

## Appendix A

### RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: B83

Trade Mark: Haoda

Test Model: ZN-802

FCC ID: 2AR8U-ZN802

### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 22.5 ° C  |
| Relative Humidity: | 50%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Gary Qian |
| Supervised by:     | Eden Hu   |

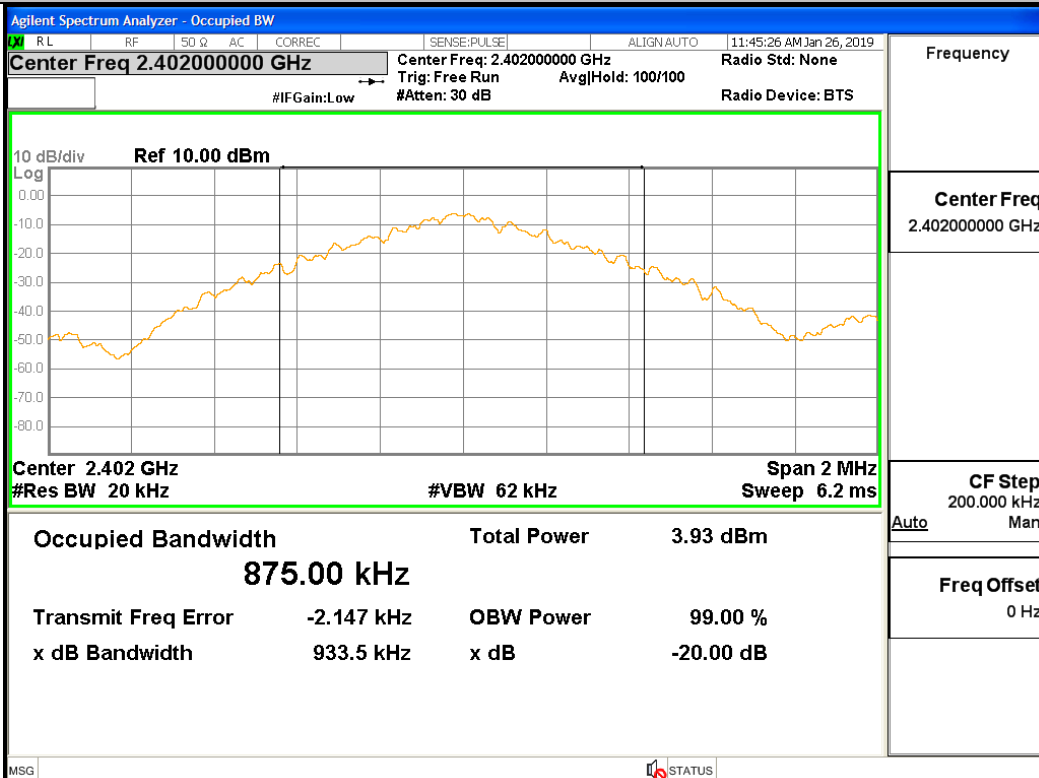
#### A.1 20 dB Bandwidth

| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit(MHz)    | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.934                | Not Specified | PASS    |
| GFSK          | MCH      | 0.892                | Not Specified | PASS    |
| GFSK          | HCH      | 0.933                | Not Specified | PASS    |
| $\pi/4$ DQPSK | LCH      | 1.357                | Not Specified | PASS    |
| $\pi/4$ DQPSK | MCH      | 1.343                | Not Specified | PASS    |
| $\pi/4$ DQPSK | HCH      | 1.334                | Not Specified | PASS    |
| 8DPSK         | LCH      | 1.343                | Not Specified | PASS    |
| 8DPSK         | MCH      | 1.341                | Not Specified | PASS    |
| 8DPSK         | HCH      | 1.348                | Not Specified | PASS    |

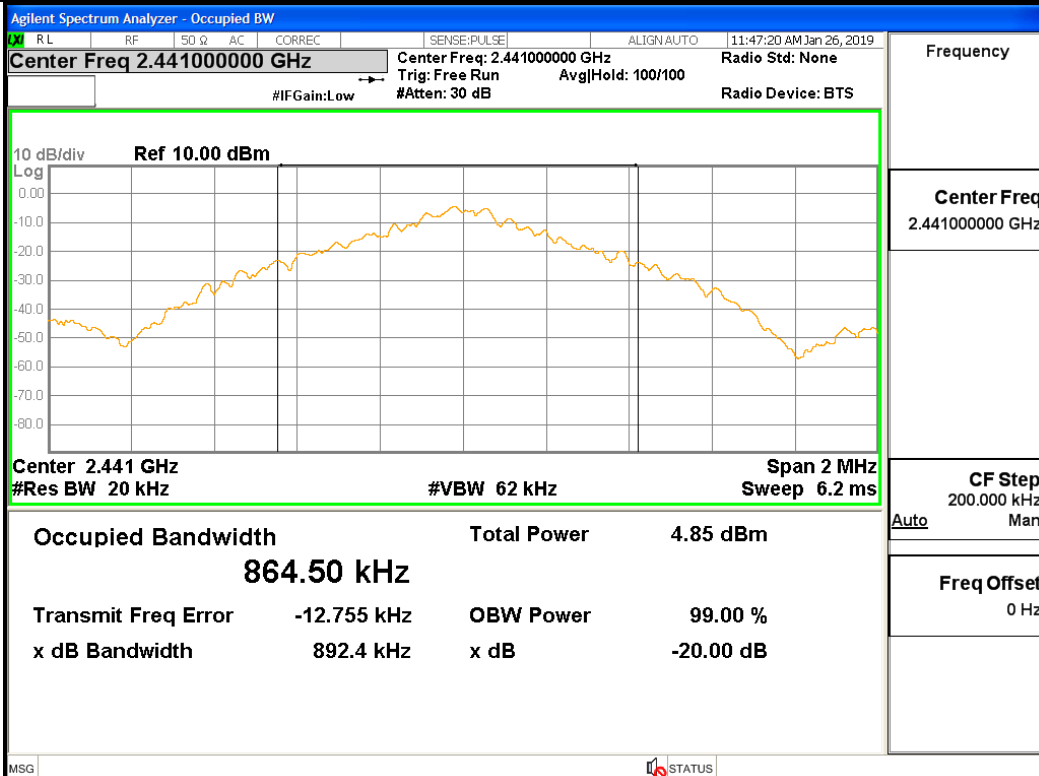
## Test Graph

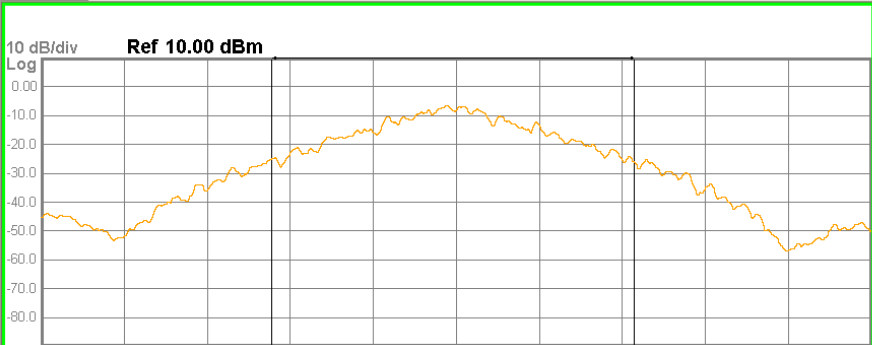
### Graphs

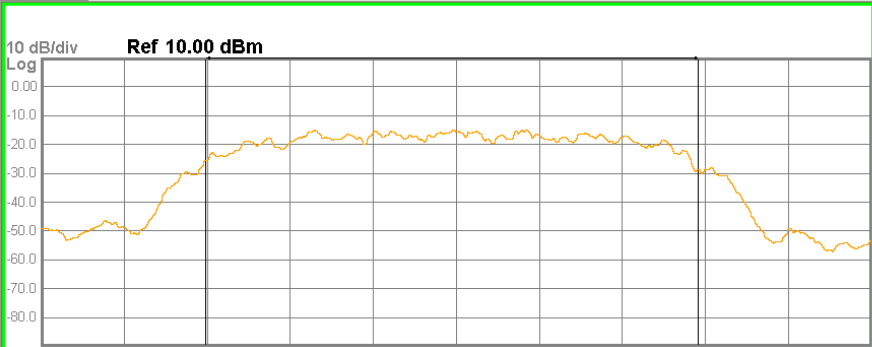
GFSK/LCH



GFSK/MCH



|          |                                                                                    |    |                |    |                |                              |                   |                          |           |
|----------|------------------------------------------------------------------------------------|----|----------------|----|----------------|------------------------------|-------------------|--------------------------|-----------|
| GFSK/HCH | Agilent Spectrum Analyzer - Occupied BW                                            |    |                |    | SENSE:PULSE    |                              | ALIGN:AUTO        | 11:48:44 AM Jan 26, 2019 | Frequency |
|          | RL                                                                                 | RF | 50 Ω           | AC | CORREC         | Center Freq: 2.480000000 GHz | Radio Std: None   | Center Freq              |           |
|          | Center Freq 2.480000000 GHz                                                        |    |                |    | Trig: Free Run | Avg/Hold: 100/100            | Radio Device: BTS | 2.480000000 GHz          |           |
|          | #IFGain:Low                                                                        |    |                |    | #Atten: 30 dB  |                              |                   |                          |           |
|          |  |    |                |    |                |                              |                   |                          |           |
|          | Center 2.48 GHz                                                                    |    | #Res BW 20 kHz |    | #VBW 62 kHz    | Span 2 MHz                   |                   | CF Step                  |           |
|          |                                                                                    |    |                |    |                | Sweep 6.2 ms                 |                   | 200.000 kHz              |           |
|          | Occupied Bandwidth                                                                 |    |                |    | Total Power    | 3.32 dBm                     |                   | Auto                     |           |
|          | 869.63 kHz                                                                         |    |                |    |                |                              |                   | Man                      |           |
|          | Transmit Freq Error                                                                |    | -7.159 kHz     |    | OBW Power      | 99.00 %                      |                   | Freq Offset              |           |
|          | x dB Bandwidth                                                                     |    | 932.8 kHz      |    | x dB           | -20.00 dB                    |                   | 0 Hz                     |           |
|          | MSG                                                                                |    |                |    | STATUS         |                              |                   |                          |           |

|              |                                                                                      |    |                |    |                |                              |                   |                          |           |
|--------------|--------------------------------------------------------------------------------------|----|----------------|----|----------------|------------------------------|-------------------|--------------------------|-----------|
| π/4DQPSK/LCH | Agilent Spectrum Analyzer - Occupied BW                                              |    |                |    | SENSE:PULSE    |                              | ALIGN:AUTO        | 11:50:24 AM Jan 26, 2019 | Frequency |
|              | RL                                                                                   | RF | 50 Ω           | AC | CORREC         | Center Freq: 2.402000000 GHz | Radio Std: None   | Center Freq              |           |
|              | Center Freq 2.402000000 GHz                                                          |    |                |    | Trig: Free Run | Avg/Hold: 100/100            | Radio Device: BTS | 2.402000000 GHz          |           |
|              | #IFGain:Low                                                                          |    |                |    | #Atten: 30 dB  |                              |                   |                          |           |
|              |  |    |                |    |                |                              |                   |                          |           |
|              | Center 2.402 GHz                                                                     |    | #Res BW 20 kHz |    | #VBW 62 kHz    | Span 2 MHz                   |                   | CF Step                  |           |
|              |                                                                                      |    |                |    |                | Sweep 6.2 ms                 |                   | 200.000 kHz              |           |
|              | Occupied Bandwidth                                                                   |    |                |    | Total Power    | -0.46 dBm                    |                   | Auto                     |           |
|              | 1.1840 MHz                                                                           |    |                |    |                |                              |                   | Man                      |           |
|              | Transmit Freq Error                                                                  |    | -10.896 kHz    |    | OBW Power      | 99.00 %                      |                   | Freq Offset              |           |
|              | x dB Bandwidth                                                                       |    | 1.357 MHz      |    | x dB           | -20.00 dB                    |                   | 0 Hz                     |           |
|              | MSG                                                                                  |    |                |    | STATUS         |                              |                   |                          |           |

Center Freq 2.402000000 GHz

Center Freq: 2.402000000 GHz

Radio Std: None

#IFGain:Low

#Atten: 30 dB

AvgHold: 100/100

Radio Device: BTS

10 dB/div

Ref 10.00 dBm

Center 2.402 GHz

#Res BW 20 kHz

#VBW 62 kHz

Span 2 MHz

Sweep 6.2 ms

Occupied Bandwidth

1.1840 MHz

Total Power

-0.46 dBm

Transmit Freq Error

-10.896 kHz

OBW Power

99.00 %

x dB Bandwidth

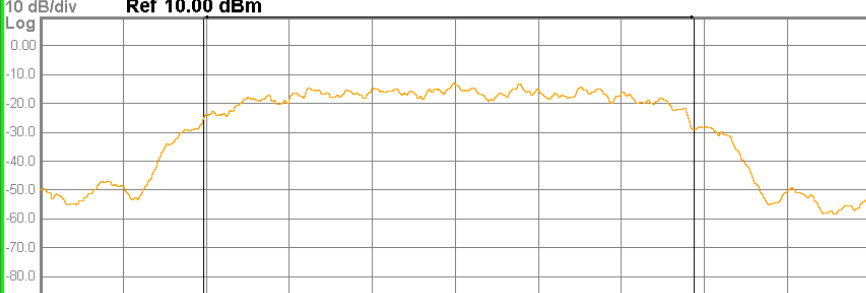
1.357 MHz

x dB

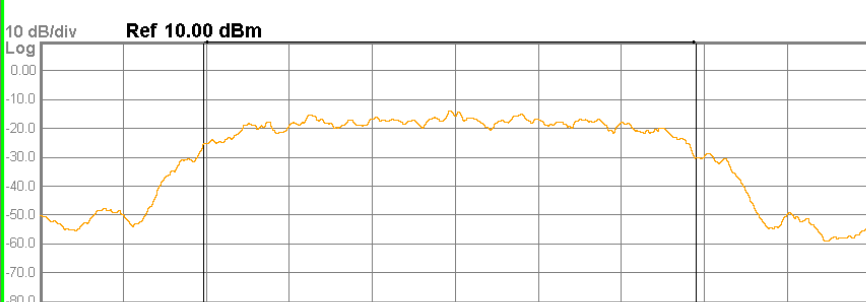
-20.00 dB

MSG

STATUS

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                         |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|-------------|----------|-------------------|--|--|--|---------------------|-------------|-----------|---------|----------------|-----------|------|-----------|-----------|--|
| $\pi$ /4DQPSK/MCH   | <div style="background-color: #f0f0f0; padding: 5px;">Agilent Spectrum Analyzer - Occupied BW<br/>RL RF 50 Ω AC CORREC SENSE:PULSE ALIGN:AUTO 11:52:28 AM Jan 26, 2019<br/><b>Center Freq 2.441000000 GHz</b> Center Freq: 2.441000000 GHz Radio Std: None<br/>Trig: Free Run Avg Hold: 100/100<br/>#IFGain:Low #Atten: 30 dB Radio Device: BTS</div>  <p>Ref 10.00 dBm</p> <p>Center 2.441 GHz Span 2 MHz<br/>Res BW 20 kHz VBW 62 kHz Sweep 6.2 ms</p> <table border="0" style="width: 100%;"> <tr> <td colspan="2">Occupied Bandwidth</td> <td>Total Power</td> <td>0.39 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.1747 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-13.464 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>1.343 MHz</td> <td>x dB</td> <td>-20.00 dB</td> </tr> </table> <div style="font-size: small; margin-top: 5px;">MSG STATUS</div> | Occupied Bandwidth |                         | Total Power | 0.39 dBm | <b>1.1747 MHz</b> |  |  |  | Transmit Freq Error | -13.464 kHz | OBW Power | 99.00 % | x dB Bandwidth | 1.343 MHz | x dB | -20.00 dB | Frequency |  |
| Occupied Bandwidth  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Total Power        | 0.39 dBm                |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| <b>1.1747 MHz</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                         |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| Transmit Freq Error | -13.464 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | OBW Power          | 99.00 %                 |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| x dB Bandwidth      | 1.343 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | x dB               | -20.00 dB               |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Center Freq        | 2.441000000 GHz         |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CF Step            | Auto<br>200.000 kHz Man |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Freq Offset        | 0 Hz                    |             |          |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |

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|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                         |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|-------------|-----------|-------------------|--|--|--|---------------------|-------------|-----------|---------|----------------|-----------|------|-----------|-----------|--|
| π/4DQPSK/HCH        | <div style="background-color: #f0f0f0; padding: 5px;">Agilent Spectrum Analyzer - Occupied BW<br/>RL RF 50 Ω AC CORREC SENSE:PULSE ALIGN:AUTO 11:53:55 AM Jan 26, 2019<br/><b>Center Freq 2.480000000 GHz</b> Center Freq: 2.480000000 GHz Radio Std: None<br/>Trig: Free Run Avg Hold: 100/100<br/>#IFGain:Low #Atten: 30 dB Radio Device: BTS</div>  <p>Ref 10.00 dBm</p> <p>Center 2.48 GHz Span 2 MHz<br/>Res BW 20 kHz VBW 62 kHz Sweep 6.2 ms</p> <table border="0" style="width: 100%;"> <tr> <td colspan="2">Occupied Bandwidth</td> <td>Total Power</td> <td>-0.83 dBm</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>1.1802 MHz</b></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-11.697 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>1.334 MHz</td> <td>x dB</td> <td>-20.00 dB</td> </tr> </table> <div style="font-size: small; margin-top: 5px;">MSG STATUS</div> | Occupied Bandwidth |                         | Total Power | -0.83 dBm | <b>1.1802 MHz</b> |  |  |  | Transmit Freq Error | -11.697 kHz | OBW Power | 99.00 % | x dB Bandwidth | 1.334 MHz | x dB | -20.00 dB | Frequency |  |
| Occupied Bandwidth  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total Power        | -0.83 dBm               |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| <b>1.1802 MHz</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                         |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| Transmit Freq Error | -11.697 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | OBW Power          | 99.00 %                 |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
| x dB Bandwidth      | 1.334 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | x dB               | -20.00 dB               |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Center Freq        | 2.480000000 GHz         |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CF Step            | Auto<br>200.000 kHz Man |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Freq Offset        | 0 Hz                    |             |           |                   |  |  |  |                     |             |           |         |                |           |      |           |           |  |

|                     |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
|---------------------|-----------------------------------------|--|--|--|------------------------------|--|-----------------|--|--------------------------|--------------|-------------------|-------------|--|-----------|--|
| 8DPSK/LCH           | Agilent Spectrum Analyzer - Occupied BW |  |  |  |                              |  |                 |  |                          |              | Frequency         |             |  |           |  |
|                     | RL RF 50 Ω AC CORREC                    |  |  |  | SENSE:PULSE                  |  | ALIGN:AUTO      |  | 11:56:13 AM Jan 26, 2019 |              | Center Freq       |             |  |           |  |
|                     | Center Freq 2.402000000 GHz             |  |  |  | Center Freq: 2.402000000 GHz |  | Radio Std: None |  |                          |              | 2.402000000 GHz   |             |  |           |  |
|                     |                                         |  |  |  | #IFGain:Low                  |  | #Atten: 30 dB   |  | AvgHold: 100/100         |              | Radio Device: BTS |             |  |           |  |
|                     |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
| Center 2.402 GHz    |                                         |  |  |  |                              |  |                 |  |                          | Span 2 MHz   |                   | CF Step     |  |           |  |
| #Res BW 20 kHz      |                                         |  |  |  |                              |  |                 |  |                          | #VBW 62 kHz  |                   | 200.000 kHz |  |           |  |
|                     |                                         |  |  |  |                              |  |                 |  |                          | Sweep 6.2 ms |                   | Auto        |  |           |  |
| Occupied Bandwidth  |                                         |  |  |  |                              |  |                 |  |                          | Total Power  |                   | -0.36 dBm   |  |           |  |
| 1.2028 MHz          |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
| Transmit Freq Error |                                         |  |  |  |                              |  |                 |  |                          | -10.511 kHz  |                   | OBW Power   |  | 99.00 %   |  |
| x dB Bandwidth      |                                         |  |  |  |                              |  |                 |  |                          | 1.343 MHz    |                   | x dB        |  | -20.00 dB |  |
| MSG                 |                                         |  |  |  |                              |  |                 |  |                          | STATUS       |                   |             |  |           |  |

|                     |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
|---------------------|-----------------------------------------|--|--|--|------------------------------|--|-----------------|--|--------------------------|--------------|-------------------|-------------|--|-----------|--|
| 8DPSK/MCH           | Agilent Spectrum Analyzer - Occupied BW |  |  |  |                              |  |                 |  |                          |              | Frequency         |             |  |           |  |
|                     | RL RF 50 Ω AC CORREC                    |  |  |  | SENSE:PULSE                  |  | ALIGN:AUTO      |  | 11:58:13 AM Jan 26, 2019 |              | Center Freq       |             |  |           |  |
|                     | Center Freq 2.441000000 GHz             |  |  |  | Center Freq: 2.441000000 GHz |  | Radio Std: None |  |                          |              | 2.441000000 GHz   |             |  |           |  |
|                     |                                         |  |  |  | #IFGain:Low                  |  | #Atten: 30 dB   |  | AvgHold: 100/100         |              | Radio Device: BTS |             |  |           |  |
|                     |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
| Center 2.441 GHz    |                                         |  |  |  |                              |  |                 |  |                          | Span 2 MHz   |                   | CF Step     |  |           |  |
| #Res BW 20 kHz      |                                         |  |  |  |                              |  |                 |  |                          | #VBW 62 kHz  |                   | 200.000 kHz |  |           |  |
|                     |                                         |  |  |  |                              |  |                 |  |                          | Sweep 6.2 ms |                   | Auto        |  |           |  |
| Occupied Bandwidth  |                                         |  |  |  |                              |  |                 |  |                          | Total Power  |                   | 0.31 dBm    |  |           |  |
| 1.1976 MHz          |                                         |  |  |  |                              |  |                 |  |                          |              |                   |             |  |           |  |
| Transmit Freq Error |                                         |  |  |  |                              |  |                 |  |                          | -9.594 kHz   |                   | OBW Power   |  | 99.00 %   |  |
| x dB Bandwidth      |                                         |  |  |  |                              |  |                 |  |                          | 1.341 MHz    |                   | x dB        |  | -20.00 dB |  |
| MSG                 |                                         |  |  |  |                              |  |                 |  |                          | STATUS       |                   |             |  |           |  |

Center Freq 2.441000000 GHz

Center Freq: 2.441000000 GHz

Radio Std: None

#IFGain:Low

#Atten: 30 dB

AvgHold: 100/100

Radio Device: BTS

10 dB/div

Ref 10.00 dBm

Log

Center 2.441 GHz

#Res BW 20 kHz

#VBW 62 kHz

Span 2 MHz

Sweep 6.2 ms

Occupied Bandwidth

1.1976 MHz

Total Power

0.31 dBm

Transmit Freq Error

-9.594 kHz

OBW Power

99.00 %

x dB Bandwidth

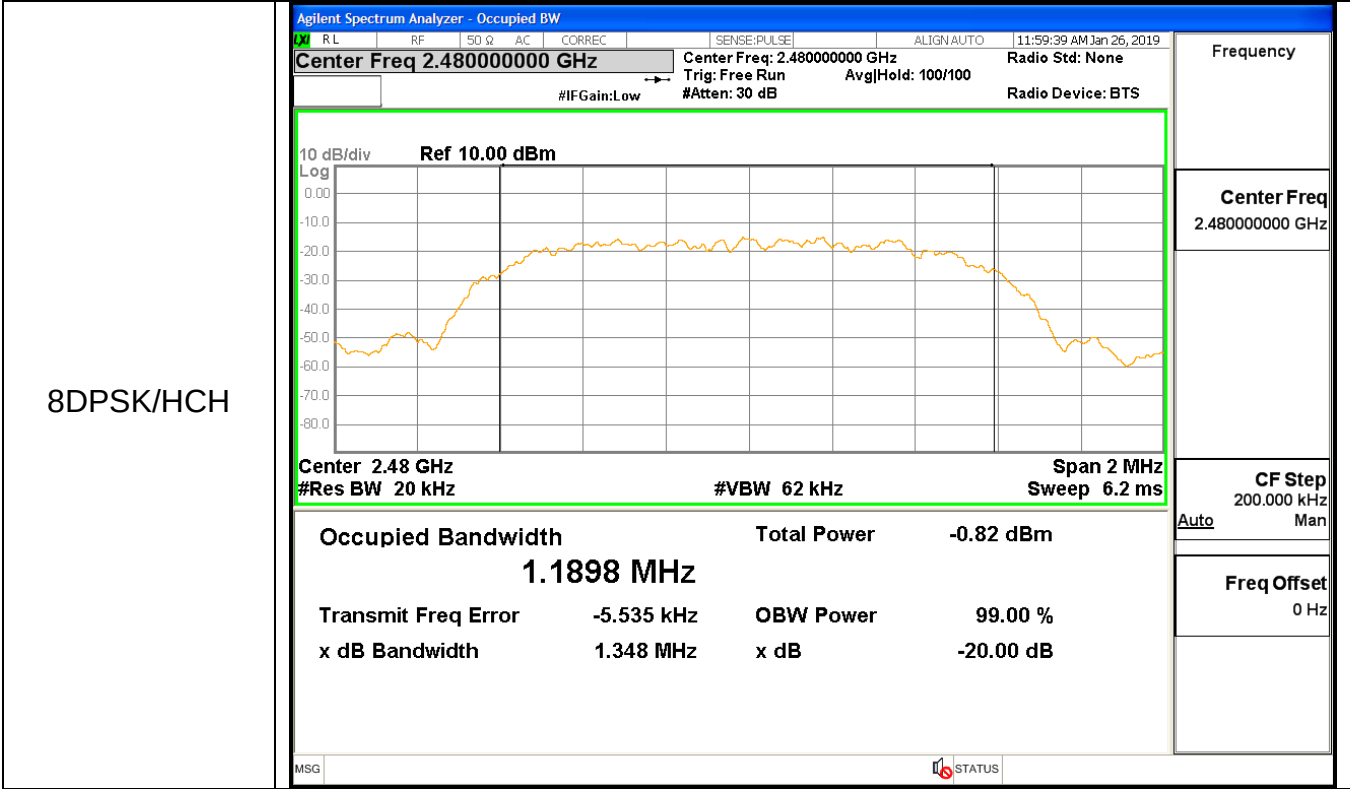
1.341 MHz

x dB

-20.00 dB

MSG

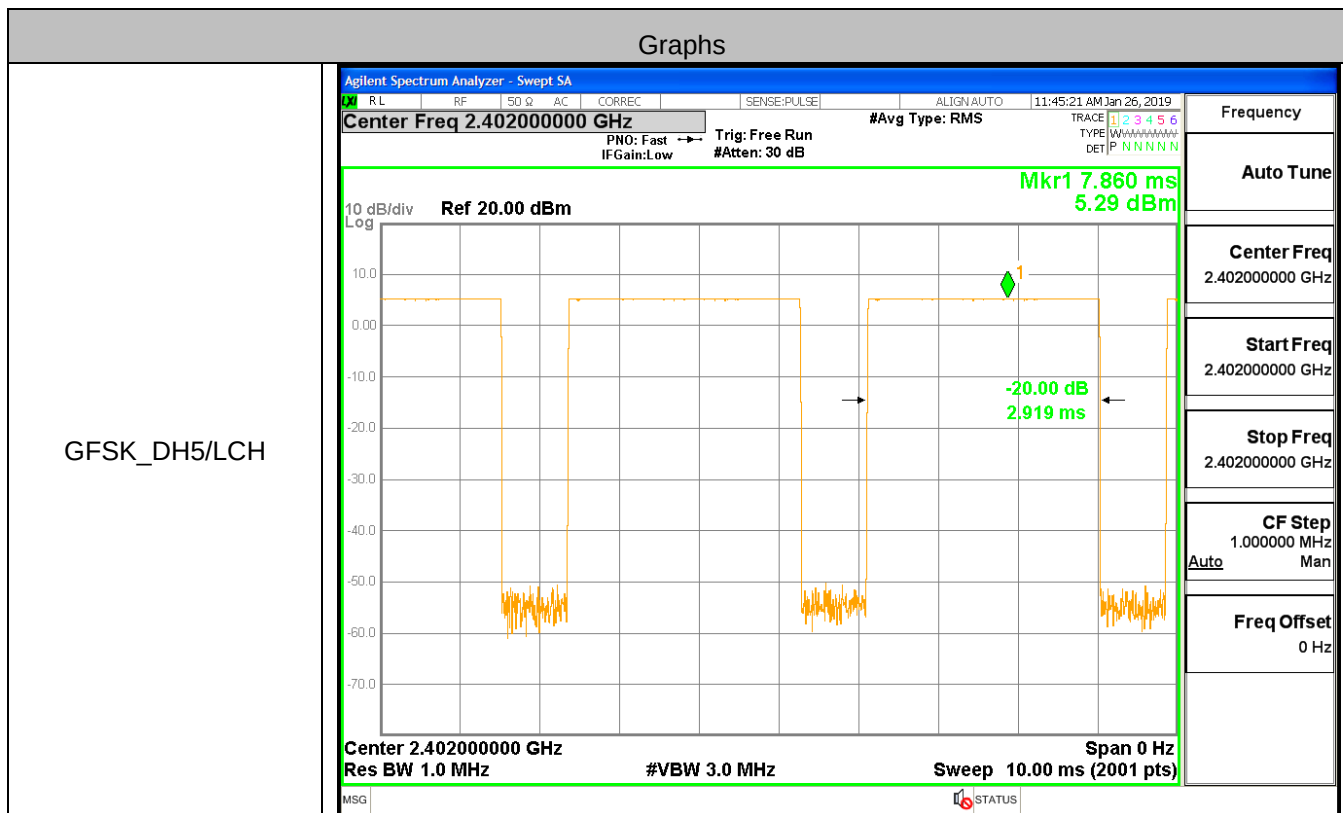
STATUS

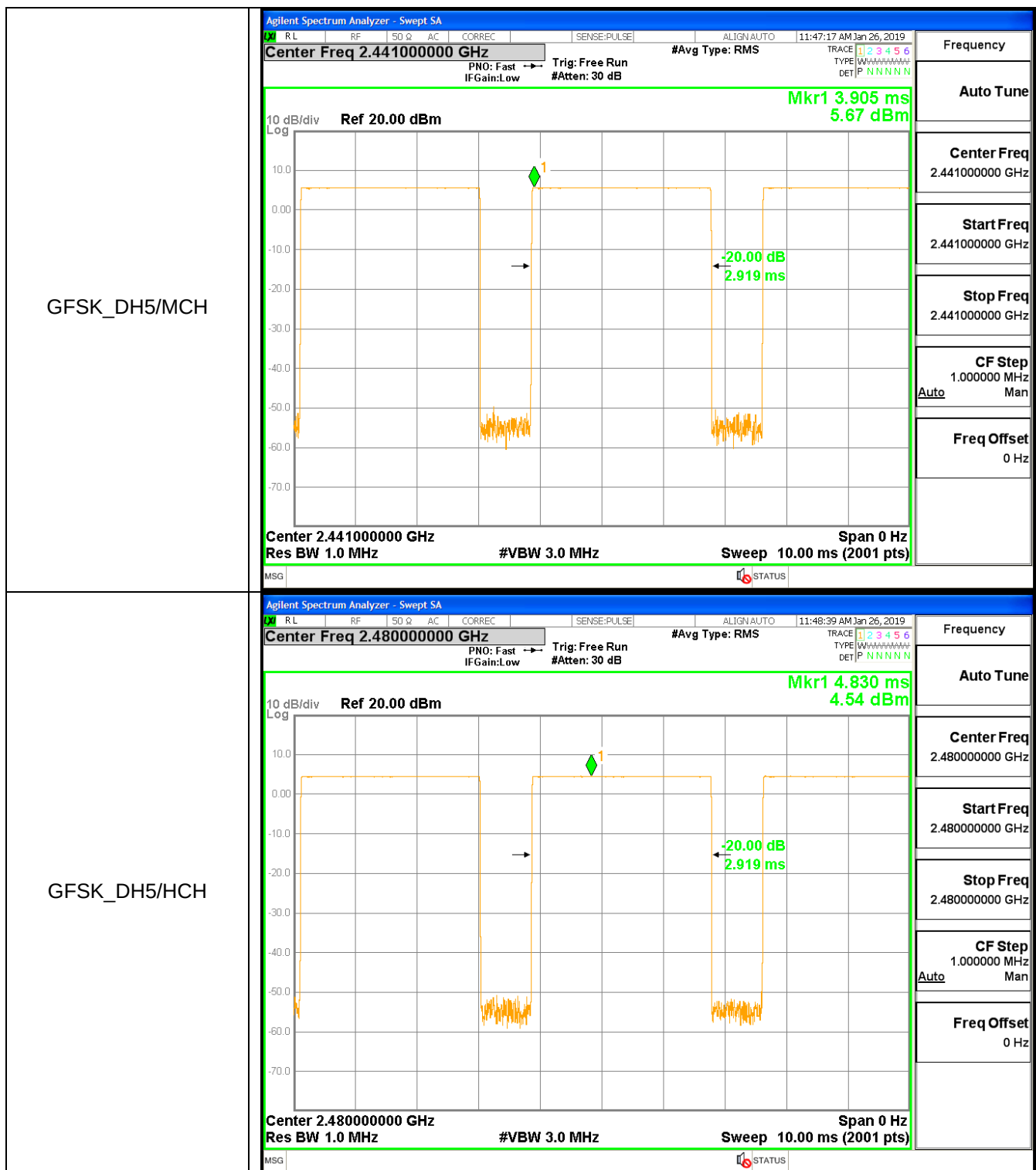


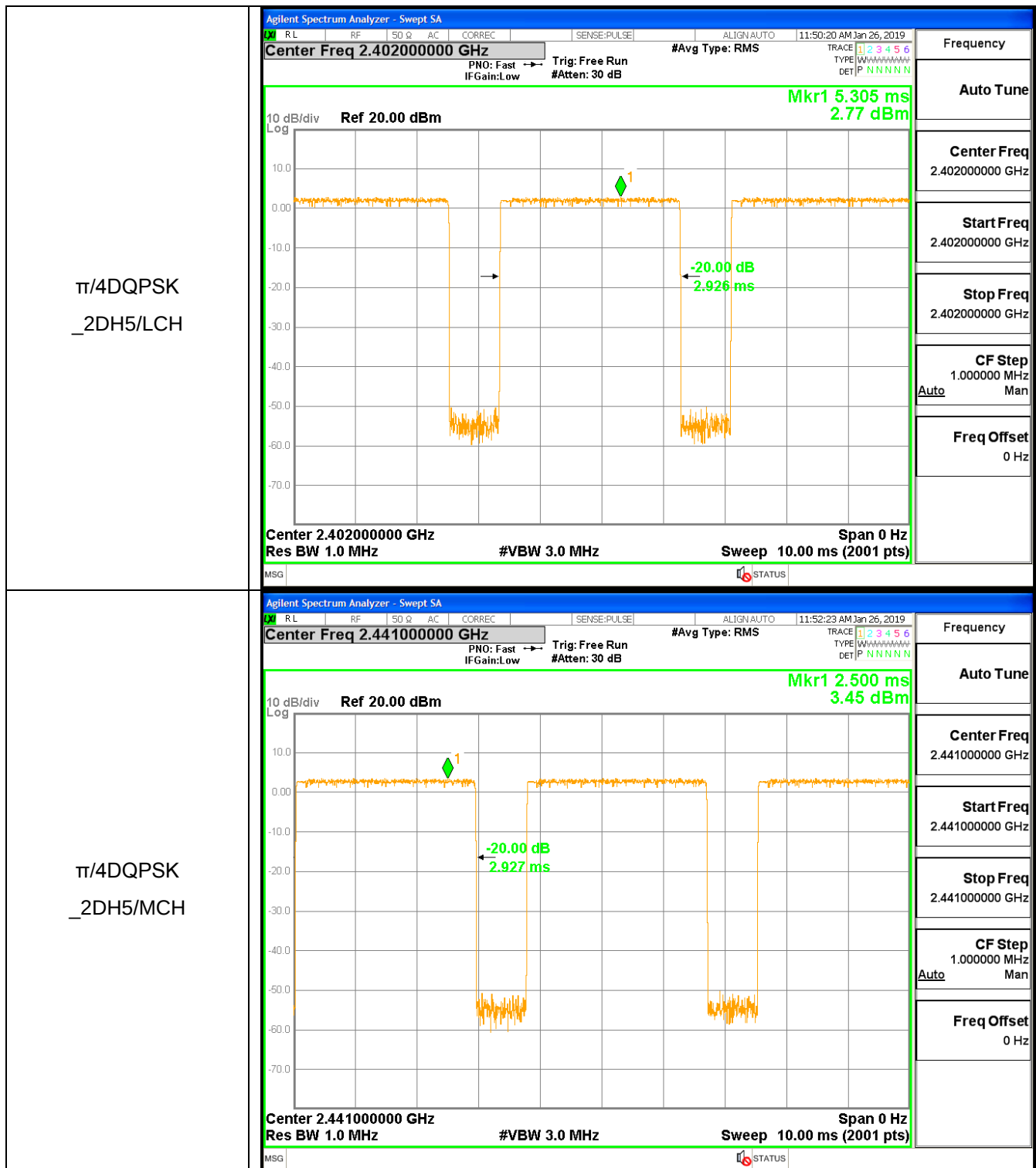
## A.2 Dwell Time

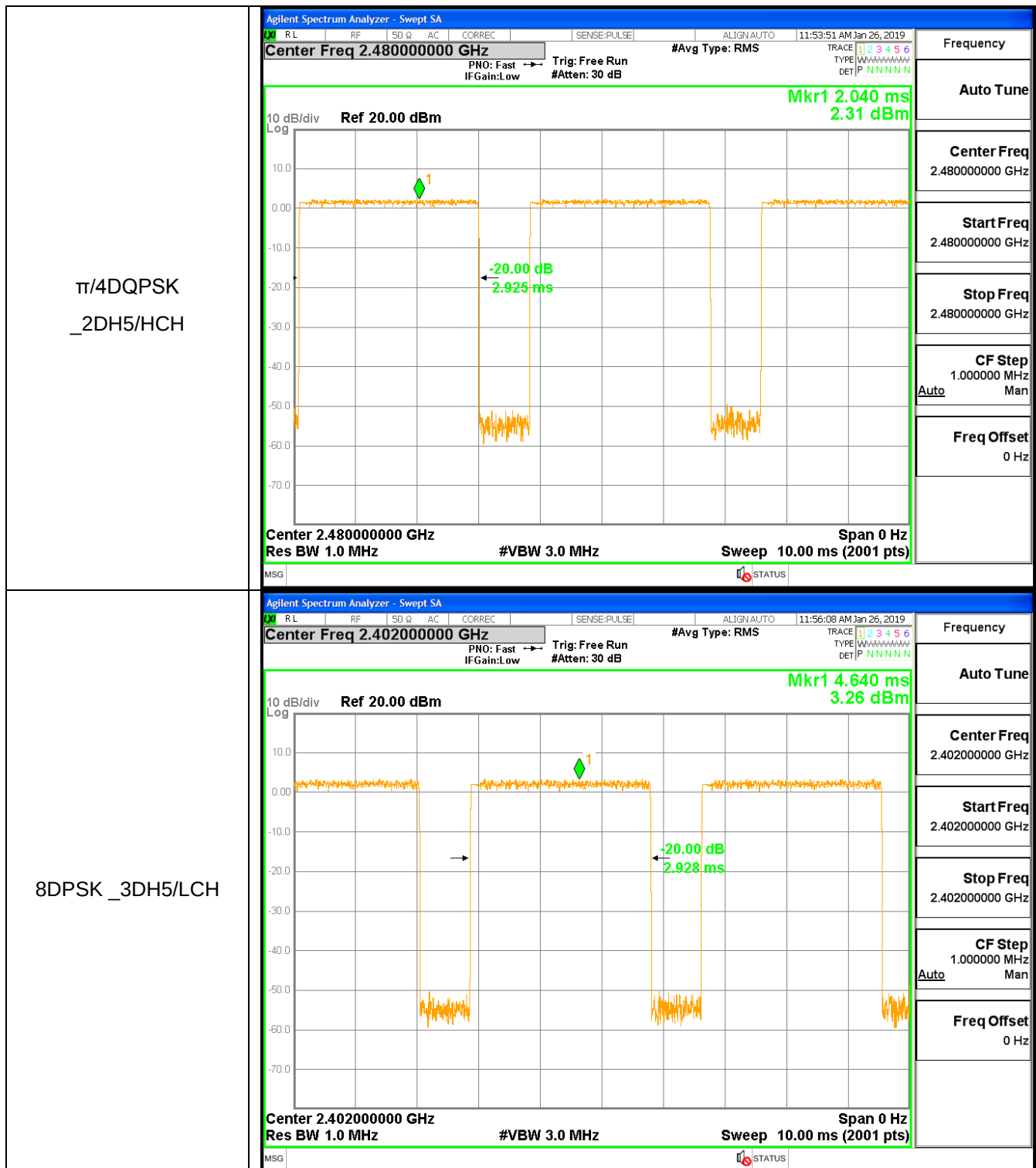
| Mode          | Packet | Channel | Burst Width [s/hop/ch] | Total Hops[hop*ch] | Dwell Time[s] | Limit [s] | Verdict |
|---------------|--------|---------|------------------------|--------------------|---------------|-----------|---------|
| GFSK          | DH5    | LCH     | 0.002919               | 106.7              | 0.311464      | 0.4       | PASS    |
| GFSK          | DH5    | MCH     | 0.002919               | 106.7              | 0.311439      | 0.4       | PASS    |
| GFSK          | DH5    | HCH     | 0.002919               | 106.7              | 0.311422      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | LCH     | 0.002926               | 106.7              | 0.312253      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | MCH     | 0.002927               | 106.7              | 0.312287      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | HCH     | 0.002925               | 106.7              | 0.31214       | 0.4       | PASS    |
| 8DPSK         | 3DH5   | LCH     | 0.002928               | 106.7              | 0.312369      | 0.4       | PASS    |
| 8DPSK         | 3DH5   | MCH     | 0.002927               | 106.7              | 0.312289      | 0.4       | PASS    |
| 8DPSK         | 3DH5   | HCH     | 0.002928               | 106.7              | 0.31239       | 0.4       | PASS    |

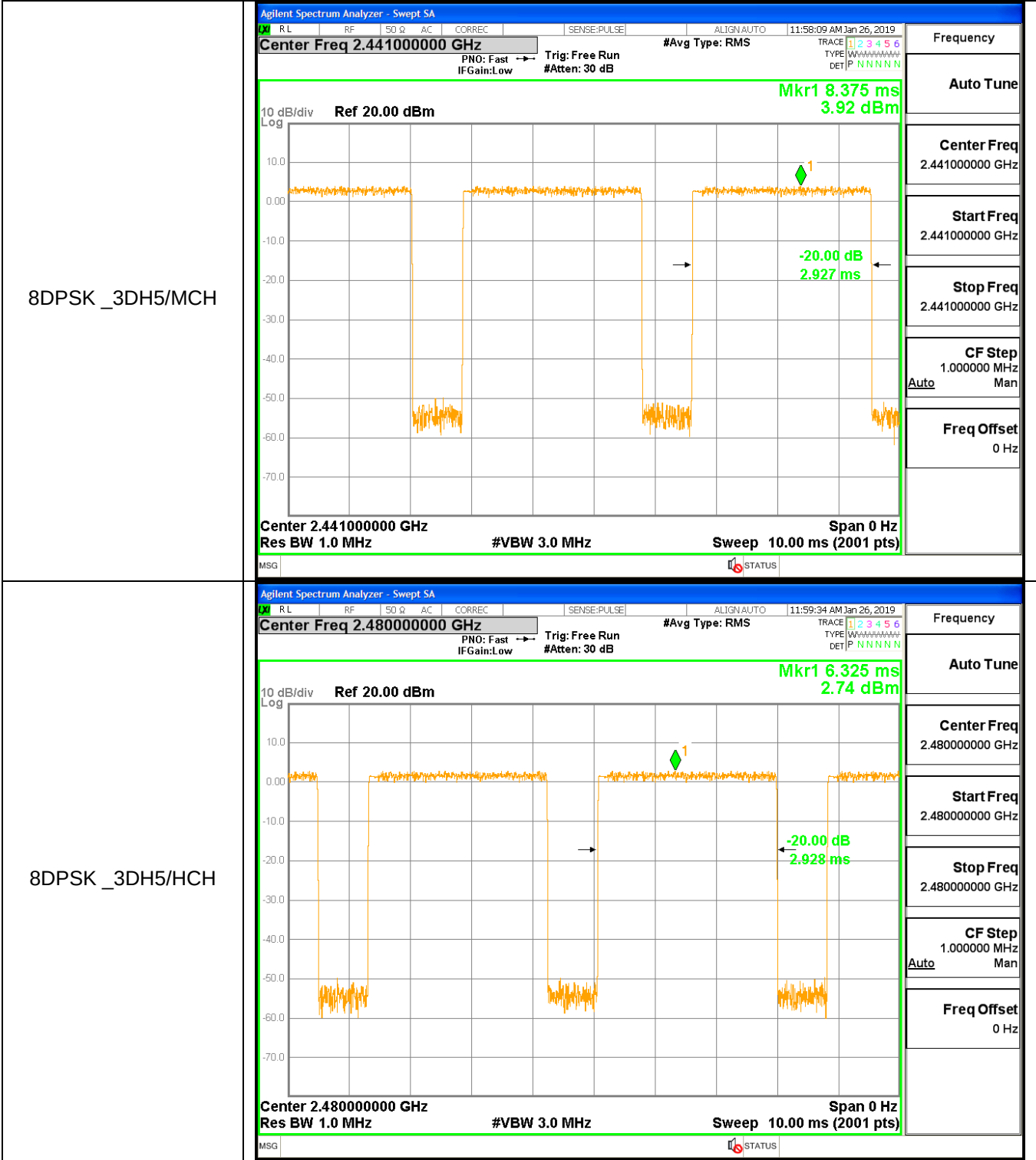
## Test Graph









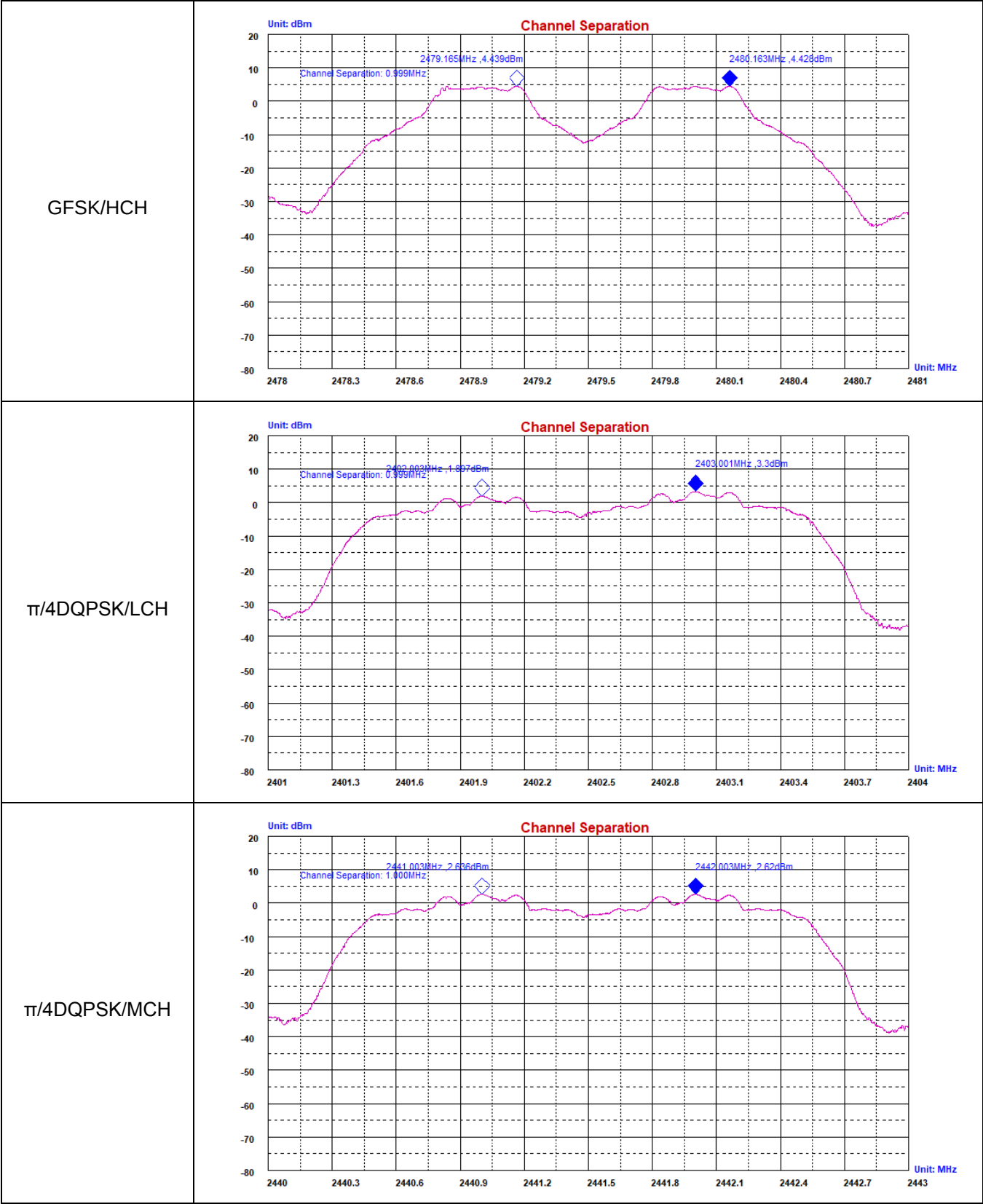


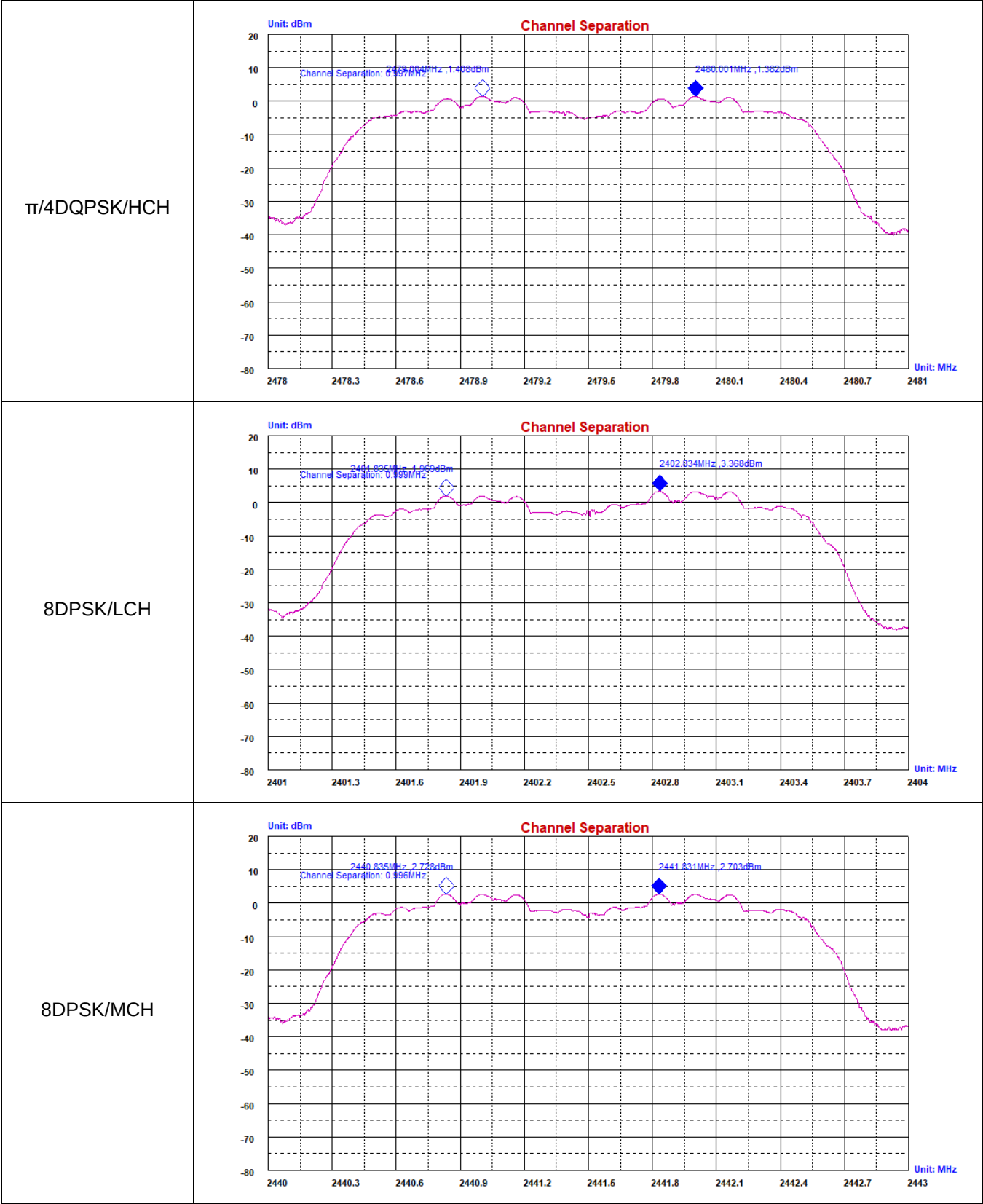
### A.3 Carrier Frequency Separation

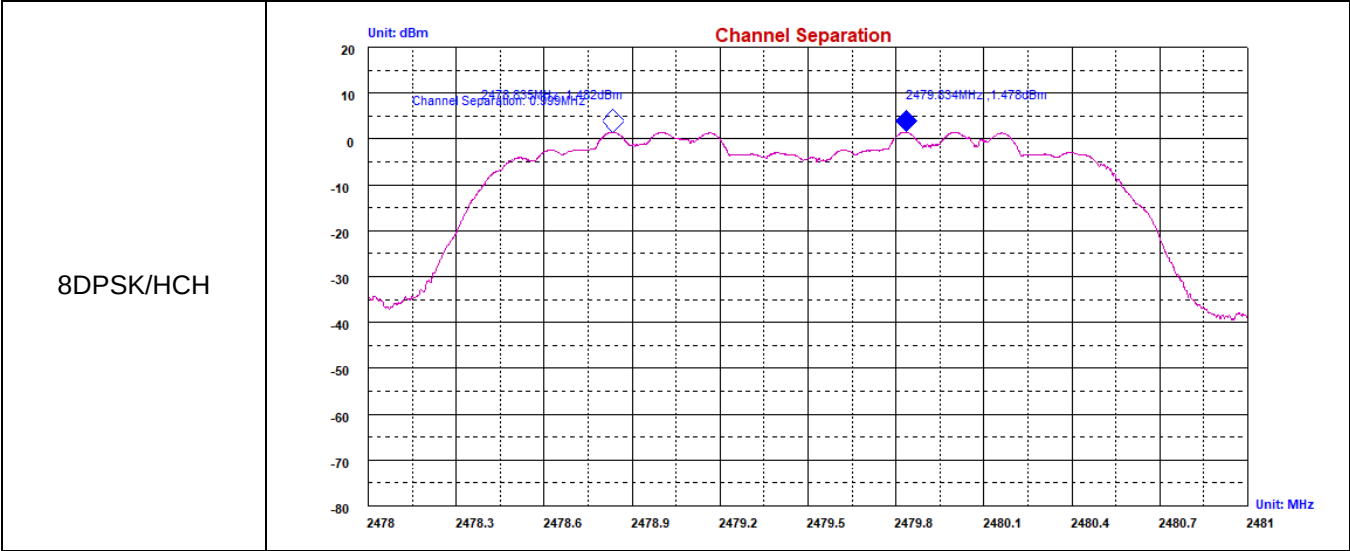
| Mode          | Channel. | Carrier Frequency Separation<br>[MHz] | Limit<br>[MHz] | Verdict |
|---------------|----------|---------------------------------------|----------------|---------|
| GFSK          | LCH      | 1.000                                 | 0.642          | PASS    |
| GFSK          | MCH      | 1.001                                 | 0.625          | PASS    |
| GFSK          | HCH      | 0.999                                 | 0.643          | PASS    |
| $\pi/4$ DQPSK | LCH      | 0.999                                 | 0.889          | PASS    |
| $\pi/4$ DQPSK | MCH      | 1.000                                 | 0.899          | PASS    |
| $\pi/4$ DQPSK | HCH      | 0.997                                 | 0.899          | PASS    |
| 8DPSK         | LCH      | 0.999                                 | 0.885          | PASS    |
| 8DPSK         | MCH      | 0.996                                 | 0.896          | PASS    |
| 8DPSK         | HCH      | 0.999                                 | 0.895          | PASS    |

### Test Graph





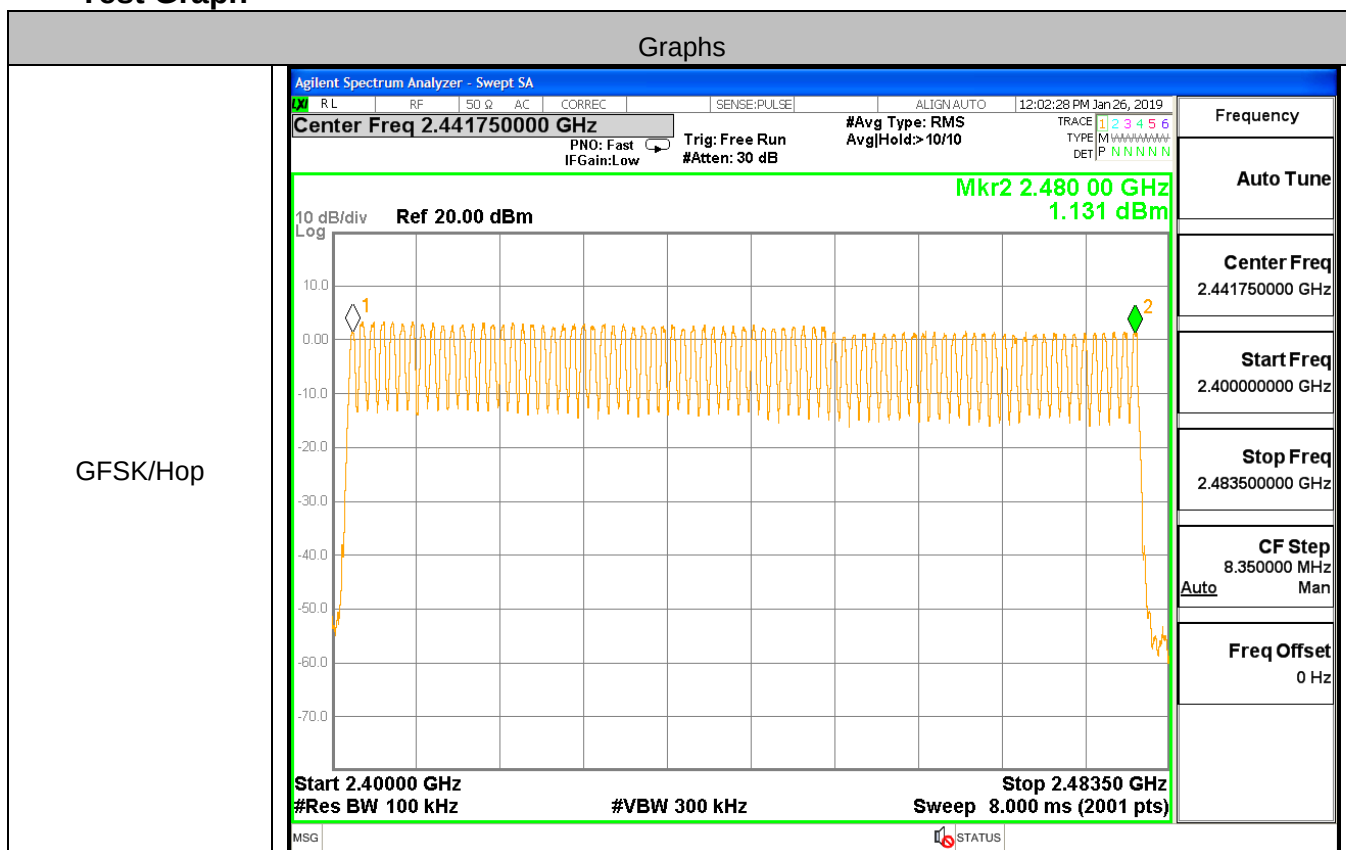


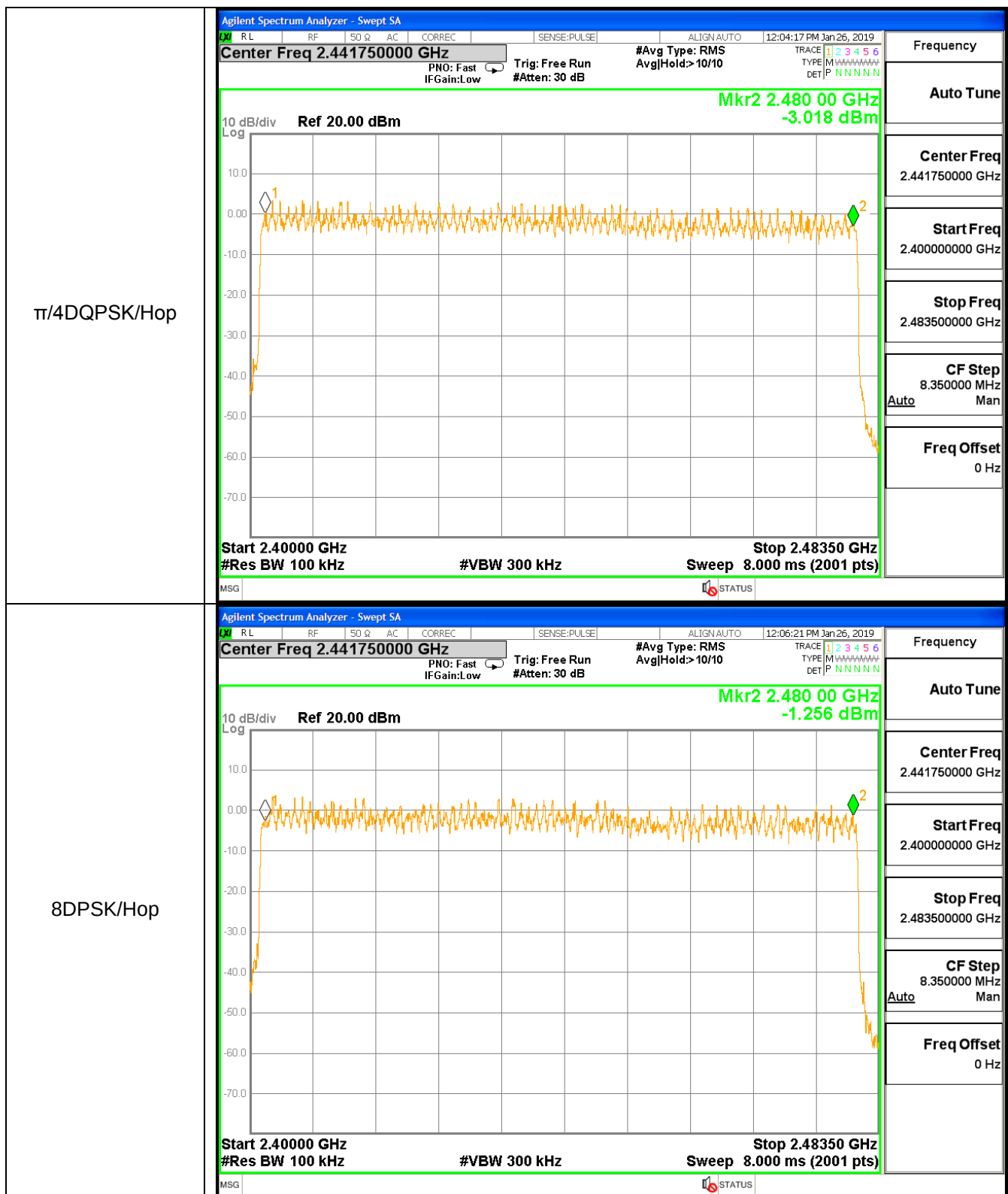


#### A.4 Hopping Channel Number

| Mode          | Channel. | Number of Hopping Channel[N] | Limit[N] | Verdict |
|---------------|----------|------------------------------|----------|---------|
| GFSK          | Hop      | 79                           | >=15     | PASS    |
| $\pi/4$ DQPSK | Hop      | 79                           | >=15     | PASS    |
| 8DPSK         | Hop      | 79                           | >=15     | PASS    |

#### Test Graph

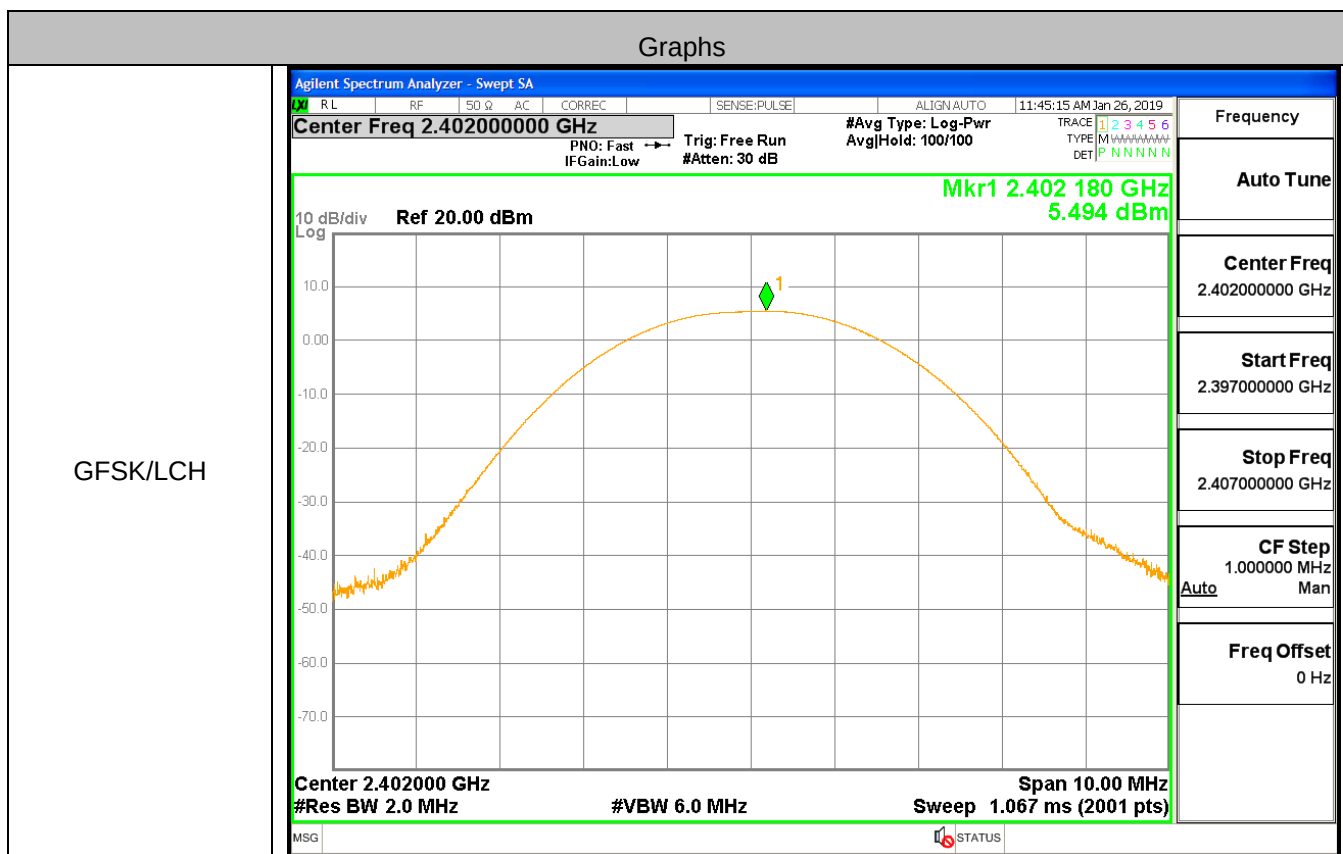


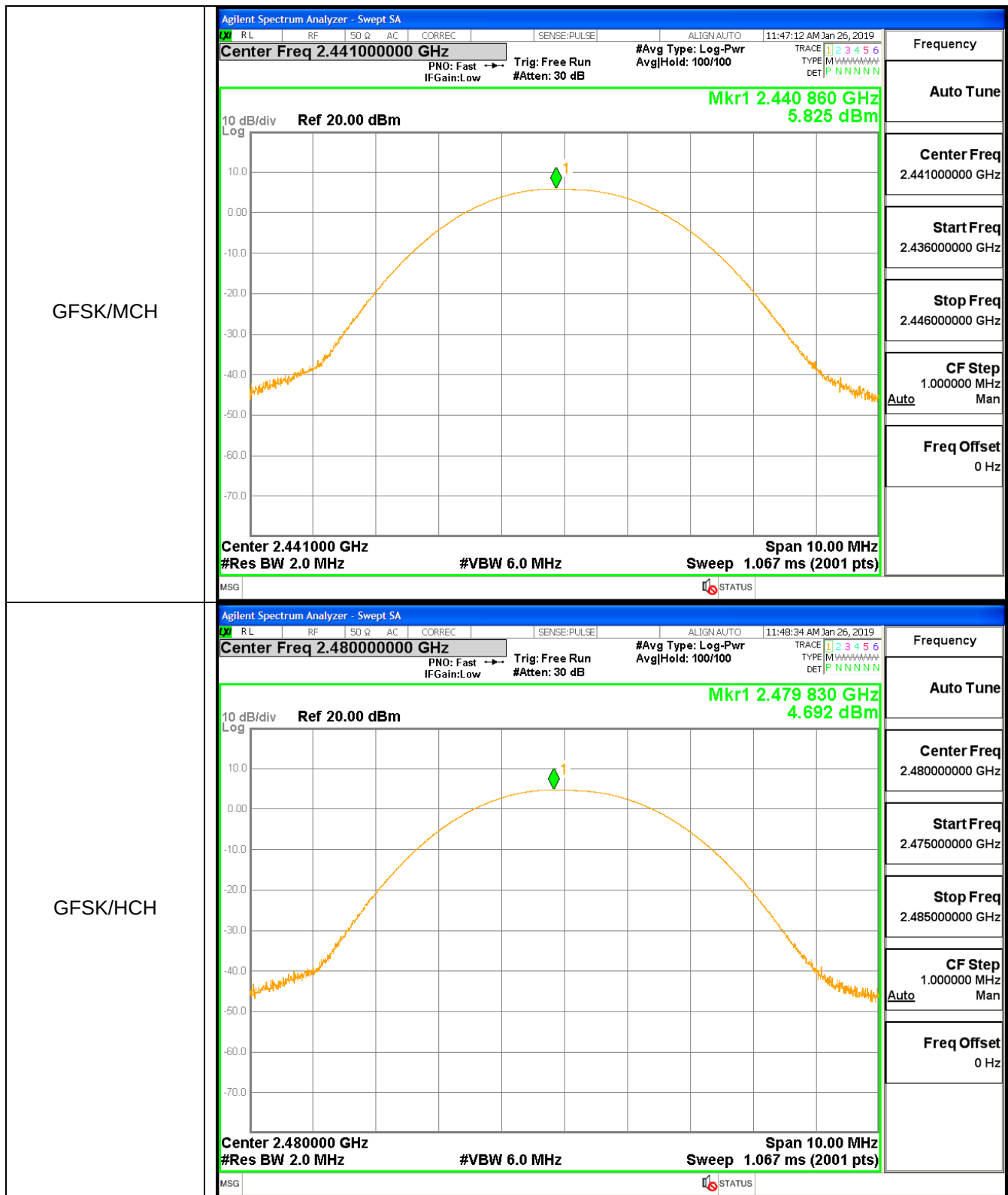


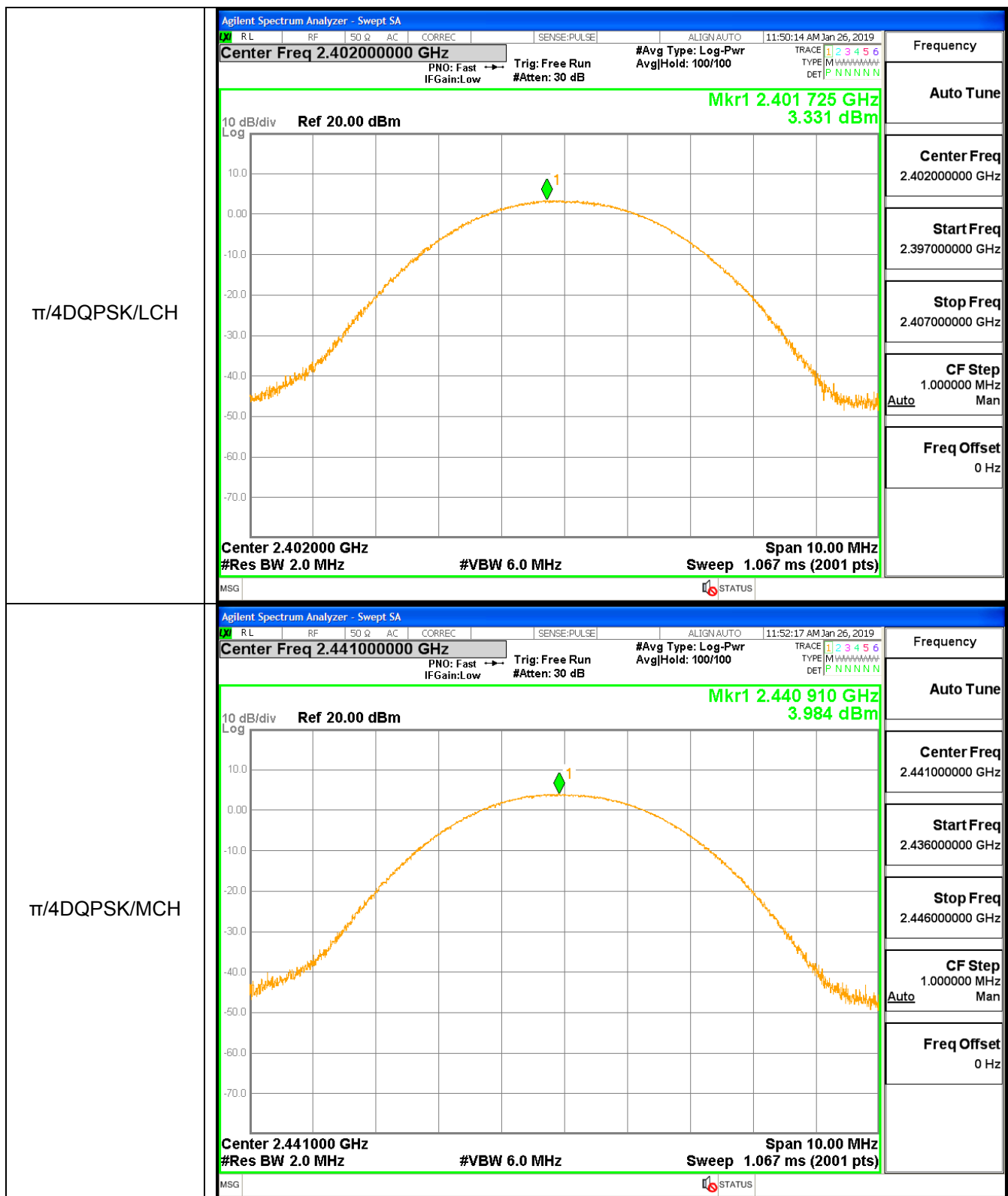
## A.5 Conducted Peak Output Power

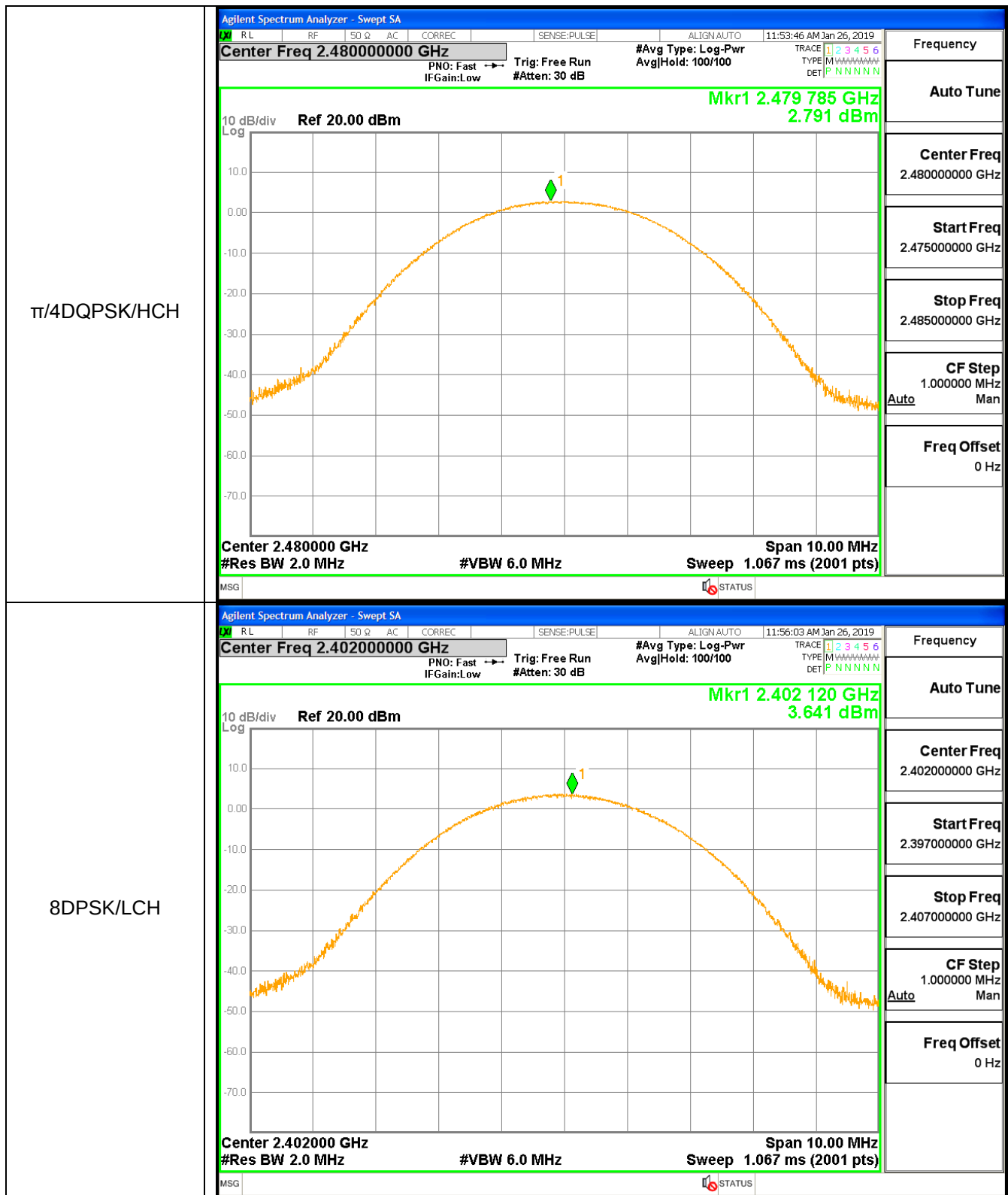
| Mode          | Channel. | Maximum Peak Output Power<br>[dBm] | Limit<br>[dBm] | Verdict |
|---------------|----------|------------------------------------|----------------|---------|
| GFSK          | LCH      | 5.494                              | 21             | PASS    |
| GFSK          | MCH      | 5.825                              | 21             | PASS    |
| GFSK          | HCH      | 4.692                              | 21             | PASS    |
| $\pi/4$ DQPSK | LCH      | 3.331                              | 21             | PASS    |
| $\pi/4$ DQPSK | MCH      | 3.984                              | 21             | PASS    |
| $\pi/4$ DQPSK | HCH      | 2.791                              | 21             | PASS    |
| 8DPSK         | LCH      | 3.641                              | 21             | PASS    |
| 8DPSK         | MCH      | 4.357                              | 21             | PASS    |
| 8DPSK         | HCH      | 3.170                              | 21             | PASS    |

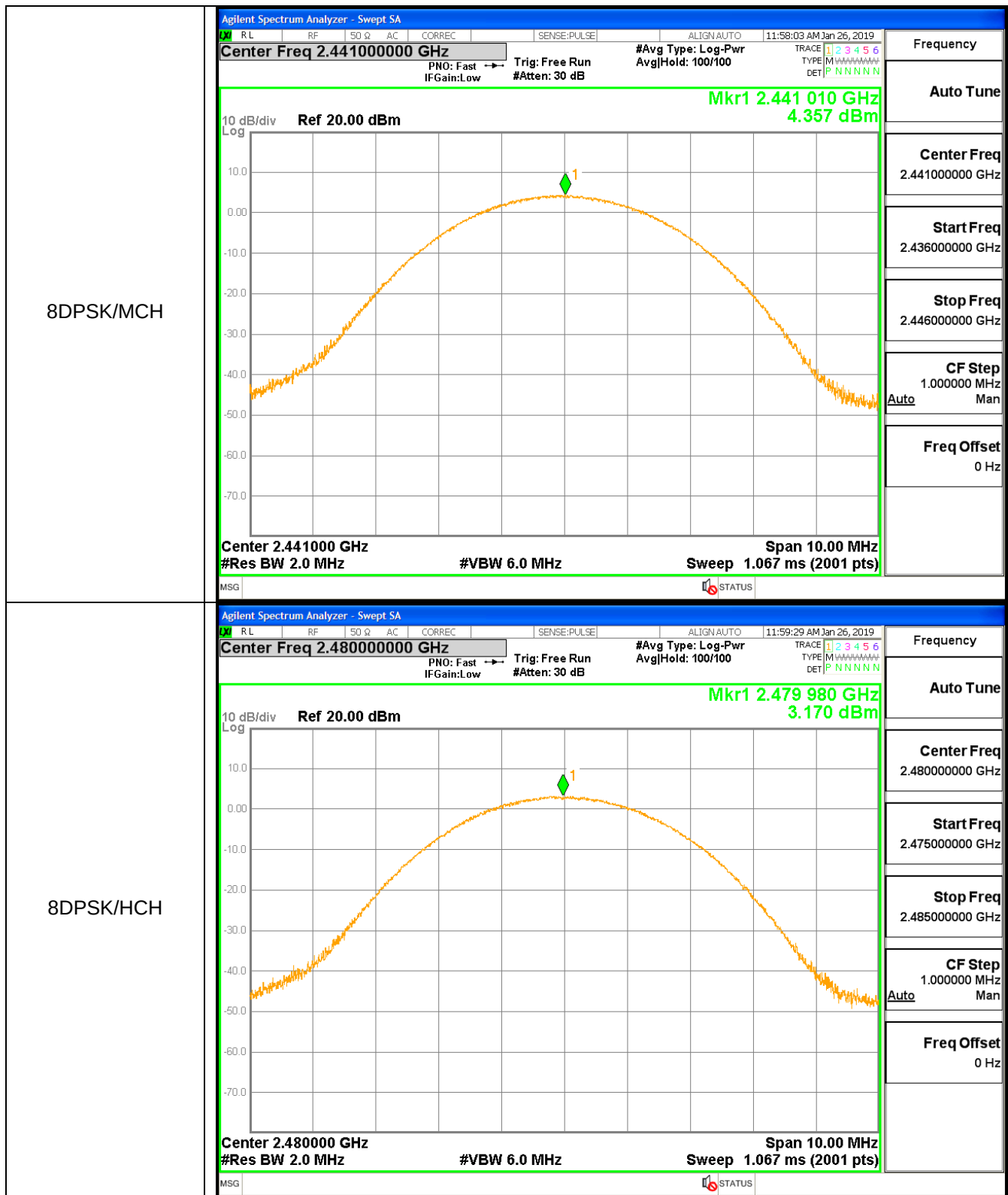
## Test Graph











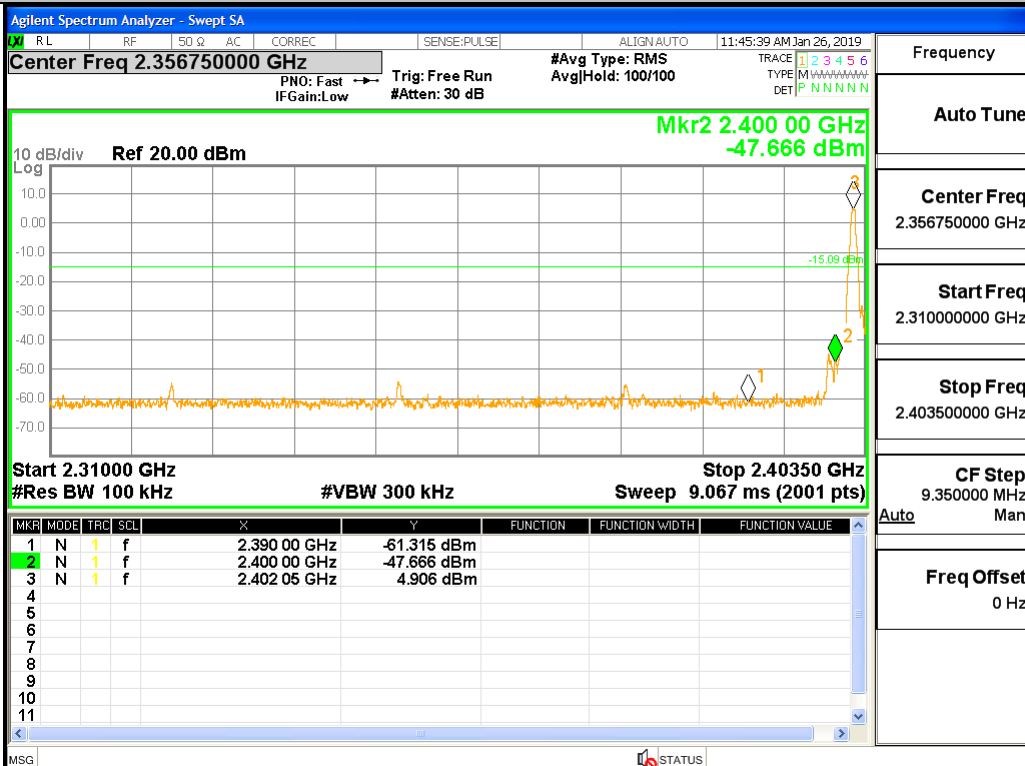
**A.6 Band-edge for RF Conducted Emissions**

| Type         | Carrier Frequency(MHz) | Frequency(MHz) | Carrier Frequency Power [dBm] | Bandedge Peak(dBm) | Upper limit(dBm) | Conclusion |
|--------------|------------------------|----------------|-------------------------------|--------------------|------------------|------------|
| 1DH5         | 2402                   | 2390           | 4.906                         | -61.32             | -15.094          | Pass       |
| 1DH5         | 2402                   | 2400           | 4.906                         | -47.67             | -15.094          | Pass       |
| 1DH5-Hopping | 2402                   | 2390           | 3.445                         | -56.44             | -16.555          | Pass       |
| 1DH5-Hopping | 2402                   | 2400           | 3.445                         | -57.54             | -16.555          | Pass       |
| 1DH5         | 2480                   | 2483.5         | 4.326                         | -58.83             | -15.674          | Pass       |
| 1DH5         | 2480                   | 2500           | 4.326                         | -60.97             | -15.674          | Pass       |
| 1DH5-Hopping | 2480                   | 2483.5         | 1.486                         | -60.32             | -18.514          | Pass       |
| 1DH5-Hopping | 2480                   | 2500           | 1.486                         | -55.53             | -18.514          | Pass       |
| 2DH5         | 2402                   | 2390           | 0.139                         | -61.02             | -19.861          | Pass       |
| 2DH5         | 2402                   | 2400           | 0.139                         | -42.27             | -19.861          | Pass       |
| 2DH5-Hopping | 2480                   | 2483.5         | 1.387                         | -59.11             | -18.613          | Pass       |
| 2DH5-Hopping | 2480                   | 2500           | 1.387                         | -53.6              | -18.613          | Pass       |
| 2DH5         | 2480                   | 2483.5         | 0.394                         | -59.76             | -19.606          | Pass       |
| 2DH5         | 2480                   | 2500           | 0.394                         | -60.88             | -19.606          | Pass       |
| 2DH5-Hopping | 2402                   | 2390           | 2.949                         | -58.9              | -17.051          | Pass       |
| 2DH5-Hopping | 2402                   | 2400           | 2.949                         | -43.29             | -17.051          | Pass       |
| 3DH5         | 2402                   | 2390           | 1.826                         | -62.24             | -18.174          | Pass       |
| 3DH5         | 2402                   | 2400           | 1.826                         | -41.48             | -18.174          | Pass       |
| 3DH5-Hopping | 2402                   | 2390           | 3.035                         | -57.38             | -16.965          | Pass       |
| 3DH5-Hopping | 2402                   | 2400           | 3.035                         | -43.34             | -16.965          | Pass       |
| 3DH5         | 2480                   | 2483.5         | 1.27                          | -59.32             | -18.73           | Pass       |
| 3DH5         | 2480                   | 2500           | 1.27                          | -61.33             | -18.73           | Pass       |
| 3DH5-Hopping | 2480                   | 2483.5         | 1.493                         | -59.74             | -18.507          | Pass       |
| 3DH5-Hopping | 2480                   | 2500           | 1.493                         | -57.18             | -18.507          | Pass       |

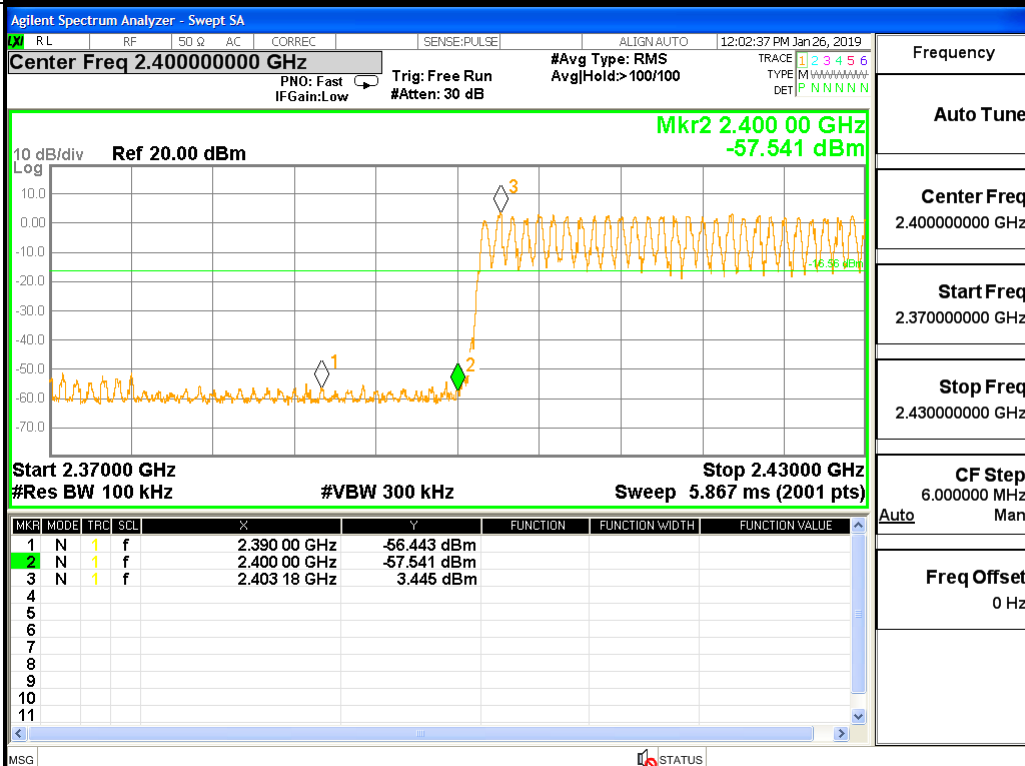
# Test Graph

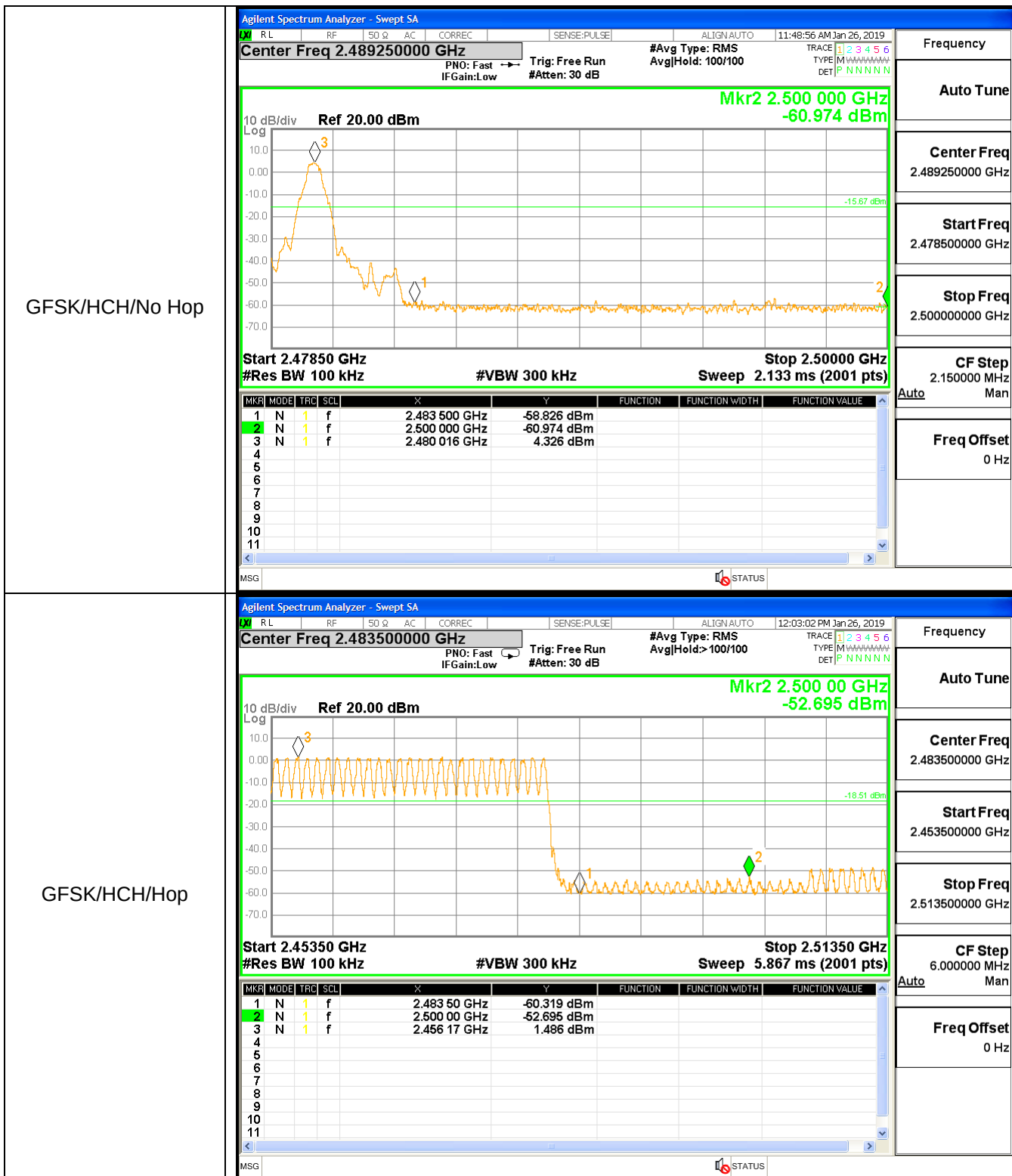
## Graphs

GFSK/LCH/No Hop

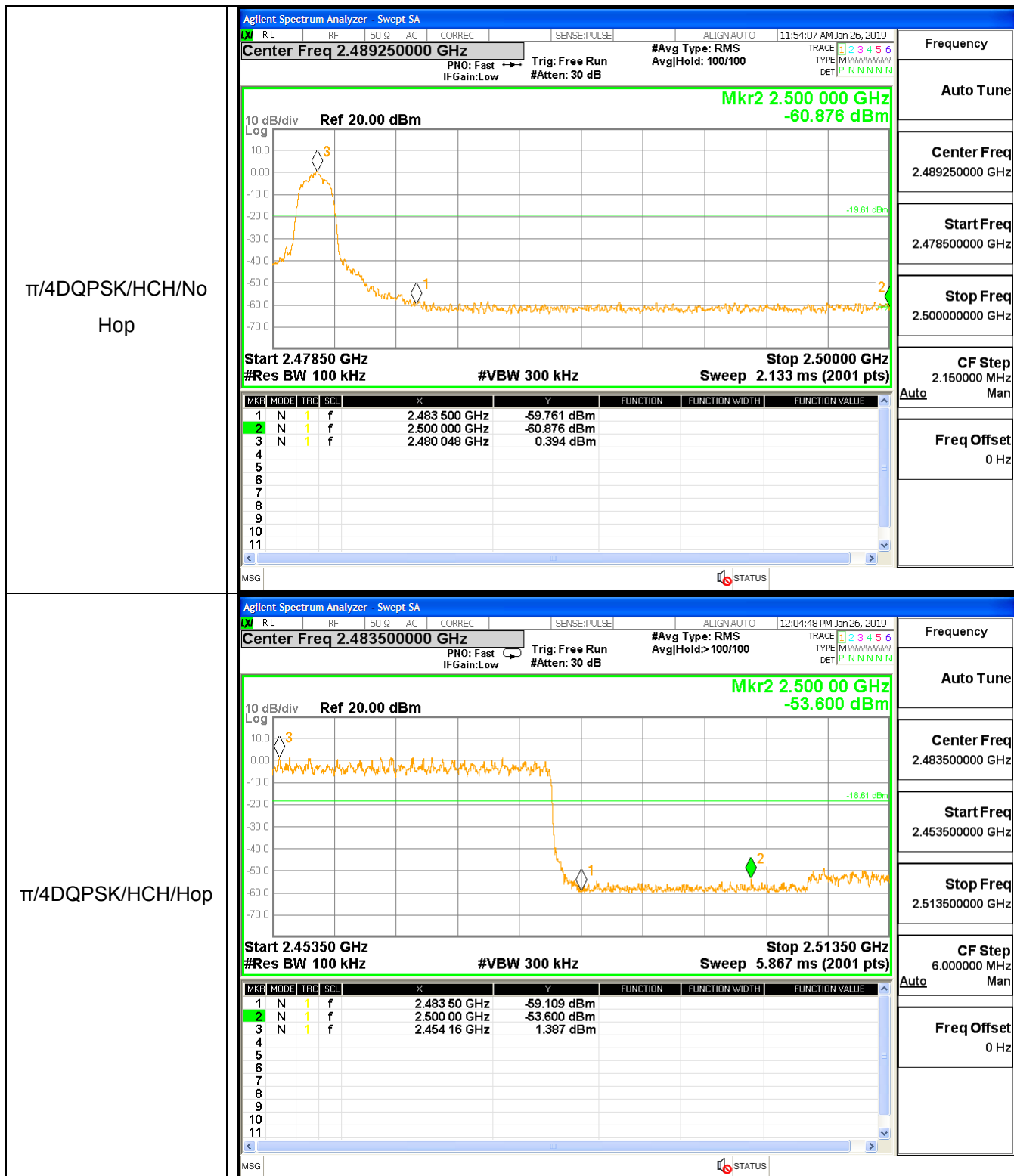


GFSK/LCH/Hop

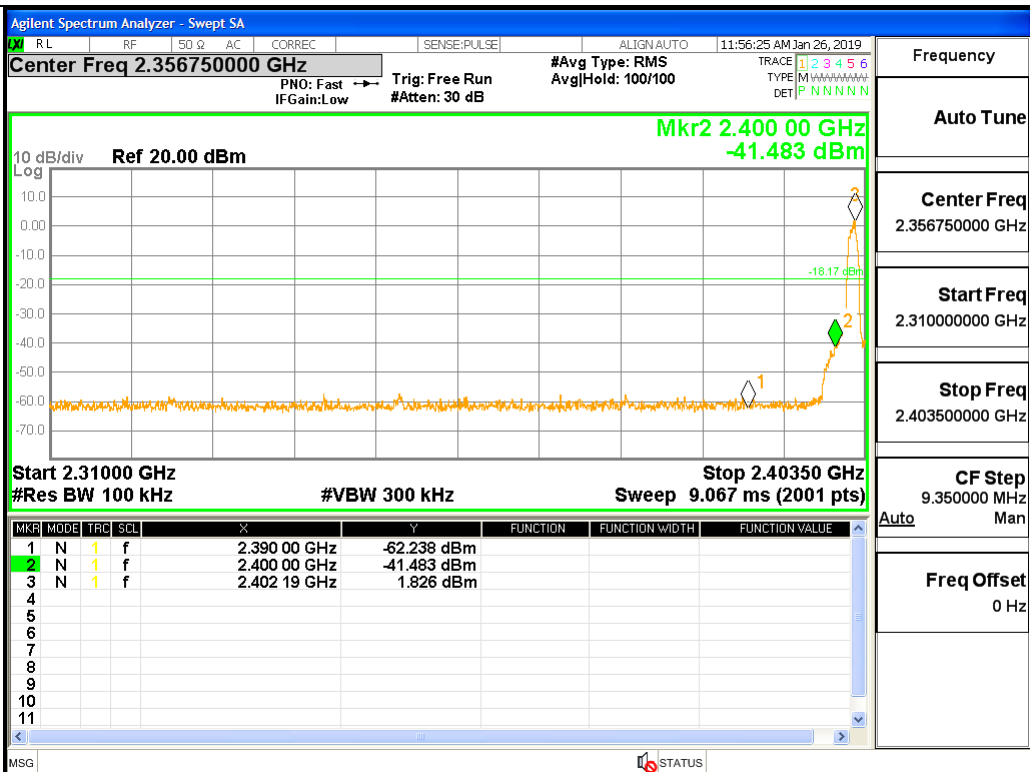




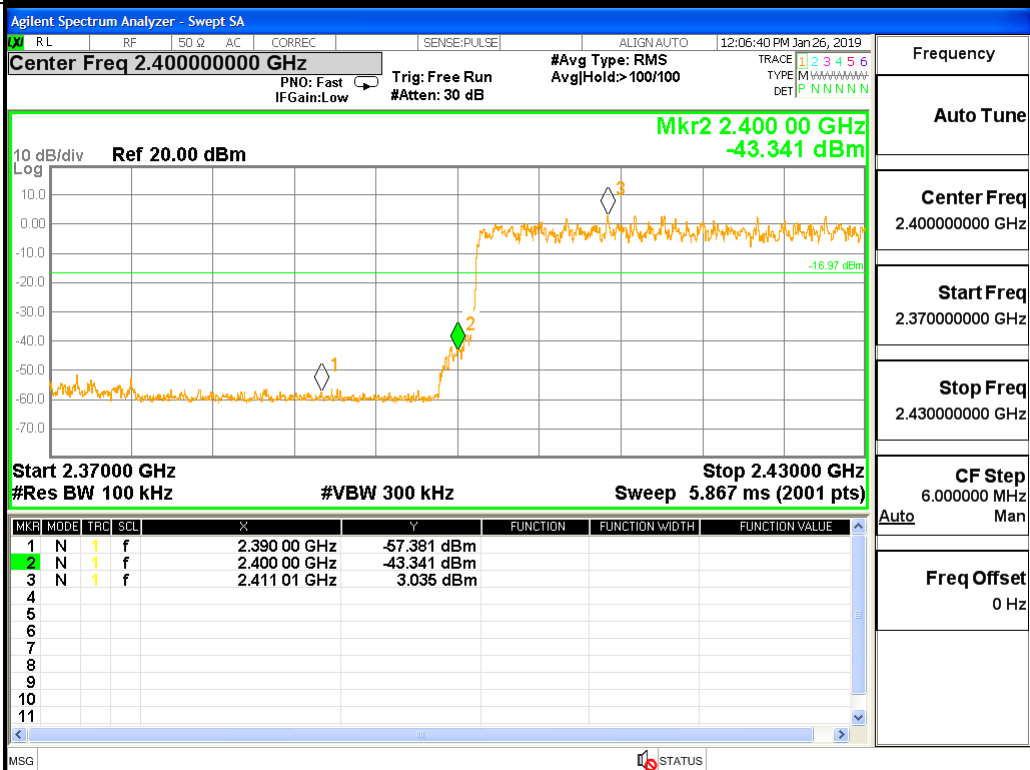


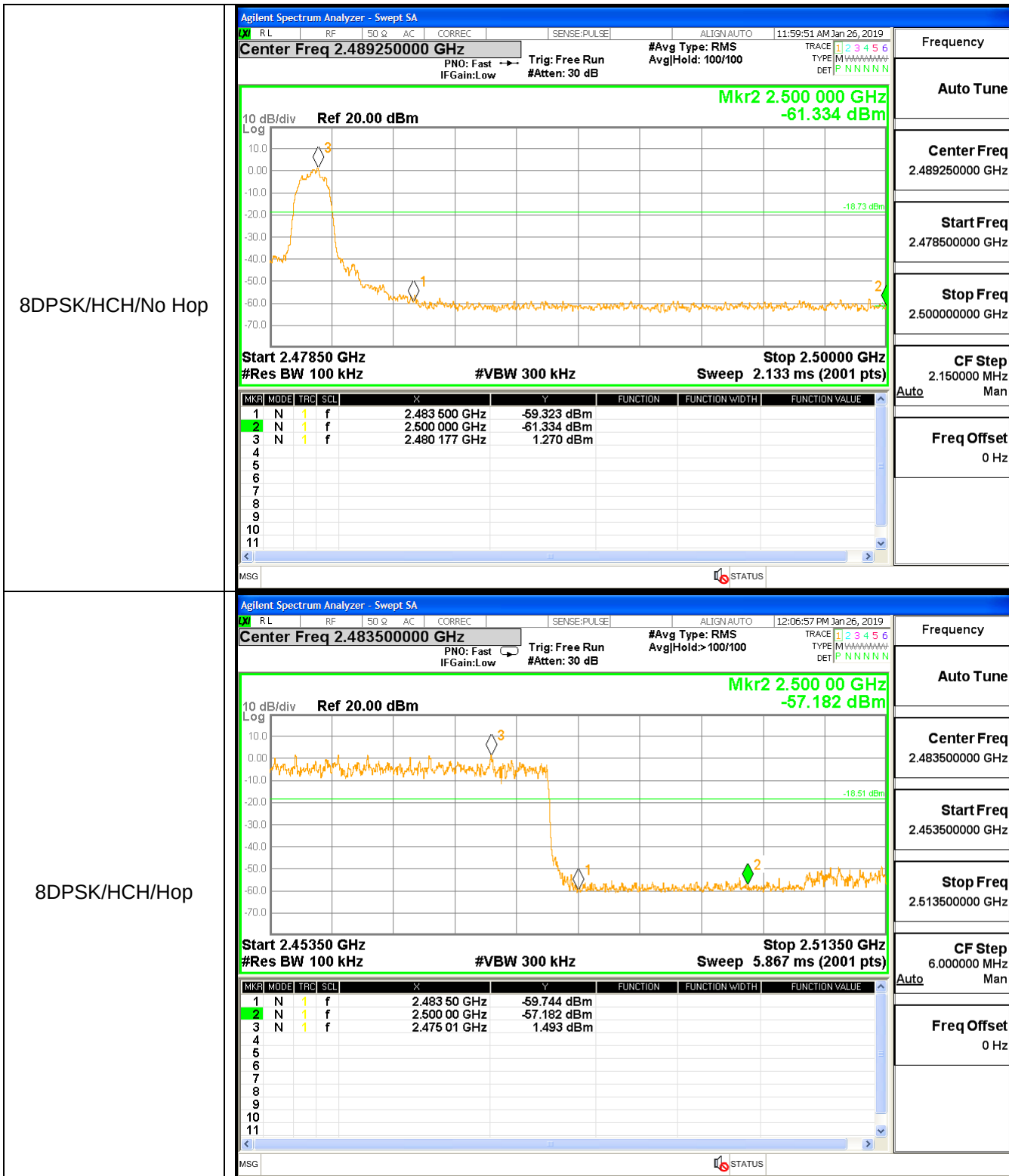


8DPSK/LCH/No Hop

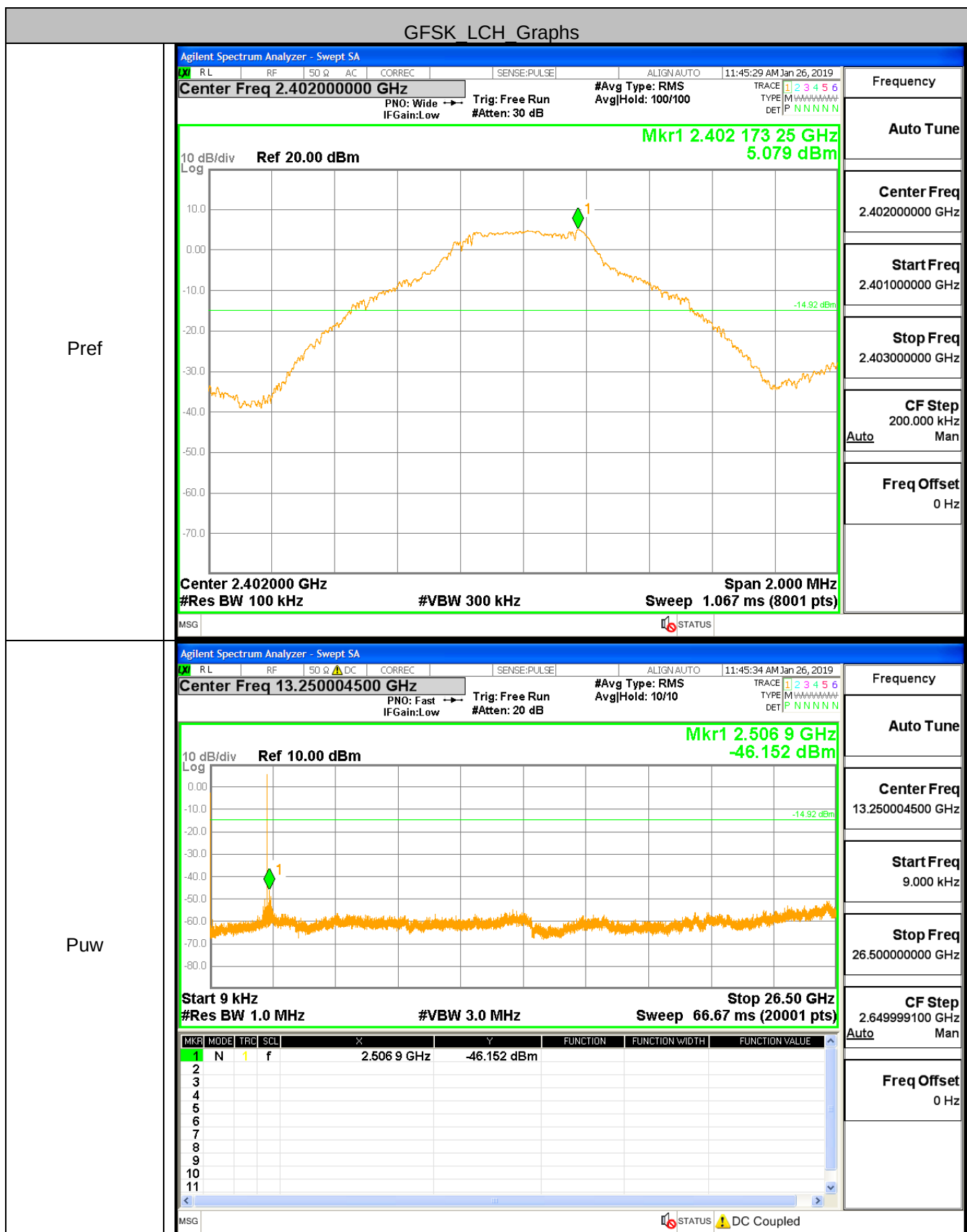


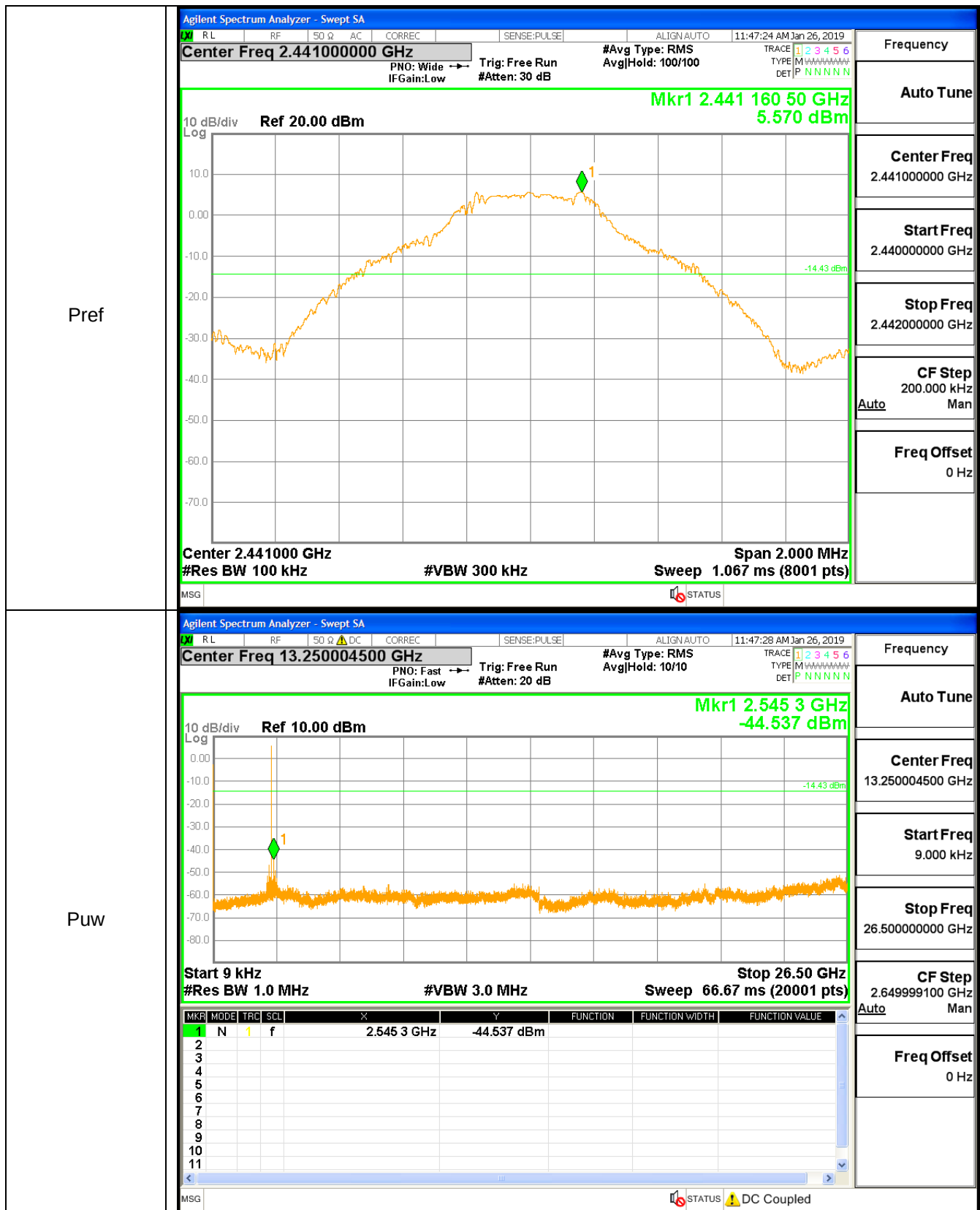
8DPSK/LCH/Hop





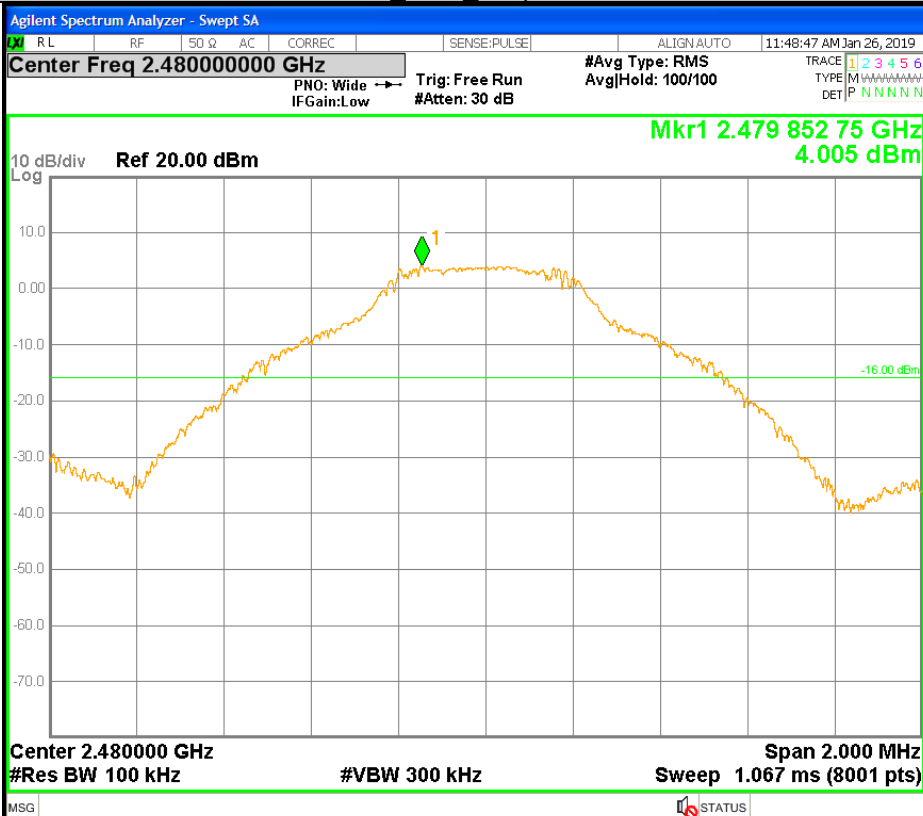
# A.7 RF Conducted Spurious Emissions Test Graph



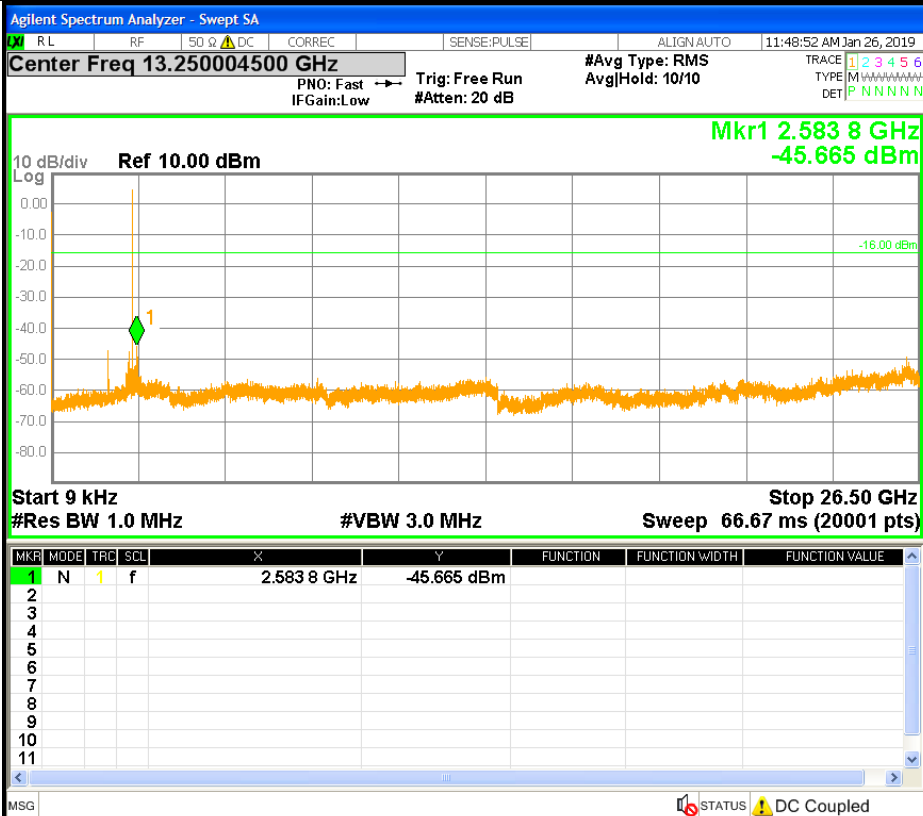


# GFSK HCH Graphs

Pref

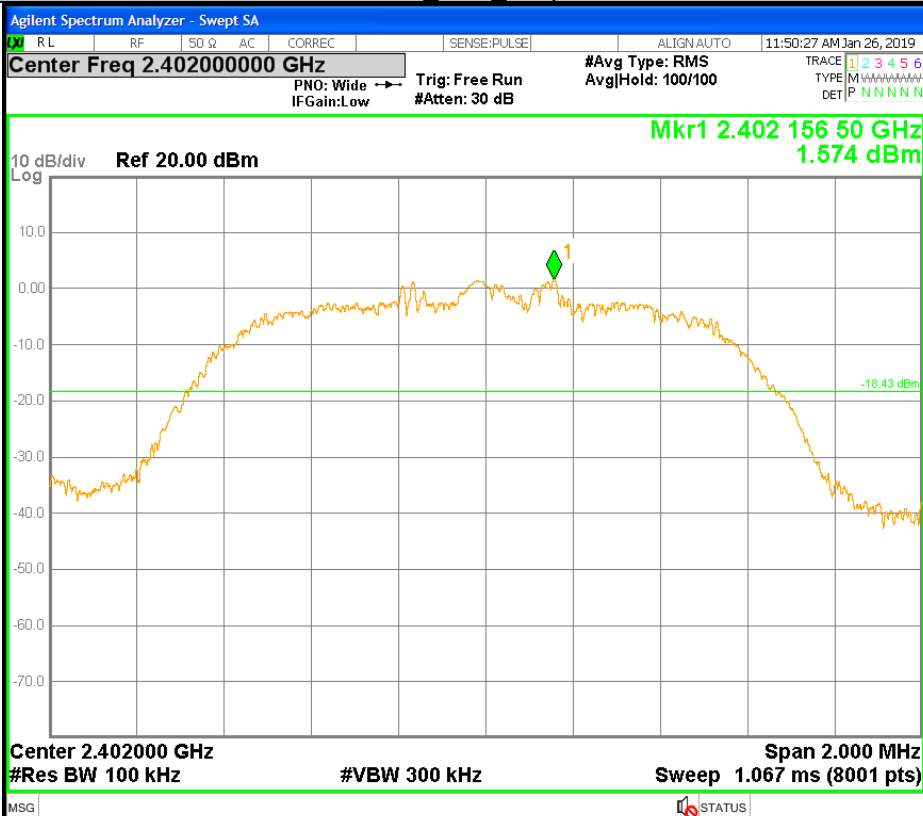


Puw



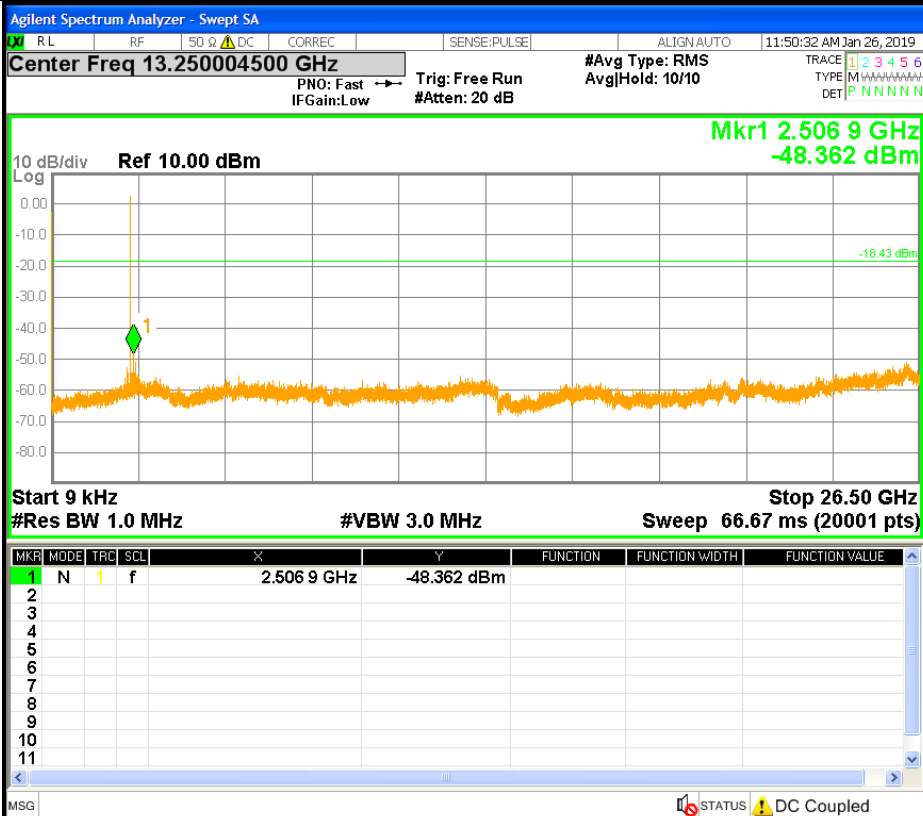
# $\pi/4$ DQPSK LCH Graphs

Pref



| Frequency                          |
|------------------------------------|
| Auto Tune                          |
| Center Freq<br>2.402000000 GHz     |
| Start Freq<br>2.401000000 GHz      |
| Stop Freq<br>2.403000000 GHz       |
| CF Step<br>200.000 kHz<br>Auto Man |
| Freq Offset<br>0 Hz                |

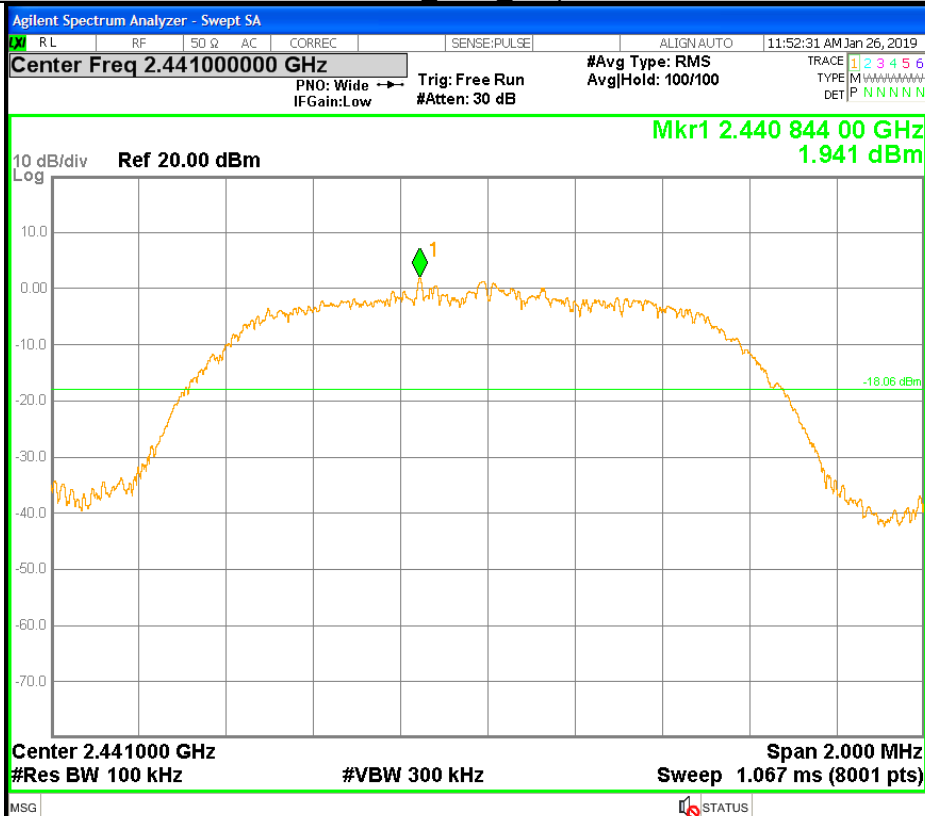
Puw



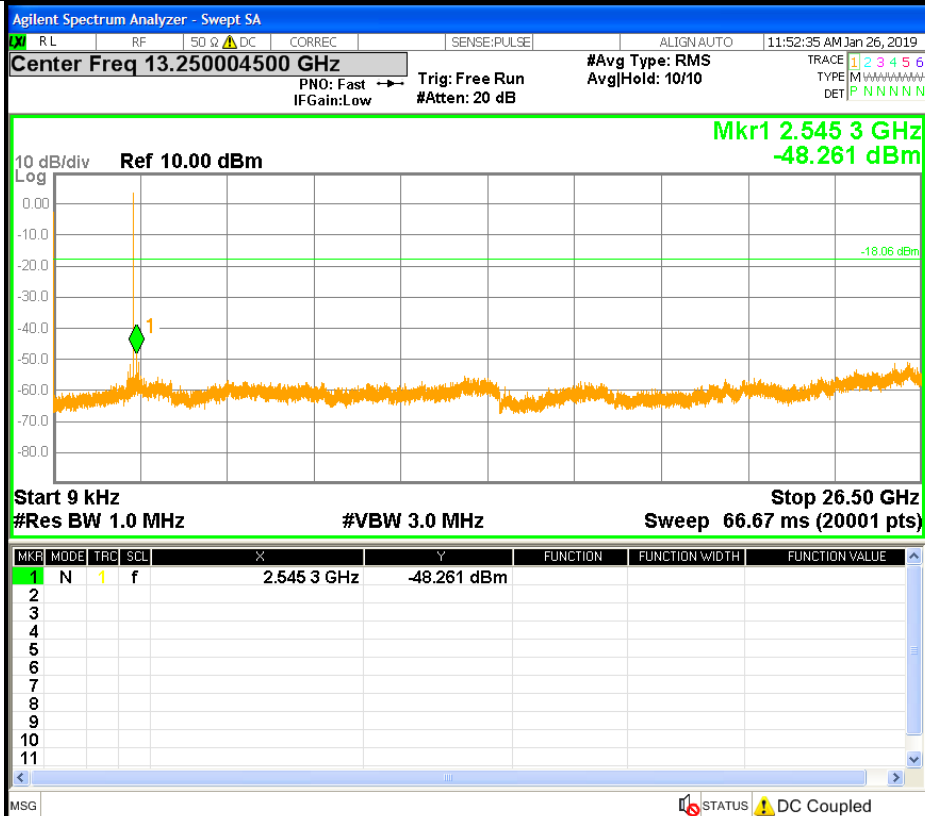
| Frequency                              |
|----------------------------------------|
| Auto Tune                              |
| Center Freq<br>13.250004500 GHz        |
| Start Freq<br>9.000 kHz                |
| Stop Freq<br>26.500000000 GHz          |
| CF Step<br>2.649999100 GHz<br>Auto Man |
| Freq Offset<br>0 Hz                    |

$\pi/4$ DQPSK MCH Graphs

Pref

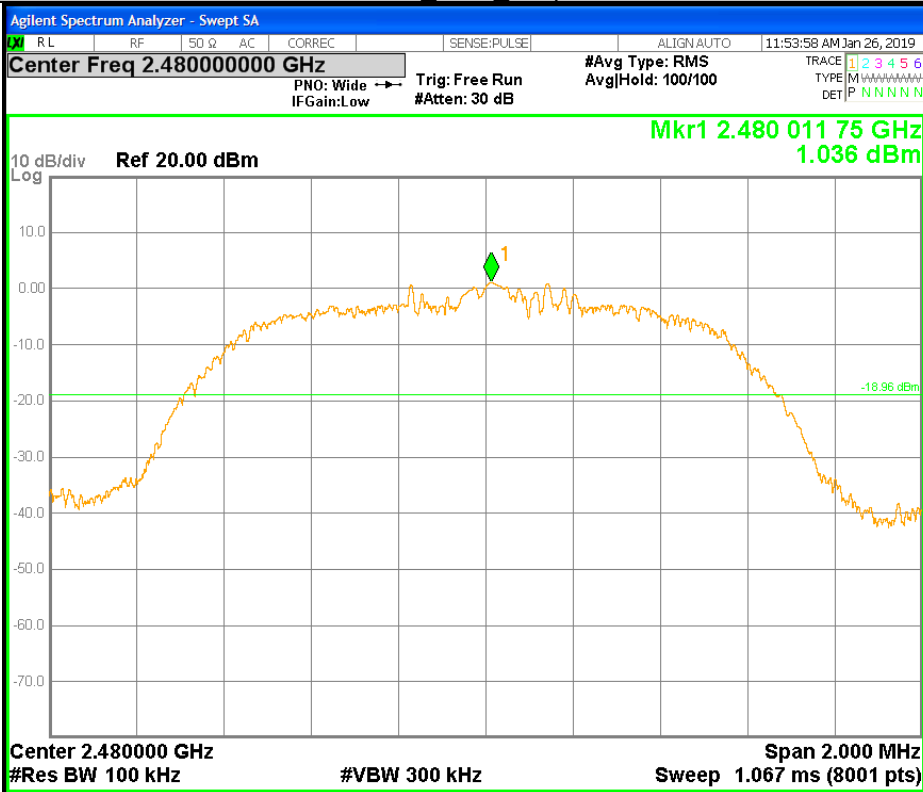


Puw



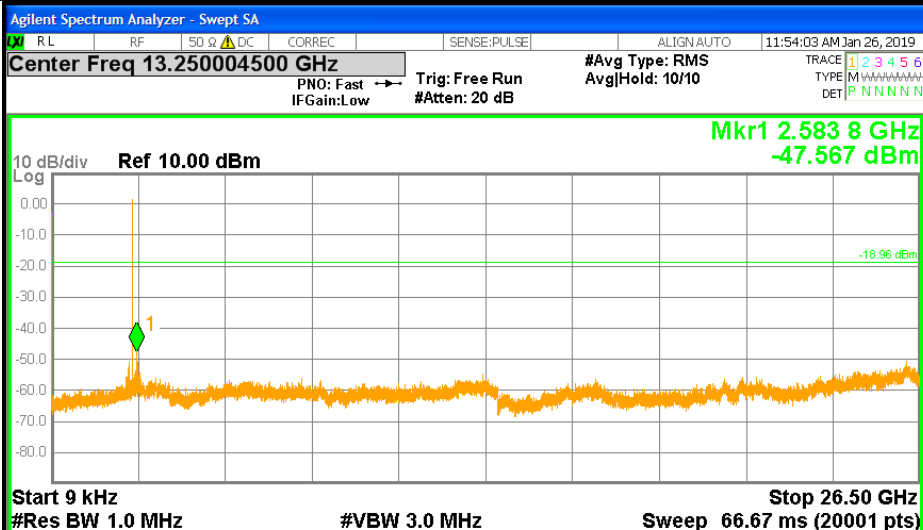
$\pi/4$ DQPSK HCH Graphs

Pref



|                                    |
|------------------------------------|
| Frequency                          |
| Auto Tune                          |
| Center Freq<br>2.480000000 GHz     |
| Start Freq<br>2.479000000 GHz      |
| Stop Freq<br>2.481000000 GHz       |
| CF Step<br>200.000 kHz<br>Auto Man |
| Freq Offset<br>0 Hz                |

Puw

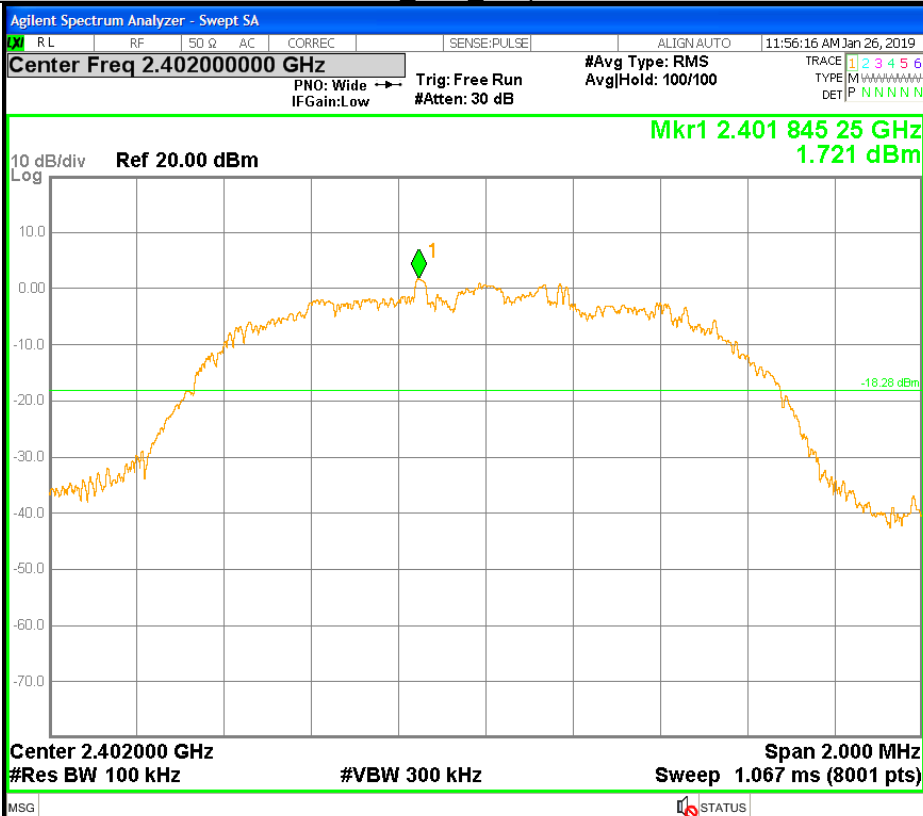


|                                        |
|----------------------------------------|
| Frequency                              |
| Auto Tune                              |
| Center Freq<br>13.250004500 GHz        |
| Start Freq<br>9.000 kHz                |
| Stop Freq<br>26.500000000 GHz          |
| CF Step<br>2.649999100 GHz<br>Auto Man |
| Freq Offset<br>0 Hz                    |

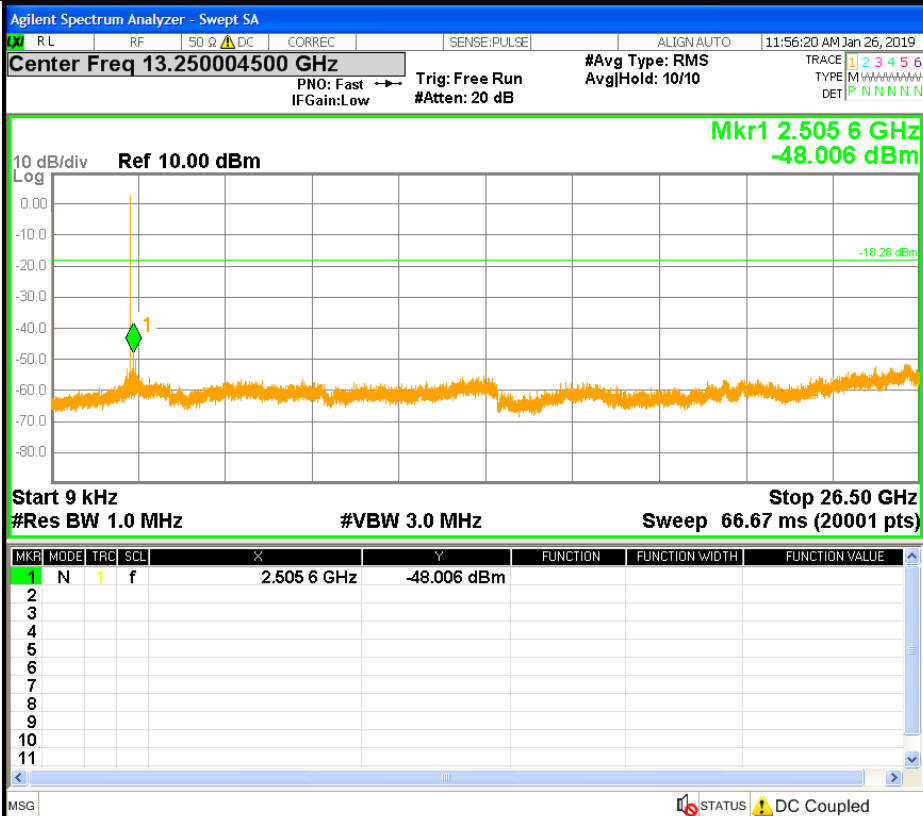
| MR | MODE | TRC | SCL | X           | Y           | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|----|------|-----|-----|-------------|-------------|----------|----------------|----------------|
| 1  | N    | 1   | f   | 2.583 8 GHz | -47.567 dBm |          |                |                |
| 2  |      |     |     |             |             |          |                |                |
| 3  |      |     |     |             |             |          |                |                |
| 4  |      |     |     |             |             |          |                |                |
| 5  |      |     |     |             |             |          |                |                |
| 6  |      |     |     |             |             |          |                |                |
| 7  |      |     |     |             |             |          |                |                |
| 8  |      |     |     |             |             |          |                |                |
| 9  |      |     |     |             |             |          |                |                |
| 10 |      |     |     |             |             |          |                |                |
| 11 |      |     |     |             |             |          |                |                |

# 8DPSK LCH Graphs

Pref

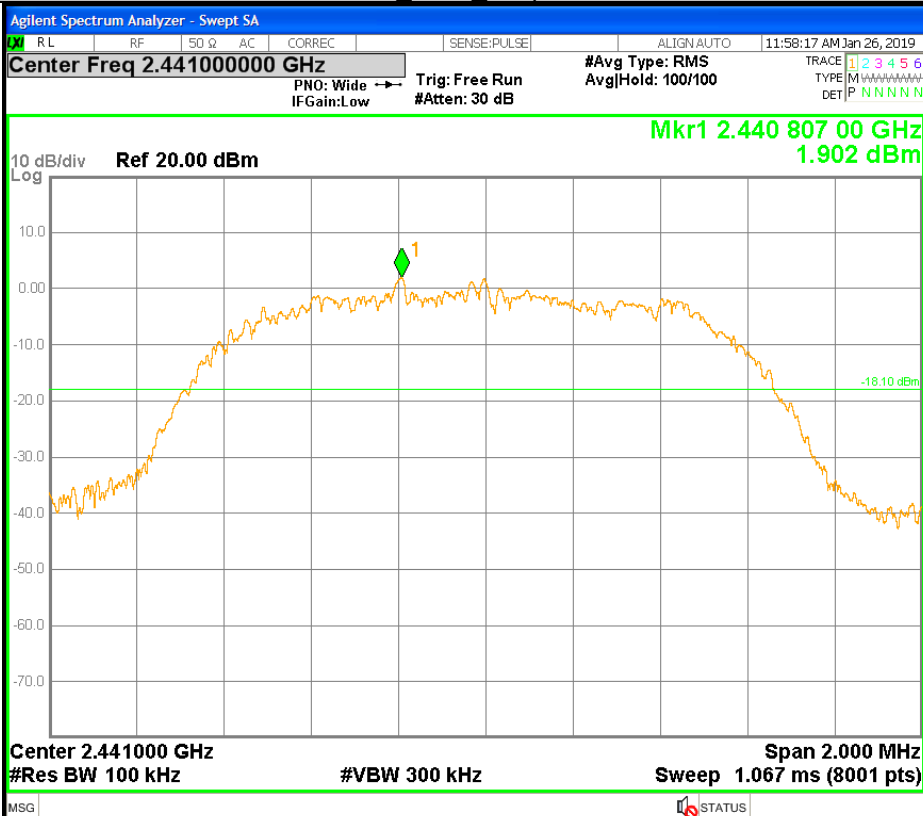


Puw

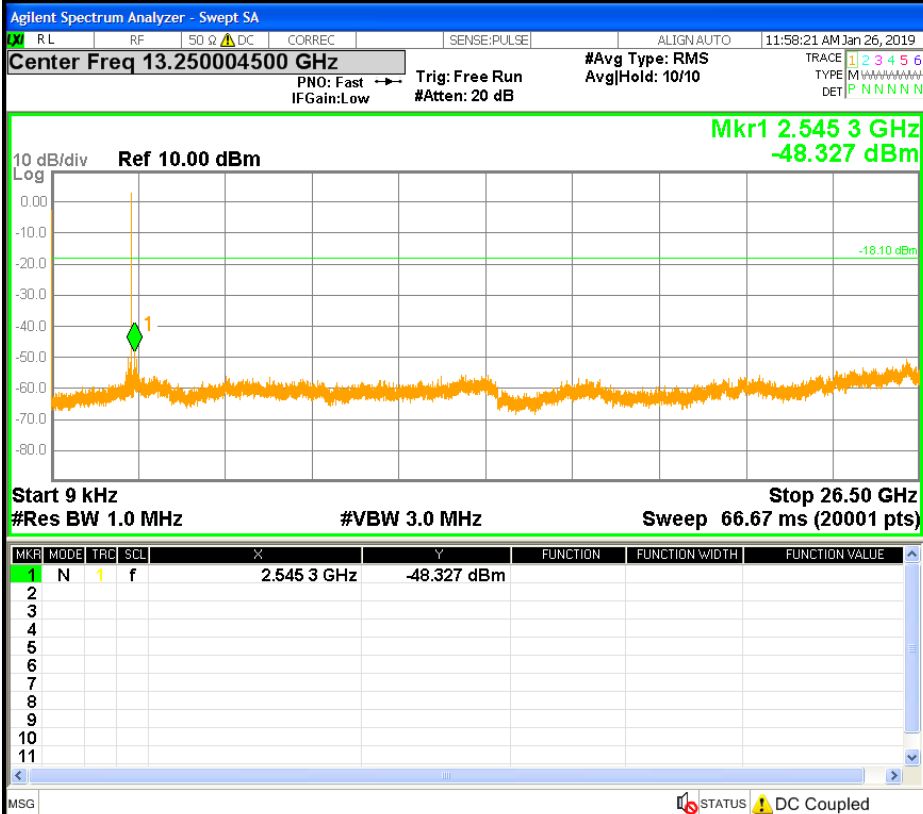


# 8DPSK MCH Graphs

Pref

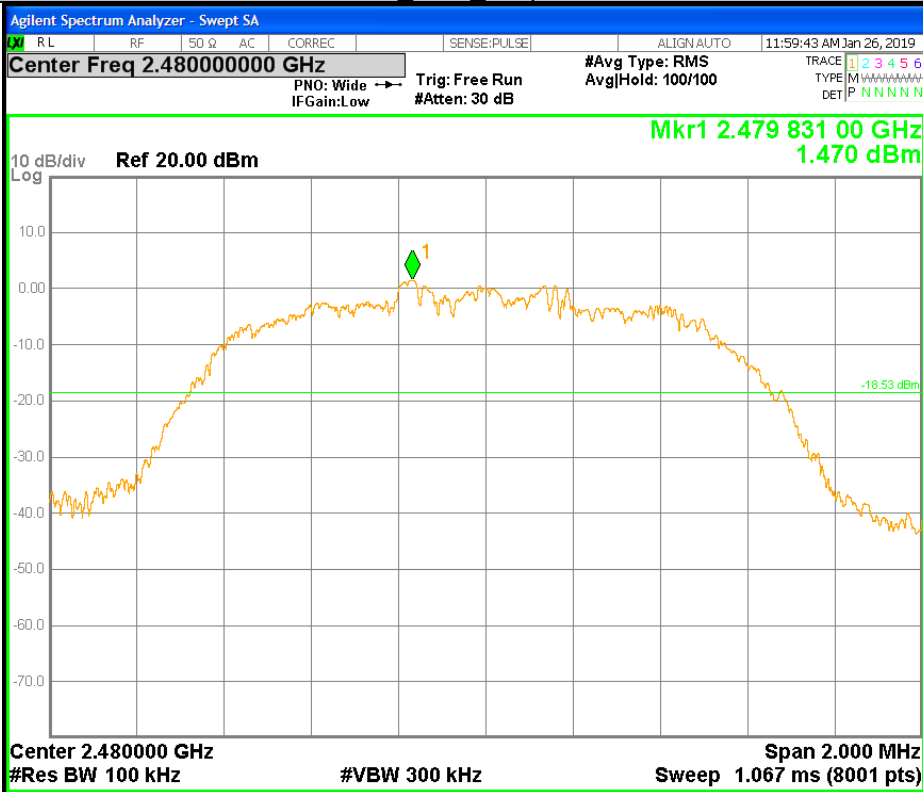


Puw

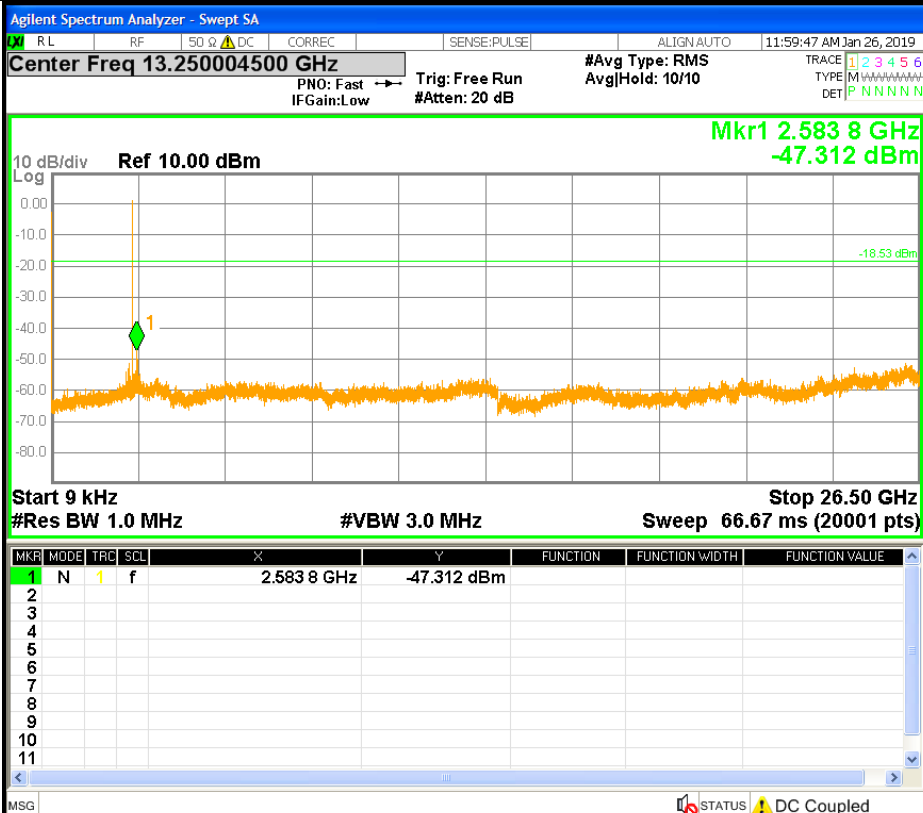


# 8DPSK HCH Graphs

Pref



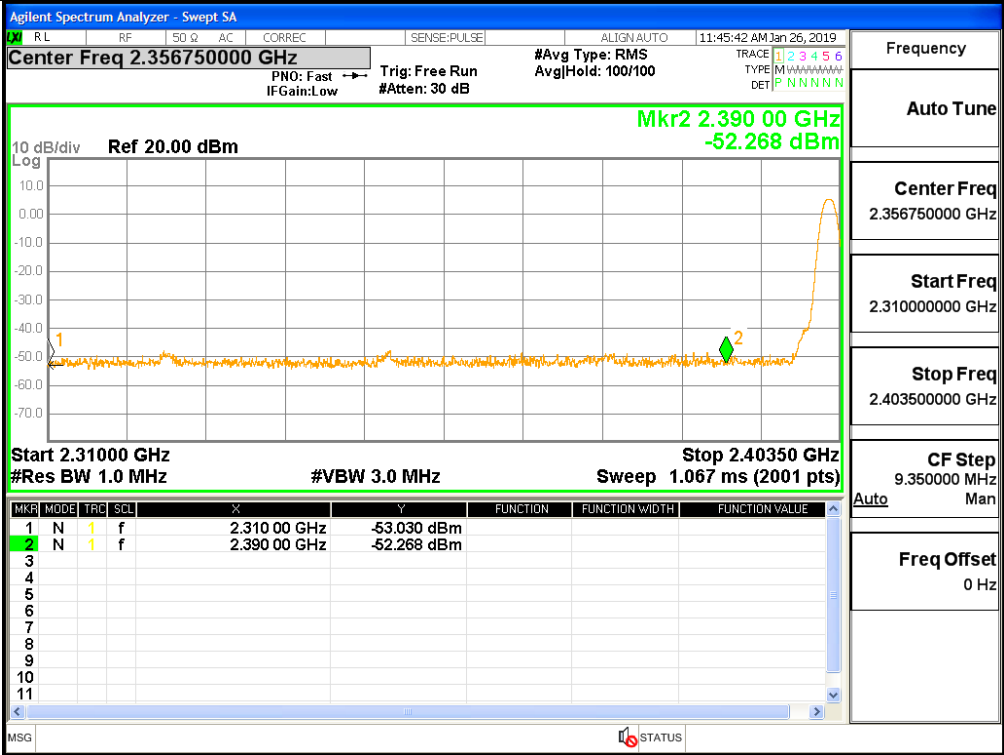
Puw



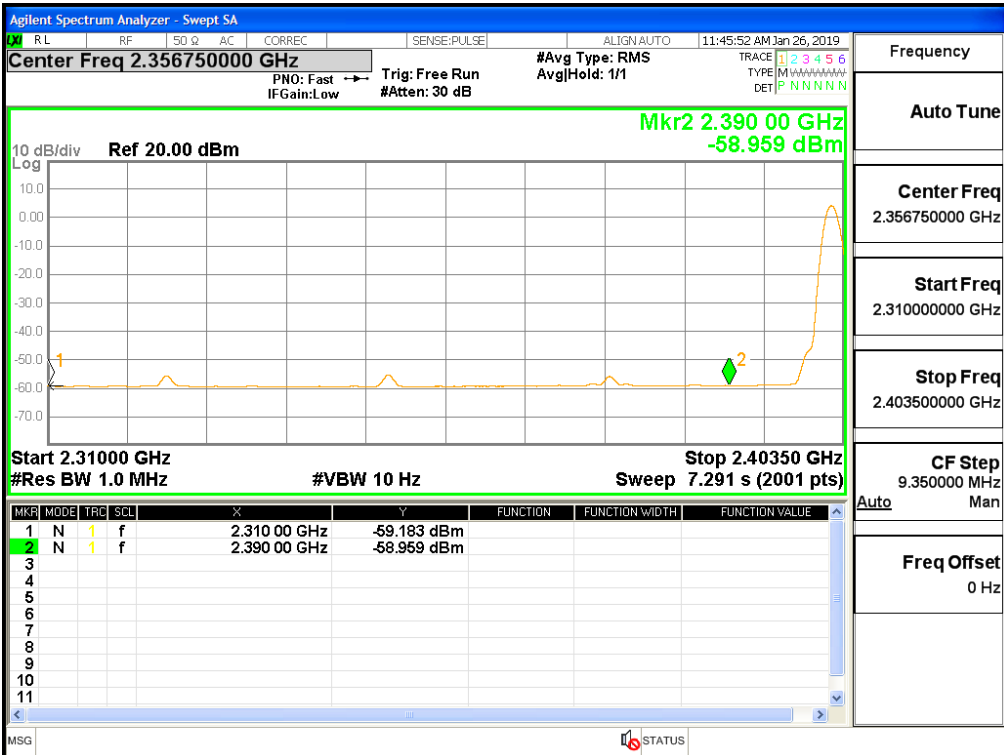
**A.8 Restrict-band band-edge measurements**

| Type | Carrier Frequency (MHz) | Frequency(MHz) | Gain | Ground Factor | Peak Value(dBm) | E [dBuV/m] | Limit [dBuV/m] | Average Value(dBm) | E [dBuV/m] | Limit [dBuV/m] | Conclusion |
|------|-------------------------|----------------|------|---------------|-----------------|------------|----------------|--------------------|------------|----------------|------------|
| 1DH5 | 2402                    | 2310           | 2.00 | 0.00          | -53.03          | 44.17      | 74             | -59.18             | 38.02      | 54             | Pass       |
| 1DH5 | 2402                    | 2390           | 2.00 | 0.00          | -52.27          | 44.93      | 74             | -58.96             | 38.24      | 54             | Pass       |
| 1DH5 | 2480                    | 2483.5         | 2.00 | 0.00          | -44             | 53.2       | 74             | -51                | 46.2       | 54             | Pass       |
| 1DH5 | 2480                    | 2500           | 2.00 | 0.00          | -51.6           | 45.6       | 74             | -58.51             | 38.69      | 54             | Pass       |
| 2DH5 | 2402                    | 2310           | 2.00 | 0.00          | -53.22          | 43.98      | 74             | -59.35             | 37.85      | 54             | Pass       |
| 2DH5 | 2402                    | 2390           | 2.00 | 0.00          | -50.61          | 46.59      | 74             | -59.03             | 38.17      | 54             | Pass       |
| 2DH5 | 2480                    | 2483.5         | 2.00 | 0.00          | -49.07          | 48.13      | 74             | -54.78             | 42.42      | 54             | Pass       |
| 2DH5 | 2480                    | 2500           | 2.00 | 0.00          | -52.34          | 44.86      | 74             | -58.53             | 38.67      | 54             | Pass       |
| 3DH5 | 2402                    | 2310           | 2.00 | 0.00          | -52.63          | 44.57      | 74             | -59.32             | 37.88      | 54             | Pass       |
| 3DH5 | 2402                    | 2390           | 2.00 | 0.00          | -52.35          | 44.85      | 74             | -59.02             | 38.18      | 54             | Pass       |
| 3DH5 | 2480                    | 2483.5         | 2.00 | 0.00          | -48.4           | 48.8       | 74             | -54.67             | 42.53      | 54             | Pass       |
| 3DH5 | 2480                    | 2500           | 2.00 | 0.00          | -50.52          | 46.68      | 74             | -58.52             | 38.68      | 54             | Pass       |

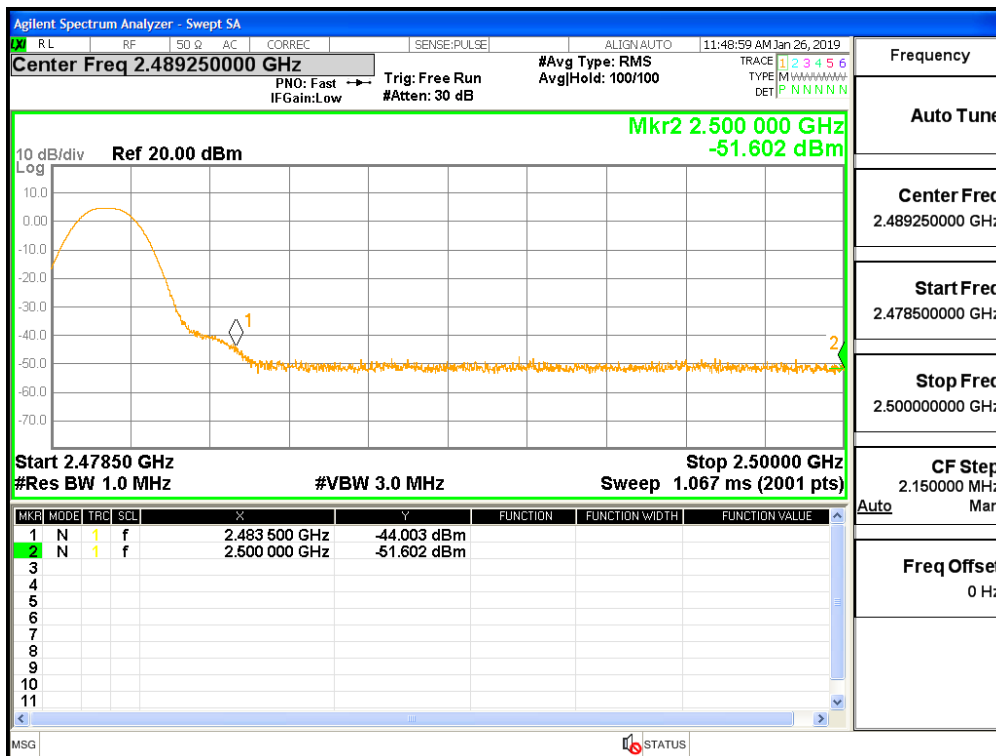
Restrict-band band-edge measurements\_2402\_PEAK\_DH5



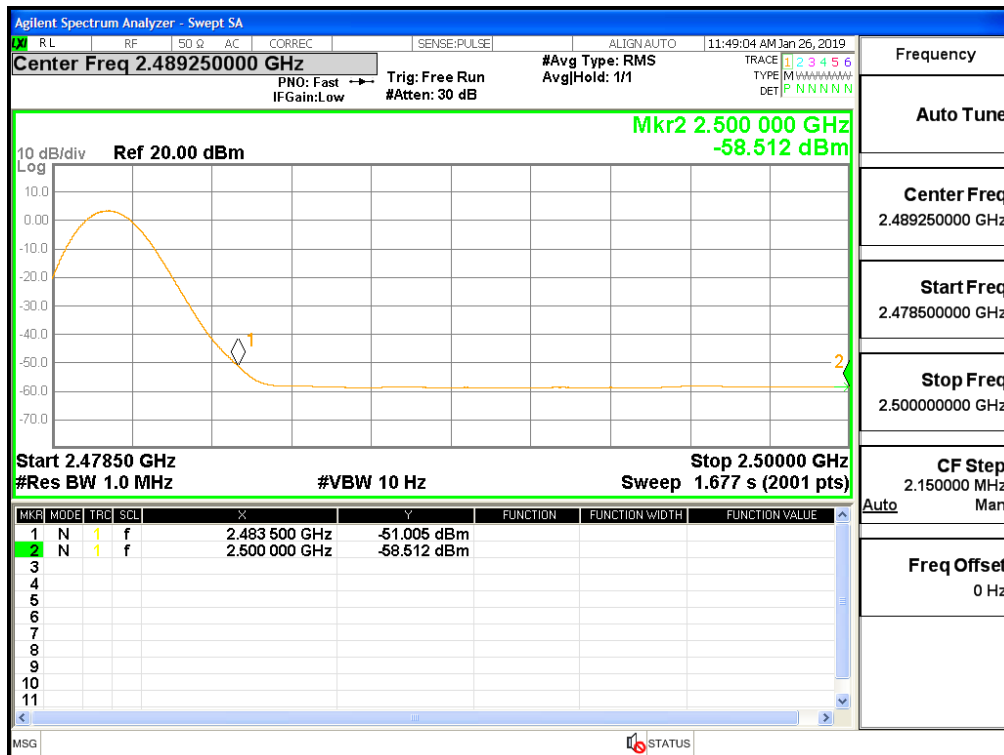
Restrict-band band-edge measurements\_2402\_AV\_DH5



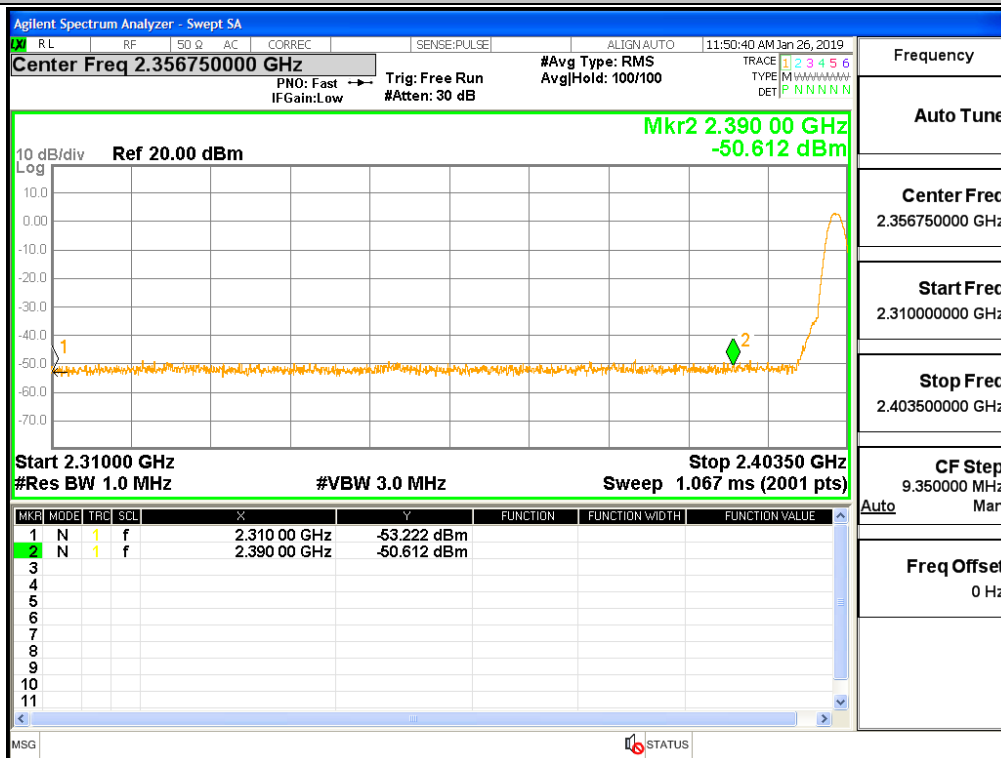
### Restrict-band band-edge measurements\_2480\_PEAK\_DH5



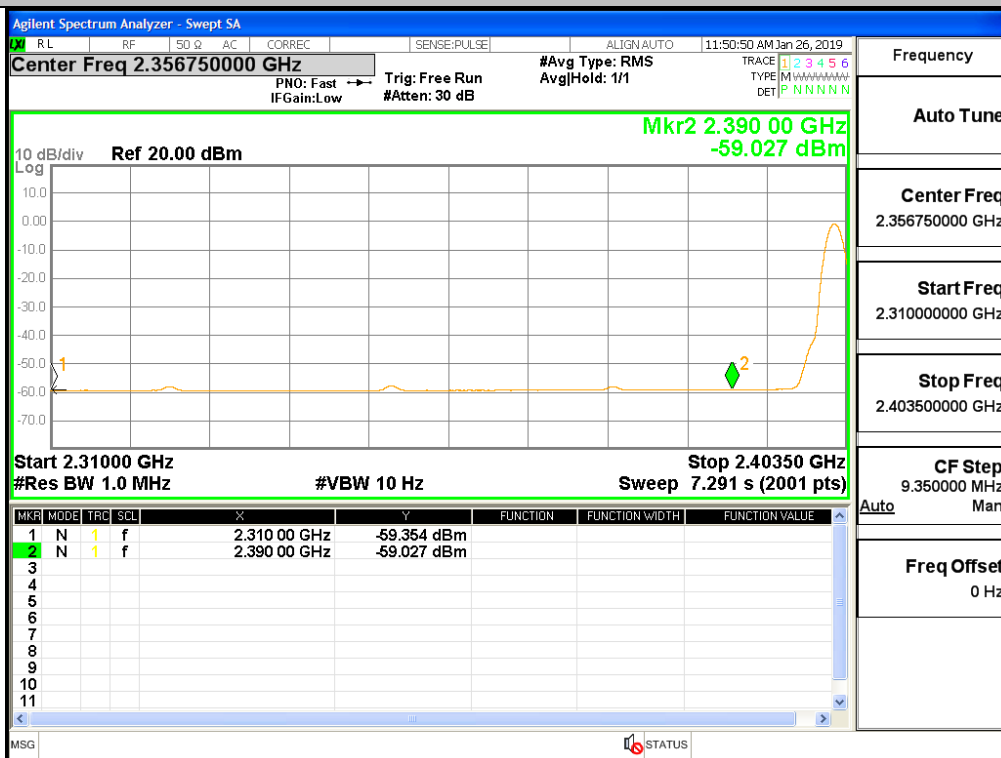
### Restrict-band band-edge measurements\_2480\_AV\_DH5



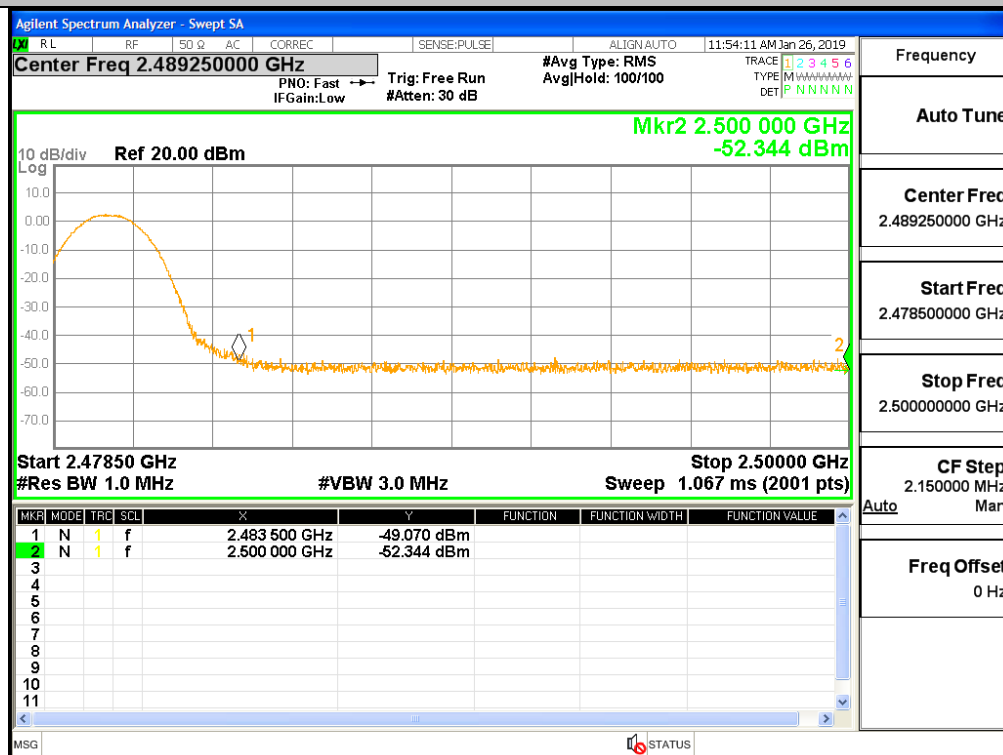
### Restrict-band band-edge measurements\_2402\_PEAK\_2DH5



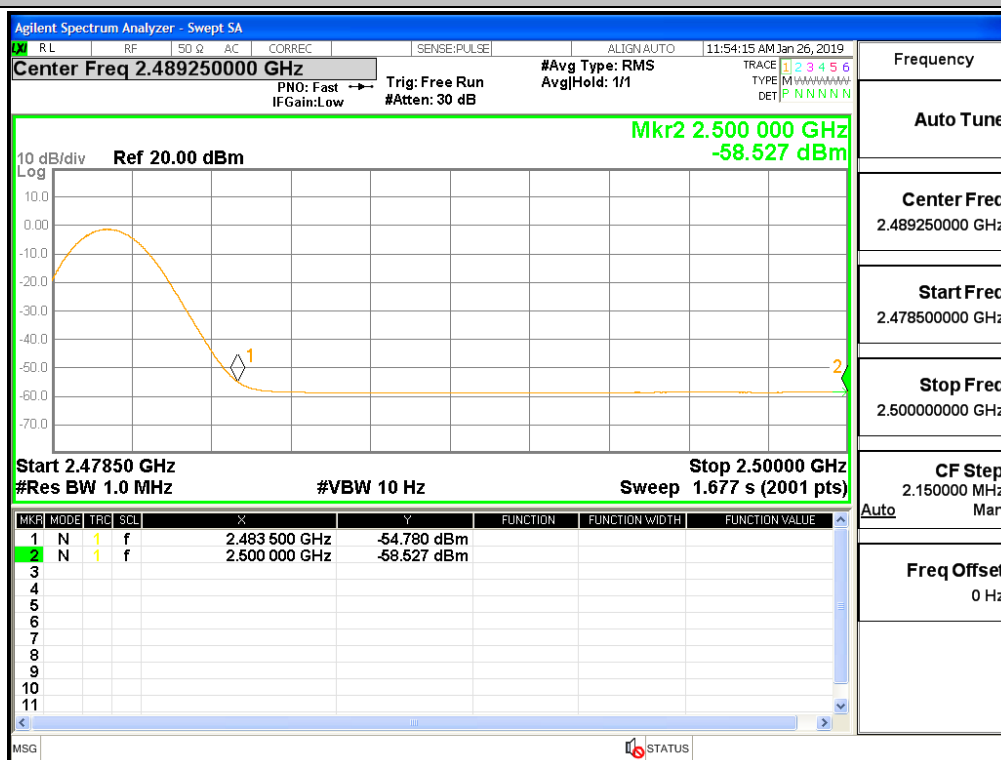
### Restrict-band band-edge measurements\_2402\_AV\_2DH5



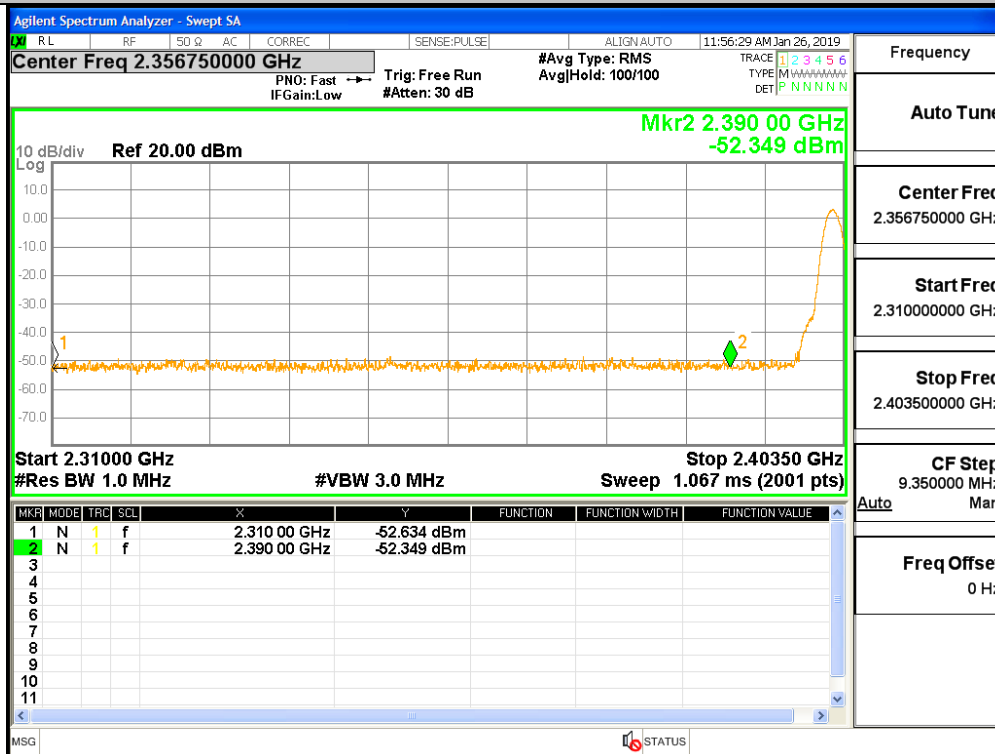
### Restrict-band band-edge measurements\_2480\_PEAK\_2DH5



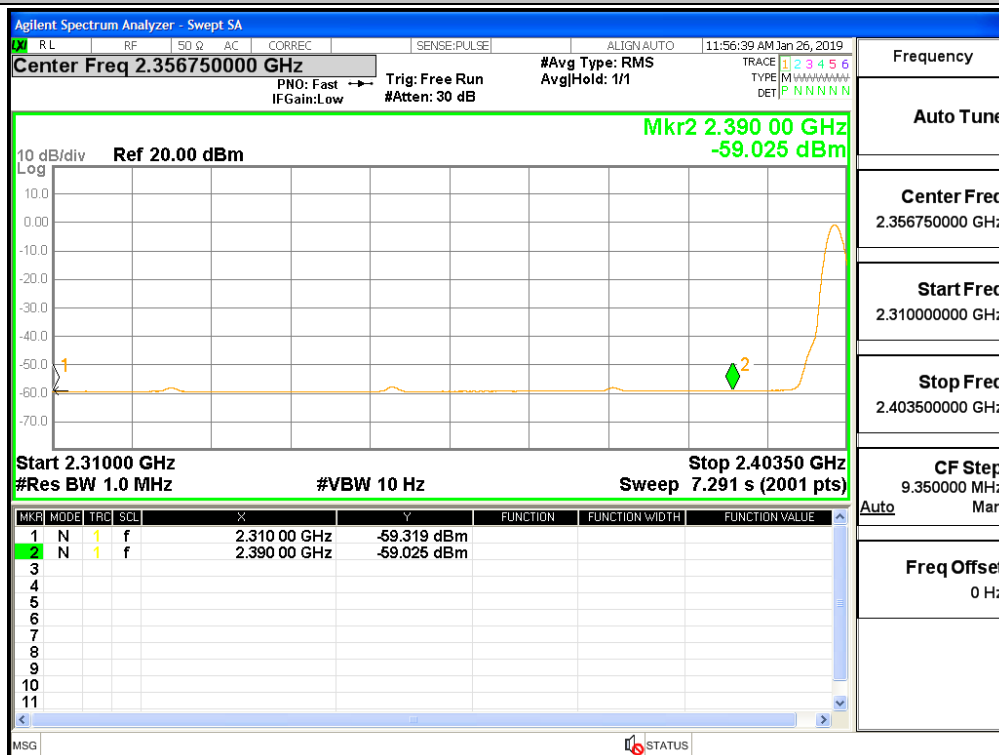
### Restrict-band band-edge measurements\_2480\_AV\_2DH5



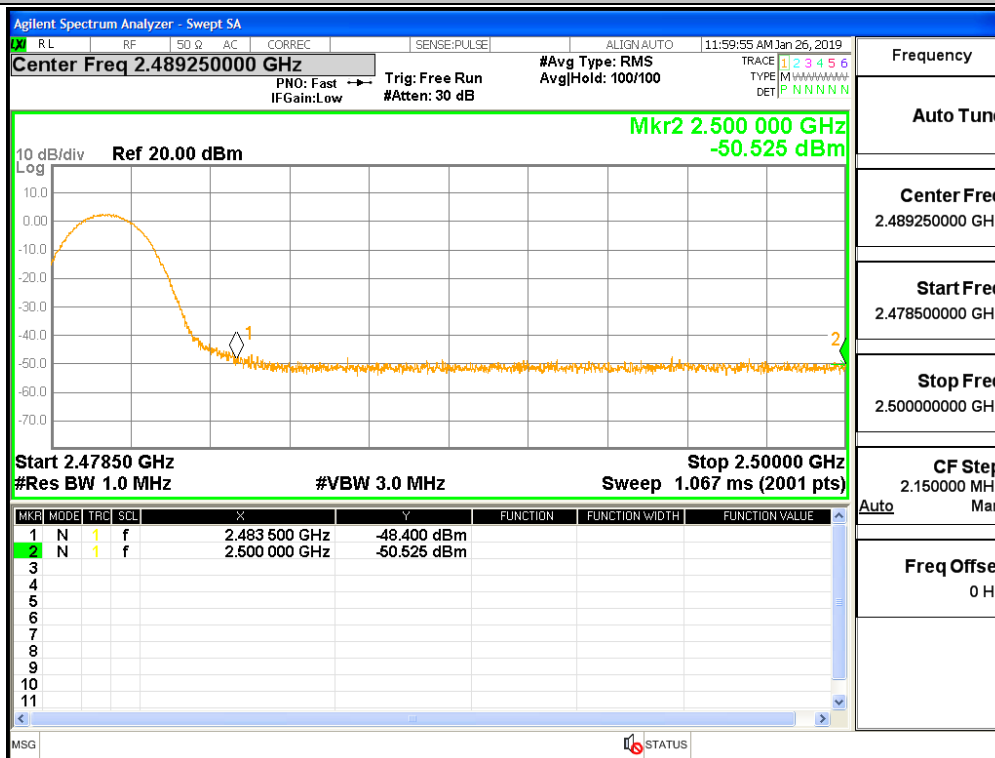
# Restrict-band band-edge measurements\_2402\_PEAK\_3DH5



# Restrict-band band-edge measurements\_2402\_AV\_3DH5



### Restrict-band band-edge measurements\_2480\_PEAK\_3DH5



### Restrict-band band-edge measurements\_2480\_AV\_3DH5

