           1         N         1         f         2.479         028         GHz         -2           2         N         1         f         2.480         028         GHz         -2           3 | Y FUNC<br>2.008 dBm<br>2.060 dBm | CTION FUNCTION WIDTH                                 | FUNCTION VALUE  | Freq Offset                          |  |  |  |
| 6<br>7<br>8<br>9<br>10   |                                  |  |   |                                      |  |  |  |
| 11<br>∢ (<br>MSG   |                                  | STATUS   | ×   |                                      |  |  |  |





#### 13. Number Of Hopping Frequency

#### 13.1 Block Diagram Of Test Setup



#### 13.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

#### 13.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 100kHz. VBW = 300kHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. It may prove necessary to break the span up to sections. in order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this Section.
4. Set the spectrum analyzer: Start Frequency = 2.4GHz, Stop Frequency = 2.4835GHz. Sweep=auto;

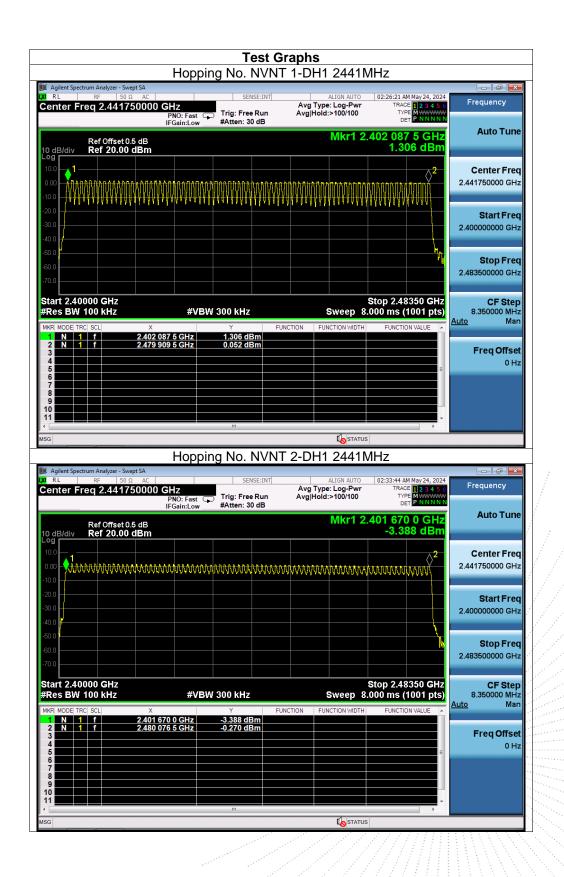
#### 13.4 Test Result

| Temperature:  | <b>26</b> ℃ | Relative Humidity: | 54% |   |   |   |   |       | ] |
|---------------|-------------|--------------------|-----|---|---|---|---|-------|---|
| Test Voltage: | DC 3.7V     | Remark:            | N/A |   |   |   | 1 |       |   |
|               |             |                    |     | 1 | 1 | 1 | / | 1. J. |   |

| Condition | Mode  | Hopping Number | Limit | Verdict |
|-----------|-------|----------------|-------|---------|
| NVNT      | 1-DH1 | 79             | 15    | Pass    |
| NVNT      | 2-DH1 | 79             | 15    | Pass    |
| NVNT      | 3-DH1 | 79             | 15    | Pass    |









| Hopping No. NVNT 3-DH1 2441MHz   |                                    |  |  |  |  |  |  |  |
|--|------------------------------------|--|--|--|--|--|--|--|
| Agilent Spectrum Analyzer - Swept SA           M         RL         RF         50 Ω         AC           Center Freq 2.441750000 GHz         PNO: FasileGaint on Elegation         PNO: FasileGaint on Elegation                           |                                    | ALIGN AUTO<br>Avg Type: Log-Pwr<br>Avg Hold:>100/100 | 02:39:17 AM May 24, 2024<br>TRACE 1 2 3 4 5 6<br>TYPE MWWWW<br>DET P N N N N | Frequency                              |  |  |  |  |
| Ref Offset 0.5 dB<br>10 dB/div Ref 20.00 dBm   | 10 dB/div Ref 20.00 dBm -0.436 dBm |  |  |  |  |  |  |  |
|  | MMMMMMMMM                          | anananaana   |  | Center Freq<br>2.441750000 GHz         |  |  |  |  |
| -20.0  |                                    |  |  | Start Freq<br>2.400000000 GHz          |  |  |  |  |
| -50.0  |                                    |  | u  | Stop Freq<br>2.483500000 GHz           |  |  |  |  |
| Start 2.40000 GHz<br>#Res BW 100 kHz #\  | /BW 300 kHz                        |  | Stop 2.48350 GHz<br>000 ms (1001 pts)  | CF Step<br>8.350000 MHz<br>Auto Man    |  |  |  |  |
| MKR         MODE         TRC         SCL         X           1         1         f         2.401 837 0 GHz         2           2         N         1         f         2.479 993 0 GHz           3         4         5         5         5 | Y FUN<br>-0.436 dBm<br>-0.117 dBm  | CTION FUNCTION WIDTH                                 | FUNCTION VALUE   | <u>Auto</u> Man<br>Freq Offset<br>0 Hz |  |  |  |  |
| 6<br>7<br>8<br>9<br>10<br>11   |                                    |  |  |  |  |  |  |  |
| MSG  | m                                  | To STATUS  | Þ  |  |  |  |  |  |





#### 14. Dwell Time

#### 14.1 Block Diagram Of Test Setup



#### 14.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

#### 14.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set spectrum analyzer span = 0. Centred on a hopping channel;

3. Set RBW = 1MHz and VBW = 3MHz.Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.

4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

#### 14.4 Test Result

DH5 Packet permit maximum 1600 / 79 / 6 hops per second in each channel (5 time slots RX, 1 time slot TX).

DH3 Packet permit maximum 1600 / 79 / 4 hops per second in each channel (3 time slots RX, 1 time slot TX).

DH1 Packet permit maximum 1600 / 79 /2 hops per second in each channel (1 time slot RX, 1 time slot TX). So, the Dwell Time can be calculated as follows:

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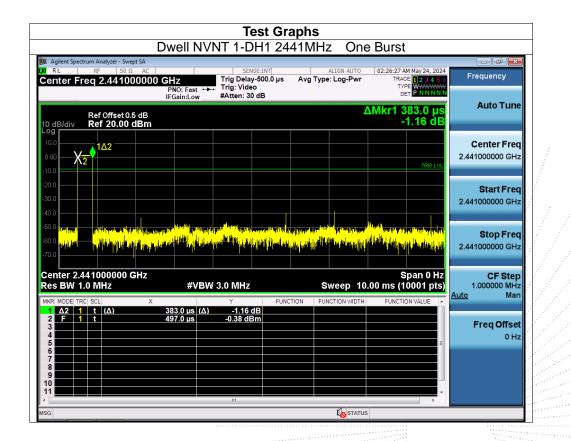
PR

<sup>e</sup>poi



| Temperature:  | <b>26</b> ℃ | Relative Humidity: | 54% |
|---------------|-------------|--------------------|-----|
| Test Voltage: | DC 3.7V     | Remark:            | N/A |

| Condition | Mode  | Frequency<br>(MHz) | Pulse<br>Time<br>(ms) | Total<br>Dwell<br>Time (s) | Limit<br>(s) | Verdict |
|-----------|-------|--------------------|-----------------------|----------------------------|--------------|---------|
| NVNT      | 1-DH1 | 2441               | 0.383                 | 0.123                      | 0.4          | Pass    |
| NVNT      | 1-DH3 | 2441               | 1.639                 | 0.262                      | 0.4          | Pass    |
| NVNT      | 1-DH5 | 2441               | 2.887                 | 0.308                      | 0.4          | Pass    |
| NVNT      | 2-DH1 | 2441               | 0.393                 | 0.126                      | 0.4          | Pass    |
| NVNT      | 2-DH3 | 2441               | 1.645                 | 0.263                      | 0.4          | Pass    |
| NVNT      | 2-DH5 | 2441               | 2.892                 | 0.308                      | 0.4          | Pass    |
| NVNT      | 3-DH1 | 2441               | 0.392                 | 0.125                      | 0.4          | Pass    |
| NVNT      | 3-DH3 | 2441               | 1.643                 | 0.263                      | 0.4          | Pass    |
| NVNT      | 3-DH5 | 2441               | 2.894                 | 0.309                      | 0.4          | Pass    |



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|  | Dw   | ell NV   | NT 1-DH   | 3 2441   | MHz | One  | e Burst               |   |                      |                             |
|--|--|--|---|--|-----|--|-----------------------|---|----------------------|-----------------------------|
| LXI RL F   |  | NO: Fast 🔸   | SENSE:<br>Trig Delay-50<br>Trig: Video<br>#Atten: 30 dE           | 00.0 µs A  |     | LIGN AUTO                                      | TRAC                  | M May 24, 2024<br>CE 1 2 3 4 5 6<br>PE WWWWWWW                  | Frequ                | iency                       |
| 10 dB/div R  | ef Offset 0.5 dB<br>ef 20.00 dBm   | Gain:Low   | #Atten: 30 dr   | 5  |     | Δ  |                       | . <mark>639 ms</mark><br>2.28 dB                                | Αι                   | ito Tun                     |
| 10.0<br>0.00<br>-10.0  | 1 <u>42</u>  |  |   |  |     |  |                       | TRIG LVL  | Cen<br>2.44100       | i <b>ter Fre</b><br>0000 GH |
| -20.0  |  |  |   |  |     |  |                       |   | <b>St</b><br>2.44100 | art Fre<br>0000 G⊢          |
| -50.0 -60.0  | and the solution of the soluti | addae production<br><mark>T</mark> agar officially a | n a stal a temperatur a tem<br>Risea a ta temperatur a temperatur | n de la dela de la de<br>Transla e a de la de<br>T |     | <mark>indika dalah<br/>Tilangan dalah k</mark> | n Film dadi<br>Nanjar | de de la compo<br>Notal de la compo<br>Notal de la compositione | S1<br>2.44100        | t <b>op Fre</b><br>0000 G⊢  |
| Center 2.441<br>Res BW 1.0 M   |  | #VBW   | V 3.0 MHz   |  | Sv  | veep 10  |                       | pan 0 Hz<br>0001 pts)   |                      | CF Ste<br>0000 M⊦<br>Ma     |
| MKR         MODE         TRC         SO           1         A2         1         t           2         F         1         t           3 | t (Δ) 1.6  | 39 ms (Δ)<br>44.0 μs                                 | Y<br>2.28 dB<br>-15.53 dBm  | FUNCTION   | FUN | CTION WIDTH                                    | FUNCTI                | DN VALUE  |                      | e <b>q Offs</b> e<br>0 ⊦    |
| ۲ آ  |  |  | m   |  |     |  |                       | Þ   |                      |                             |

#### Dwell NVNT 1-DH5 2441MHz One Burst L Agil 02:42:03 AM May 24, 2024 ALIGN AUTO Avg Type: Log-Pwr Frequency Trig Delay-500.0 μs Trig: Video #Atten: 30 dB Center Freq 2.441000000 GHz ACE 1 2 3 4 5 TYPE DET PNO: Fast • IFGain:Low ΔMkr1 2.887 ms -0.84 dB Auto Tune Ref Offset 0.5 dB Ref 20.00 dBm l0 dB/di -og r **Center Freq** 2.441000000 GHz <u>1∆2</u> X.m.padrumpaan.tom.co Start Freq 2.441000000 GHz Stop Freq المحافظ والمراجع والمحافظ والمحافظ والمحافظ والمحافظ والمحافظ والمحافظ والمحافظ والمحافظ والمحافظ الم 2.441000000 GHz Center 2.441000000 GHz Res BW 1.0 MHz Span 0 Hz Sweep 10.00 ms (10001 pts) CF Step 1.000000 MHz Man #VBW 3.0 MHz <u>Auto</u> 2.887 ms (Δ) 485.0 μs 2 <u>1</u> t (Δ) -0.84 dE **Freq Offset** 0 Hz **STATUS**

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|  |   | II NVNT 2-  | DH1 2441   | 1MHz On   | e Burst   |   |
|--|---|---|--|---|---|---|
| Agilent Spectrum Analyzer<br>R RL RF<br>Center Freq 2.44   | 50 Ω AC<br>1000000 GHz                        | Fast ↔ Trig De  | deo  | ALIGN AUTO<br>Avg Type: Log-Pwr                               | 02:33:50 AM May 24, 2024<br>TRACE 123456<br>TYPE WWWWW<br>DET PNNNN | Frequency   |
| Ref Offso<br>10 dB/div Ref 20.   |   |   |  |   | ΔMkr1 393.0 μs<br>1.98 dB   |   |
| 10.0<br>0.00<br>10.0   |   |   |  |   | TRIG LVL  | <b>Center Free</b><br>2.441000000 GH  |
| -20.0  |   |   |  |   |   | Start Free  |
| -30.0  |   |   |  |   |   | 2.441000000 GH  |
| -40.0  |   | rt 1<br>Nig<br>Dissource verting to state by a<br>Nig of the state | hanna hartisilila kun<br>Hanna paji <sup>dan h</sup> andah | n balan (da da baran seconda<br>Altan (da <mark>ba</mark> la) |   | Stop Fre  |
| -40.0<br>-50.0 <mark>NI April<br/>-60.0 <mark>NI April</mark></mark>   | <mark>a shi sheki ka sheki ka kuma ana</mark> | #VBW 3.0 MH   | <mark>linennall<sup>annin</sup>nda</mark> u                | den gla anti-tapangalar                                       | Span 0 Hz<br>0.00 ms (10001 pts)                                    | Stop Fre<br>2.44100000 GH<br>CF Ste<br>1.00000 MH                           |
| 40 0<br>-0.0 0 (4.1)<br>-0.0 0 (4  | 00 GHz  | #VBW 3.0 MH   | EUNCTION<br>8 dB   | Sweep 1   | Span 0 Hz<br>0.00 ms (10001 pts)                                    | Stop Fre<br>2.44100000 GH<br>CF Ste<br>1.00000 MH<br>Auto Ma<br>Freq Offse  |
| 40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0 | 00 GHz<br>× 393.0                             | #VBW 3.0 MH   | EUNCTION<br>8 dB   | Sweep 1   | Span 0 Hz<br>0.00 ms (10001 pts)                                    | Stop Fre<br>2.44100000 GH<br>CF Ste<br>1.00000 MH                           |
| 40.0<br>40.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0<br>50.0 | 00 GHz<br>× 393.0                             | #VBW 3.0 MH   | EUNCTION<br>8 dB   | Sweep 1   | Span 0 Hz<br>0.00 ms (10001 pts)                                    | Stop Fre<br>2.44100000 GH<br>CF Ste<br>1.000000 MH<br>Auto Ma<br>Freq Offse |

#### Dwell NVNT 2-DH3 2441MHz One Burst L Agil 02:43:00 AM May 24, 2024 ALIGN AUTO Avg Type: Log-Pwr Frequency Trig Delay-500.0 μs Trig: Video #Atten: 30 dB Center Freq 2.441000000 GHz ACE 1 2 3 4 5 PNO: Fast IFGain:Low NNNN DET Auto Tune ΔMkr1 1.645 ms 0.63 dB Ref Offset 0.5 dB Ref 20.00 dBm 0 dB/di .og r **Center Freq** 1<u>Δ</u>2 2.441000000 GHz X2 Start Freq 2.441000000 GHz Stop Freq a a the in provide a set of the set of t 2.441000000 GHz Center 2.441000000 GHz Res BW 1.0 MHz Span 0 Hz Sweep 10.00 ms (10001 pts) CF Step 1.000000 MHz Man #VBW 3.0 MHz <u>Auto</u> 1.645 ms (Δ) 497.0 μs 2 <u>1</u> t (Δ) 0.63 dB -7.43 dBm Freq Offset 0 Hz

# C. CO., LTA

**STATUS** 



| D  | well NVNT 2-DH5                            | 2441MHz One I   | Burst                         |  |
|--|--|---|-------------------------------|--|
| Agilent Spectrum Analyzer - Swept SA           Ν         RL         RF         50 Ω         AC           Center Freg 2.441000000 G   | SENSE:INT                                  |   | 02:43:51 AM May 24, 2024      | Frequency                                  |
|  | PNO: Fast +++<br>IFGain:Low #Atten: 30 dB  |   |                               | Auto Tune                                  |
| Ref Offset 0.5 dB<br>10 dB/div Ref 20.00 dBm   |  | ΔΜ  | kr1 2.892 ms<br>-4.97 dB      | AutoTune                                   |
| 10.0<br>-10.0  | 1Δ2  |   | TRIQ LVL                      | Center Freq<br>2.441000000 GHz             |
| -20.0  |  |   |                               | <b>Start Freq</b><br>2.441000000 GHz       |
| -50.0 (10.0) (10 | an ann an    | ullense stadil a stadil and a net and a stadil and a stadil<br>19 au top ta part (participant and a stadil and |                               | <b>Stop Freq</b><br>2.441000000 GHz        |
| Center 2.441000000 GHz<br>Res BW 1.0 MHz   | #VBW 3.0 MHz                               | Sweep 10.00   | Span 0 Hz<br>0 ms (10001 pts) | <b>CF Step</b><br>1.000000 MHz<br>Auto Man |
|  | 2.892 ms (Δ) -4.97 dB<br>497.0 us 0.36 dBm | FUNCTION FUNCTION WIDTH   | FUNCTION VALUE                | india india                                |
| 3 4 4 5 4 5 4 5 4 5 4 5 5 5 5 5 5 5 5 5  | 497.0 µs 0.36 dBm                          |   | =                             | Freq Offset<br>0 Hz                        |
| 6<br>7<br>8<br>9<br>9<br>10  |  |   |                               |  |
| MSG  |  | STATUS  |                               |  |

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#### Dwell NVNT 3-DH1 2441MHz One Burst L Agil 02:39:23 AM May 24, 2024 ALIGN AUTO Avg Type: Log-Pwr Frequency Trig Delay-500.0 µs Trig: Video #Atten: 30 dB Center Freq 2.441000000 GHz RACE 1 2 3 4 5 TYPE DET PNO: Fast • IFGain:Low NNNN Auto Tune ΔMkr1 392.0 μs 0.96 dB Ref Offset 0.5 dB Ref 20.00 dBm **Center Freq** Δ2 2.441000000 GHz Х<mark>г</mark> Start Freq 2.441000000 GHz Stop Freq 2.441000000 GHz Center 2.441000000 GHz Res BW 1.0 MHz Span 0 Hz Sweep 10.00 ms (10001 pts) CF Step 1.000000 MHz Man #VBW 3.0 MHz <u>Auto</u> 392.0 μs (Δ) 497.0 μs 2 1 t (Δ) 1 t 0.96 dB -1.97 dBm Freq Offset 0 Hz **STATUS**



|  | Dwell N                      | VNT 3-DH3  | 2441MHz  | z One             | e Burst   |   |
|--|------------------------------|--|--|-------------------|---|---|
| Agilent Spectrum Analyzer -<br>RL RF 5<br>Center Freq 2.441  | 50 Ω AC                      | SENSE:INT<br>Trig Delay-500.0  |  | ALIGN AUTO        | 02:44:45 AM May 24, 2024<br>TRACE 1 2 3 4 5 (<br>TYPE   | Frequency                               |
| Ref Offset<br>10 dB/div Ref 20.0   | IFGain:Low                   | #Atten: 30 dB  |  | Δ                 | Mkr1 1.643 ms<br>-1.75 dB   | Auto Tune                               |
| Log<br>10.0<br>0.00<br>-10.0   | 1Δ2                          |  |  |                   | TRIG LVL  | Center Fred<br>2.441000000 GH;          |
| -20.0<br>-30.0<br>-40.0  |                              |  |  |                   |   | <b>Start Free</b><br>2.441000000 GH     |
| -50.0 <mark>17 - 102</mark><br>-60.0 01 01 01 01 01<br>-70.0   |                              | lan dini di Aleksi in di Angelan<br>Rina di Angelan<br>Rina di Angelan | izan ya Kalada na Kila<br>Mala na Kilangi<br>Mala na |                   | triperi i fan ferster ferster ferster ferster<br>Gebeure i ferster ferster ferster ferster ferster ferster ferster<br>Gebeure i ferster ferst | <b>Stop Fre</b><br>2.441000000 GH       |
| Center 2.44100000<br>Res BW 1.0 MHz  |                              | 3W 3.0 MHz   | s  | weep 10           | Span 0 Hz<br>.00 ms (10001 pts)   | <b>CF Ste</b><br>1.000000 MH<br>Auto Ma |
| MKR         MODE         TRC         SCL           1         Δ2         1         t         (Δ)           2         F         1         t         (Δ)           3         -         -         -         -           6         -         -         -         -           7         -         -         -         -           8         -         -         -         -           9         -         -         -         -           10         -         -         -         - | Х<br>1.643 ms (,<br>497.0 µs | -0.61 dBm  | FUNCTION FUN   | ICTION WIDTH      | FUNCTION VALUE  | Freq Offse<br>0 H                       |
| MSG  |                              | III  |  | <b>I</b> o status |   |   |

# 2024 Frequency Auto Tune Center Freq 2.441000000 GHz Start Freq 2.441000000 GHz CF Step 1.000000 MHz

#### Dwell NVNT 3-DH5 2441MHz One Burst

| MR       ALIGN ATO       D2:45:42 At May 24, 2024         Center Freq 2.441000000 GHz<br>IFGaint.cow       Trig: Video<br>#Atten: 30 dB       Trace: 2:43 G<br>Trace: 2:43 G<br>Trace: 2:44 dB       Frequency         000       Ref Offset0.5 dB       Center Freq<br>2.441000000 GHz       Center Freq<br>2.441000000 GHz       Center Freq<br>2.441000000 GHz       Auto Tune         000       D00       D00       D00       D00       D00       D00       Center Freq<br>2.441000000 GHz       Center Freq<br>2.441000000 GHz       Center Freq<br>2.441000000 GHz         000       D00       D00       D00       D00       D00       D00       D00       D00       D00       Center Freq<br>2.441000000 GHz       Center Freq<br>2.441000000 GHz         000       D00   | Agilent Spectrum Analyzer - Swept SA     |                          |         |   |   |   |             |
|---|--|--------------------------|---------|---|---|---|-------------|
| PNO: Fast       Trig: Video       Trig: Video       Auto Tune         100       B       AMkr1 2.894 ms       Center Freq         100       B       100       Center Freq       Center Freq         100       Auto Tune       Trig: Video       Center Freq       Center Freq         100       Auto Tune       Trig: Video       Center Freq       Center Freq         200       Auto Tune       Trig: Video       Trig: Video       Center Freq         200       Auto Tune       Trig: Video       Trig: Video       Center Freq         200       Auto Tune       Trig: Video       Trig: Video       Center Freq         200       Auto Tune       Trig: Video       Trig: Video       Center Freq         200       Auto Tune       Auto Tune       Start Freq       Center Freq         200       Auto Tune       Auto Tune       Start Freq       Center Freq         200       Auto Tune       Auto Tune       Start Freq       Center Freq         200       Auto Tune       Auto Tune       Start Freq       Center Freq         200       Auto Tune       Auto Tune       Start Freq       Center Freq         201       Auto Tune       Auto Tune       Start Freq <th></th> <th>GHz</th> <th></th> <th></th> <th></th> <th>02:45:42 AM May 24, 2024<br/>TRACE 1 2 3 4 5 6</th> <th>Frequency</th>  |  | GHz                      |         |   |   | 02:45:42 AM May 24, 2024<br>TRACE 1 2 3 4 5 6 | Frequency   |
| Ref Offset 0.5 dB       AMkr1 2.894 ms       Auto Tune         10 dB/div       Ref 20.00 dBm       2.44 dB       Center Freq         10 dB/div       Image: Start Freq       2.441000000 GHz       Start Freq         200       Image: Start Freq       2.441000000 GHz       Start Freq         2.411000000 GHz       Freq       Span 0 Hz       Span 0 Hz         2       F 1 t       484.0 µz       Y       Function       Function Vidth         11       Image: Start Freq       Start Freq       2.441000000 GHz       Start Freq         1000       Image: Start Freq       Span 0 Hz       Span 0 Hz       Start Freq         1000       Image: Start Freq       Span 0 Hz       Span 0 Hz       Start Freq         1000       Image: Start Freq       Span 0 Hz       Start Freq       Start Freq         1000       Image: Start Freq       Start Freq       Start Freq       Start Freq         1000       Image: Start Freq       Start Freq       Start Freq       Start Freq <th></th> <th>PNO: Fast 🔸</th> <th></th> <th></th> <th></th> <th>TYPE WWWWWW</th> <th></th>   |  | PNO: Fast 🔸              |         |   |   | TYPE WWWWWW                                   |             |
| Construction       Construction       Construction       Center Free         100  |  | I Guineou                |         |   | Δ   |   | Auto Tune   |
| 100       X2       Y2   | Log<br>10.0                              | 102                      |         |   |   |   |             |
| 500       Average of a participation of a partic | -20.0                                    | de libre a de la company |         |   |   |   |             |
| Res BW 1.0 MHz         #VBW 3.0 MHz         Sweep         10.00 ms (10001 pts)         1.00000 MHz           MKR         MODE         TC         X         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE         Auto         Man           1         Δ2         1         t         (Δ)         2.894 ms (Δ)         2.44 dB         Function         Function width         Function value         Freq Offset         0         D         Auto         Man         Freq Offset         0         Hz         Hz         F   | -50.0 0000000000000000000000000000000000 | 17                       |         | deriveller for helt film en en<br>phi fister og ek gester | and a start of the s<br>and a start of the st |   |             |
| 1       Δ2       1       t       (Δ)       2.894 ms       (Δ)       2.44 dB         2       F       1       t       484.0 µs       -13.83 dBm       -13.83 dBm         3       -13.83 dBm       -13.83 dBm       -13.83 dBm       -13.83 dBm       -13.83 dBm         5       -       -       -       -       -       -       0 Hz         6       -       -       -       -       -       -       0 Hz       0 Hz         7       -       -       -       -       -       -       -       0 Hz       0 Hz       -       0 Hz       0 Hz       -       0 Hz       0 Hz       -       0 Hz       0 Hz       0 Hz       -       0 Hz       -       0 Hz   | Res BW 1.0 MHz                           | #VBW                     |         |   | •   | .00 ms (10001 pts)                            | 1.000000 MH |
|   | 1 Δ2 1 t (Δ)<br>2 F 1 t                  |                          | 2.44 dB | FUNCTION  | FUNCTION WIDTH  | FUNCTION VALUE                                |             |
|   | 7  |                          |         |   |   |   |             |
| MSG Los STATUS  |  |                          | III     |   |   |   |             |
|   | MSG                                      |                          |         |   |   | 3   |             |

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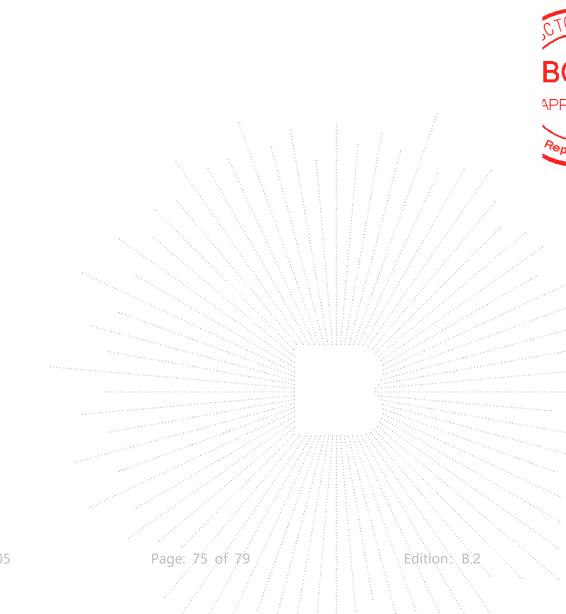
#### 15. Antenna Requirement

#### 15.1 Limit

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 15.2 Test Result

The EUT antenna is Internal antenna, fulfill the requirement of this section.



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#### 16. EUT Photographs

#### EUT Photo 1



#### **EUT Photo 2**



#### NOTE: Appendix-Photographs Of EUT Constructional Details.

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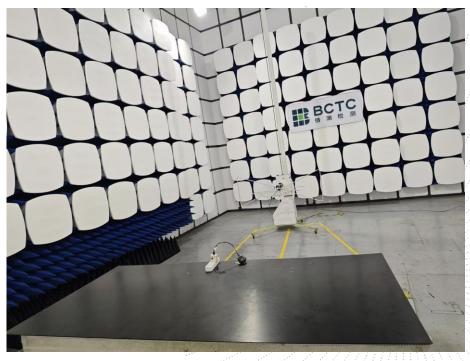


#### 17. EUT Test Setup Photographs

#### **Conducted Emissions Photo**



**Radiated Measurement Photos** 



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#### STATEMENT

1. The equipment lists are traceable to the national reference standards.

2. The test report can not be partially copied unless prior written approval is issued from our lab.

3. The test report is invalid without the "special seal for inspection and testing".

4. The test report is invalid without the signature of the approver.

5. The test process and test result is only related to the Unit Under Test.

6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.

7. The quality system of our laboratory is in accordance with ISO/IEC17025.

8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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\*\*\*\*\* END \*\*\*\*\*

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