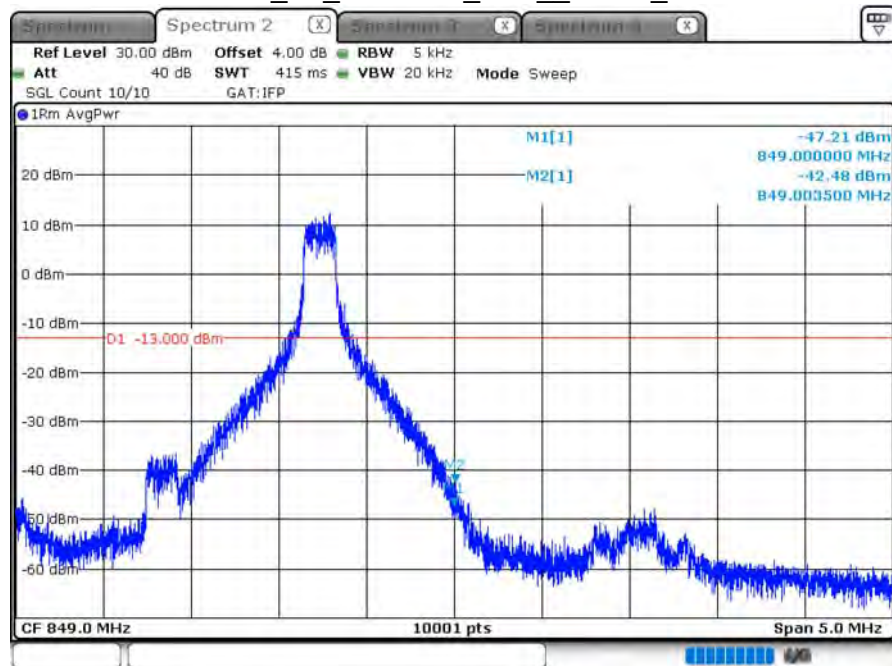
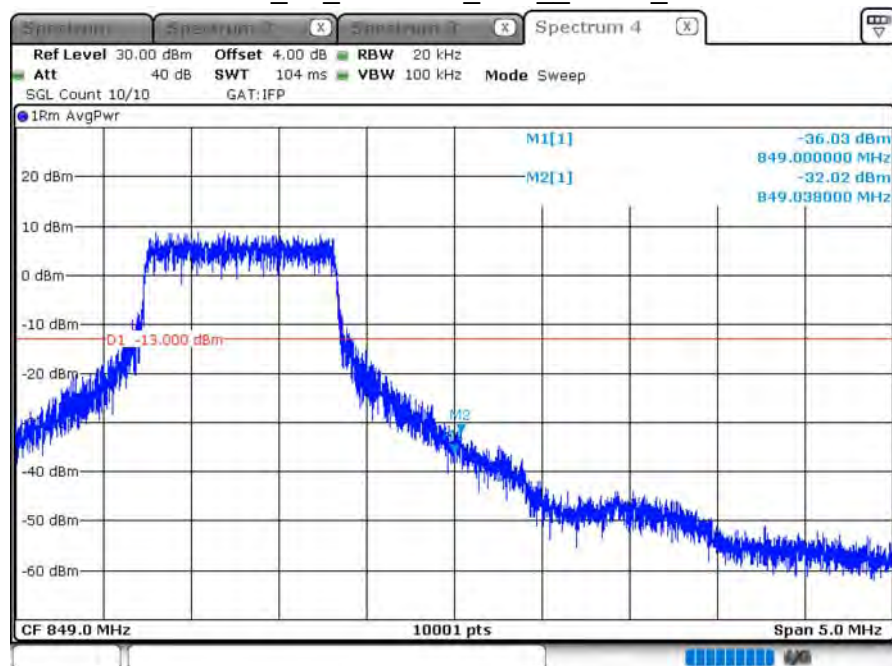


## CAT-M1\_B5\_CH20600\_10M\_\_QPSK\_1RB5

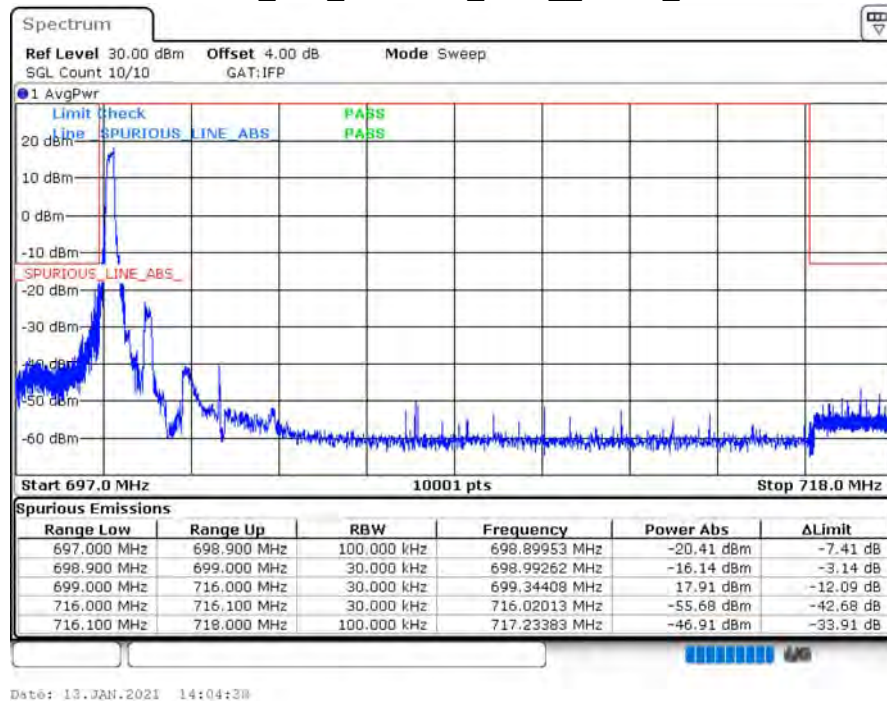


## CAT-M1\_B5\_CH20600\_10M\_\_QPSK\_6RB0

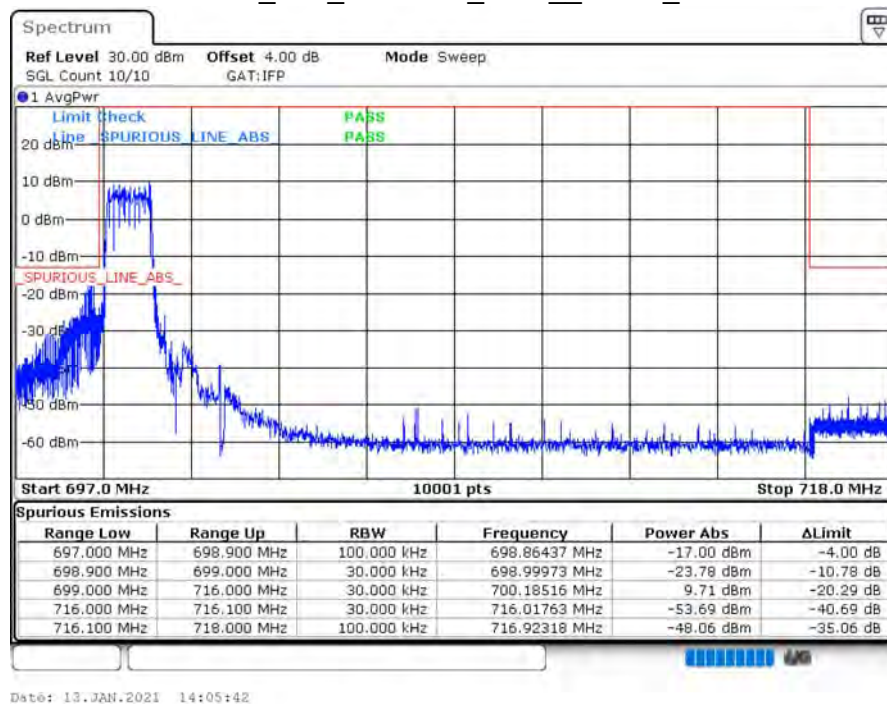


|                  |                                         |                |        |
|------------------|-----------------------------------------|----------------|--------|
| Product          | Connectivity Module                     |                |        |
| Test Item        | Spurious Emissions at Antenna Terminals |                |        |
| Test Mode        | Mode 4: Band12 Link                     |                |        |
| Date of Test     | 2021/01/13                              | Test Site      | SR12-H |
| Temperature (°C) | 20                                      | Humidity (%RH) | 59     |

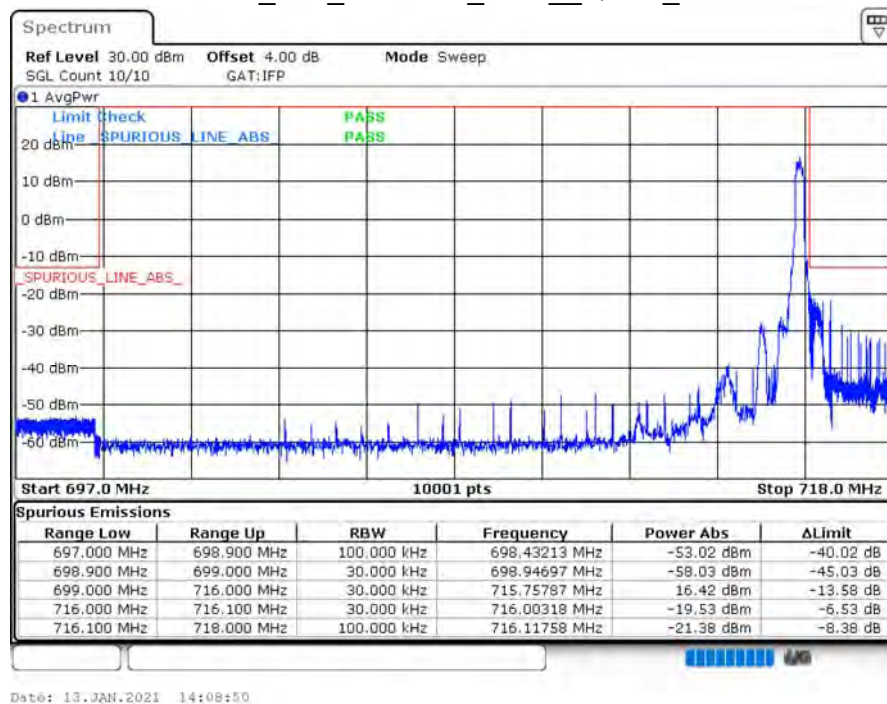
CAT-M1\_B12\_CH23017\_1.4M\_QPSK\_1RB0



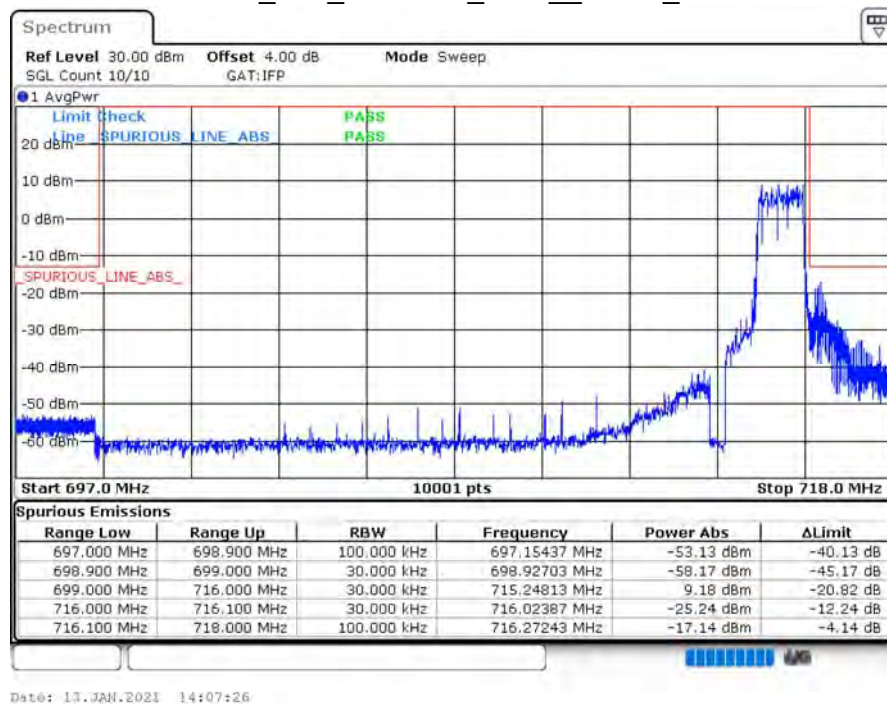
CAT-M1\_B12\_CH23017\_1.4M\_QPSK\_6RB0



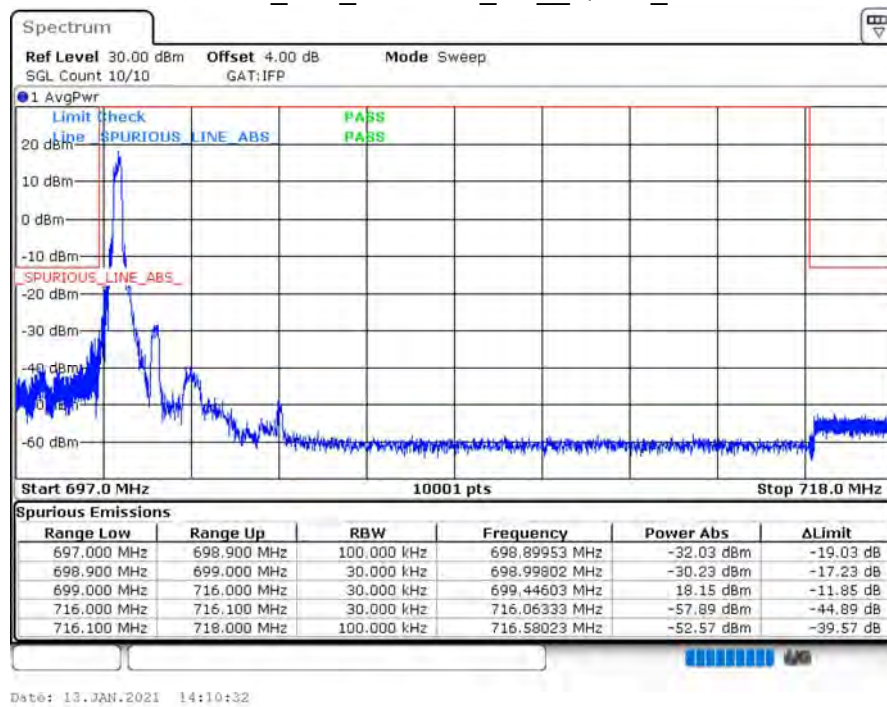
## CAT-M1\_B12\_CH23173\_1.4M\_\_QPSK\_1RB5



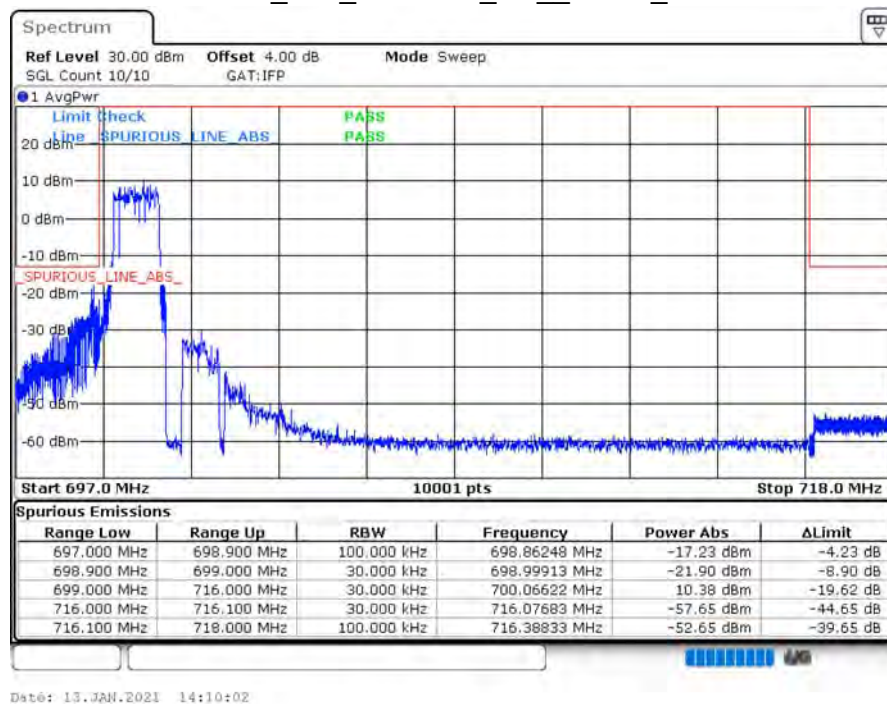
## CAT-M1\_B12\_CH23173\_1.4M\_\_QPSK\_6RB0



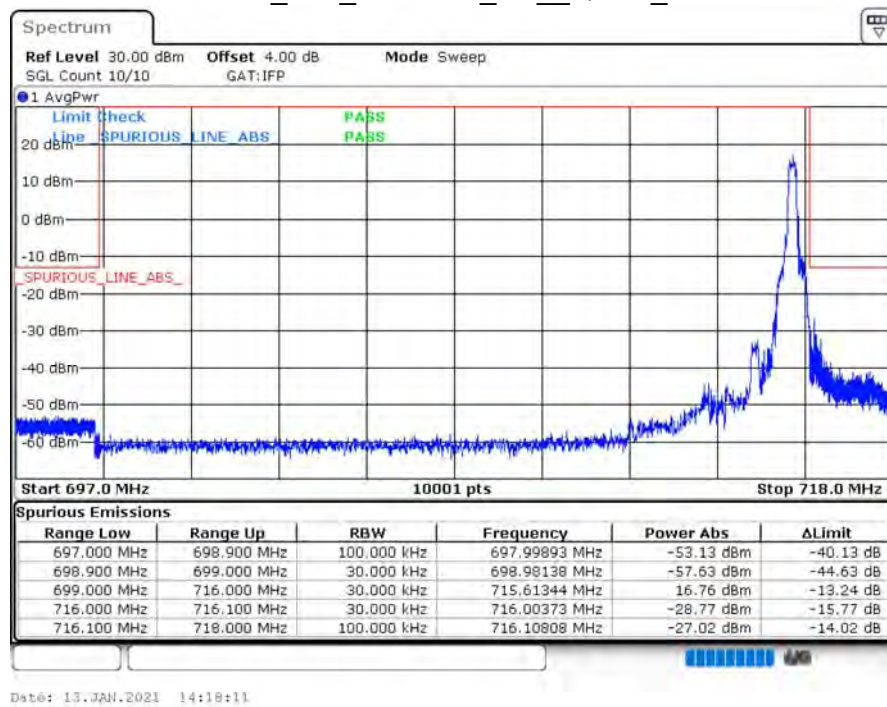
## CAT-M1\_B12\_CH23025\_3M\_\_QPSK\_1RB0



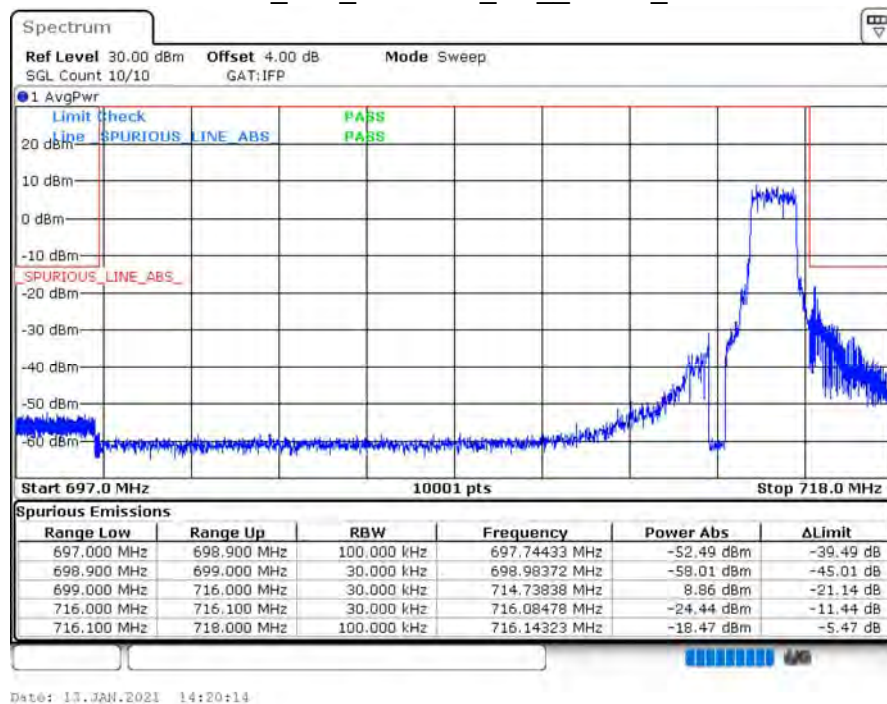
## CAT-M1\_B12\_CH23025\_3M\_\_QPSK\_6RB0



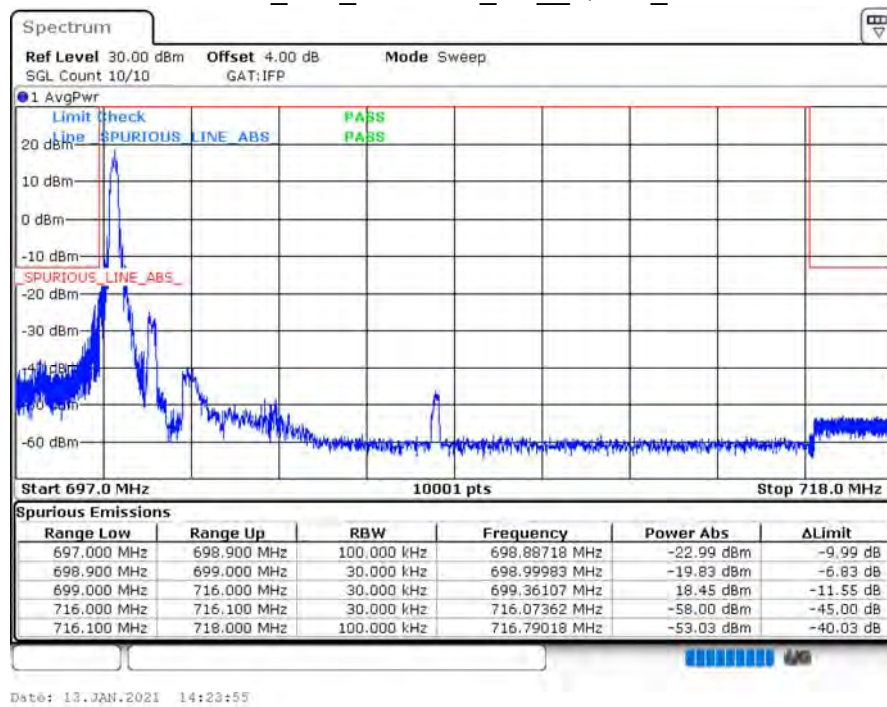
## CAT-M1\_B12\_CH23165\_3M\_\_QPSK\_1RB5



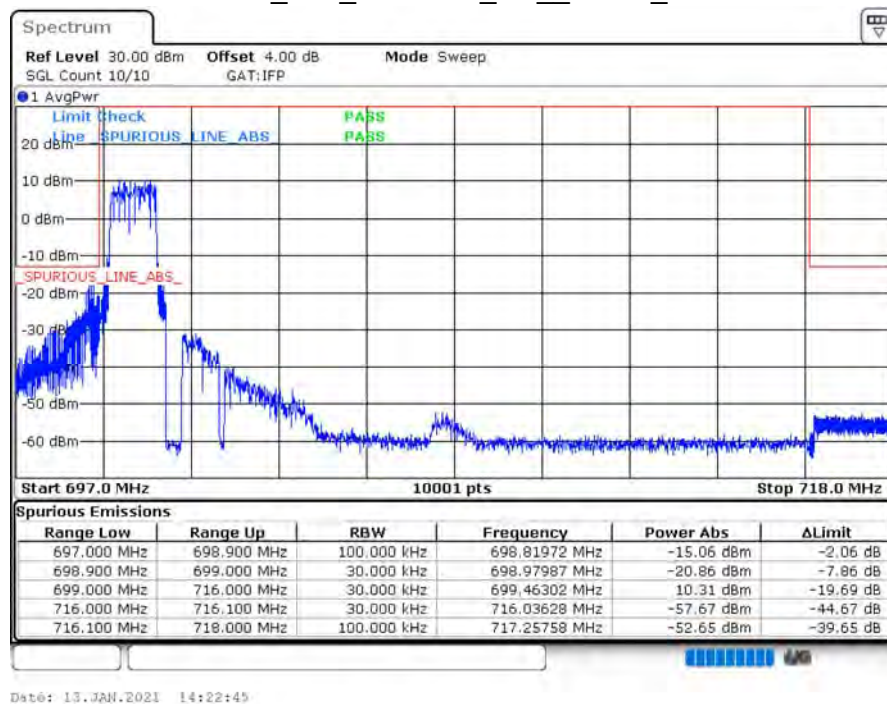
## CAT-M1\_B12\_CH23165\_3M\_\_QPSK\_6RB0



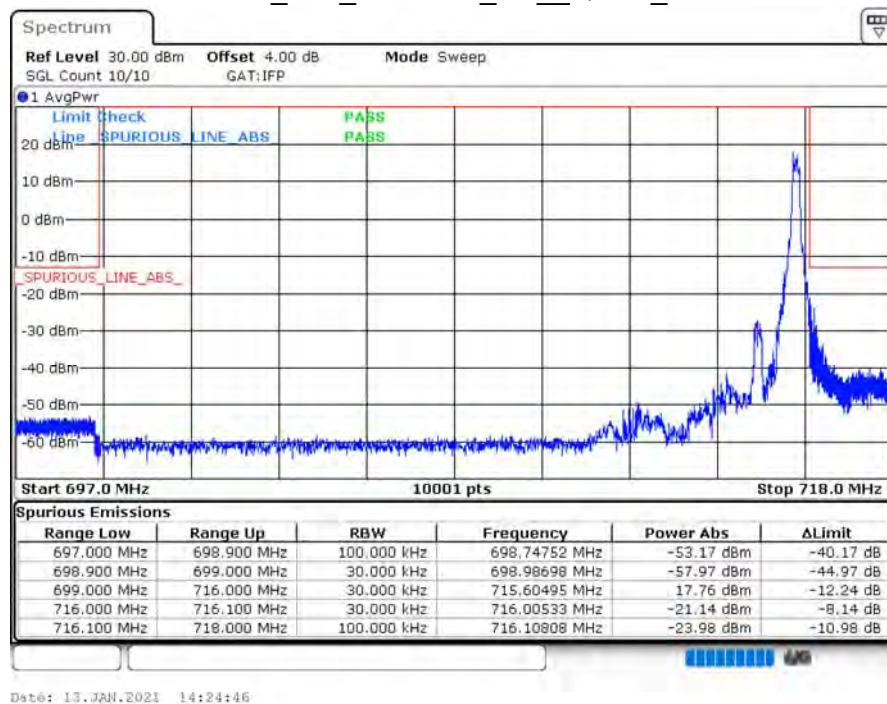
## CAT-M1\_B12\_CH23035\_5M\_\_QPSK\_1RB0



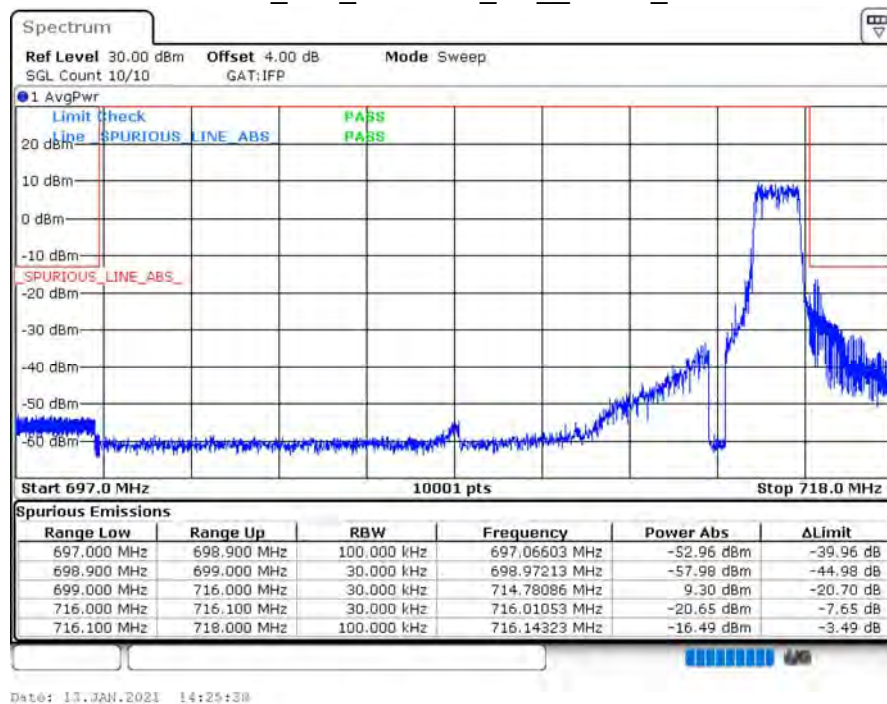
## CAT-M1\_B12\_CH23035\_5M\_\_QPSK\_6RB0



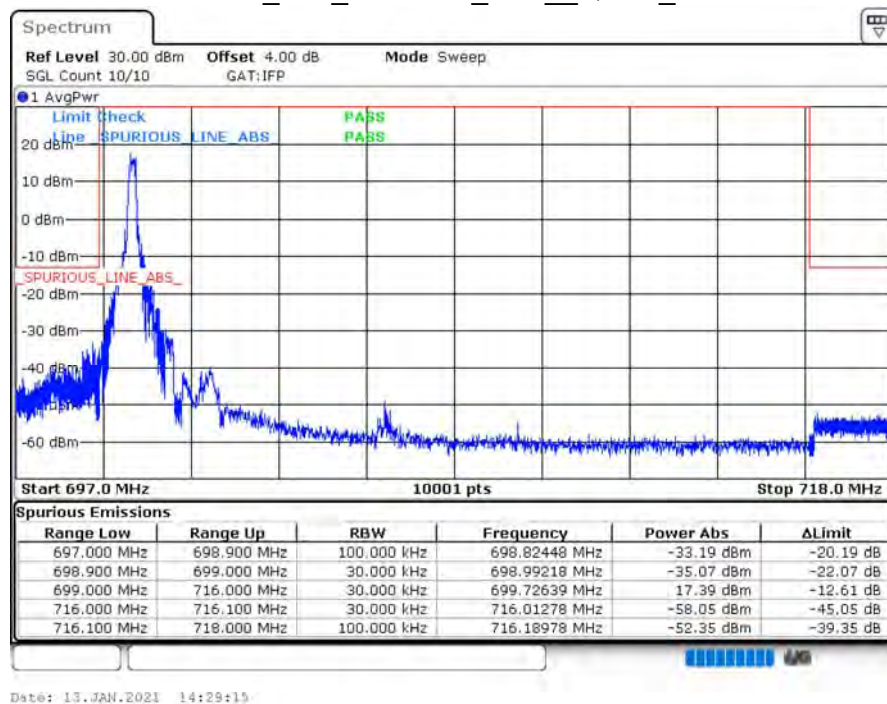
## CAT-M1\_B12\_CH23155\_5M\_\_QPSK\_1RB5



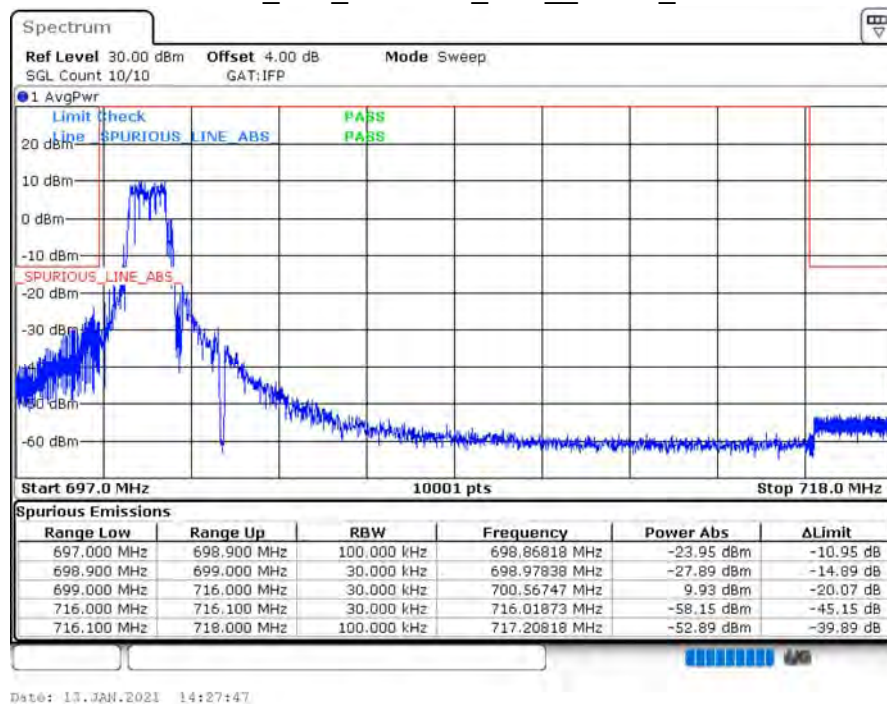
## CAT-M1\_B12\_CH23155\_5M\_\_QPSK\_6RB0



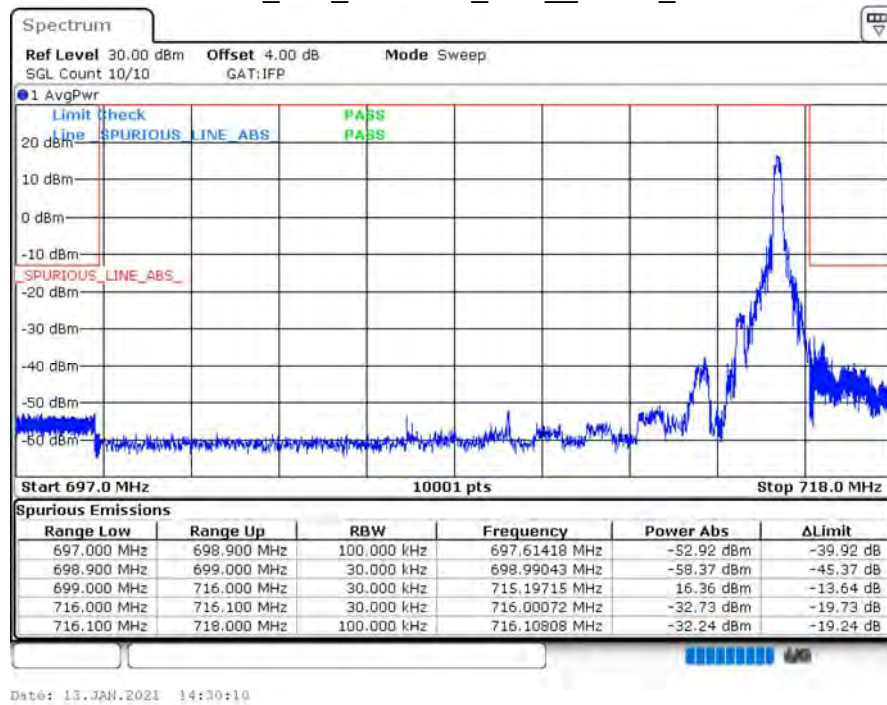
## CAT-M1\_B12\_CH23060\_10M\_QPSK\_1RB0



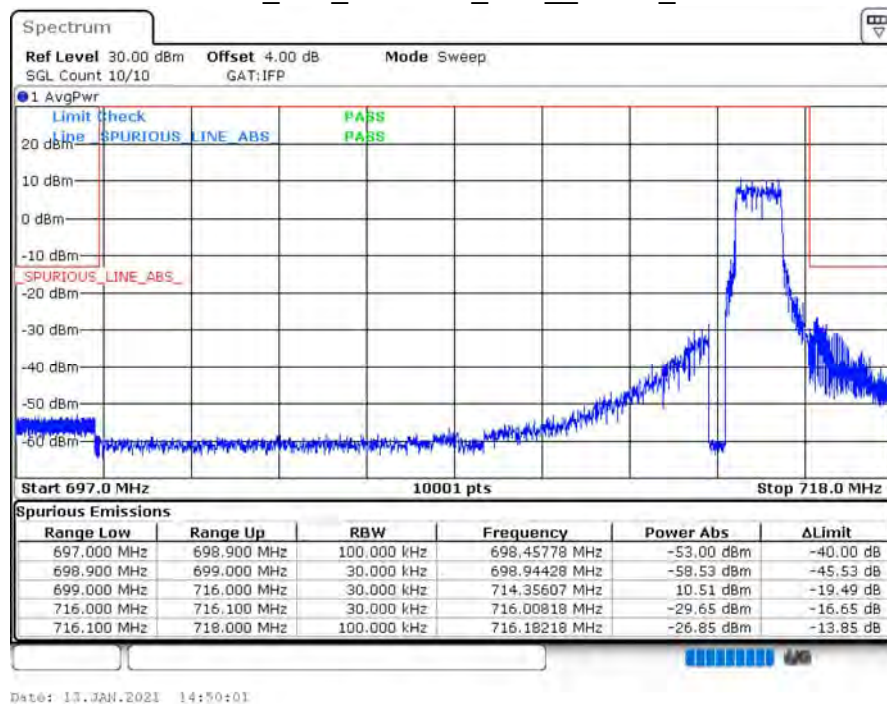
## CAT-M1\_B12\_CH23060\_10M\_QPSK\_6RB0



## CAT-M1\_B12\_CH23130\_10M\_QPSK\_1RB5

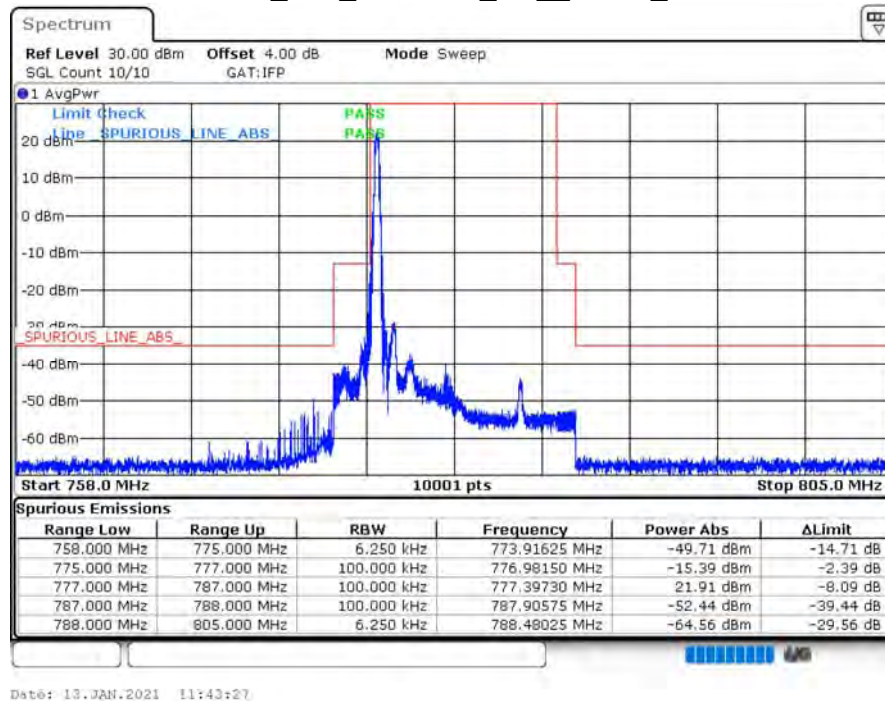


## CAT-M1\_B12\_CH23130\_10M\_QPSK\_6RB0

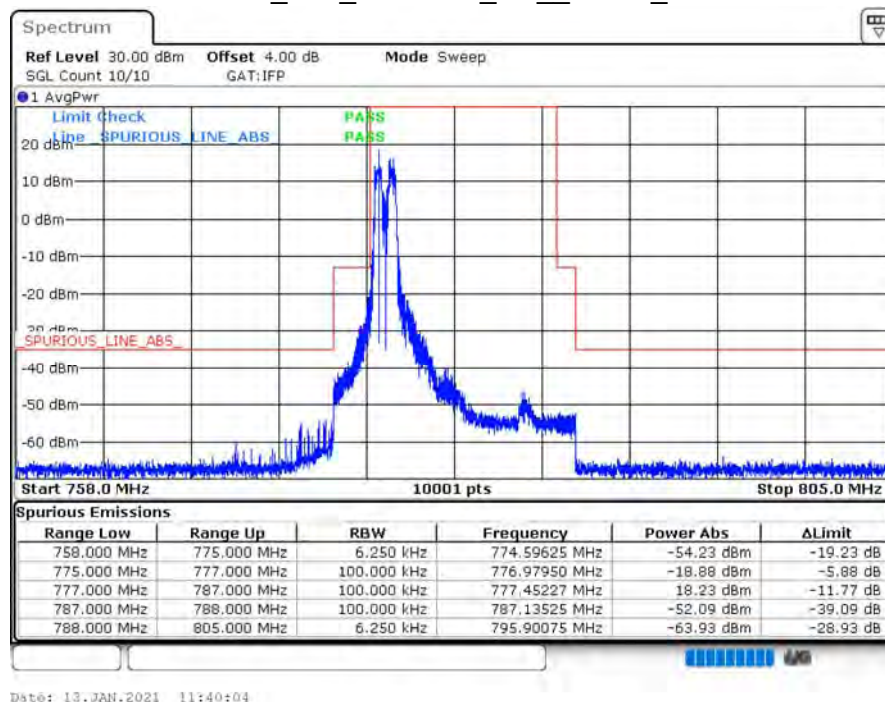


|                  |                                         |                |        |
|------------------|-----------------------------------------|----------------|--------|
| Product          | Connectivity Module                     |                |        |
| Test Item        | Spurious Emissions at Antenna Terminals |                |        |
| Test Mode        | Mode 5: Band13 Link                     |                |        |
| Date of Test     | 2021/01/13                              | Test Site      | SR12-H |
| Temperature (°C) | 20                                      | Humidity (%RH) | 59     |

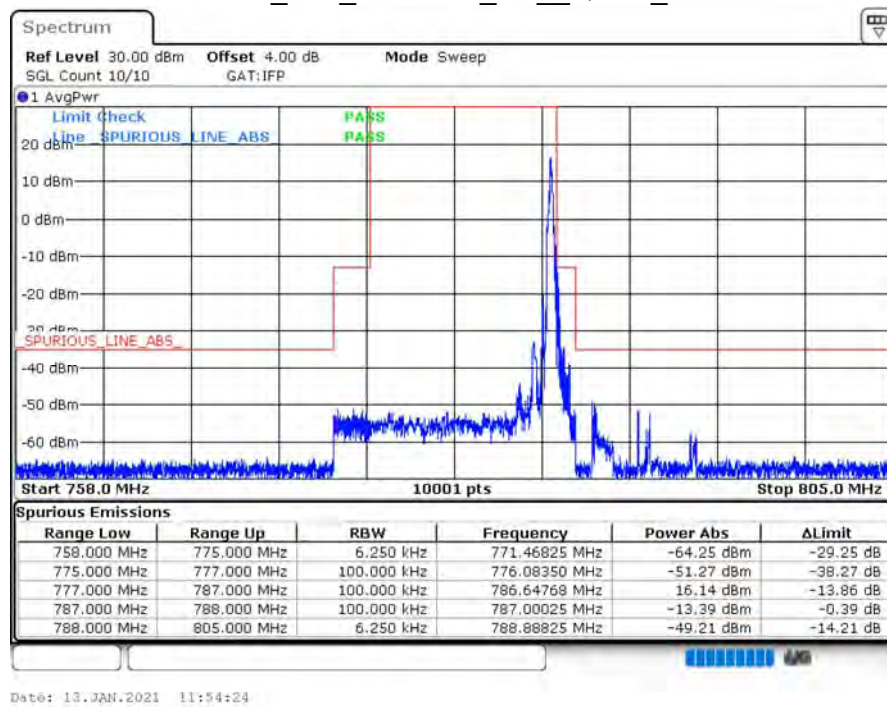
CAT-M1\_B13\_CH23205\_5M\_QPSK\_1RB0



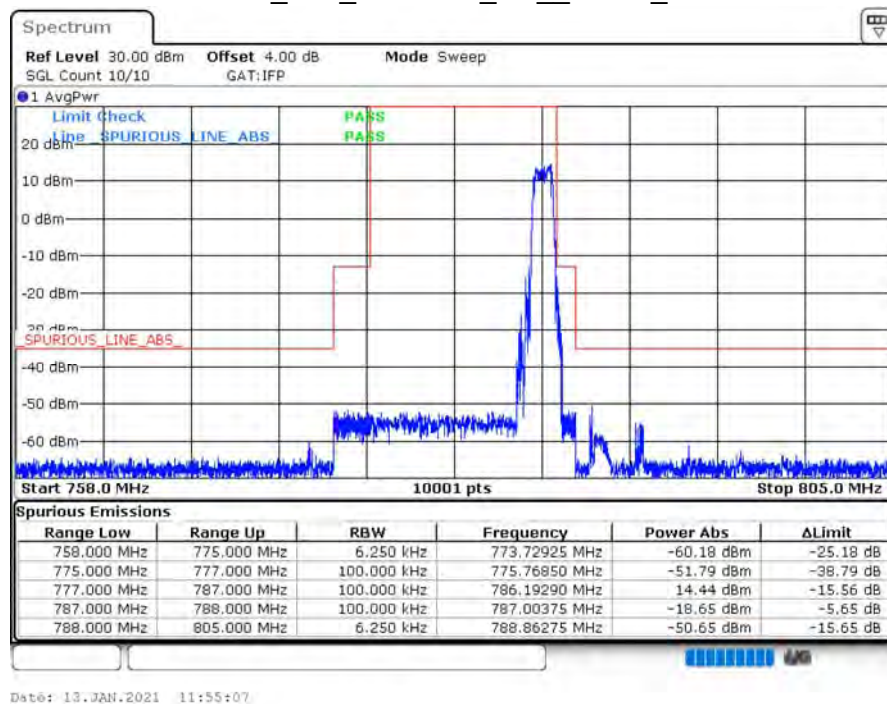
CAT-M1\_B13\_CH23205\_5M\_QPSK\_6RB0



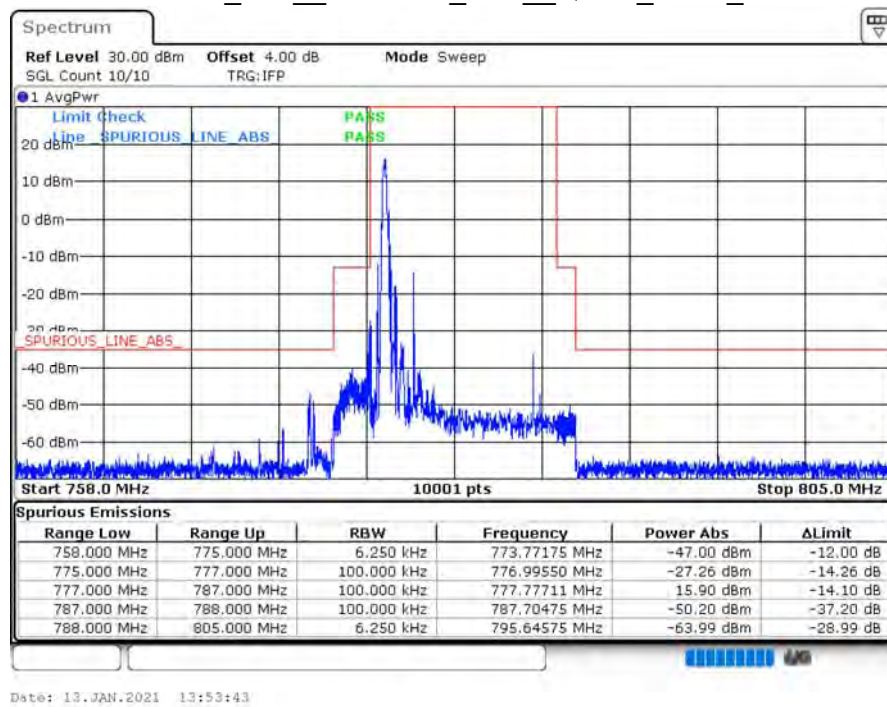
## CAT-M1\_B13\_CH23255\_5M\_\_QPSK\_1RB5



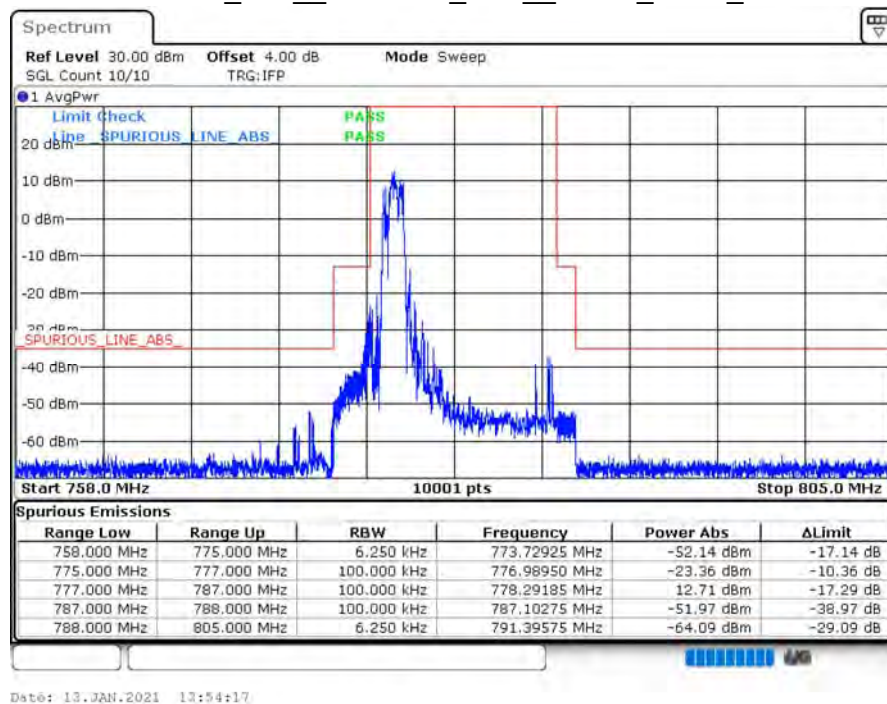
## CAT-M1\_B13\_CH23255\_5M\_\_QPSK\_6RB0



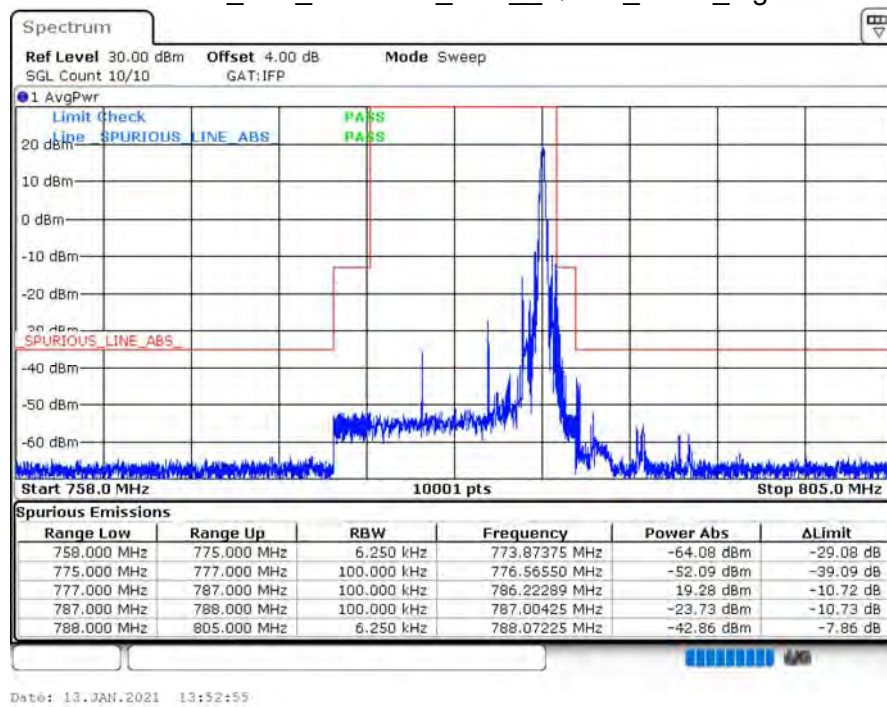
## CAT-M1\_B13\_\_CH23230\_10M\_\_QPSK\_1RB0\_low



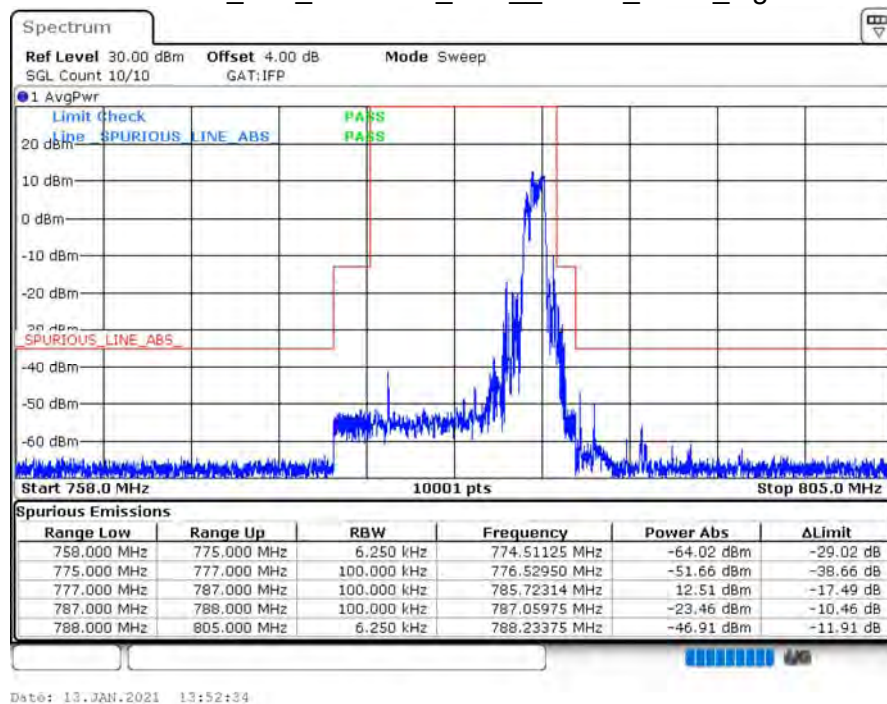
## CAT-M1\_B13\_\_CH23230\_10M\_\_QPSK\_6RB0\_low



## CAT-M1\_B13\_CH23230\_10M\_\_QPSK\_1RB5\_high

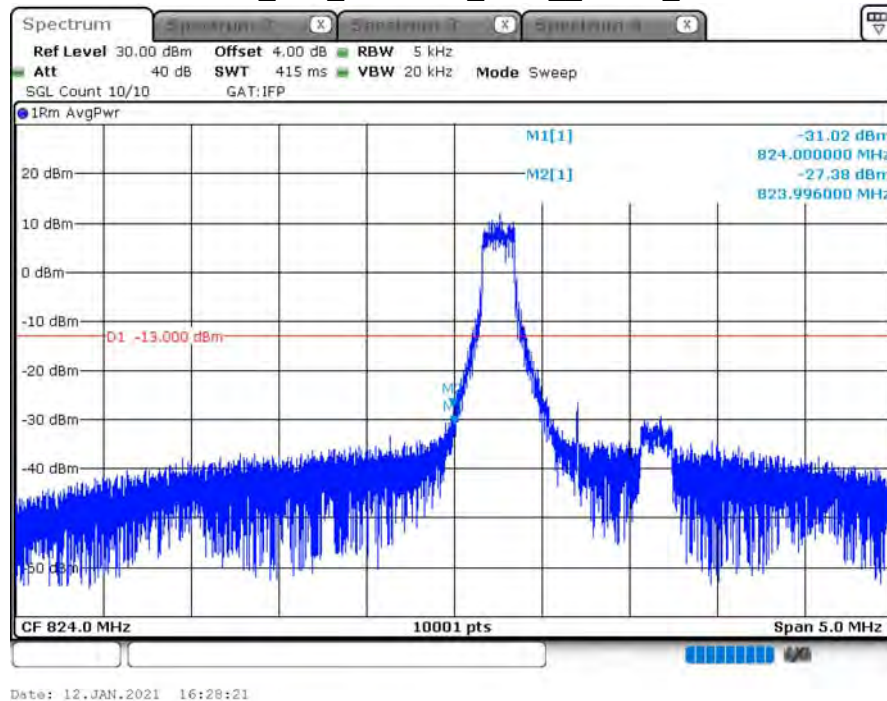


## CAT-M1\_B13\_CH23230\_10M\_\_QPSK\_6RB0\_high

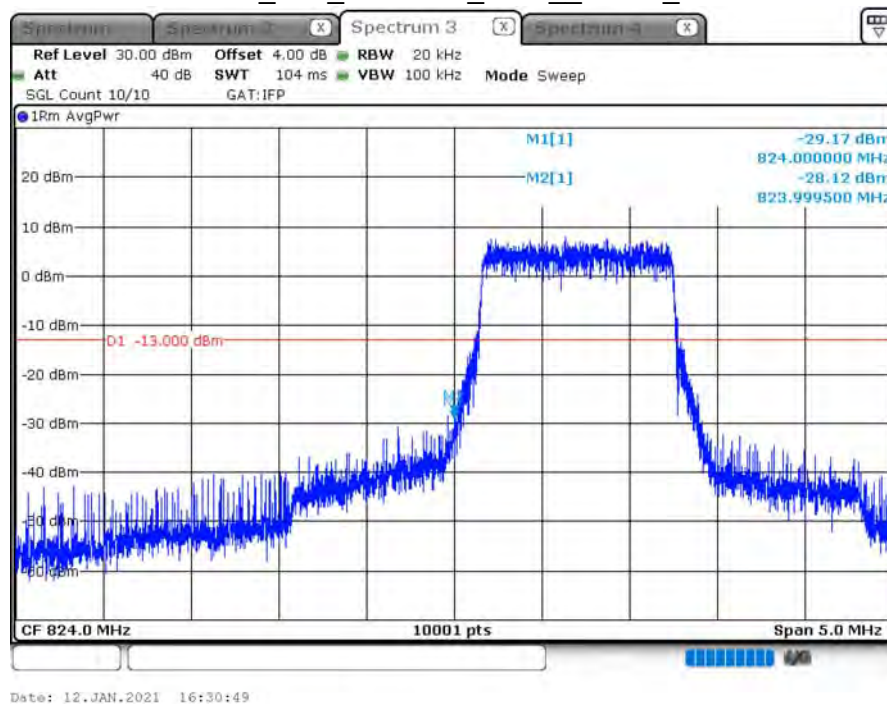


|                  |                                         |                |        |
|------------------|-----------------------------------------|----------------|--------|
| Product          | Connectivity Module                     |                |        |
| Test Item        | Spurious Emissions at Antenna Terminals |                |        |
| Test Mode        | Mode 6: Band26_Part22 Link              |                |        |
| Date of Test     | 2021/01/12                              | Test Site      | SR12-H |
| Temperature (°C) | 18                                      | Humidity (%RH) | 58     |

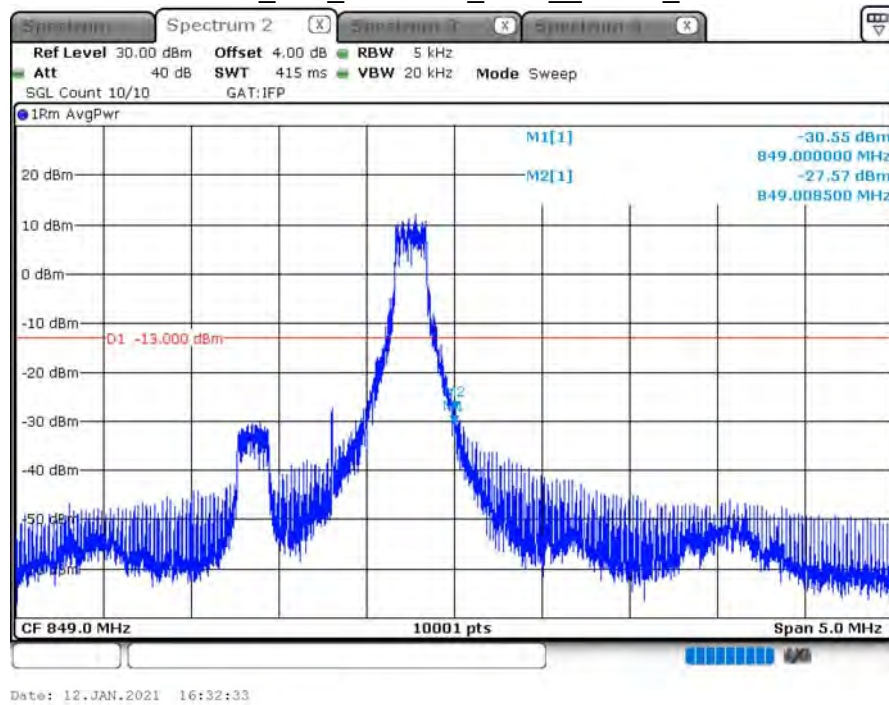
CAT-M1\_B26\_CH26797\_1.4M\_QPSK\_1RB0



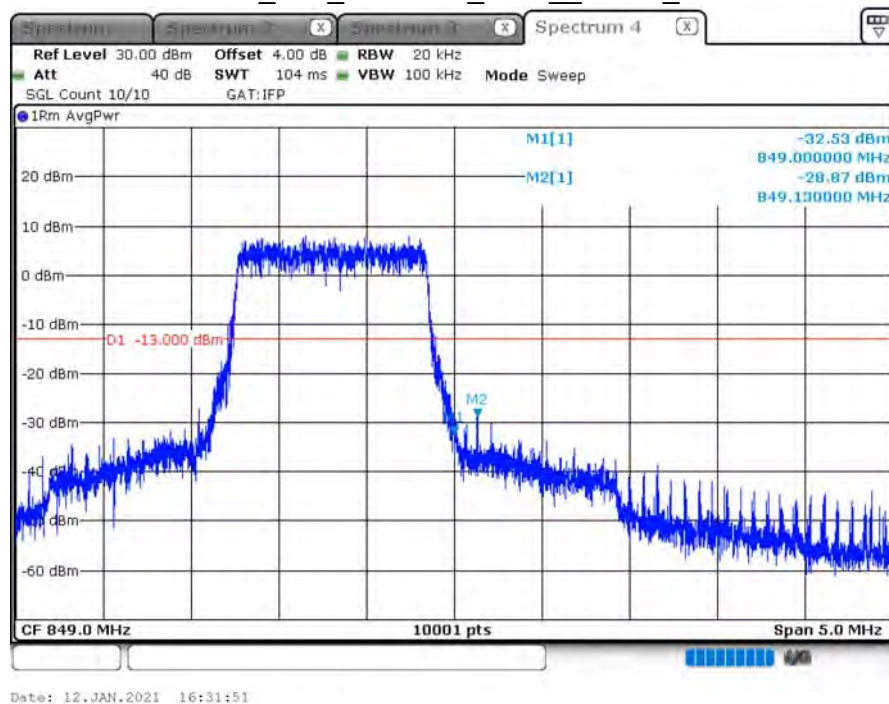
CAT-M1\_B26\_CH26797\_1.4M\_QPSK\_6RB0

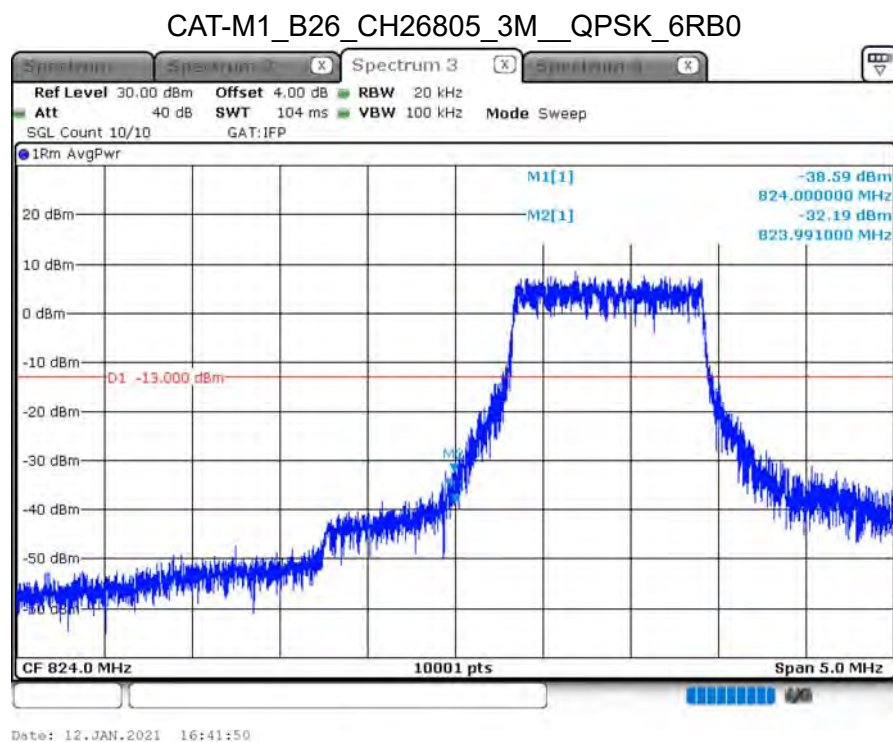
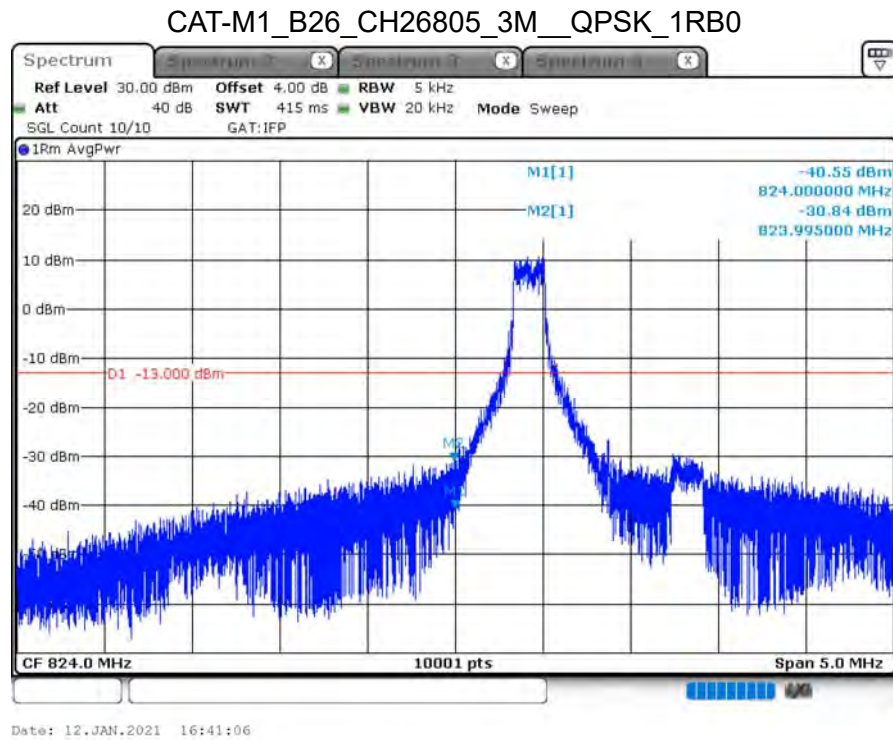


CAT-M1\_B26\_CH27033\_1.4M\_QPSK\_1RB5

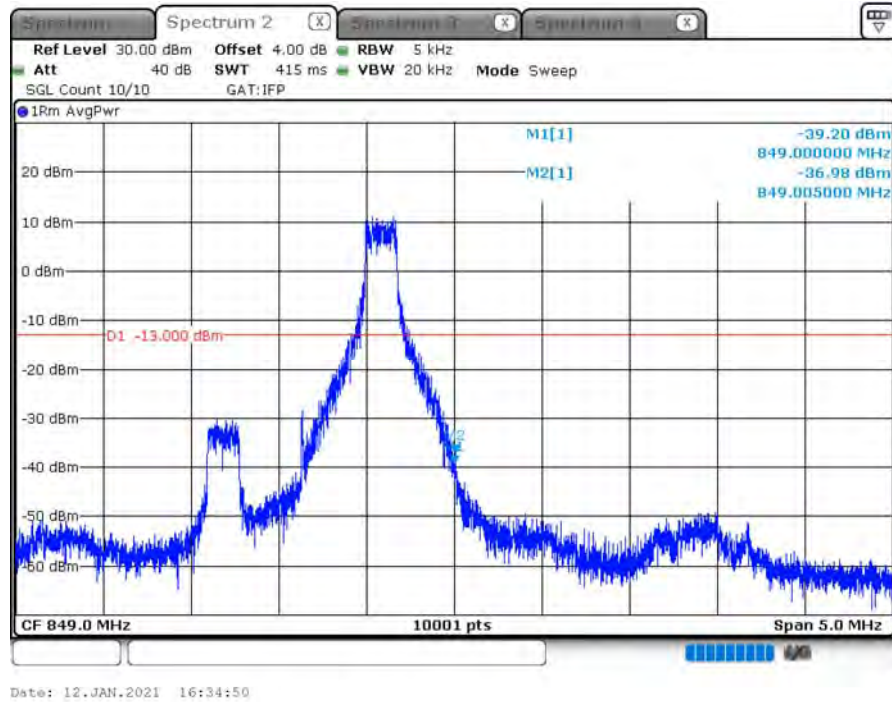


CAT-M1\_B26\_CH27033\_1.4M\_QPSK\_6RB0

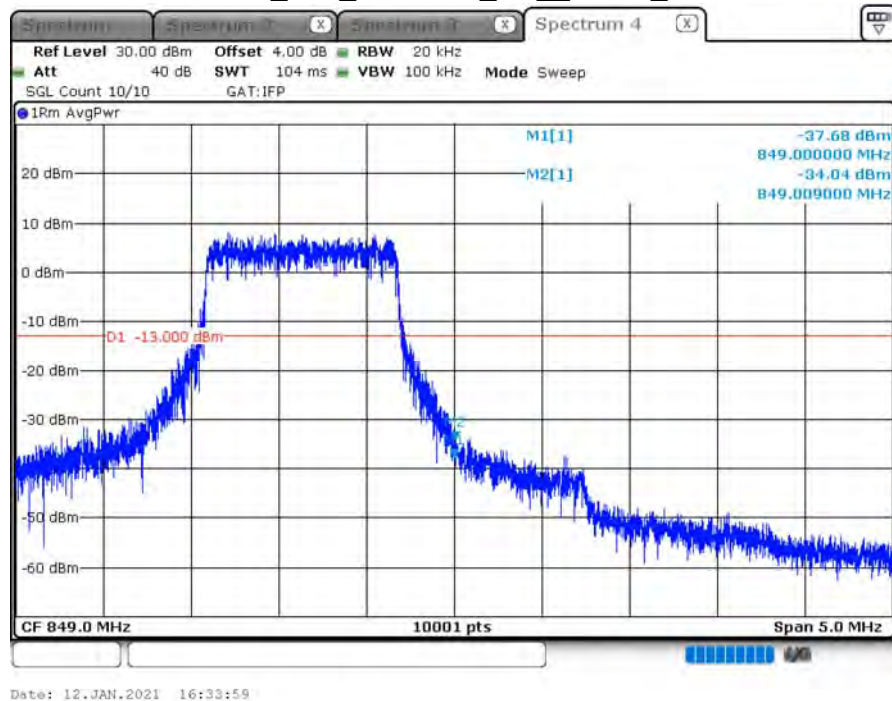




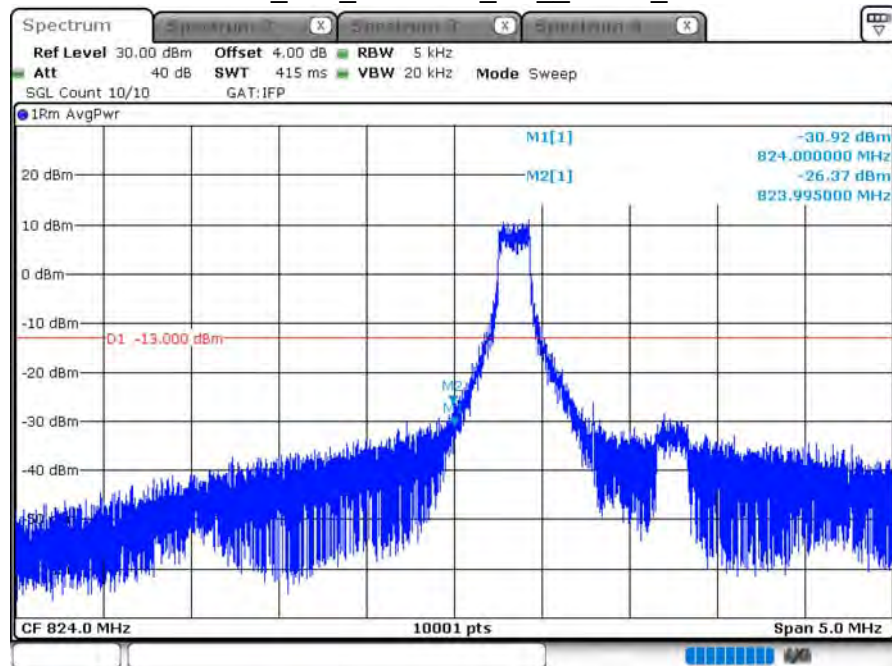
## CAT-M1\_B26\_CH27025\_3M\_QPSK\_1RB5



## CAT-M1\_B26\_CH27025\_3M\_QPSK\_6RB0

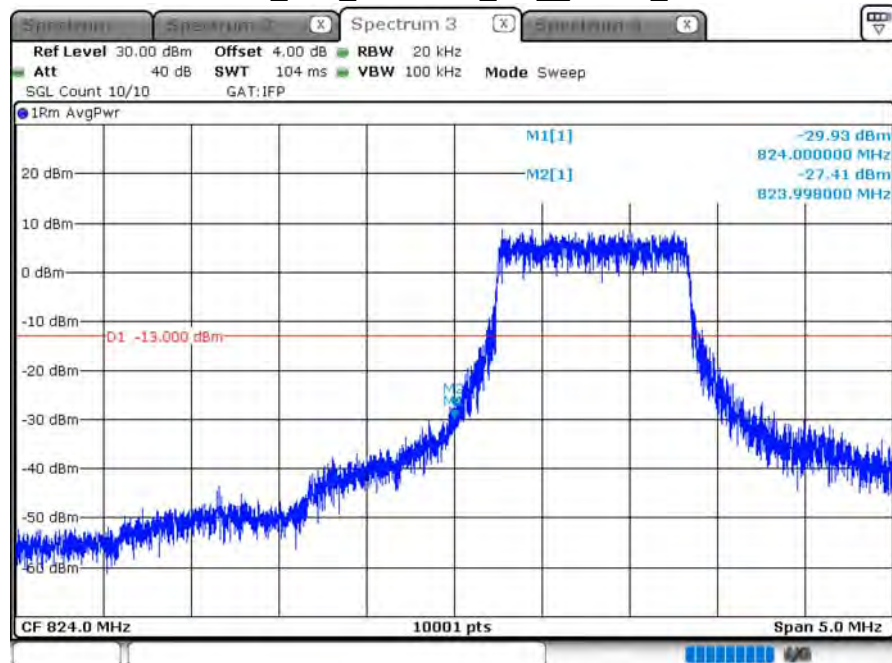


## CAT-M1\_B26\_CH26815\_5M\_QPSK\_1RB0



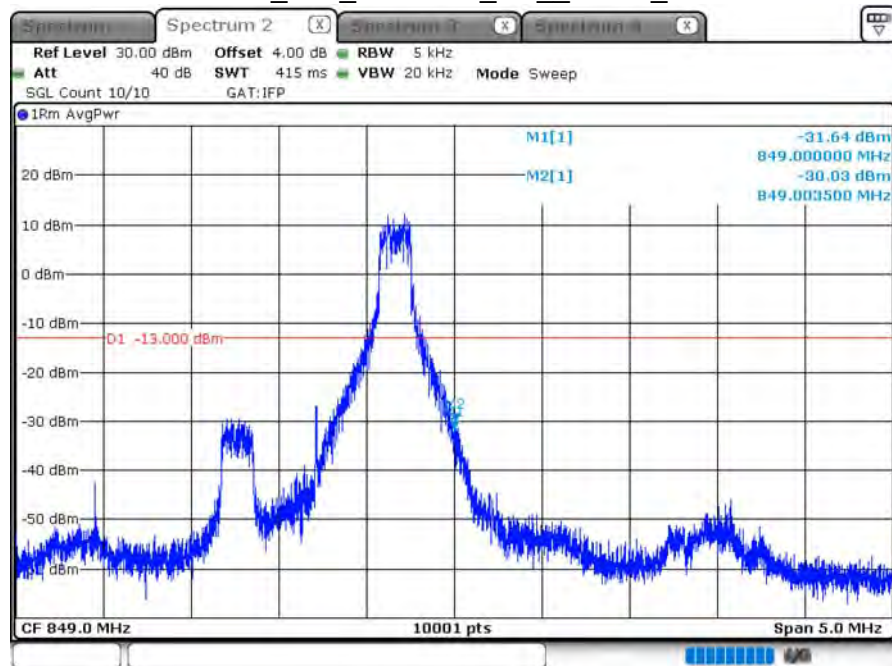
Date: 12.JAN.2021 16:45:19

## CAT-M1\_B26\_CH26815\_5M\_QPSK\_6RB0

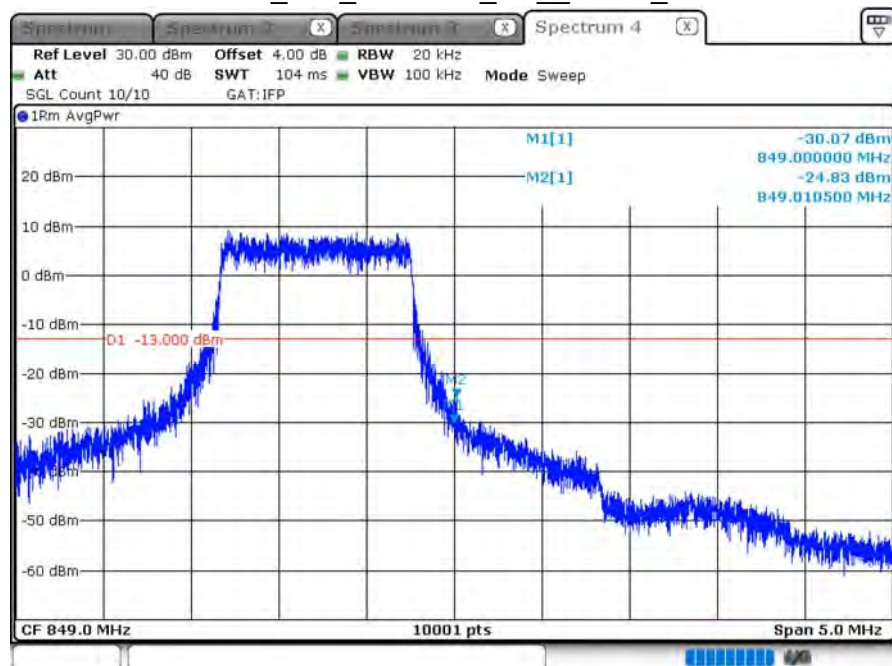


Date: 12.JAN.2021 16:43:38

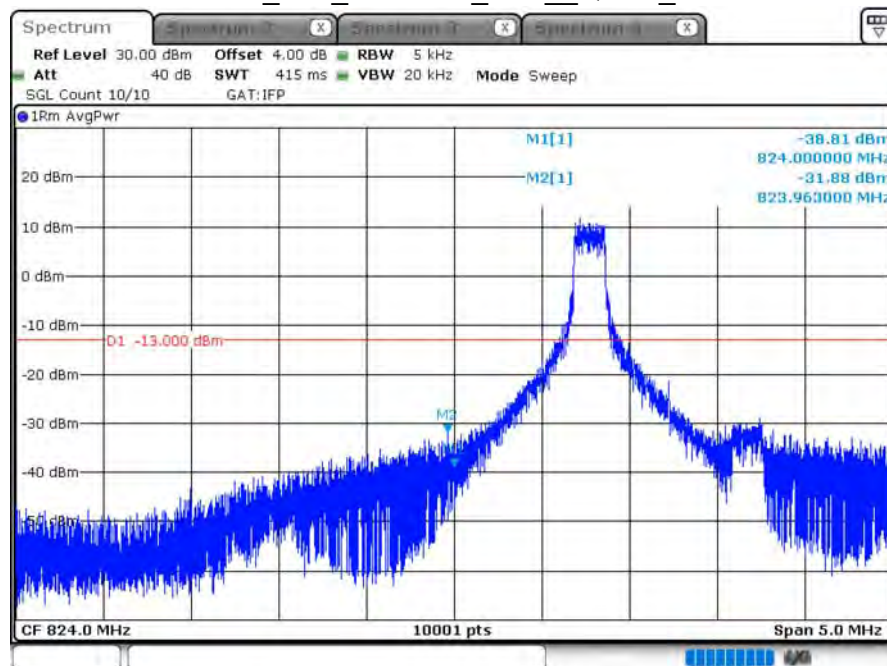
## CAT-M1\_B26\_CH27015\_5M\_QPSK\_1RB5



## CAT-M1\_B26\_CH27015\_5M\_QPSK\_6RB0

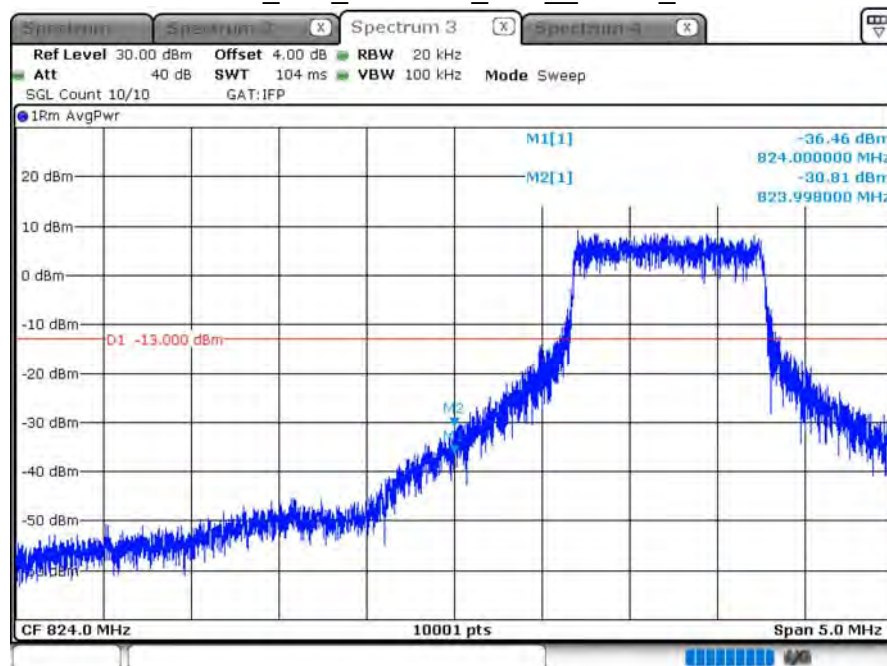


## CAT-M1\_B26\_CH26840\_10M\_QPSK\_1RB0



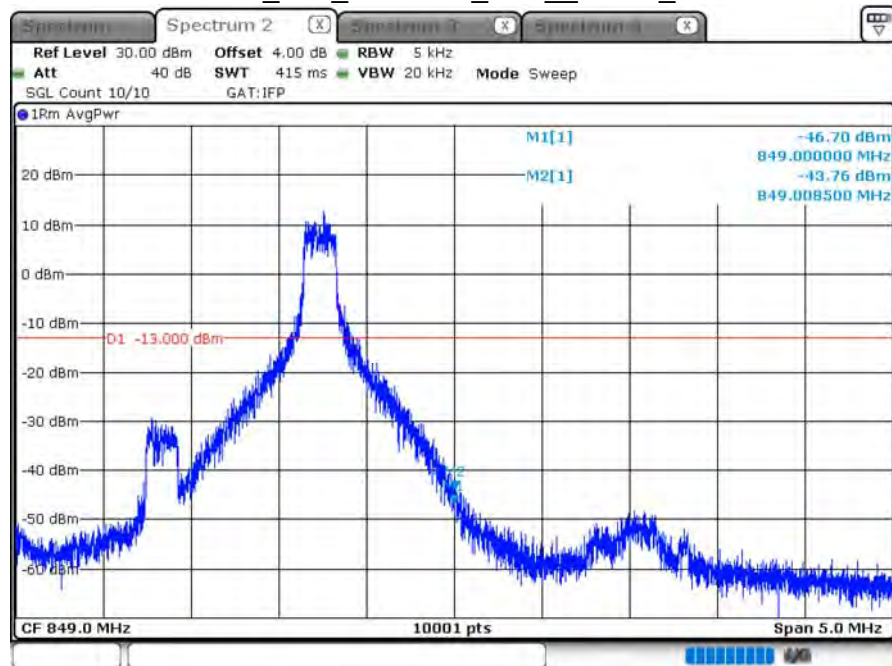
Date: 12.JAN.2021 16:54:00

## CAT-M1\_B26\_CH26840\_10M\_QPSK\_6RB0

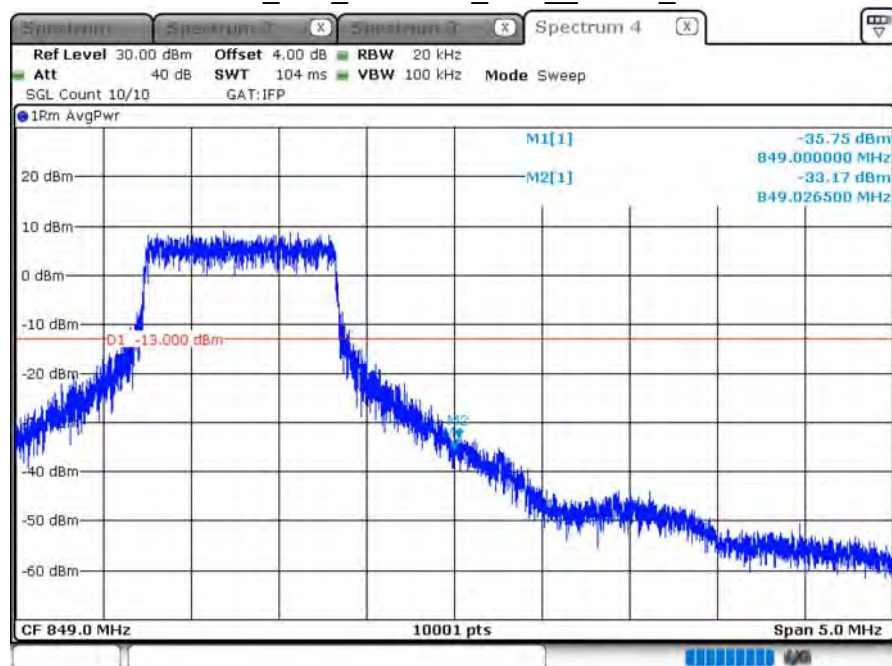


Date: 12.JAN.2021 16:54:46

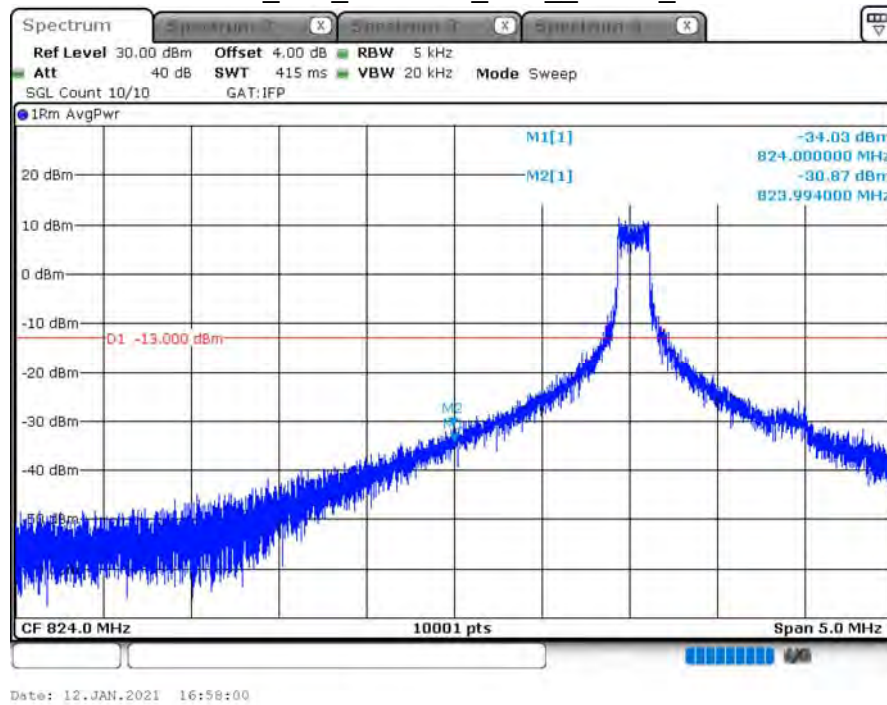
## CAT-M1\_B26\_CH26990\_10M\_QPSK\_1RB5



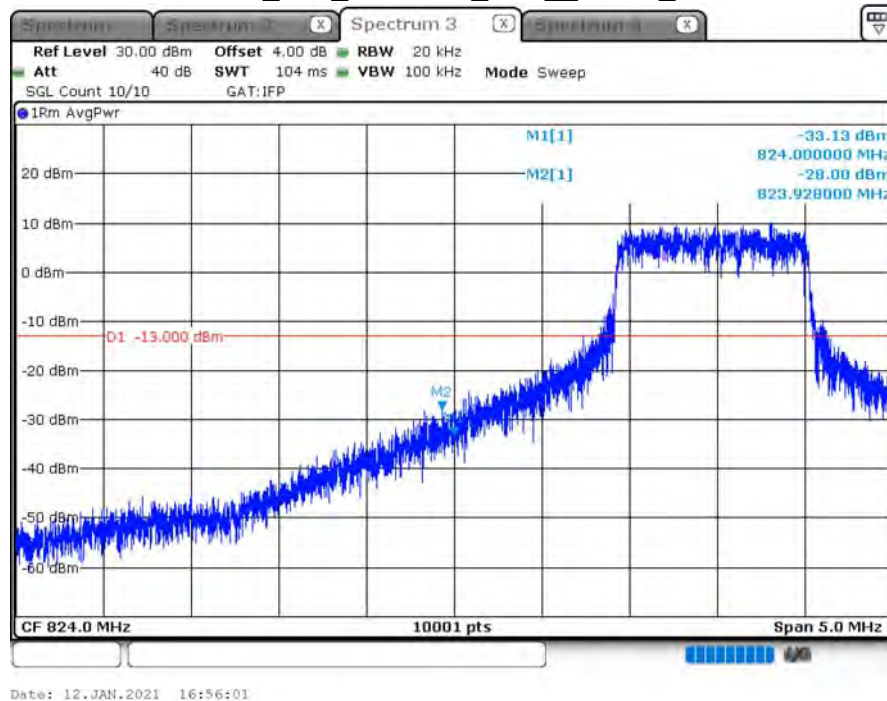
## CAT-M1\_B26\_CH26990\_10M\_QPSK\_6RB0



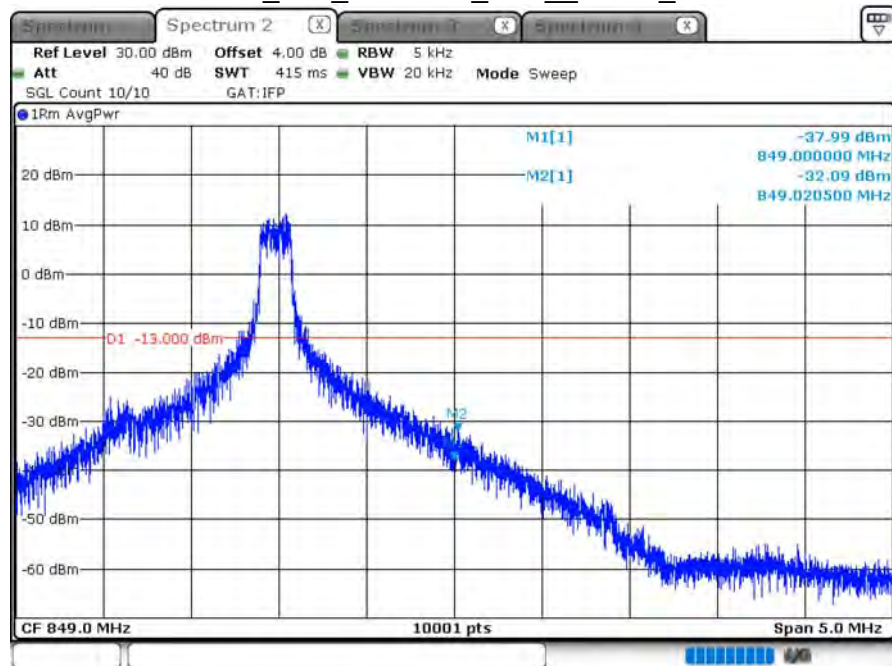
## CAT-M1\_B26\_CH26865\_15M\_QPSK\_1RB0



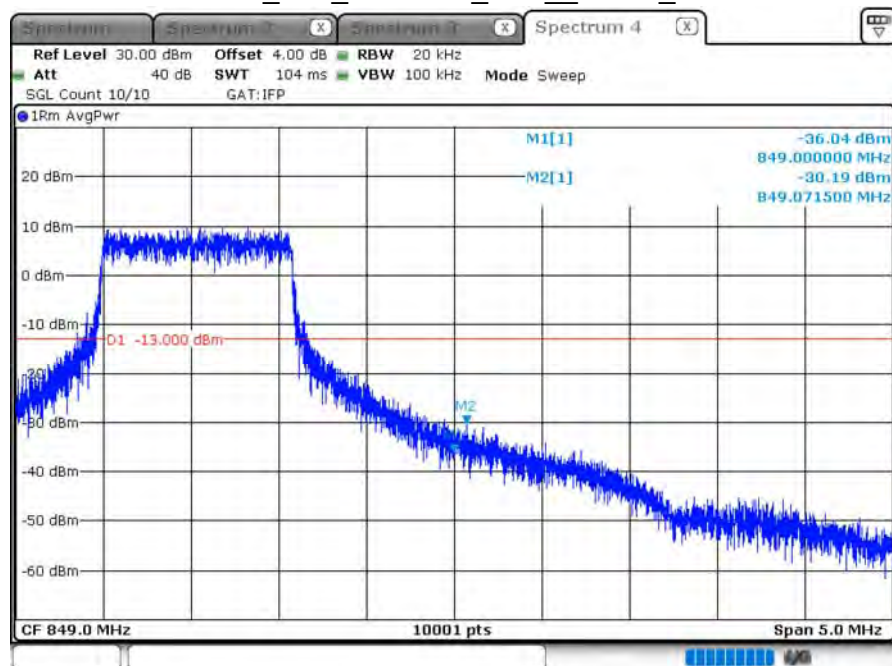
## CAT-M1\_B26\_CH26865\_15M\_QPSK\_6RB0



## CAT-M1\_B26\_CH26965\_15M\_QPSK\_1RB5

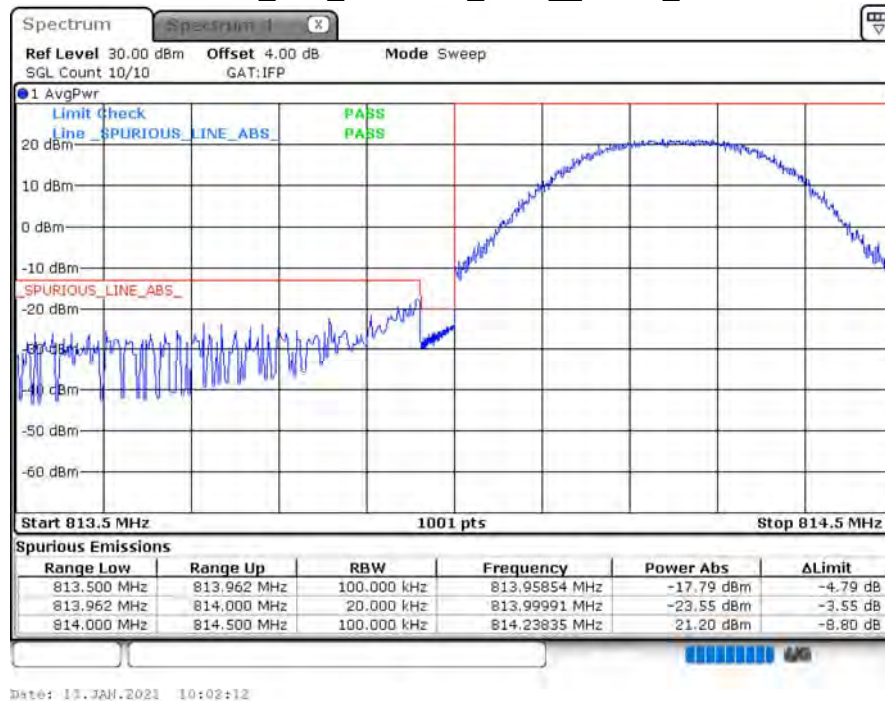


## CAT-M1\_B26\_CH26965\_15M\_QPSK\_6RB0

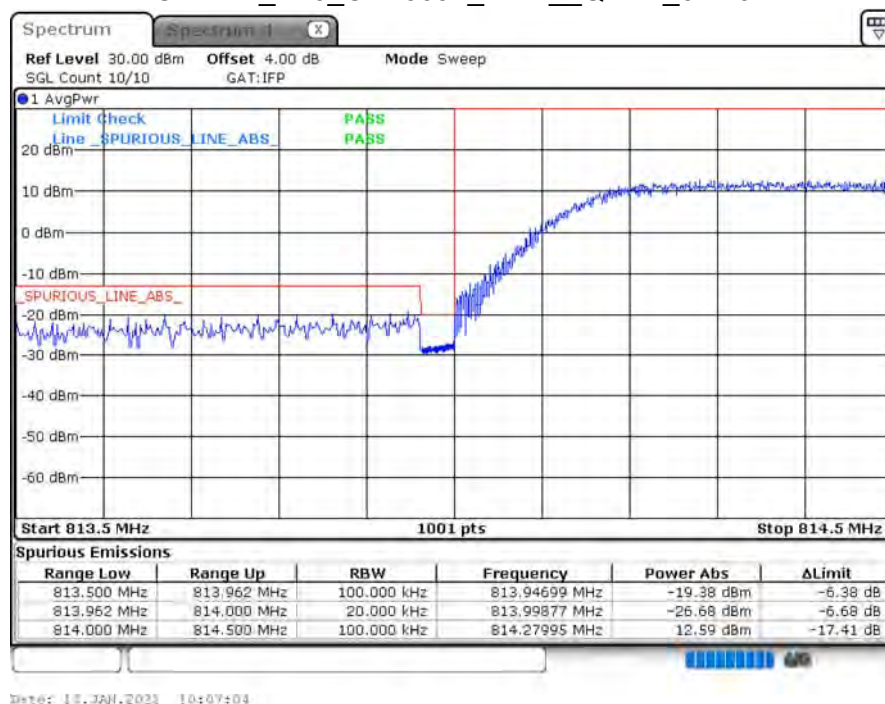


|                  |                                         |                |        |
|------------------|-----------------------------------------|----------------|--------|
| Product          | Connectivity Module                     |                |        |
| Test Item        | Spurious Emissions at Antenna Terminals |                |        |
| Test Mode        | Mode 7: Band26_Part90 Link              |                |        |
| Date of Test     | 2021/01/13                              | Test Site      | SR12-H |
| Temperature (°C) | 20                                      | Humidity (%RH) | 59     |

CAT-M1\_B26\_CH26697\_1.4M\_QPSK\_1RB0



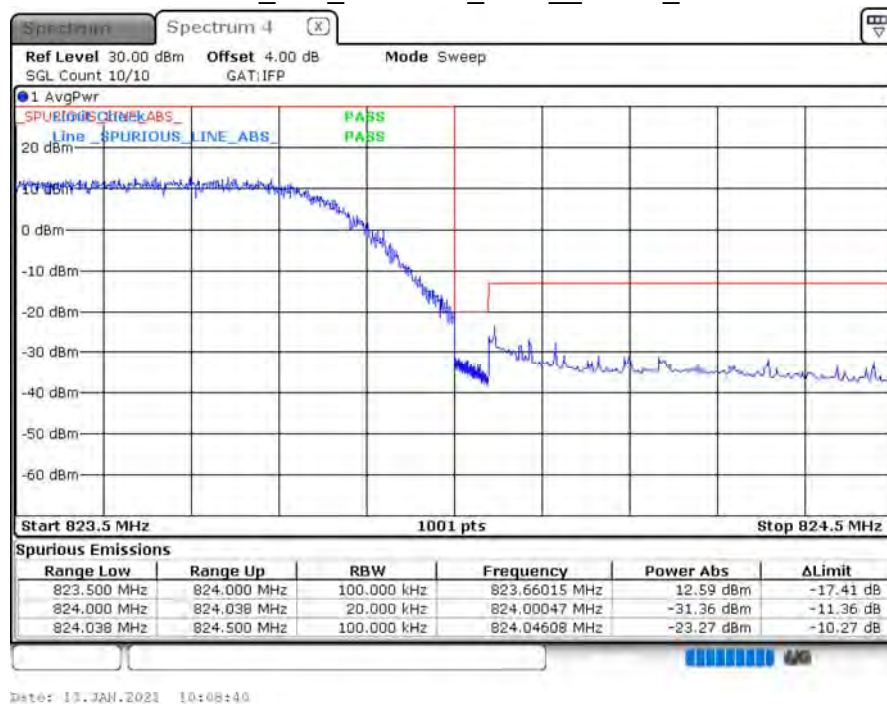
CAT-M1\_B26\_CH26697\_1.4M\_QPSK\_6RB0



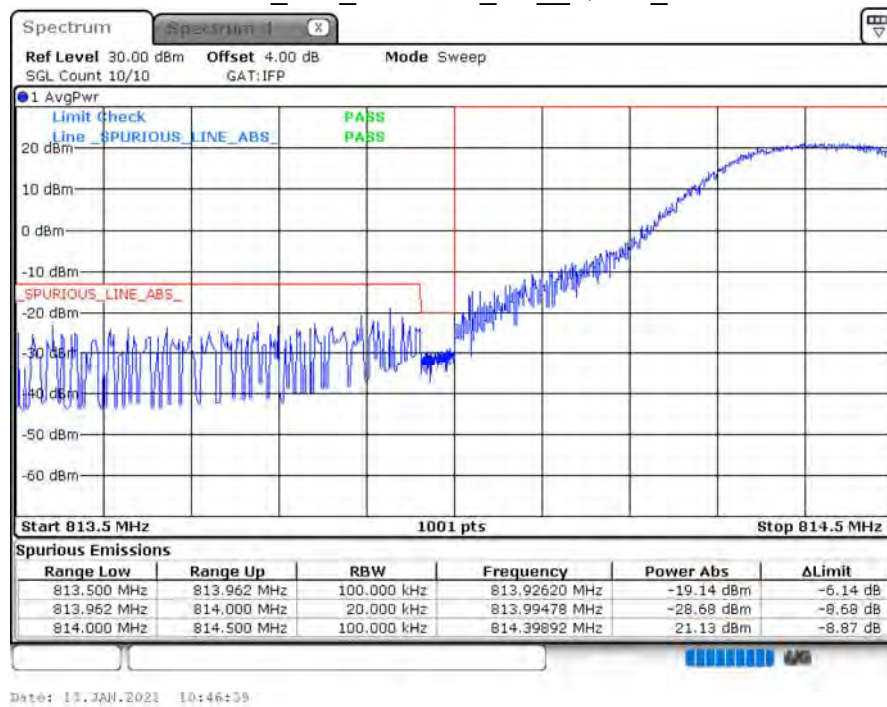
## CAT-M1\_B26\_CH26783\_1.4M\_QPSK\_1RB5



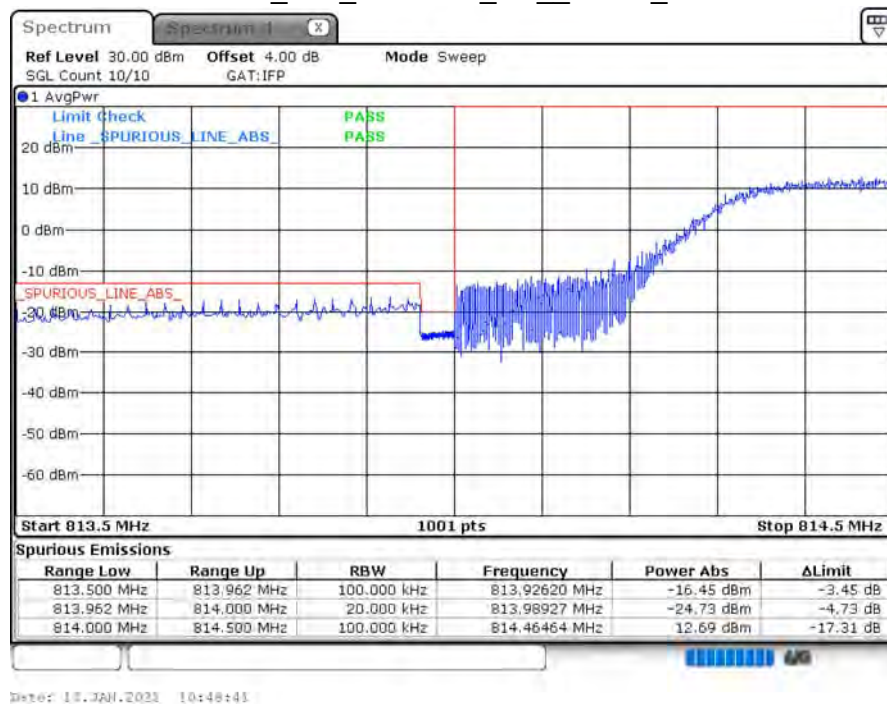
## CAT-M1\_B26\_CH26783\_1.4M\_QPSK\_6RB0



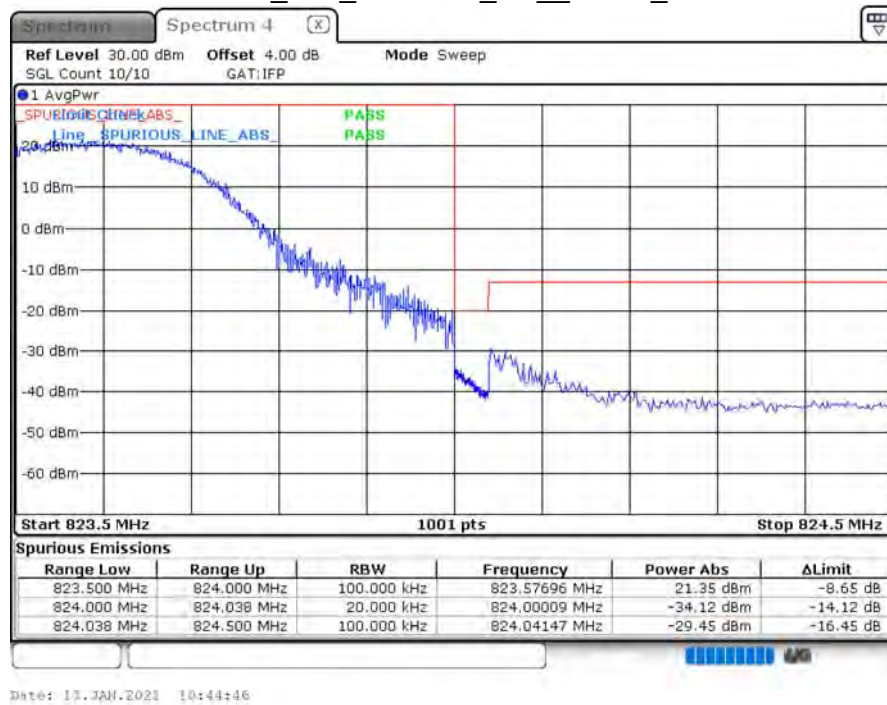
## CAT-M1\_B26\_CH26705\_3M\_\_QPSK\_1RB0



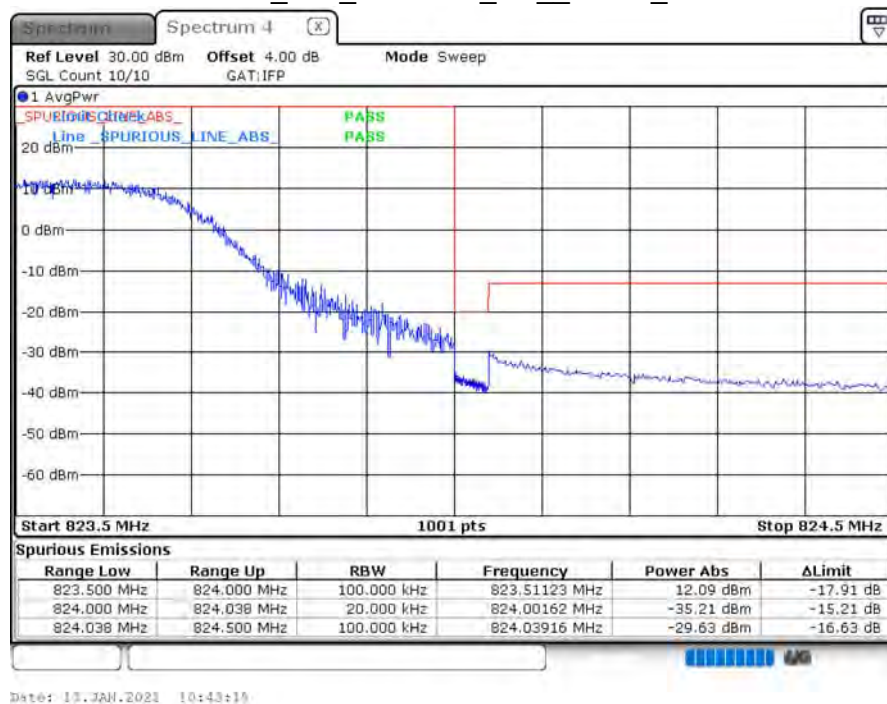
## CAT-M1\_B26\_CH26705\_3M\_\_QPSK\_6RB0



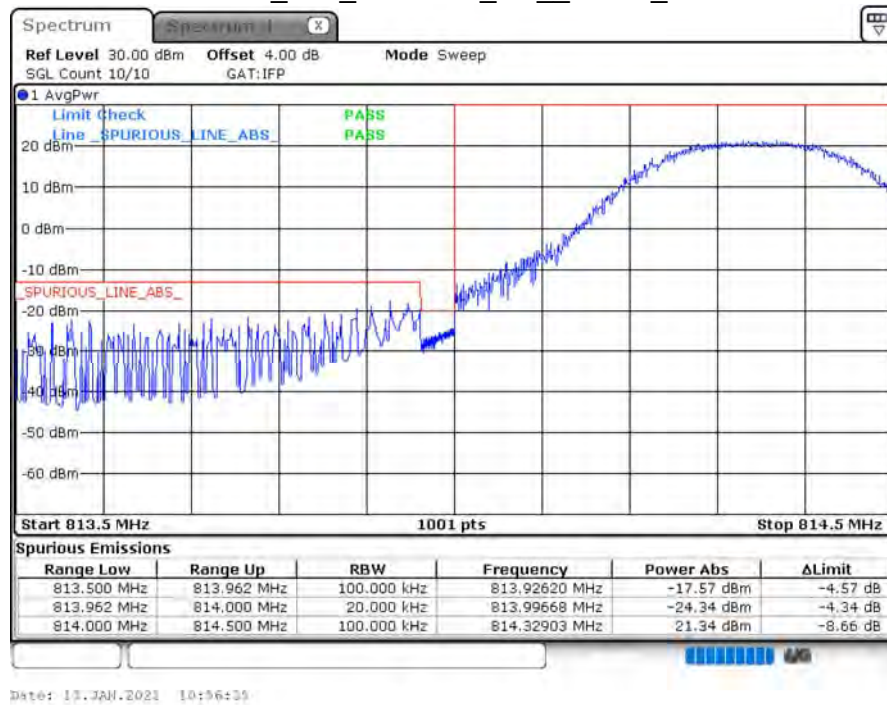
## CAT-M1\_B26\_CH26775\_3M\_\_QPSK\_1RB5



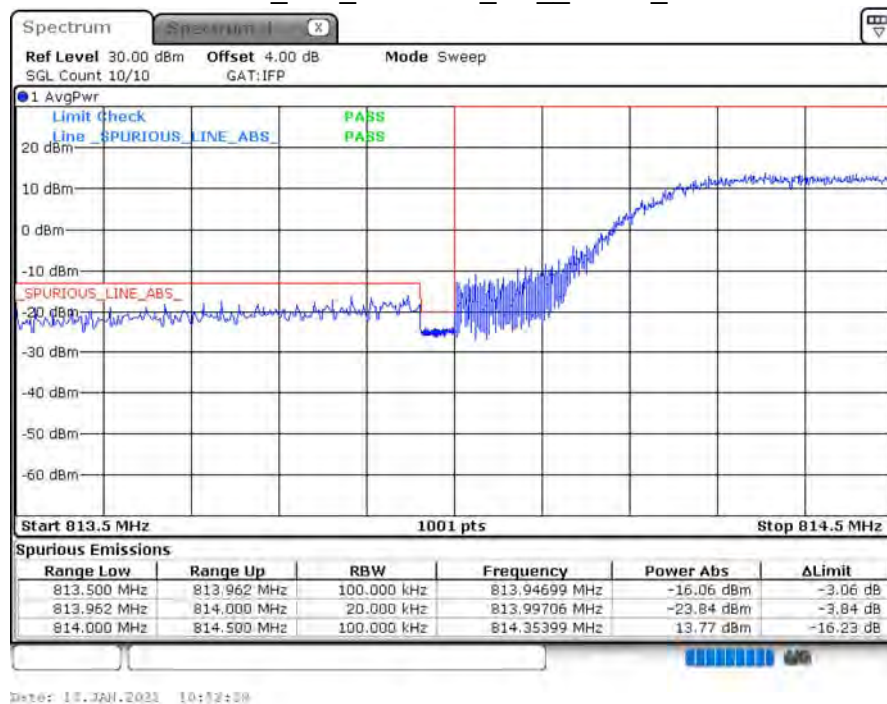
## CAT-M1\_B26\_CH26775\_3M\_\_QPSK\_6RB0



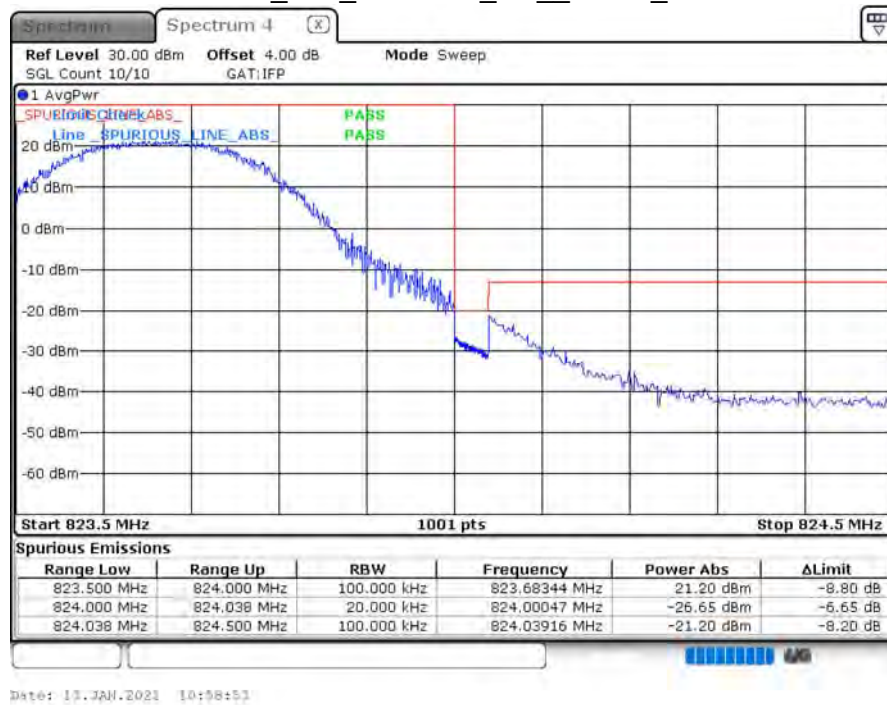
## CAT-M1\_B26\_CH26715\_5M\_QPSK\_1RB0



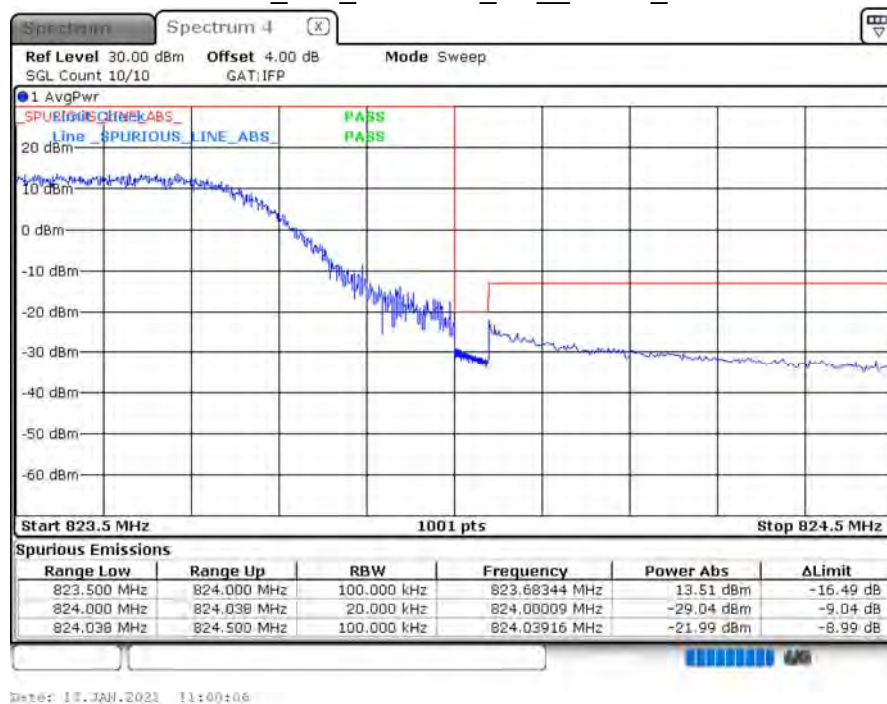
## CAT-M1\_B26\_CH26715\_5M\_QPSK\_6RB0



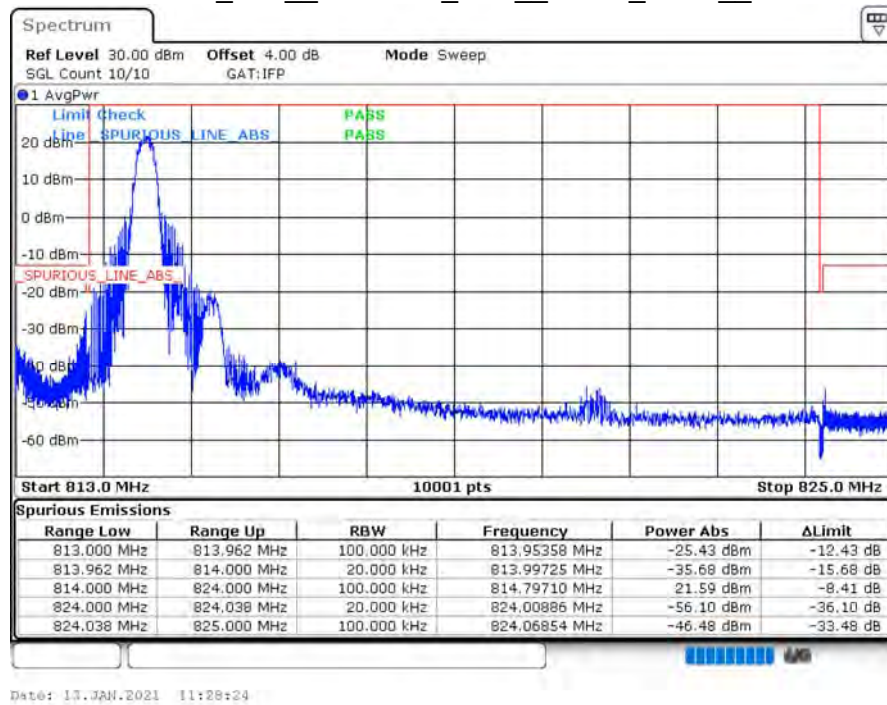
## CAT-M1\_B26\_CH26765\_5M\_\_QPSK\_1RB5



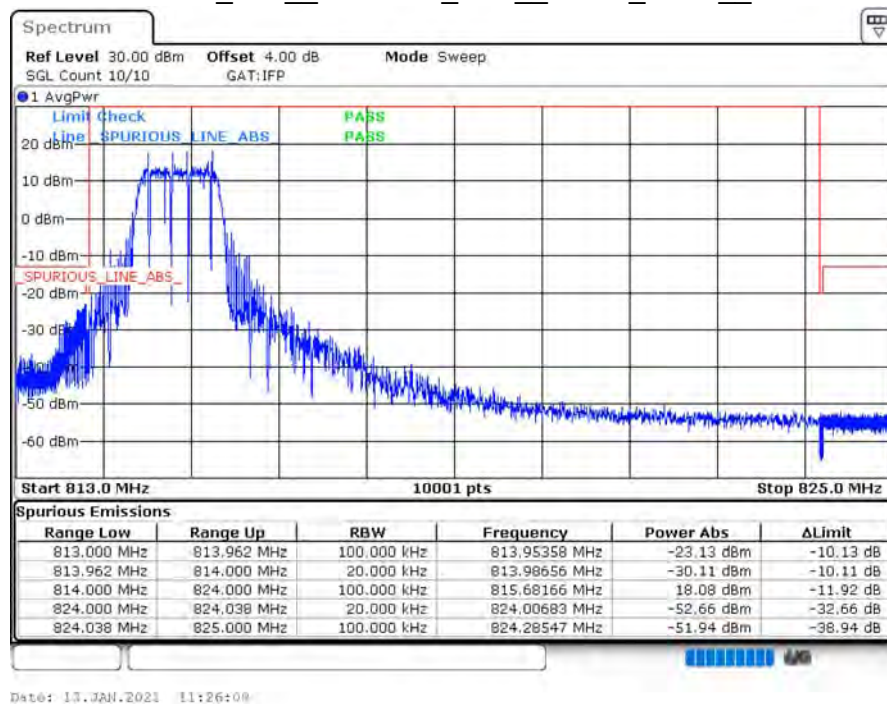
## CAT-M1\_B26\_CH26765\_5M\_\_QPSK\_6RB0



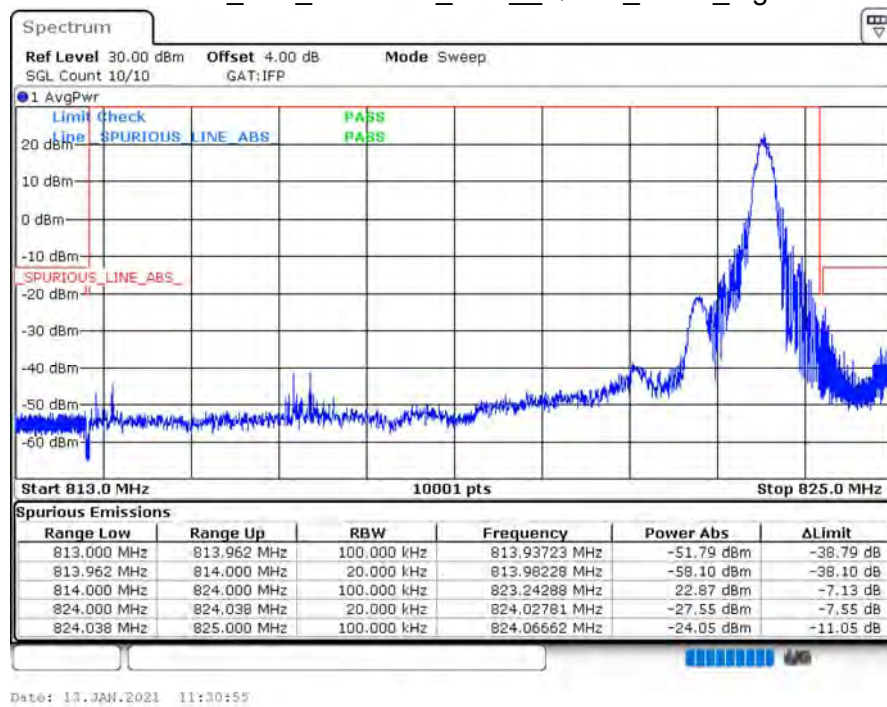
## CAT-M1\_B26\_\_CH26740\_10M\_\_QPSK\_1RB0\_\_low



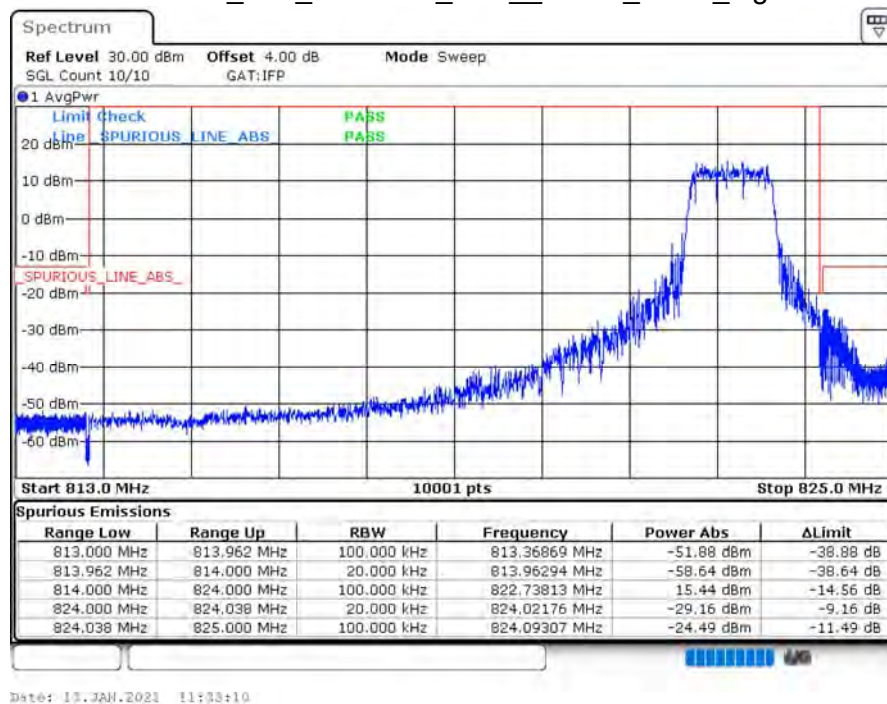
## CAT-M1\_B26\_\_CH26740\_10M\_\_QPSK\_6RB0\_\_low



## CAT-M1\_B26\_CH26740\_10M\_\_QPSK\_1RB5\_high

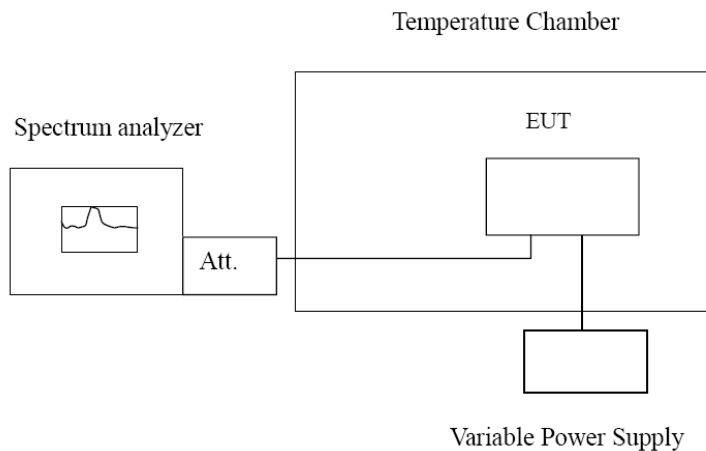


## CAT-M1\_B26\_CH26740\_10M\_\_QPSK\_6RB0\_high



## 8. Frequency Stability

### 8.1. Test Setup



### 8.2. Test Procedure

#### Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

#### Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 8.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 9

ANSI C63.26: 2015 Sub-clause 5.6

#### 8.4. Test Result

|                  |                     |                |        |
|------------------|---------------------|----------------|--------|
| Product          | Connectivity Module |                |        |
| Test Item        | Frequency Stability |                |        |
| Test Mode        | Mode 1: Band2 Link  |                |        |
| Date of Test     | 2021/01/20          | Test Site      | SR12-H |
| Temperature (°C) | 23                  | Humidity (%RH) | 61     |

#### LTE-Band 2 1850.7MHz

##### Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.81                | 0.0015               |
| 48.0          | 3.12                | 0.0017               |
| 43.2          | 2.16                | 0.0012               |

##### Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.18                | 0.0012                |
| -10         | 1.97                | 0.0011                |
| 0           | 2.52                | 0.0014                |
| 10          | 2.75                | 0.0015                |
| 20          | 2.36                | 0.0013                |
| 30          | 3.26                | 0.0018                |
| 40          | 2.33                | 0.0013                |
| 50          | 3.16                | 0.0017                |
| 60          | 2.39                | 0.0013                |

**LTE-Band 2 1909.3 MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.45                | 0.0018               |
| 48.0          | 3.41                | 0.0018               |
| 43.2          | 3.38                | 0.0018               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.71                | 0.0014                |
| -10         | 3.06                | 0.0016                |
| 0           | 3.09                | 0.0016                |
| 10          | 2.34                | 0.0012                |
| 20          | 3.45                | 0.0018                |
| 30          | 2.68                | 0.0014                |
| 40          | 2.55                | 0.0013                |
| 50          | 3.35                | 0.0018                |
| 60          | 3.03                | 0.0016                |

**LTE-Band 2 1851.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.02                | 0.0022               |
| 48.0          | 4.15                | 0.0022               |
| 43.2          | 4.61                | 0.0025               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.19                | 0.0023                |
| -10         | 4.32                | 0.0023                |
| 0           | 3.80                | 0.0021                |
| 10          | 3.58                | 0.0019                |
| 20          | 4.43                | 0.0024                |
| 30          | 3.26                | 0.0018                |
| 40          | 3.34                | 0.0018                |
| 50          | 3.17                | 0.0017                |
| 60          | 4.07                | 0.0022                |

**LTE-Band 2 1908.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.02                | 0.0016               |
| 48.0          | 3.41                | 0.0018               |
| 43.2          | 3.05                | 0.0016               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.08                | 0.0016                |
| -10         | 3.19                | 0.0017                |
| 0           | 2.55                | 0.0013                |
| 10          | 3.09                | 0.0016                |
| 20          | 2.86                | 0.0015                |
| 30          | 3.25                | 0.0017                |
| 40          | 2.67                | 0.0014                |
| 50          | 3.42                | 0.0018                |
| 60          | 2.24                | 0.0012                |

**LTE-Band 2 1852.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.42                | 0.0018               |
| 48.0          | 4.30                | 0.0023               |
| 43.2          | 3.49                | 0.0019               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.74                | 0.0026                |
| -10         | 4.08                | 0.0022                |
| 0           | 4.16                | 0.0022                |
| 10          | 2.89                | 0.0016                |
| 20          | 3.32                | 0.0018                |
| 30          | 4.09                | 0.0022                |
| 40          | 3.92                | 0.0021                |
| 50          | 3.76                | 0.0020                |
| 60          | 3.74                | 0.0020                |

**LTE-Band 2 1907.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.43                | 0.0018               |
| 48.0          | 4.87                | 0.0026               |
| 43.2          | 5.12                | 0.0027               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.62                | 0.0019                |
| -10         | 4.62                | 0.0024                |
| 0           | 4.48                | 0.0023                |
| 10          | 4.27                | 0.0022                |
| 20          | 4.55                | 0.0024                |
| 30          | 5.07                | 0.0027                |
| 40          | 3.82                | 0.0020                |
| 50          | 3.80                | 0.0020                |
| 60          | 3.92                | 0.0021                |

**LTE-Band 2 1855MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.19                | 0.0017               |
| 48.0          | 3.44                | 0.0019               |
| 43.2          | 3.39                | 0.0018               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.95                | 0.0016                |
| -10         | 2.84                | 0.0015                |
| 0           | 3.54                | 0.0019                |
| 10          | 2.53                | 0.0014                |
| 20          | 2.03                | 0.0011                |
| 30          | 3.22                | 0.0017                |
| 40          | 3.83                | 0.0021                |
| 50          | 3.25                | 0.0018                |
| 60          | 2.88                | 0.0016                |

**LTE-Band 2 1905MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.04                | 0.0016               |
| 48.0          | 3.58                | 0.0019               |
| 43.2          | 2.41                | 0.0013               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.90                | 0.0015                |
| -10         | 2.68                | 0.0014                |
| 0           | 2.91                | 0.0015                |
| 10          | 1.97                | 0.0010                |
| 20          | 2.96                | 0.0016                |
| 30          | 3.33                | 0.0017                |
| 40          | 2.75                | 0.0014                |
| 50          | 2.80                | 0.0015                |
| 60          | 2.41                | 0.0013                |

**LTE-Band 2 1857.5MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.80                | 0.0020               |
| 48.0          | 3.77                | 0.0020               |
| 43.2          | 2.83                | 0.0015               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.33                | 0.0018                |
| -10         | 2.23                | 0.0012                |
| 0           | 3.43                | 0.0018                |
| 10          | 3.77                | 0.0020                |
| 20          | 4.04                | 0.0022                |
| 30          | 2.79                | 0.0015                |
| 40          | 2.72                | 0.0015                |
| 50          | 2.95                | 0.0016                |
| 60          | 2.68                | 0.0014                |

**LTE-Band 2 1902.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.13                | 0.0016               |
| 48.0          | 4.32                | 0.0023               |
| 43.2          | 4.24                | 0.0022               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.51                | 0.0018                |
| -10         | 3.82                | 0.0020                |
| 0           | 4.32                | 0.0023                |
| 10          | 3.93                | 0.0021                |
| 20          | 4.19                | 0.0022                |
| 30          | 2.98                | 0.0016                |
| 40          | 2.97                | 0.0016                |
| 50          | 4.18                | 0.0022                |
| 60          | 3.71                | 0.0020                |

**LTE-Band 2 1860MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.88                | 0.0015               |
| 48.0          | 3.66                | 0.0020               |
| 43.2          | 3.13                | 0.0017               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.74                | 0.0020                |
| -10         | 2.35                | 0.0013                |
| 0           | 3.92                | 0.0021                |
| 10          | 3.57                | 0.0019                |
| 20          | 2.42                | 0.0013                |
| 30          | 2.47                | 0.0013                |
| 40          | 3.08                | 0.0017                |
| 50          | 3.28                | 0.0018                |
| 60          | 4.32                | 0.0023                |

**LTE-Band 2 1900MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.47                | 0.0018               |
| 48.0          | 4.07                | 0.0021               |
| 43.2          | 4.10                | 0.0022               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.54                | 0.0019                |
| -10         | 4.02                | 0.0021                |
| 0           | 3.38                | 0.0018                |
| 10          | 3.11                | 0.0016                |
| 20          | 3.56                | 0.0019                |
| 30          | 4.03                | 0.0021                |
| 40          | 3.57                | 0.0019                |
| 50          | 4.22                | 0.0022                |
| 60          | 3.18                | 0.0017                |

|                  |                     |                |        |
|------------------|---------------------|----------------|--------|
| Product          | Connectivity Module |                |        |
| Test Item        | Frequency Stability |                |        |
| Test Mode        | Mode 2: Band4 Link  |                |        |
| Date of Test     | 2021/01/20          | Test Site      | SR12-H |
| Temperature (°C) | 23                  | Humidity (%RH) | 61     |

**LTE-Band 4 1710.7MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.52                | 0.0015               |
| 48.0          | 2.99                | 0.0017               |
| 43.2          | 2.30                | 0.0013               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.87                | 0.0017                |
| -10         | 1.53                | 0.0009                |
| 0           | 2.89                | 0.0017                |
| 10          | 2.25                | 0.0013                |
| 20          | 3.34                | 0.0020                |
| 30          | 2.37                | 0.0014                |
| 40          | 3.43                | 0.0020                |
| 50          | 2.05                | 0.0012                |
| 60          | 1.93                | 0.0011                |

**LTE-Band 4 1754.3MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.38                | 0.0014               |
| 48.0          | 3.23                | 0.0018               |
| 43.2          | 2.79                | 0.0016               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 1.99                | 0.0011                |
| -10         | 3.58                | 0.0020                |
| 0           | 2.86                | 0.0016                |
| 10          | 2.40                | 0.0014                |
| 20          | 2.41                | 0.0014                |
| 30          | 2.74                | 0.0016                |
| 40          | 2.38                | 0.0014                |
| 50          | 2.88                | 0.0016                |
| 60          | 3.27                | 0.0019                |

**LTE-Band 4 1711.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.84                | 0.0022               |
| 48.0          | 3.66                | 0.0021               |
| 43.2          | 3.47                | 0.0020               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.89                | 0.0017                |
| -10         | 3.00                | 0.0018                |
| 0           | 2.64                | 0.0015                |
| 10          | 3.71                | 0.0022                |
| 20          | 3.67                | 0.0021                |
| 30          | 2.84                | 0.0017                |
| 40          | 1.97                | 0.0012                |
| 50          | 3.03                | 0.0018                |
| 60          | 2.70                | 0.0016                |

**LTE-Band 4 1753.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.84                | 0.0022               |
| 48.0          | 3.71                | 0.0021               |
| 43.2          | 3.01                | 0.0017               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.28                | 0.0019                |
| -10         | 3.12                | 0.0018                |
| 0           | 2.20                | 0.0013                |
| 10          | 2.73                | 0.0016                |
| 20          | 2.32                | 0.0013                |
| 30          | 2.67                | 0.0015                |
| 40          | 3.25                | 0.0019                |
| 50          | 4.27                | 0.0024                |
| 60          | 3.27                | 0.0019                |

**LTE-Band 4 1712.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.84                | 0.0022               |
| 48.0          | 3.98                | 0.0023               |
| 43.2          | 3.53                | 0.0021               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.61                | 0.0021                |
| -10         | 2.49                | 0.0015                |
| 0           | 4.20                | 0.0025                |
| 10          | 4.23                | 0.0025                |
| 20          | 3.75                | 0.0022                |
| 30          | 3.23                | 0.0019                |
| 40          | 3.21                | 0.0019                |
| 50          | 3.12                | 0.0018                |
| 60          | 3.26                | 0.0019                |

**LTE-Band 4 1752.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.69                | 0.0015               |
| 48.0          | 3.45                | 0.0020               |
| 43.2          | 3.20                | 0.0018               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.82                | 0.0016                |
| -10         | 2.72                | 0.0016                |
| 0           | 4.00                | 0.0023                |
| 10          | 2.84                | 0.0016                |
| 20          | 3.00                | 0.0017                |
| 30          | 2.92                | 0.0017                |
| 40          | 2.74                | 0.0016                |
| 50          | 2.72                | 0.0016                |
| 60          | 3.10                | 0.0018                |

**LTE-Band 4 1715MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.20                | 0.0019               |
| 48.0          | 4.12                | 0.0024               |
| 43.2          | 3.55                | 0.0021               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.00                | 0.0023                |
| -10         | 3.31                | 0.0019                |
| 0           | 2.77                | 0.0016                |
| 10          | 3.49                | 0.0020                |
| 20          | 3.83                | 0.0022                |
| 30          | 3.41                | 0.0020                |
| 40          | 4.14                | 0.0024                |
| 50          | 4.42                | 0.0026                |
| 60          | 3.88                | 0.0023                |

**LTE-Band 4 1750MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.94                | 0.0017               |
| 48.0          | 3.76                | 0.0021               |
| 43.2          | 3.93                | 0.0022               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.94                | 0.0017                |
| -10         | 3.48                | 0.0020                |
| 0           | 3.28                | 0.0019                |
| 10          | 3.64                | 0.0021                |
| 20          | 3.50                | 0.0020                |
| 30          | 3.28                | 0.0019                |
| 40          | 3.06                | 0.0017                |
| 50          | 4.04                | 0.0023                |
| 60          | 3.35                | 0.0019                |

**LTE-Band 4 1717.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.08                | 0.0024               |
| 48.0          | 4.28                | 0.0025               |
| 43.2          | 4.31                | 0.0025               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.55                | 0.0021                |
| -10         | 4.12                | 0.0024                |
| 0           | 2.95                | 0.0017                |
| 10          | 3.49                | 0.0020                |
| 20          | 4.18                | 0.0024                |
| 30          | 3.34                | 0.0019                |
| 40          | 4.14                | 0.0024                |
| 50          | 2.88                | 0.0017                |
| 60          | 4.37                | 0.0025                |

**LTE-Band 4 1747.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.79                | 0.0022               |
| 48.0          | 3.51                | 0.0020               |
| 43.2          | 3.40                | 0.0019               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.97                | 0.0017                |
| -10         | 3.19                | 0.0018                |
| 0           | 3.14                | 0.0018                |
| 10          | 3.17                | 0.0018                |
| 20          | 3.24                | 0.0019                |
| 30          | 2.84                | 0.0016                |
| 40          | 2.61                | 0.0015                |
| 50          | 4.25                | 0.0024                |
| 60          | 2.80                | 0.0016                |

**LTE-Band 4 1720MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.02                | 0.0012               |
| 48.0          | 3.55                | 0.0021               |
| 43.2          | 3.48                | 0.0020               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.86                | 0.0017                |
| -10         | 2.46                | 0.0014                |
| 0           | 3.92                | 0.0023                |
| 10          | 3.35                | 0.0019                |
| 20          | 2.85                | 0.0017                |
| 30          | 3.06                | 0.0018                |
| 40          | 3.01                | 0.0018                |
| 50          | 2.49                | 0.0014                |
| 60          | 2.39                | 0.0014                |

**LTE-Band 4 1745MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.24                | 0.0024               |
| 48.0          | 4.35                | 0.0025               |
| 43.2          | 3.18                | 0.0018               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.58                | 0.0026                |
| -10         | 4.24                | 0.0024                |
| 0           | 3.79                | 0.0022                |
| 10          | 4.96                | 0.0028                |
| 20          | 3.44                | 0.0020                |
| 30          | 3.42                | 0.0020                |
| 40          | 3.97                | 0.0023                |
| 50          | 3.22                | 0.0018                |
| 60          | 3.39                | 0.0019                |

|                  |                     |                |        |
|------------------|---------------------|----------------|--------|
| Product          | Connectivity Module |                |        |
| Test Item        | Frequency Stability |                |        |
| Test Mode        | Mode 3: Band5 Link  |                |        |
| Date of Test     | 2021/01/08          | Test Site      | SR12-H |
| Temperature (°C) | 23                  | Humidity (%RH) | 61     |

**LTE-Band 5 824.7MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.48                | 0.0042               |
| 48.0          | 4.02                | 0.0049               |
| 43.2          | 2.49                | 0.0030               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.42                | 0.0054                |
| -10         | 3.93                | 0.0048                |
| 0           | 3.08                | 0.0037                |
| 10          | 4.41                | 0.0053                |
| 20          | 3.76                | 0.0046                |
| 30          | 3.37                | 0.0041                |
| 40          | 3.58                | 0.0043                |
| 50          | 3.11                | 0.0038                |
| 60          | 3.00                | 0.0036                |

**LTE-Band 5 848.3MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.91                | 0.0046               |
| 48.0          | 3.56                | 0.0042               |
| 43.2          | 3.35                | 0.0039               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.66                | 0.0031                |
| -10         | 3.46                | 0.0041                |
| 0           | 3.58                | 0.0042                |
| 10          | 3.24                | 0.0038                |
| 20          | 2.07                | 0.0024                |
| 30          | 3.53                | 0.0042                |
| 40          | 3.26                | 0.0038                |
| 50          | 2.10                | 0.0025                |
| 60          | 2.58                | 0.0030                |

**LTE-Band 5 825.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.13                | 0.0026               |
| 48.0          | 3.36                | 0.0041               |
| 43.2          | 2.64                | 0.0032               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.44                | 0.0030                |
| -10         | 1.95                | 0.0024                |
| 0           | 3.34                | 0.0040                |
| 10          | 3.19                | 0.0039                |
| 20          | 1.85                | 0.0022                |
| 30          | 1.71                | 0.0021                |
| 40          | 2.84                | 0.0034                |
| 50          | 2.49                | 0.0030                |
| 60          | 2.91                | 0.0035                |

**LTE-Band 5 847.5MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.89                | 0.0046               |
| 48.0          | 4.25                | 0.0050               |
| 43.2          | 4.09                | 0.0048               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.30                | 0.0051                |
| -10         | 4.97                | 0.0059                |
| 0           | 4.53                | 0.0053                |
| 10          | 3.41                | 0.0040                |
| 20          | 3.95                | 0.0047                |
| 30          | 3.15                | 0.0037                |
| 40          | 3.97                | 0.0047                |
| 50          | 3.43                | 0.0040                |
| 60          | 3.37                | 0.0040                |

**LTE-Band 5 826.5MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.80                | 0.0046               |
| 48.0          | 4.26                | 0.0052               |
| 43.2          | 4.33                | 0.0052               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.13                | 0.0050                |
| -10         | 3.45                | 0.0042                |
| 0           | 3.53                | 0.0043                |
| 10          | 3.33                | 0.0040                |
| 20          | 3.22                | 0.0039                |
| 30          | 4.43                | 0.0054                |
| 40          | 2.77                | 0.0034                |
| 50          | 4.39                | 0.0053                |
| 60          | 3.76                | 0.0045                |

**LTE-Band 5 846.5MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.24                | 0.0050               |
| 48.0          | 5.20                | 0.0061               |
| 43.2          | 3.90                | 0.0046               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.56                | 0.0054                |
| -10         | 5.27                | 0.0062                |
| 0           | 5.19                | 0.0061                |
| 10          | 5.11                | 0.0060                |
| 20          | 4.39                | 0.0052                |
| 30          | 4.29                | 0.0051                |
| 40          | 3.76                | 0.0044                |
| 50          | 4.99                | 0.0059                |
| 60          | 4.53                | 0.0054                |

**LTE-Band 5 829MHz****Voltage**

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.37                | 0.0041               |
| 48.0          | 3.94                | 0.0048               |
| 43.2          | 2.42                | 0.0029               |

**Temperature**

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.28                | 0.0040                |
| -10         | 3.81                | 0.0046                |
| 0           | 3.30                | 0.0040                |
| 10          | 2.92                | 0.0035                |
| 20          | 2.65                | 0.0032                |
| 30          | 3.96                | 0.0048                |
| 40          | 2.37                | 0.0029                |
| 50          | 3.20                | 0.0039                |
| 60          | 4.42                | 0.0053                |

**LTE-Band 5 844MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.67                | 0.0043               |
| 48.0          | 4.33                | 0.0051               |
| 43.2          | 3.37                | 0.0040               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.63                | 0.0043                |
| -10         | 3.06                | 0.0036                |
| 0           | 3.40                | 0.0040                |
| 10          | 4.75                | 0.0056                |
| 20          | 4.59                | 0.0054                |
| 30          | 3.24                | 0.0038                |
| 40          | 3.44                | 0.0041                |
| 50          | 3.97                | 0.0047                |
| 60          | 3.97                | 0.0047                |

|                  |                     |                |        |
|------------------|---------------------|----------------|--------|
| Product          | Connectivity Module |                |        |
| Test Item        | Frequency Stability |                |        |
| Test Mode        | Mode 4: Band12 Link |                |        |
| Date of Test     | 2021/01/20          | Test Site      | SR12-H |
| Temperature (°C) | 23                  | Humidity (%RH) | 61     |

**LTE-Band 12 699.7MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.21                | 0.0046               |
| 48.0          | 2.89                | 0.0041               |
| 43.2          | 2.59                | 0.0037               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.38                | 0.0034                |
| -10         | 2.70                | 0.0039                |
| 0           | 2.49                | 0.0036                |
| 10          | 2.10                | 0.0030                |
| 20          | 2.37                | 0.0034                |
| 30          | 2.81                | 0.0040                |
| 40          | 1.67                | 0.0024                |
| 50          | 3.03                | 0.0043                |
| 60          | 2.77                | 0.0040                |

**LTE-Band 12 715.3MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.06                | 0.0043               |
| 48.0          | 3.34                | 0.0047               |
| 43.2          | 3.53                | 0.0049               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.82                | 0.0053                |
| -10         | 1.91                | 0.0027                |
| 0           | 3.17                | 0.0044                |
| 10          | 3.87                | 0.0054                |
| 20          | 2.68                | 0.0037                |
| 30          | 2.99                | 0.0042                |
| 40          | 2.18                | 0.0030                |
| 50          | 3.00                | 0.0042                |
| 60          | 3.43                | 0.0048                |

**LTE-Band 12 700.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.38                | 0.0034               |
| 48.0          | 3.28                | 0.0047               |
| 43.2          | 1.85                | 0.0026               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.72                | 0.0039                |
| -10         | 1.98                | 0.0028                |
| 0           | 2.62                | 0.0037                |
| 10          | 2.71                | 0.0039                |
| 20          | 2.68                | 0.0038                |
| 30          | 2.50                | 0.0036                |
| 40          | 2.54                | 0.0036                |
| 50          | 3.02                | 0.0043                |
| 60          | 2.78                | 0.0040                |

**LTE-Band 12 714.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.16                | 0.0044               |
| 48.0          | 4.20                | 0.0059               |
| 43.2          | 2.96                | 0.0041               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.98                | 0.0056                |
| -10         | 3.42                | 0.0048                |
| 0           | 3.65                | 0.0051                |
| 10          | 2.95                | 0.0041                |
| 20          | 3.84                | 0.0054                |
| 30          | 3.86                | 0.0054                |
| 40          | 4.19                | 0.0059                |
| 50          | 3.79                | 0.0053                |
| 60          | 4.20                | 0.0059                |

**LTE-Band 12 701.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.32                | 0.0033               |
| 48.0          | 3.47                | 0.0049               |
| 43.2          | 3.41                | 0.0049               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.58                | 0.0051                |
| -10         | 2.49                | 0.0035                |
| 0           | 3.72                | 0.0053                |
| 10          | 3.18                | 0.0045                |
| 20          | 2.72                | 0.0039                |
| 30          | 2.84                | 0.0040                |
| 40          | 2.67                | 0.0038                |
| 50          | 1.90                | 0.0027                |
| 60          | 2.10                | 0.0030                |

**LTE-Band 12 713.5MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 5.88                | 0.0082               |
| 48.0          | 5.27                | 0.0074               |
| 43.2          | 4.81                | 0.0067               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 5.02                | 0.0070                |
| -10         | 4.97                | 0.0070                |
| 0           | 4.39                | 0.0062                |
| 10          | 5.16                | 0.0072                |
| 20          | 4.69                | 0.0066                |
| 30          | 4.39                | 0.0062                |
| 40          | 4.12                | 0.0058                |
| 50          | 3.74                | 0.0052                |
| 60          | 5.49                | 0.0077                |

**LTE-Band 12 704MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.37                | 0.0048               |
| 48.0          | 3.57                | 0.0051               |
| 43.2          | 3.50                | 0.0050               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.67                | 0.0038                |
| -10         | 2.67                | 0.0038                |
| 0           | 2.80                | 0.0040                |
| 10          | 2.24                | 0.0032                |
| 20          | 2.86                | 0.0041                |
| 30          | 2.12                | 0.0030                |
| 40          | 3.24                | 0.0046                |
| 50          | 3.12                | 0.0044                |
| 60          | 4.13                | 0.0059                |

**LTE-Band 12 711MHz**

## Voltage

| Voltage (Vdc) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.38                | 0.0048               |
| 48.0          | 4.09                | 0.0058               |
| 43.2          | 3.60                | 0.0051               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.27                | 0.0046                |
| -10         | 3.58                | 0.0050                |
| 0           | 3.64                | 0.0051                |
| 10          | 3.68                | 0.0052                |
| 20          | 4.13                | 0.0058                |
| 30          | 2.65                | 0.0037                |
| 40          | 3.87                | 0.0054                |
| 50          | 4.30                | 0.0060                |
| 60          | 3.66                | 0.0051                |

|                  |                     |                |        |
|------------------|---------------------|----------------|--------|
| Product          | Connectivity Module |                |        |
| Test Item        | Frequency Stability |                |        |
| Test Mode        | Mode 5: Band13 Link |                |        |
| Date of Test     | 2021/01/20          | Test Site      | SR12-H |
| Temperature (°C) | 23                  | Humidity (%RH) | 61     |

**LTE-Band 13 779.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.40                | 0.0056               |
| 48.0          | 5.17                | 0.0066               |
| 43.2          | 5.49                | 0.0070               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 5.01                | 0.0064                |
| -10         | 4.46                | 0.0057                |
| 0           | 4.85                | 0.0062                |
| 10          | 5.03                | 0.0065                |
| 20          | 5.36                | 0.0069                |
| 30          | 4.72                | 0.0061                |
| 40          | 4.92                | 0.0063                |
| 50          | 4.49                | 0.0058                |
| 60          | 4.60                | 0.0059                |

**LTE-Band 13 784.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.08                | 0.0052               |
| 48.0          | 4.96                | 0.0063               |
| 43.2          | 4.48                | 0.0057               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.72                | 0.0060                |
| -10         | 4.95                | 0.0063                |
| 0           | 4.63                | 0.0059                |
| 10          | 4.59                | 0.0059                |
| 20          | 4.66                | 0.0059                |
| 30          | 3.90                | 0.0050                |
| 40          | 3.78                | 0.0048                |
| 50          | 5.17                | 0.0066                |
| 60          | 4.32                | 0.0055                |

**LTE-Band 13 782MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.34                | 0.0043               |
| 48.0          | 3.48                | 0.0045               |
| 43.2          | 3.61                | 0.0046               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.73                | 0.0035                |
| -10         | 3.39                | 0.0043                |
| 0           | 3.51                | 0.0045                |
| 10          | 3.63                | 0.0046                |
| 20          | 2.38                | 0.0030                |
| 30          | 2.92                | 0.0037                |
| 40          | 2.69                | 0.0034                |
| 50          | 2.85                | 0.0036                |
| 60          | 2.54                | 0.0032                |

|                  |                            |                |        |
|------------------|----------------------------|----------------|--------|
| Product          | Connectivity Module        |                |        |
| Test Item        | Frequency Stability        |                |        |
| Test Mode        | Mode 6: Band26_Part22 Link |                |        |
| Date of Test     | 2021/01/20                 | Test Site      | SR12-H |
| Temperature (°C) | 23                         | Humidity (%RH) | 61     |

**LTE-Band 26 824.7MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.69                | 0.0033               |
| 48.0          | 2.88                | 0.0035               |
| 43.2          | 3.05                | 0.0037               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.20                | 0.0027                |
| -10         | 2.69                | 0.0033                |
| 0           | 2.69                | 0.0033                |
| 10          | 2.35                | 0.0028                |
| 20          | 1.95                | 0.0024                |
| 30          | 1.90                | 0.0023                |
| 40          | 2.18                | 0.0026                |
| 50          | 2.90                | 0.0035                |
| 60          | 2.85                | 0.0035                |

**LTE-Band 26 848.3MHz**

Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.56                | 0.0054               |
| 48.0          | 4.11                | 0.0048               |
| 43.2          | 3.58                | 0.0042               |

Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.03                | 0.0048                |
| -10         | 3.76                | 0.0044                |
| 0           | 3.57                | 0.0042                |
| 10          | 2.99                | 0.0035                |
| 20          | 4.17                | 0.0049                |
| 30          | 3.54                | 0.0042                |
| 40          | 3.85                | 0.0045                |
| 50          | 3.26                | 0.0038                |
| 60          | 3.59                | 0.0042                |

**LTE-Band 26 825.5MHz**

Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.23                | 0.0039               |
| 48.0          | 3.78                | 0.0046               |
| 43.2          | 2.90                | 0.0035               |

Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.59                | 0.0043                |
| -10         | 2.94                | 0.0036                |
| 0           | 3.25                | 0.0039                |
| 10          | 3.00                | 0.0036                |
| 20          | 3.23                | 0.0039                |
| 30          | 2.59                | 0.0031                |
| 40          | 3.27                | 0.0040                |
| 50          | 3.27                | 0.0040                |
| 60          | 3.55                | 0.0043                |

**LTE-Band 26 847.5MHz**

Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.70                | 0.0032               |
| 48.0          | 3.69                | 0.0044               |
| 43.2          | 3.39                | 0.0040               |

Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.77                | 0.0033                |
| -10         | 2.95                | 0.0035                |
| 0           | 2.72                | 0.0032                |
| 10          | 2.73                | 0.0032                |
| 20          | 3.68                | 0.0043                |
| 30          | 3.44                | 0.0041                |
| 40          | 3.20                | 0.0038                |
| 50          | 2.95                | 0.0035                |
| 60          | 3.09                | 0.0036                |

**LTE-Band 26 826.5MHz**

Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.86                | 0.0059               |
| 48.0          | 4.66                | 0.0056               |
| 43.2          | 4.23                | 0.0051               |

Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 4.74                | 0.0057                |
| -10         | 3.89                | 0.0047                |
| 0           | 4.93                | 0.0060                |
| 10          | 3.53                | 0.0043                |
| 20          | 4.88                | 0.0059                |
| 30          | 4.16                | 0.0050                |
| 40          | 4.44                | 0.0054                |
| 50          | 3.89                | 0.0047                |
| 60          | 3.86                | 0.0047                |

**LTE-Band 26 846.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.89                | 0.0046               |
| 48.0          | 3.99                | 0.0047               |
| 43.2          | 3.61                | 0.0043               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.46                | 0.0041                |
| -10         | 3.14                | 0.0037                |
| 0           | 3.24                | 0.0038                |
| 10          | 3.37                | 0.0040                |
| 20          | 3.34                | 0.0039                |
| 30          | 4.10                | 0.0048                |
| 40          | 2.94                | 0.0035                |
| 50          | 3.10                | 0.0037                |
| 60          | 3.23                | 0.0038                |

**LTE-Band 26 829MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.05                | 0.0037               |
| 48.0          | 2.97                | 0.0036               |
| 43.2          | 3.05                | 0.0037               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.77                | 0.0033                |
| -10         | 2.06                | 0.0025                |
| 0           | 2.03                | 0.0024                |
| 10          | 2.20                | 0.0027                |
| 20          | 2.97                | 0.0036                |
| 30          | 3.07                | 0.0037                |
| 40          | 1.93                | 0.0023                |
| 50          | 2.31                | 0.0028                |
| 60          | 1.78                | 0.0021                |

**LTE-Band 26 844MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.63                | 0.0031               |
| 48.0          | 3.18                | 0.0038               |
| 43.2          | 3.06                | 0.0036               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.25                | 0.0039                |
| -10         | 2.58                | 0.0031                |
| 0           | 2.28                | 0.0027                |
| 10          | 2.31                | 0.0027                |
| 20          | 1.92                | 0.0023                |
| 30          | 3.19                | 0.0038                |
| 40          | 2.39                | 0.0028                |
| 50          | 2.01                | 0.0024                |
| 60          | 2.98                | 0.0035                |

**LTE-Band 26 831.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.32                | 0.0040               |
| 48.0          | 3.19                | 0.0038               |
| 43.2          | 2.25                | 0.0027               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.01                | 0.0024                |
| -10         | 2.97                | 0.0036                |
| 0           | 2.63                | 0.0032                |
| 10          | 1.72                | 0.0021                |
| 20          | 1.99                | 0.0024                |
| 30          | 2.77                | 0.0033                |
| 40          | 2.69                | 0.0032                |
| 50          | 2.78                | 0.0033                |
| 60          | 2.78                | 0.0033                |

**LTE-Band 26 841.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 5.46                | 0.0065               |
| 48.0          | 4.84                | 0.0058               |
| 43.2          | 4.54                | 0.0054               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 5.32                | 0.0064                |
| -10         | 4.32                | 0.0052                |
| 0           | 4.51                | 0.0054                |
| 10          | 5.01                | 0.0060                |
| 20          | 4.69                | 0.0056                |
| 30          | 4.06                | 0.0049                |
| 40          | 3.28                | 0.0039                |
| 50          | 5.11                | 0.0061                |
| 60          | 4.82                | 0.0058                |

|                  |                            |                |        |
|------------------|----------------------------|----------------|--------|
| Product          | Connectivity Module        |                |        |
| Test Item        | Frequency Stability        |                |        |
| Test Mode        | Mode 7: Band26_Part90 Link |                |        |
| Date of Test     | 2021/01/20                 | Test Site      | SR12-H |
| Temperature (°C) | 23                         | Humidity (%RH) | 61     |

**LTE-Band 26 814.7MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.95                | 0.0036               |
| 48.0          | 3.65                | 0.0045               |
| 43.2          | 2.78                | 0.0034               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.41                | 0.0042                |
| -10         | 3.09                | 0.0038                |
| 0           | 3.55                | 0.0044                |
| 10          | 3.20                | 0.0039                |
| 20          | 3.78                | 0.0046                |
| 30          | 2.73                | 0.0034                |
| 40          | 3.45                | 0.0042                |
| 50          | 3.08                | 0.0038                |
| 60          | 3.68                | 0.0045                |

**LTE-Band 26 823.3MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.63                | 0.0044               |
| 48.0          | 4.13                | 0.0050               |
| 43.2          | 4.40                | 0.0053               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.56                | 0.0043                |
| -10         | 2.98                | 0.0036                |
| 0           | 3.06                | 0.0037                |
| 10          | 2.92                | 0.0035                |
| 20          | 4.10                | 0.0050                |
| 30          | 3.92                | 0.0048                |
| 40          | 3.78                | 0.0046                |
| 50          | 3.46                | 0.0042                |
| 60          | 3.98                | 0.0048                |

**LTE-Band 26 815.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.61                | 0.0057               |
| 48.0          | 5.02                | 0.0062               |
| 43.2          | 4.13                | 0.0051               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 5.27                | 0.0065                |
| -10         | 4.02                | 0.0049                |
| 0           | 4.16                | 0.0051                |
| 10          | 5.08                | 0.0062                |
| 20          | 5.14                | 0.0063                |
| 30          | 5.09                | 0.0062                |
| 40          | 4.98                | 0.0061                |
| 50          | 4.50                | 0.0055                |
| 60          | 4.40                | 0.0054                |

**LTE-Band 26 822.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 4.87                | 0.0059               |
| 48.0          | 4.96                | 0.0060               |
| 43.2          | 4.36                | 0.0053               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 5.07                | 0.0062                |
| -10         | 4.95                | 0.0060                |
| 0           | 4.36                | 0.0053                |
| 10          | 5.22                | 0.0063                |
| 20          | 4.38                | 0.0053                |
| 30          | 5.19                | 0.0063                |
| 40          | 3.47                | 0.0042                |
| 50          | 4.67                | 0.0057                |
| 60          | 4.88                | 0.0059                |

**LTE-Band 26 816.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 2.70                | 0.0033               |
| 48.0          | 3.69                | 0.0045               |
| 43.2          | 3.24                | 0.0040               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.06                | 0.0037                |
| -10         | 3.10                | 0.0038                |
| 0           | 2.94                | 0.0036                |
| 10          | 3.42                | 0.0042                |
| 20          | 3.88                | 0.0048                |
| 30          | 3.44                | 0.0042                |
| 40          | 4.20                | 0.0051                |
| 50          | 3.53                | 0.0043                |
| 60          | 3.18                | 0.0039                |

**LTE-Band 26 821.5MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.55                | 0.0043               |
| 48.0          | 3.78                | 0.0046               |
| 43.2          | 3.49                | 0.0042               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 2.82                | 0.0034                |
| -10         | 3.54                | 0.0043                |
| 0           | 4.04                | 0.0049                |
| 10          | 3.60                | 0.0044                |
| 20          | 2.79                | 0.0034                |
| 30          | 3.51                | 0.0043                |
| 40          | 3.16                | 0.0038                |
| 50          | 3.44                | 0.0042                |
| 60          | 3.39                | 0.0041                |

**LTE-Band 26 819MHz**

## Voltage

| Voltage (VAC) | Frequency Error(Hz) | Frequency Error(ppm) |
|---------------|---------------------|----------------------|
| 52.8          | 3.14                | 0.0038               |
| 48.0          | 4.53                | 0.0055               |
| 43.2          | 3.73                | 0.0046               |

## Temperature

| TEMPERATURE | Frequency Error(Hz) | Frequency Error (ppm) |
|-------------|---------------------|-----------------------|
| -20         | 3.81                | 0.0047                |
| -10         | 3.70                | 0.0045                |
| 0           | 4.13                | 0.0050                |
| 10          | 3.47                | 0.0042                |
| 20          | 4.60                | 0.0056                |
| 30          | 4.17                | 0.0051                |
| 40          | 4.71                | 0.0058                |
| 50          | 4.11                | 0.0050                |
| 60          | 3.91                | 0.0048                |