



Frequency Stability

| Test Conditions  |                   | LTE Band 12 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                            | Note 2. |
|                  |                   | Deviation (ppm)                     | Result  |
| 50               | Normal Voltage    | 0.0011                              | PASS    |
| 40               | Normal Voltage    | 0.0024                              |         |
| 30               | Normal Voltage    | 0.0090                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0102                              |         |
| 0                | Normal Voltage    | 0.0006                              |         |
| -10              | Normal Voltage    | 0.0023                              |         |
| -20              | Normal Voltage    | 0.0076                              |         |
| -30              | Normal Voltage    | 0.0068                              |         |
| 20               | Maximum Voltage   | 0.0011                              |         |
| 20               | Normal Voltage    | 0.0000                              |         |
| 20               | Battery End Point | 0.0106                              |         |

Note:

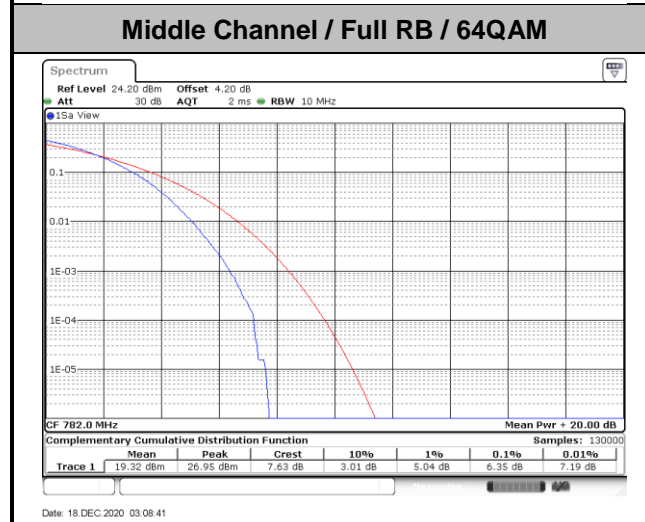
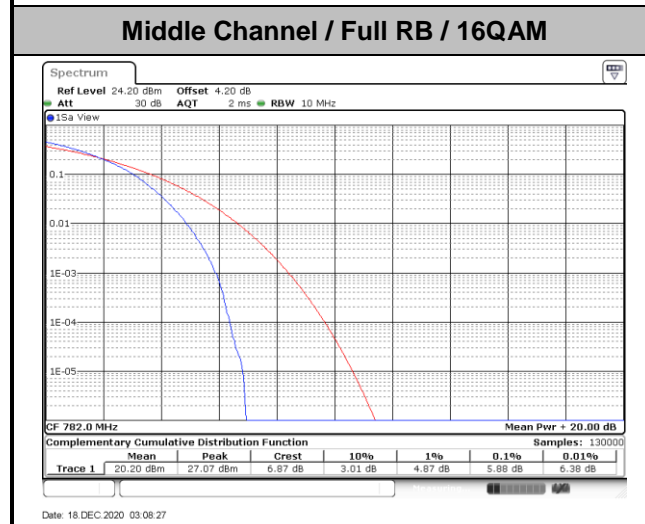
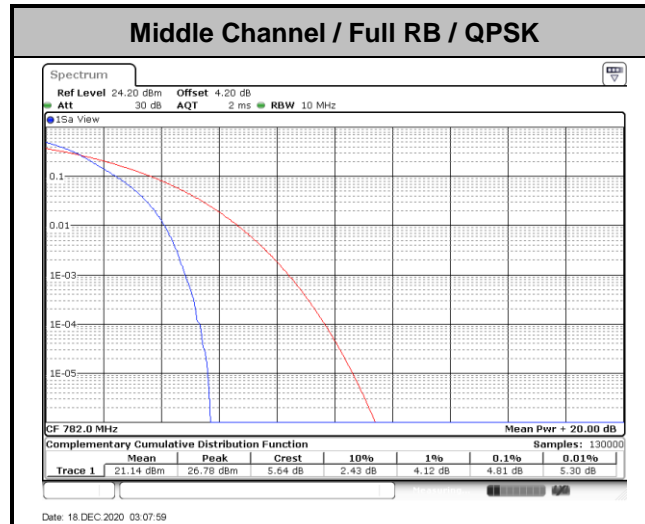
1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.3 V. ; Maximum Voltage =8.7V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

### Peak-to-Average Ratio

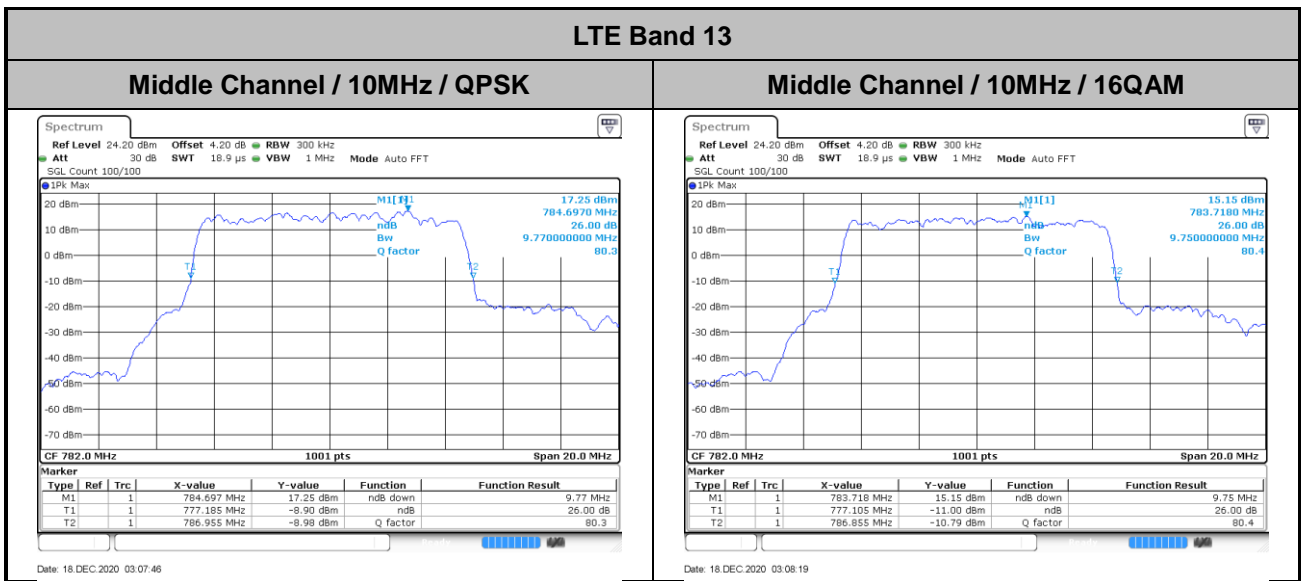
| Mode      | LTE Band 13 / 10MHz |         |         |             |
|-----------|---------------------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Result      |
| Middle CH | 4.81                | 5.88    | 6.35    | <b>PASS</b> |





**26dB Bandwidth**

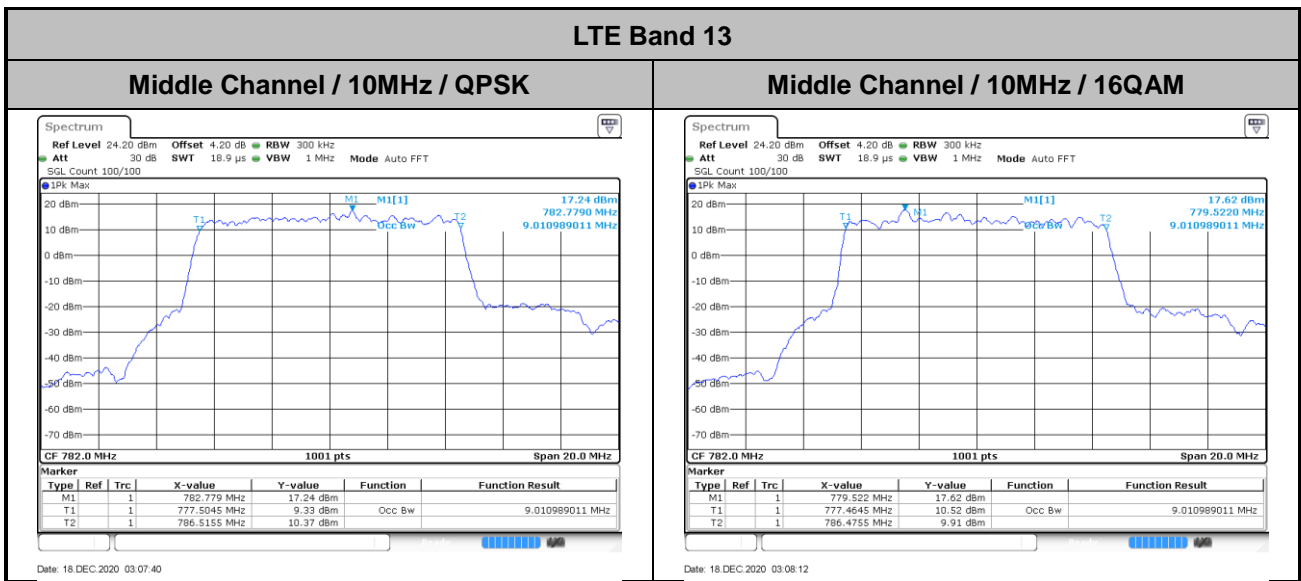
|           |                            |       |
|-----------|----------------------------|-------|
| Mode      | LTE Band 13 : 26dB BW(MHz) |       |
| BW        | 10MHz                      |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 9.77                       | 9.75  |





# Occupied Bandwidth

|                  |                                  |              |
|------------------|----------------------------------|--------------|
| <b>Mode</b>      | <b>LTE Band 13 : 99%OBW(MHz)</b> |              |
| <b>BW</b>        | <b>10MHz</b>                     |              |
| <b>Mod.</b>      | <b>QPSK</b>                      | <b>16QAM</b> |
| <b>Middle CH</b> | 9.01                             | 9.01         |

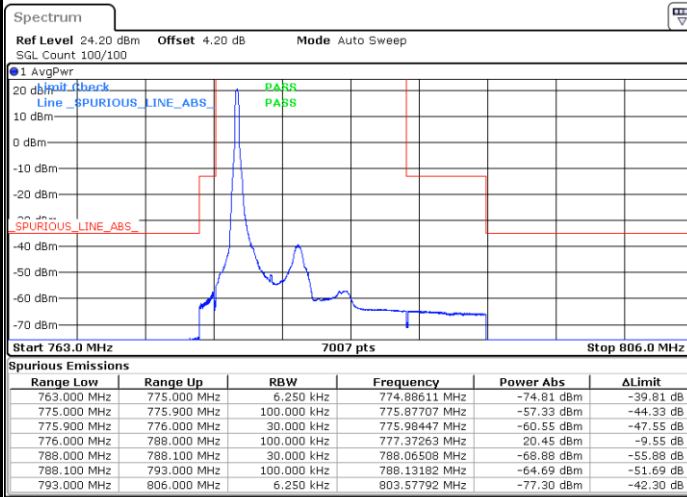




# Conducted Band Edge

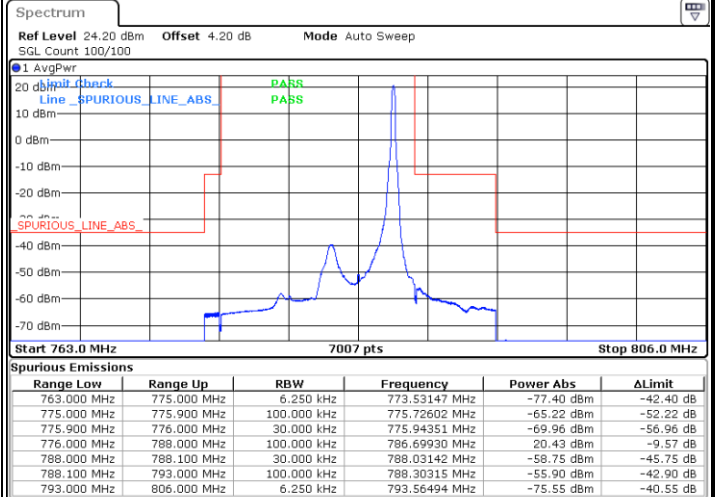
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



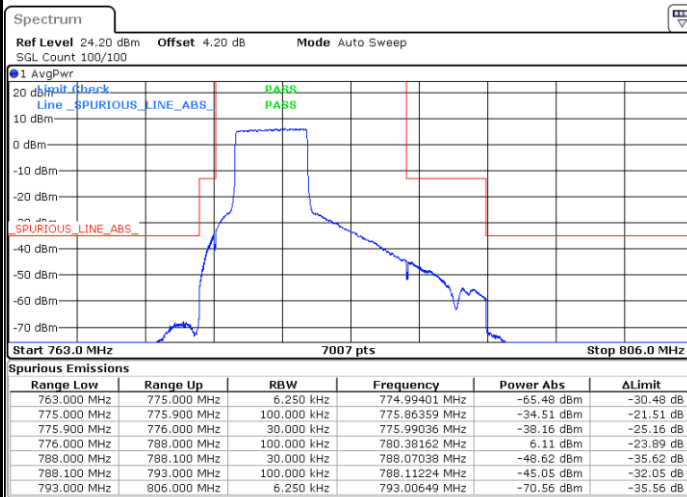
Date: 18 DEC 2020 02:36:38

### Highest Band Edge / 1 RB



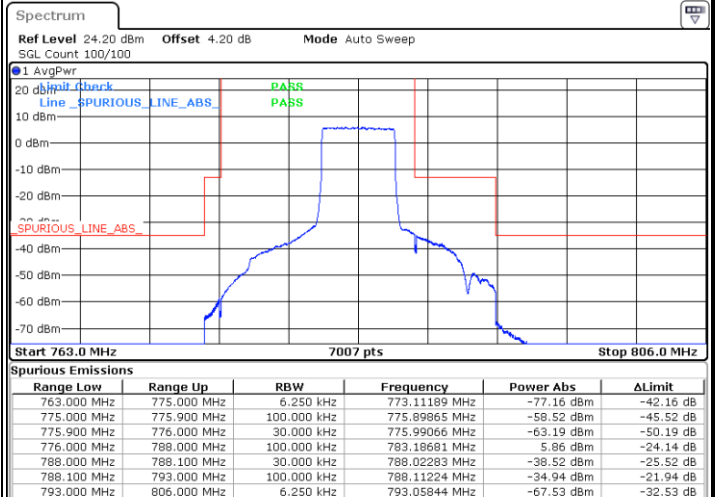
Date: 18 DEC 2020 02:43:14

### Lowest Band Edge / Full RB



Date: 18 DEC 2020 02:35:00

### Highest Band Edge / Full RB



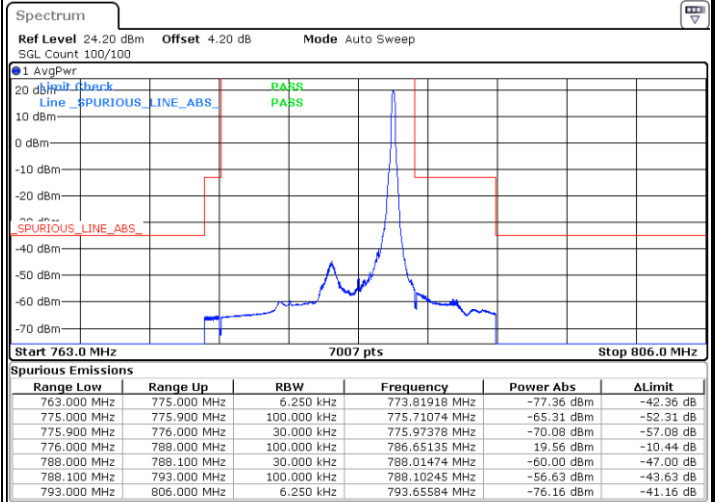
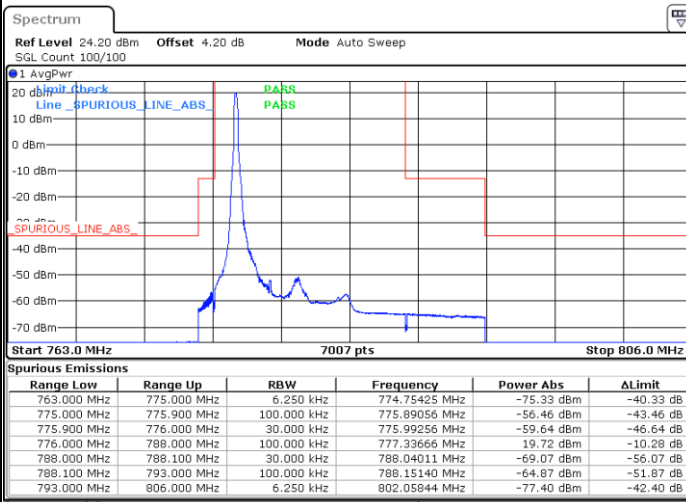
Date: 18 DEC 2020 02:41:35



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

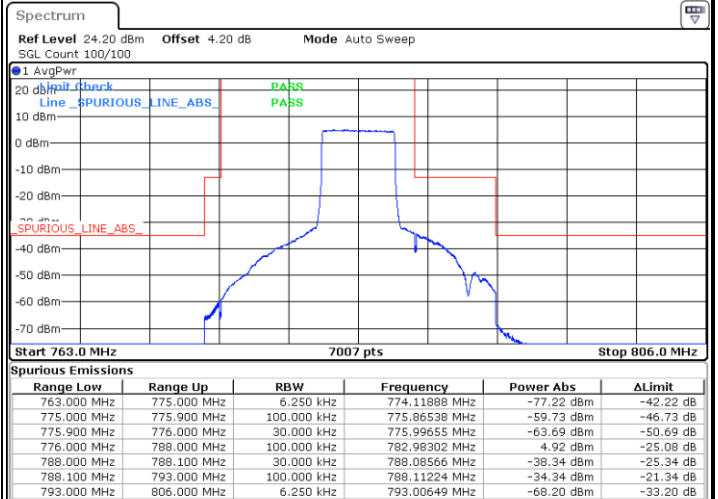
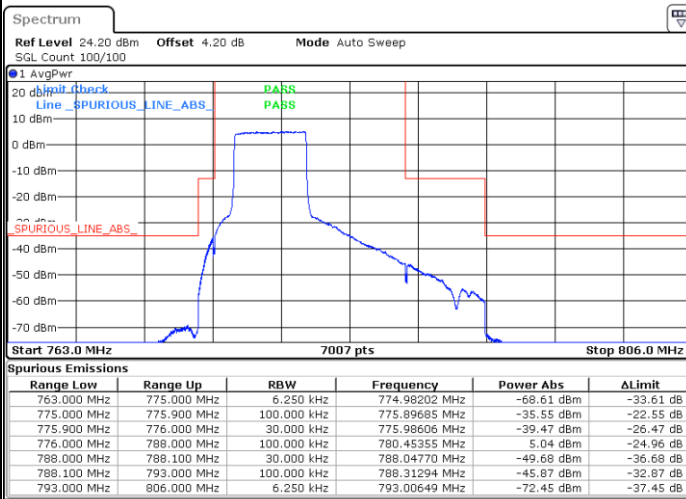


Date: 18 DEC 2020 02:38:17

Date: 18 DEC 2020 02:44:53

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 DEC 2020 02:33:21

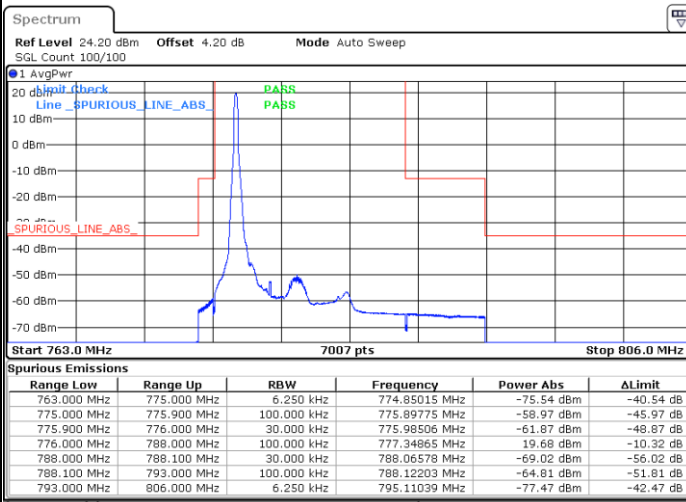
Date: 18 DEC 2020 02:39:56



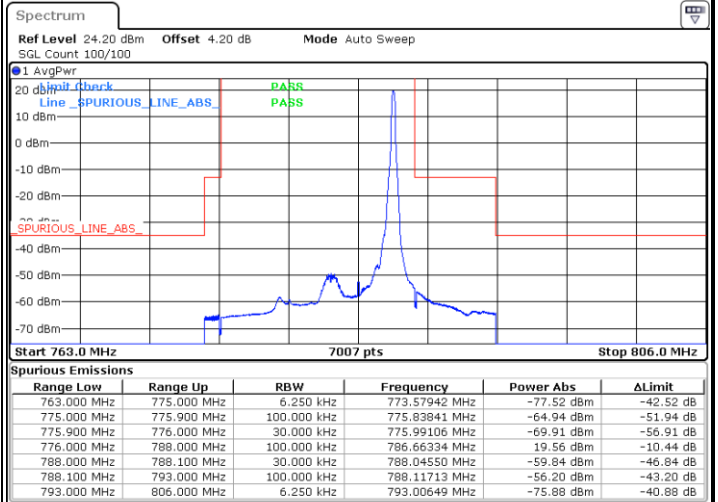
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



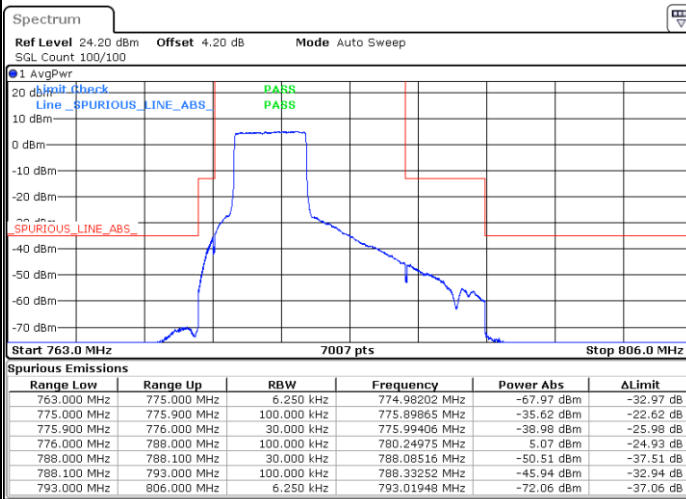
Date: 18 DEC 2020 02:56:24



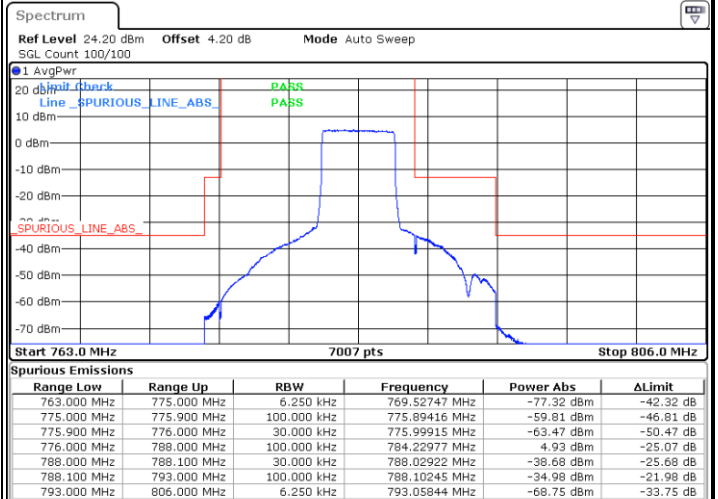
Date: 18 DEC 2020 03:01:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 DEC 2020 02:58:03



Date: 18 DEC 2020 02:59:42

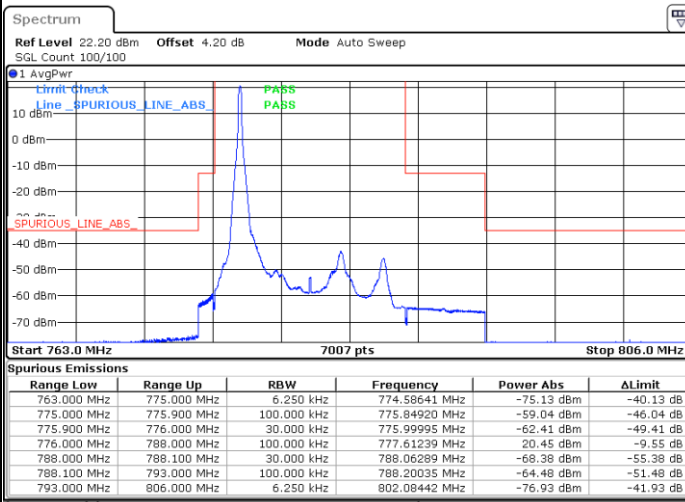




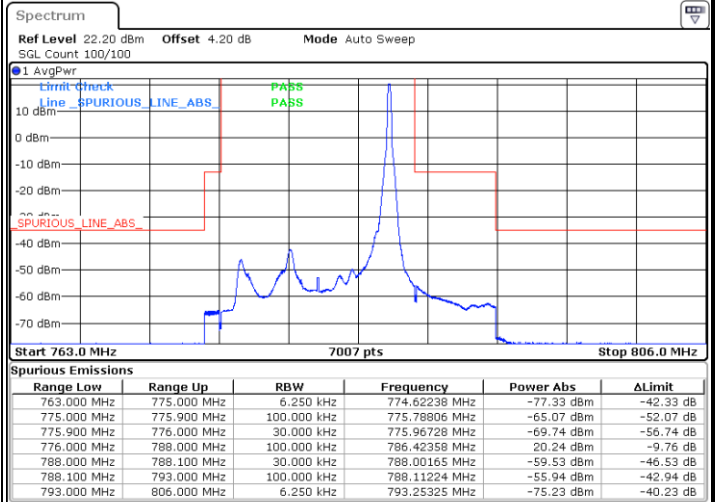
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

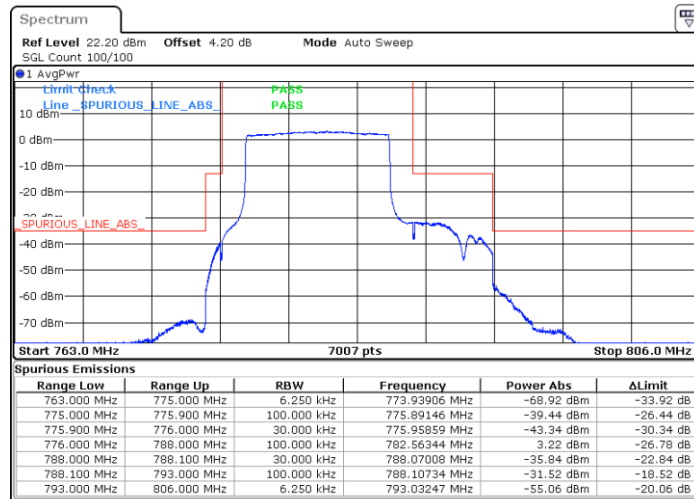


Date: 18 DEC 2020 02:48:10



Date: 18 DEC 2020 02:54:46

Band Edge / Full RB

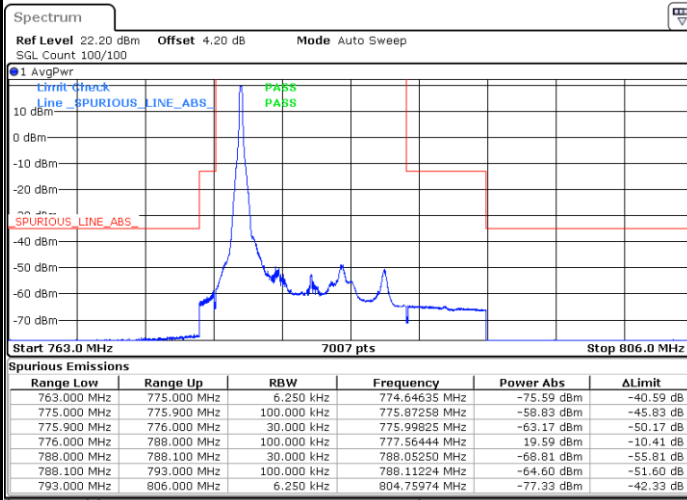


Date: 18 DEC 2020 02:49:49



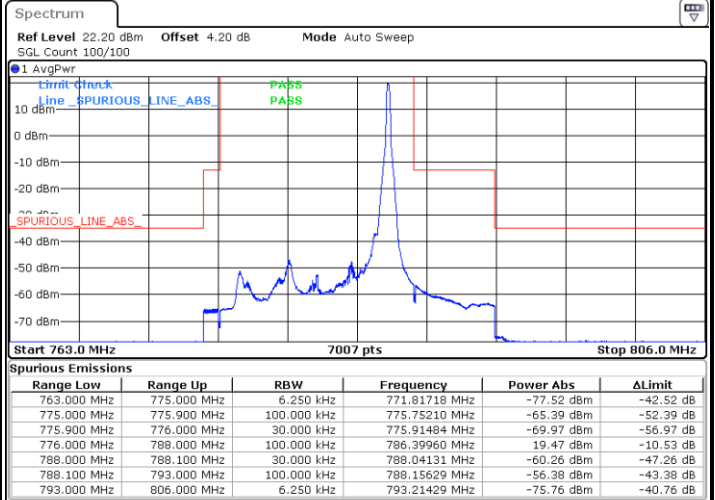
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



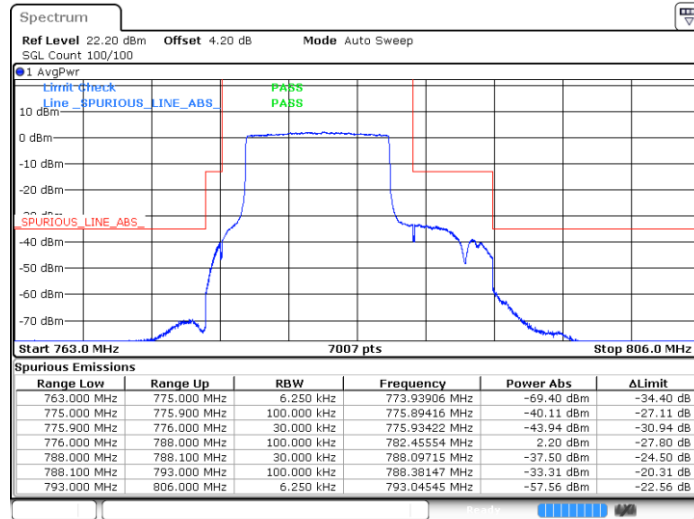
Date: 18 DEC 2020 02:46:32

Highest Band Edge / 1 RB



Date: 18 DEC 2020 02:53:07

Band Edge / Full RB



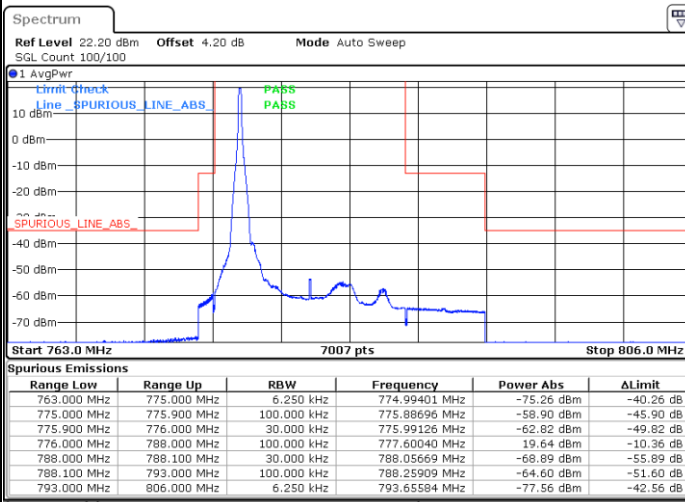
Date: 18 DEC 2020 02:51:28



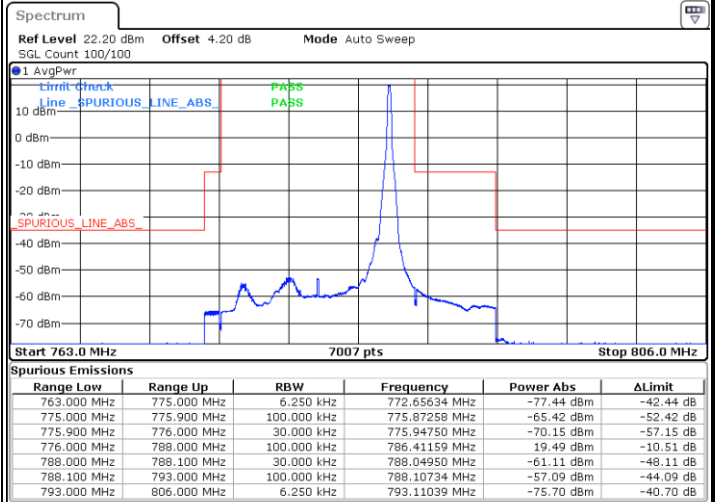
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

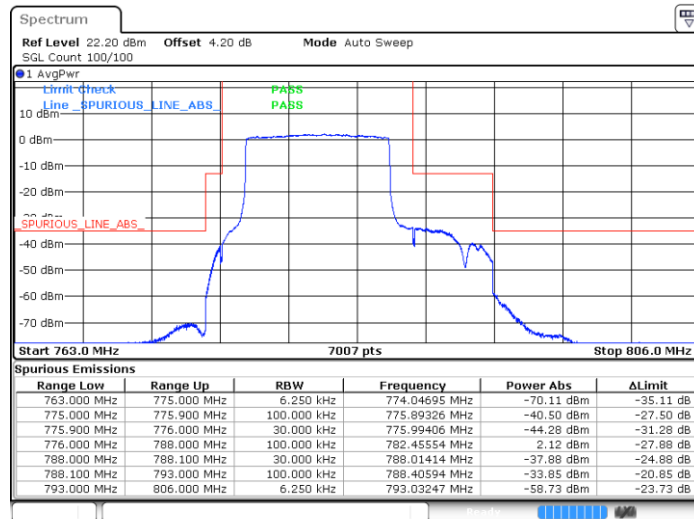


Date: 18 DEC 2020 03:03:00



Date: 18 DEC 2020 03:04:39

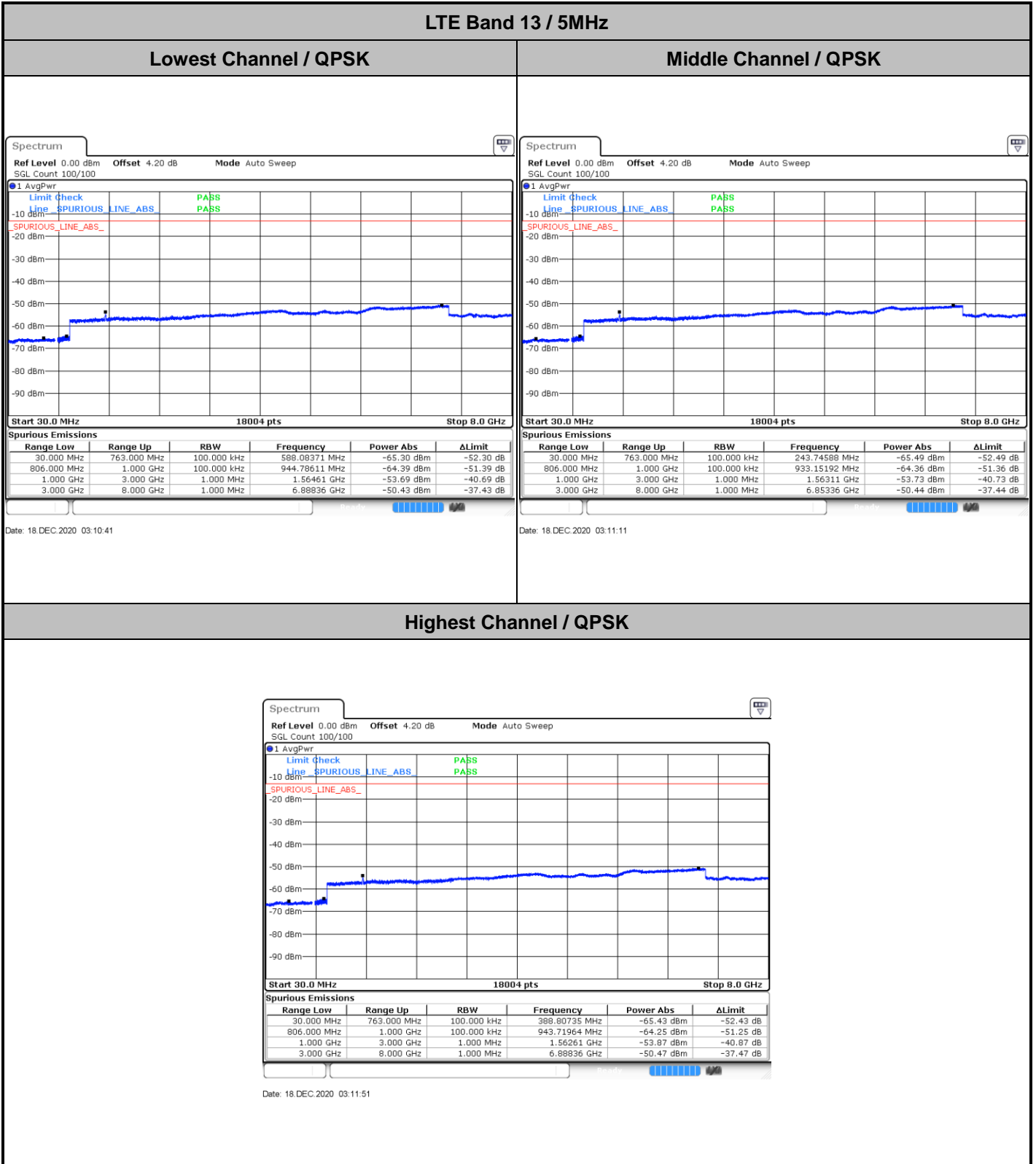
Band Edge / Full RB



Date: 18 DEC 2020 03:06:17



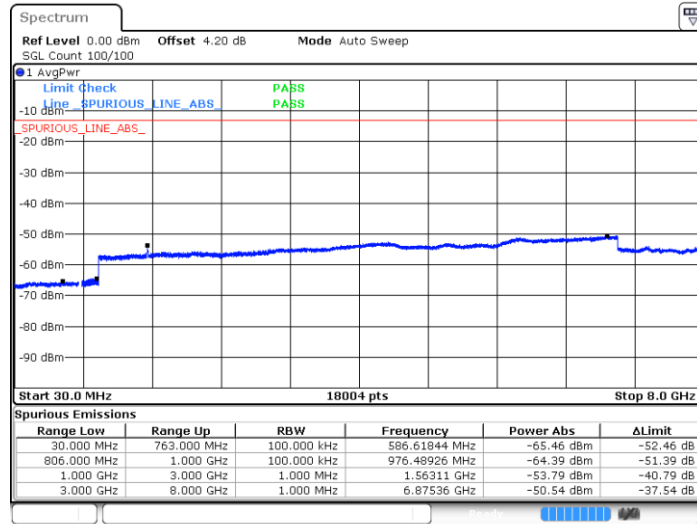
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 18 DEC. 2020 03:09:29



Frequency Stability

| Test Conditions  |                   | LTE Band 13 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                            | Note 2. |
|                  |                   | Deviation (ppm)                     | Result  |
| 50               | Normal Voltage    | 0.0011                              | PASS    |
| 40               | Normal Voltage    | 0.0016                              |         |
| 30               | Normal Voltage    | 0.0006                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0024                              |         |
| 0                | Normal Voltage    | 0.0066                              |         |
| -10              | Normal Voltage    | 0.0052                              |         |
| -20              | Normal Voltage    | 0.0024                              |         |
| -30              | Normal Voltage    | 0.0006                              |         |
| 20               | Maximum Voltage   | 0.0018                              |         |
| 20               | Normal Voltage    | 0.0000                              |         |
| 20               | Battery End Point | 0.0044                              |         |

Note:

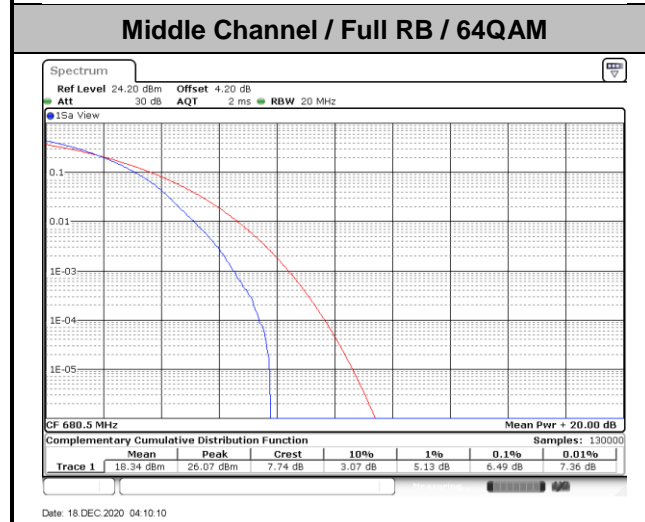
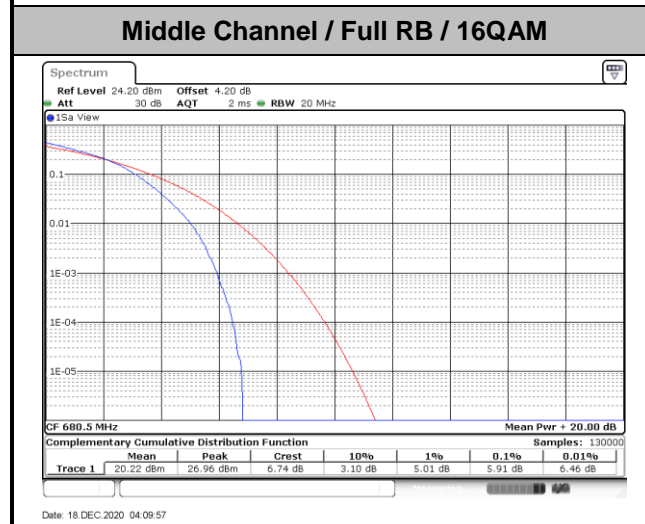
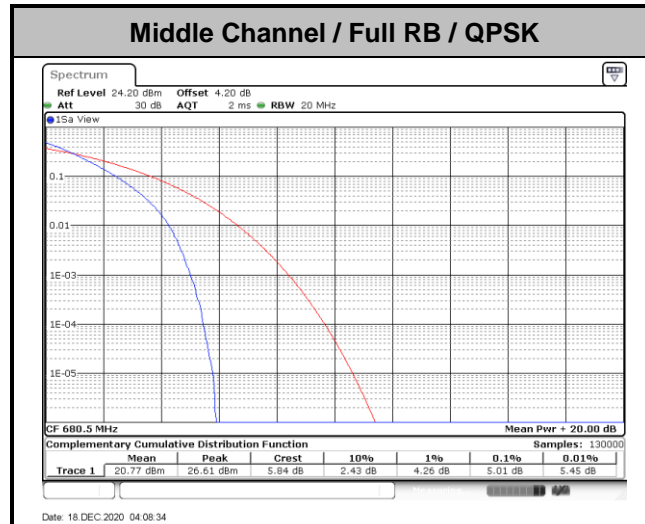
1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.3 V. ; Maximum Voltage =8.7 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 71

### Peak-to-Average Ratio

| Mode      | LTE Band 71 / 20MHz |         |         |             |
|-----------|---------------------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Result      |
| Middle CH | 5.01                | 5.91    | 6.49    | PASS        |

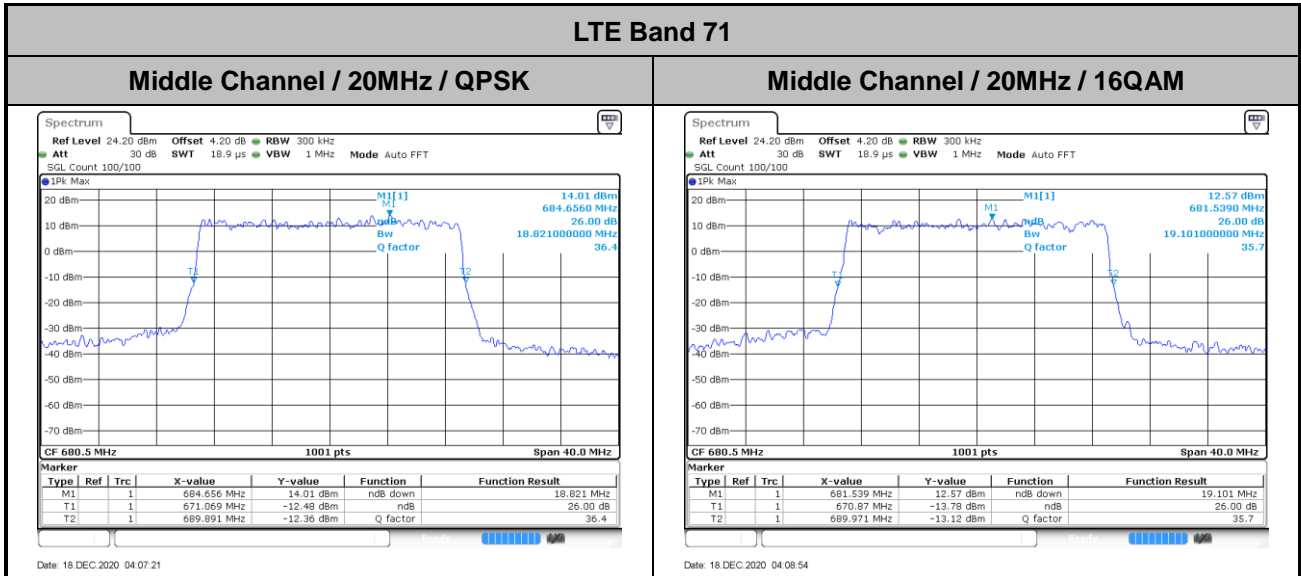






## 26dB Bandwidth

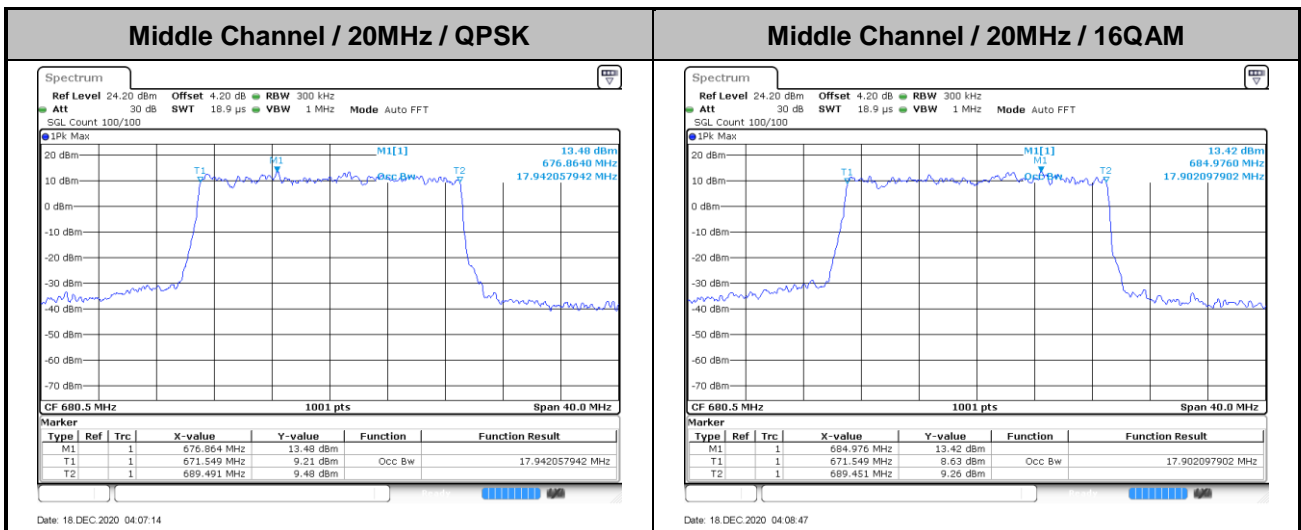
|                  |                                   |              |
|------------------|-----------------------------------|--------------|
| <b>Mode</b>      | <b>LTE Band 71 : 26dB BW(MHz)</b> |              |
| <b>BW</b>        | <b>20MHz</b>                      |              |
| <b>Mod.</b>      | <b>QPSK</b>                       | <b>16QAM</b> |
| <b>Middle CH</b> | 18.82                             | 19.10        |





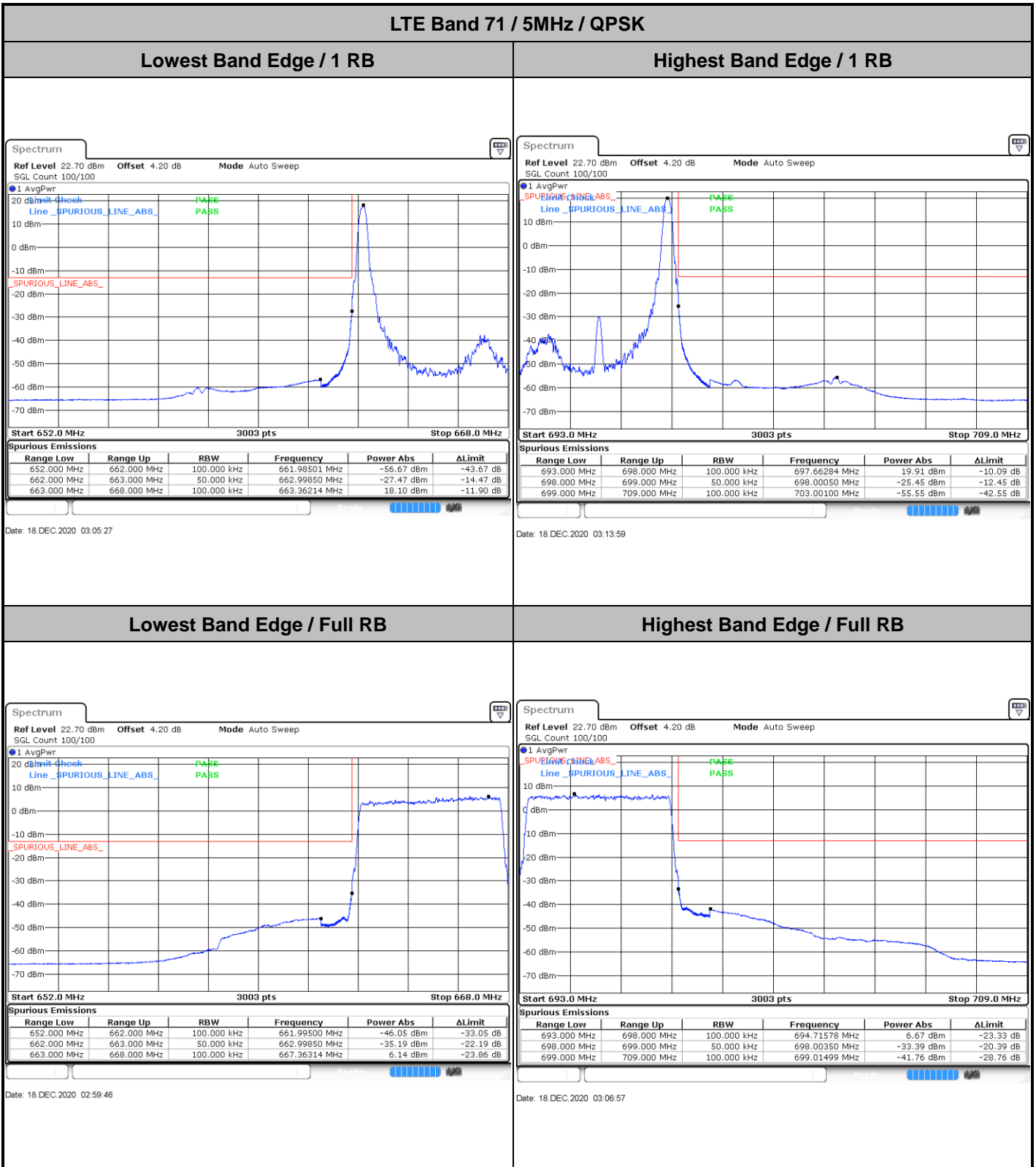
# Occupied Bandwidth

|           |                           |       |
|-----------|---------------------------|-------|
| Mode      | LTE Band 71 : 99%OBW(MHz) |       |
| BW        | 20MHz                     |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 17.94                     | 17.90 |





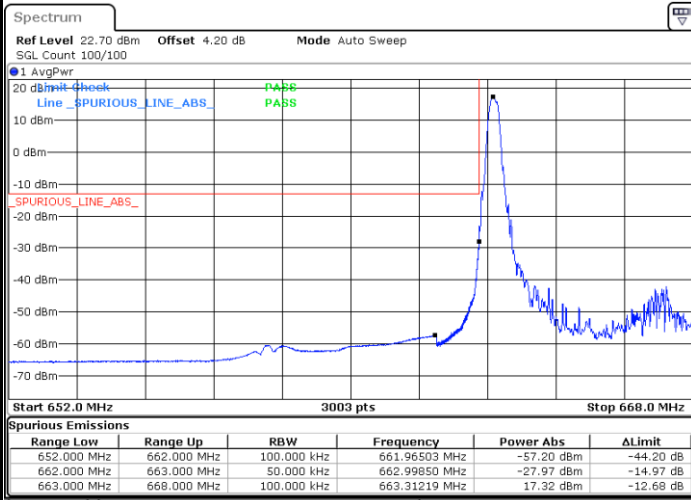
# Conducted Band Edge





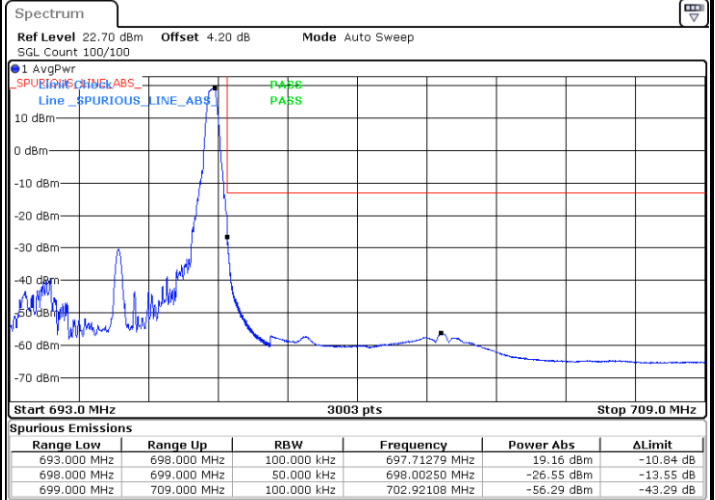
LTE Band 71 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



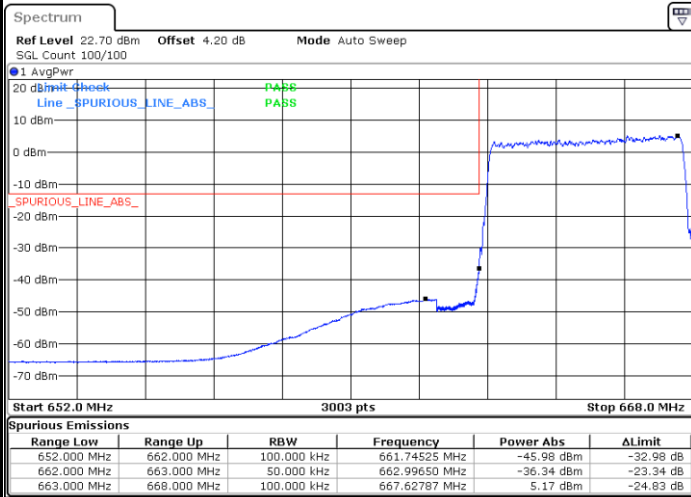
Date: 18. DEC. 2020 03:04:40

Highest Band Edge / 1 RB



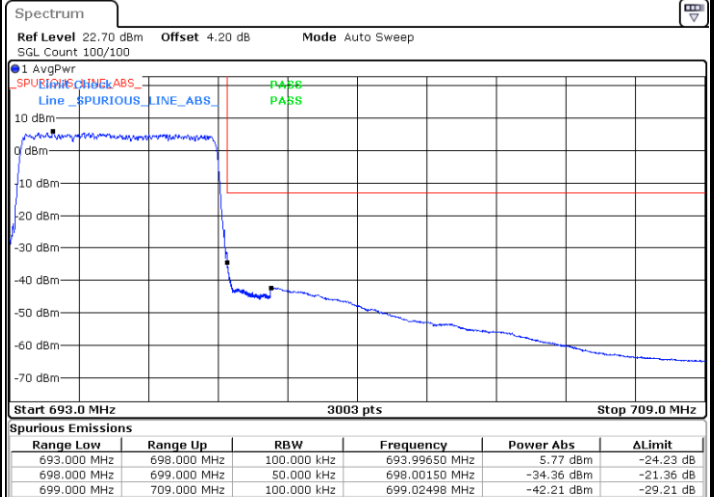
Date: 18. DEC. 2020 03:13:15

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:00:50

Highest Band Edge / Full RB

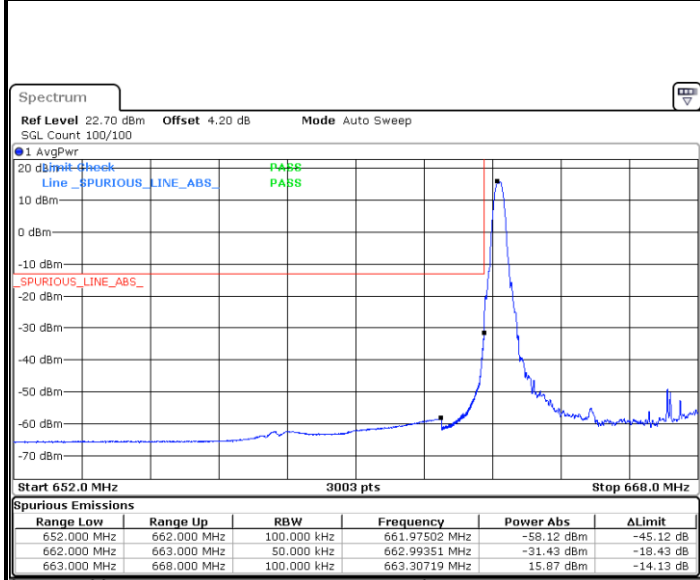


Date: 18. DEC. 2020 03:08:01



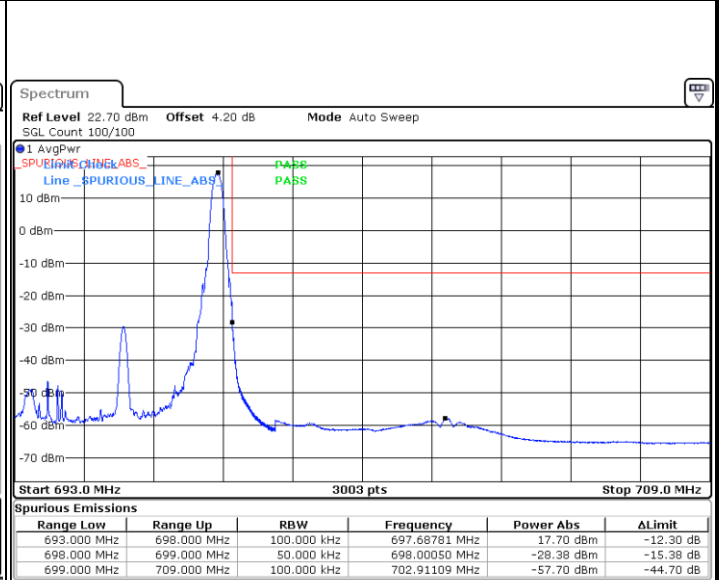
**LTE Band 71 / 5MHz / 64QAM**

**Lowest Band Edge / 1RB**



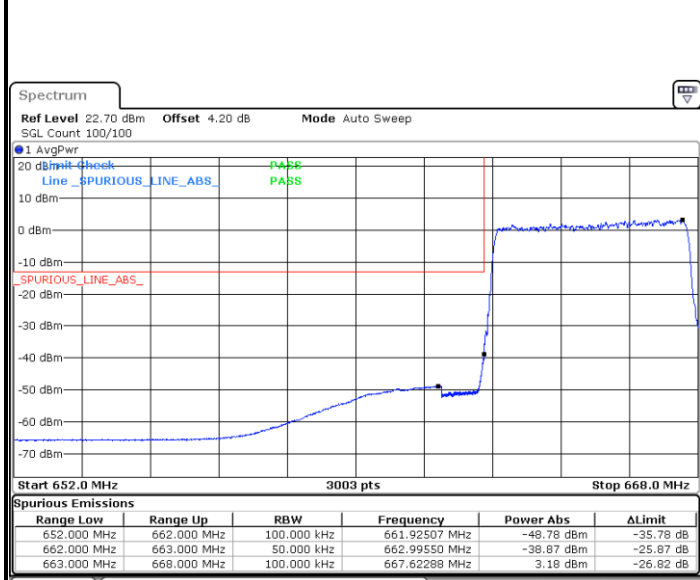
Date: 18 DEC 2020 03:03:53

**Highest Band Edge / 1 RB**



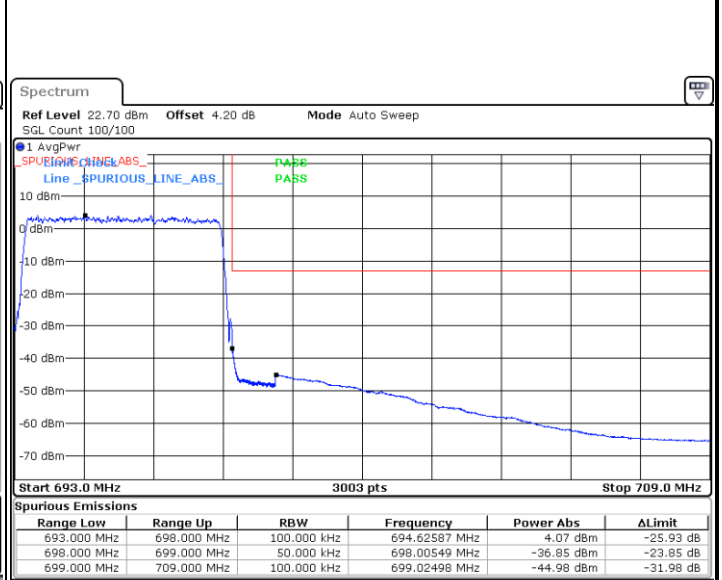
Date: 18 DEC 2020 03:12:29

**Lowest Band Edge / Full RB**



Date: 18 DEC 2020 03:01:34

**Highest Band Edge / Full RB**

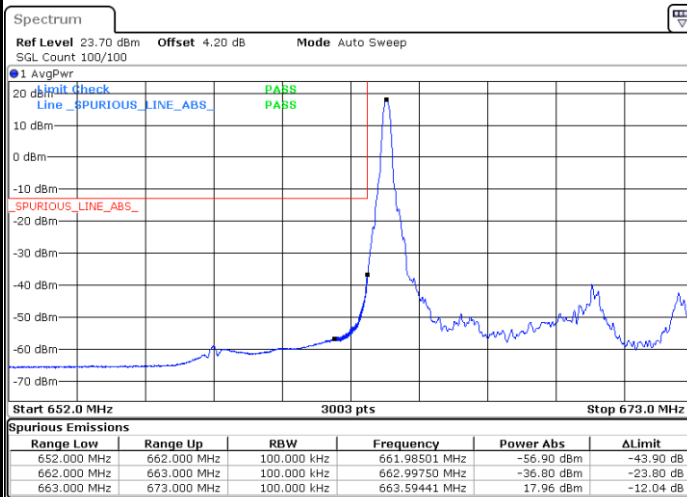


Date: 18 DEC 2020 03:11:34



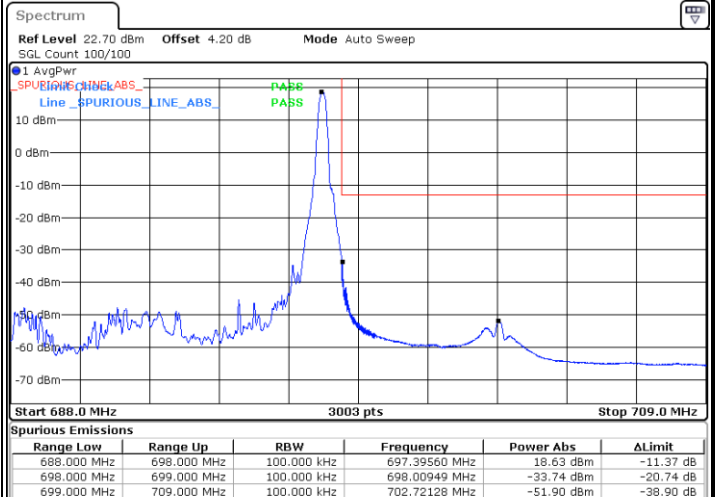
LTE Band 71 / 10MHz / QPSK

Lowest Band Edge / 1 RB



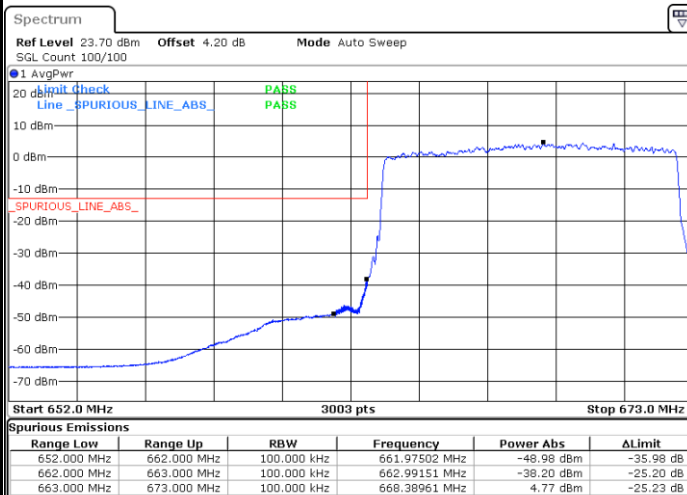
Date: 18. DEC. 2020 03:20:54

Highest Band Edge / 1 RB



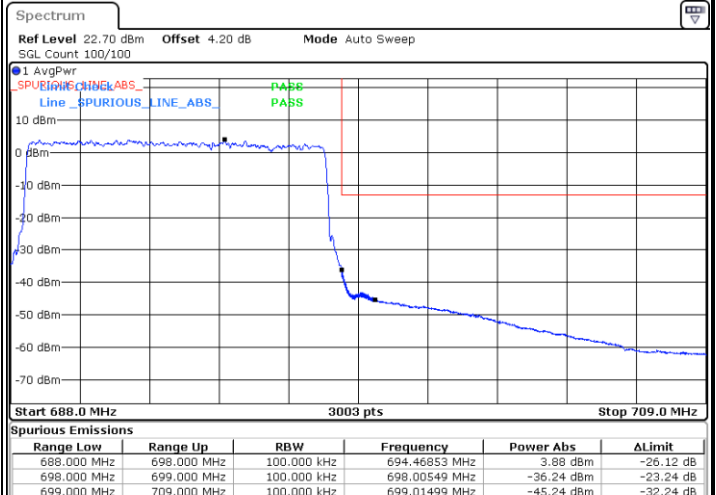
Date: 18. DEC. 2020 03:25:43

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:16:57

Highest Band Edge / Full RB

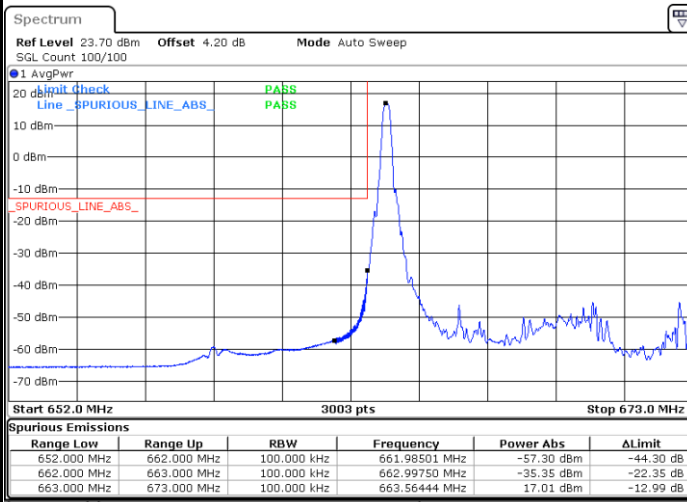


Date: 18. DEC. 2020 03:21:50



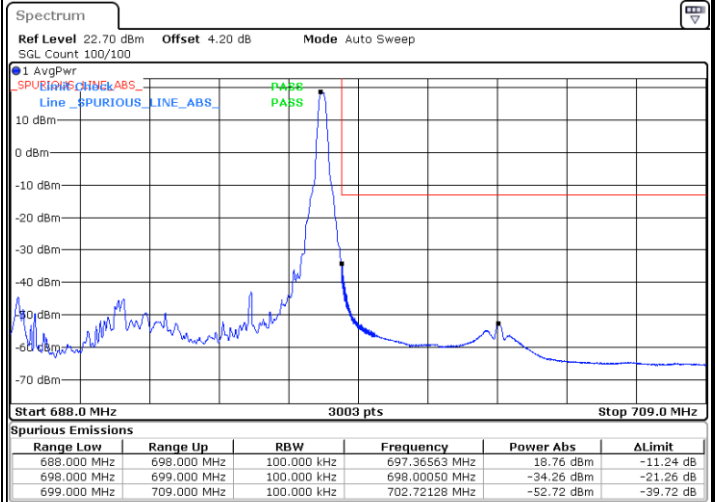
LTE Band 71 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



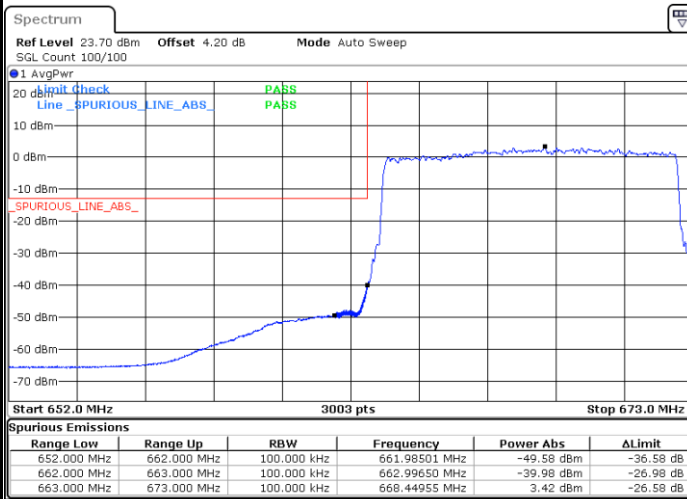
Date: 18. DEC. 2020 03:20:06

Highest Band Edge / 1 RB



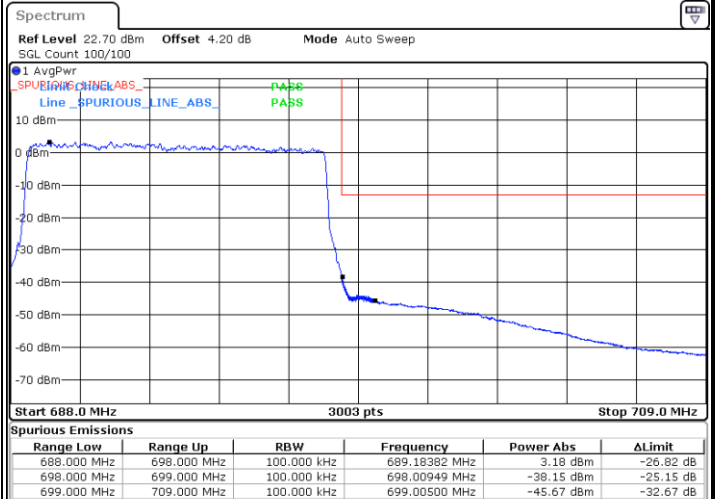
Date: 18. DEC. 2020 03:24:53

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:17:44

Highest Band Edge / Full RB

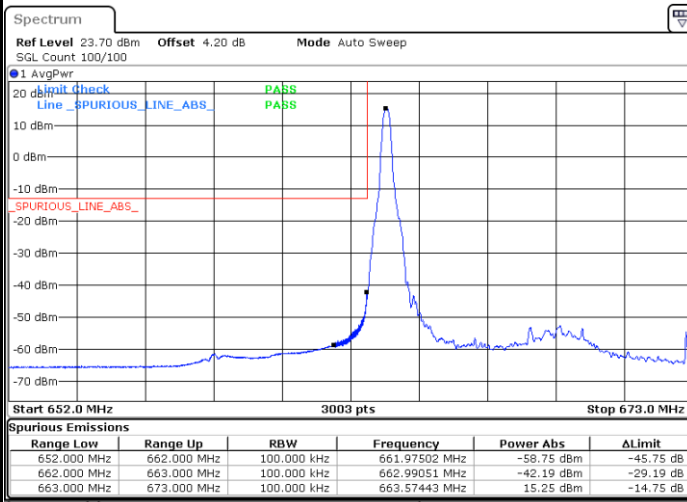


Date: 18. DEC. 2020 03:22:33



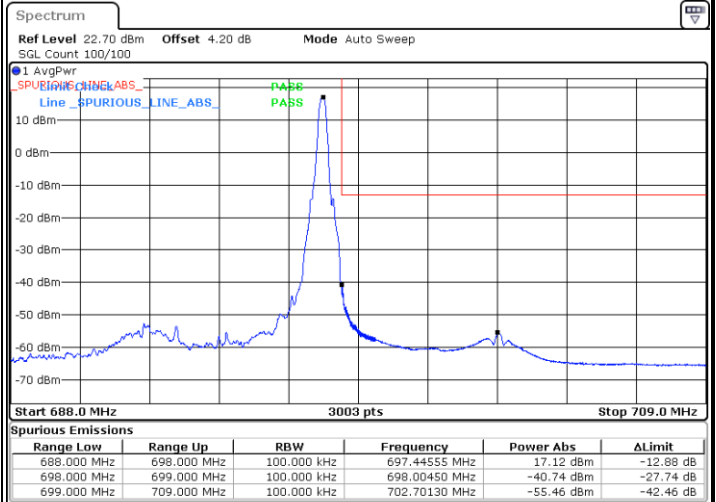
LTE Band 71 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



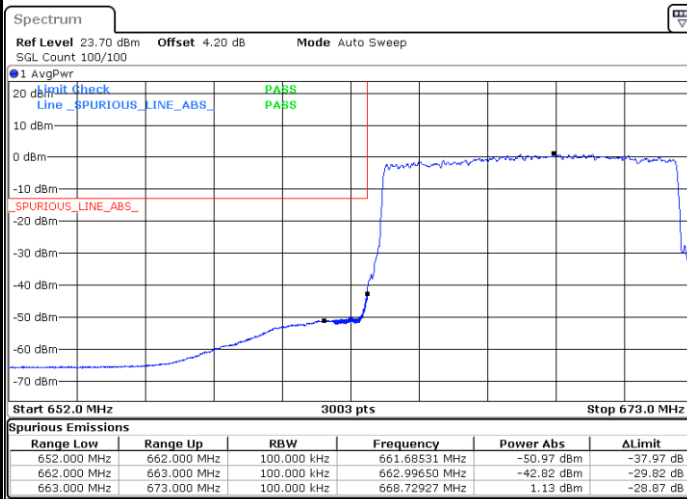
Date: 18. DEC. 2020 03:19:22

Highest Band Edge / 1 RB



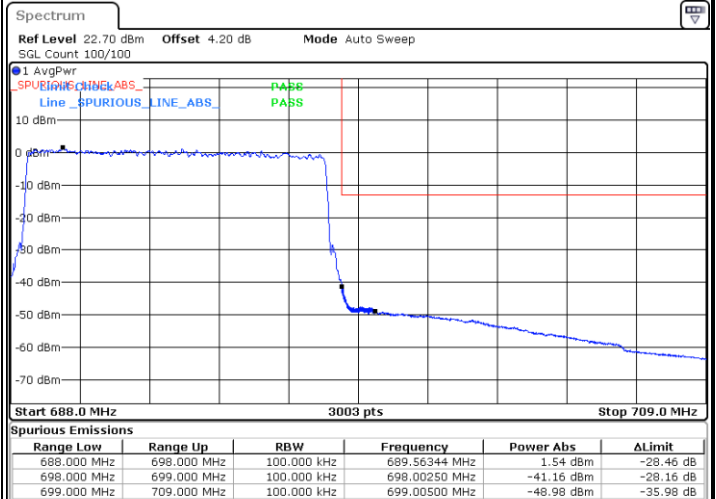
Date: 18. DEC. 2020 03:24:13

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:18:32

Highest Band Edge / Full RB



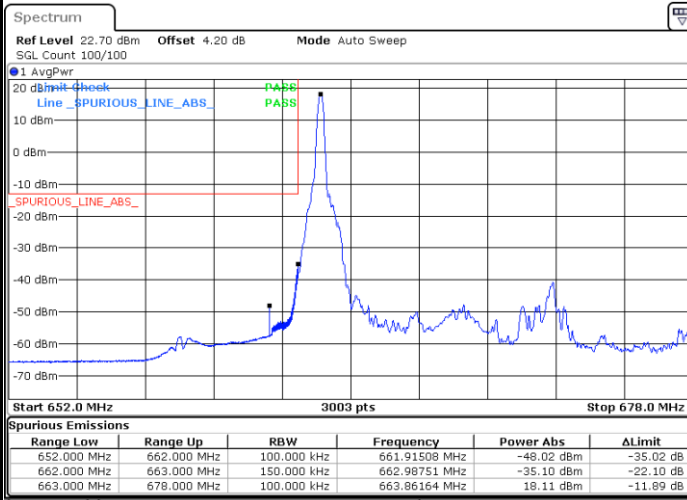
Date: 18. DEC. 2020 03:23:23





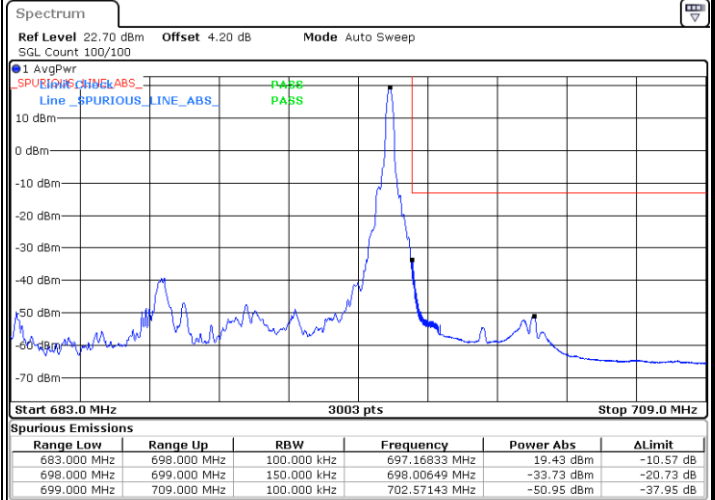
LTE Band 71 / 15MHz / QPSK

Lowest Band Edge / 1 RB



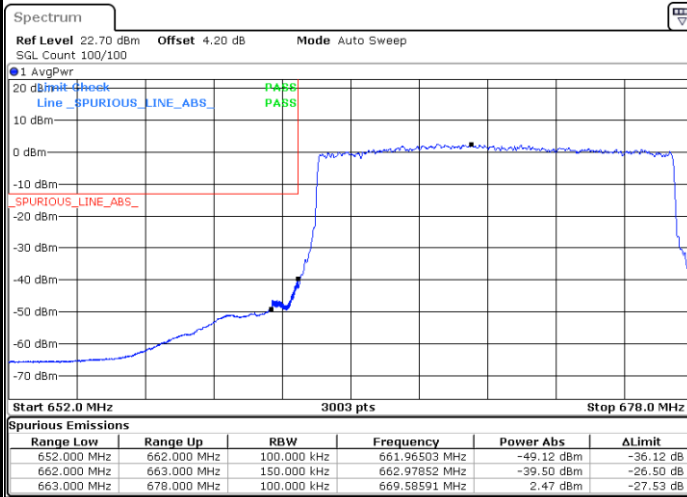
Date: 18. DEC. 2020 03:32:59

Highest Band Edge / 1 RB



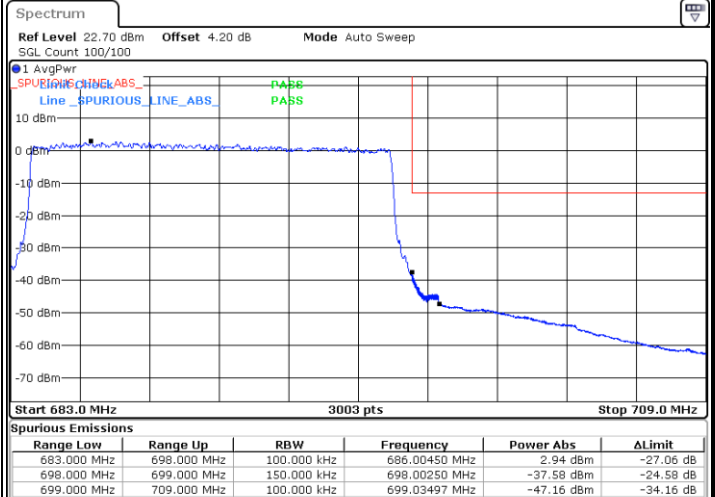
Date: 18. DEC. 2020 03:37:47

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:29:23

Highest Band Edge / Full RB

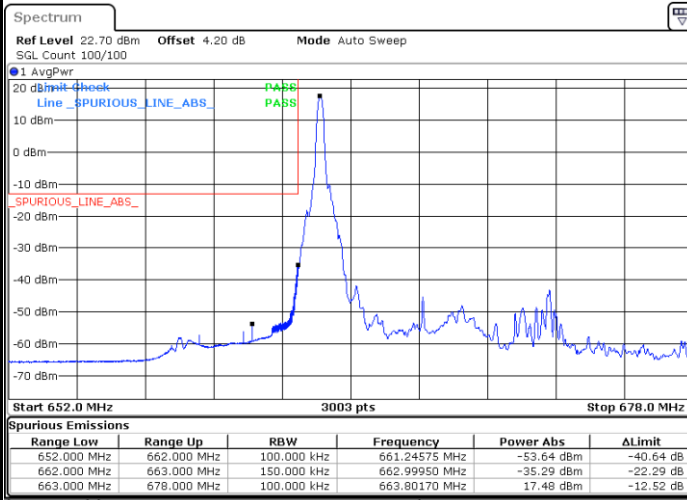


Date: 18. DEC. 2020 03:34:05



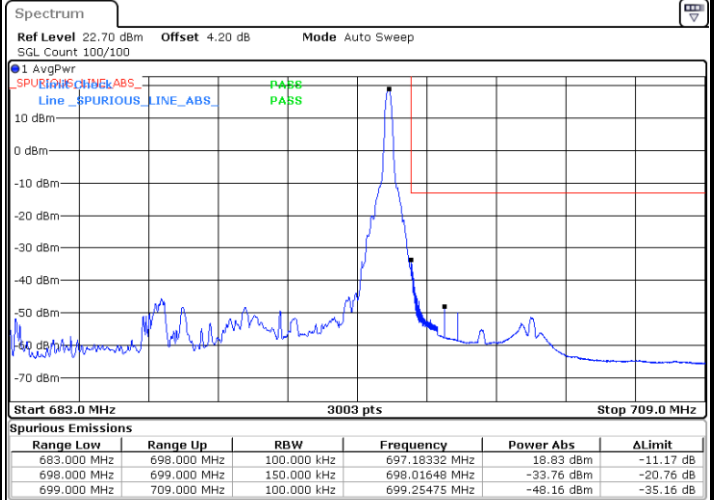
LTE Band 71 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



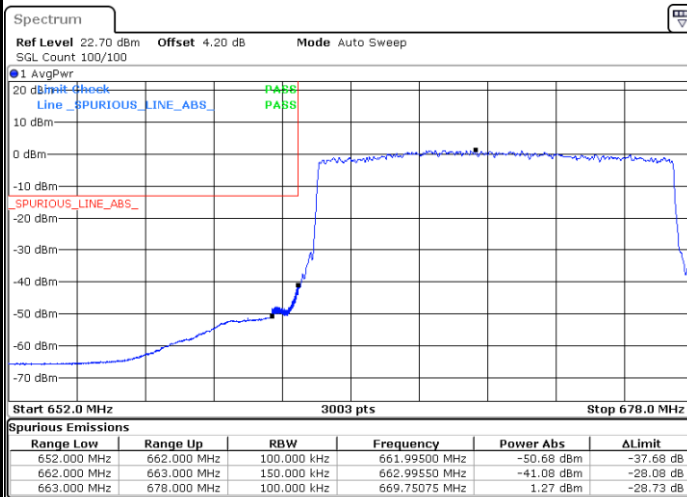
Date: 18. DEC. 2020 03:32:13

Highest Band Edge / 1 RB



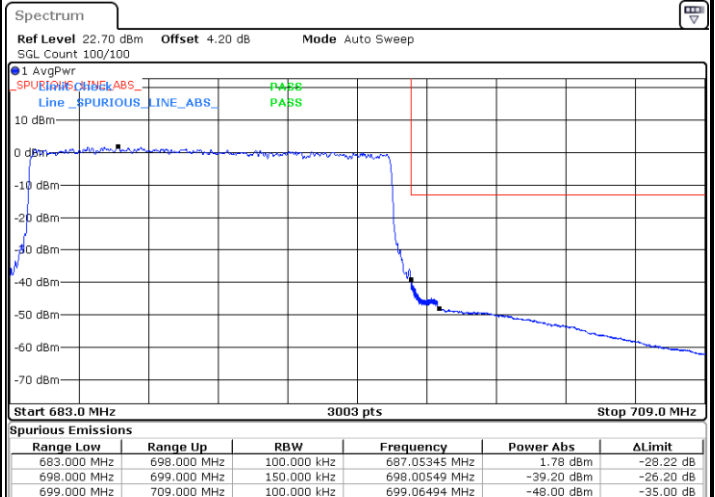
Date: 18. DEC. 2020 03:37:08

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:30:00

Highest Band Edge / Full RB

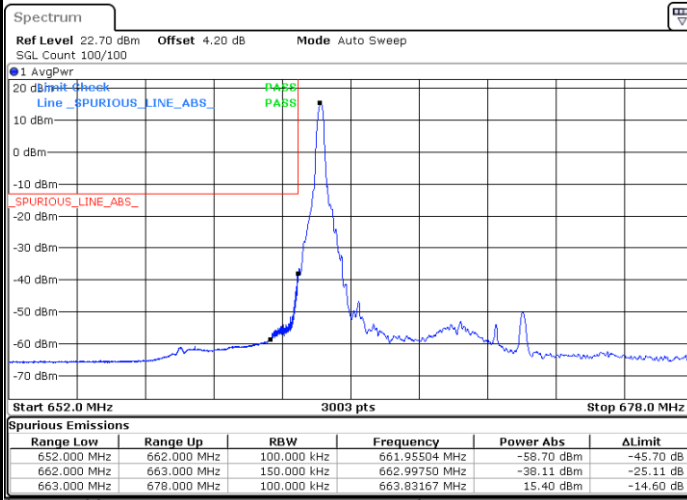


Date: 18. DEC. 2020 03:34:51



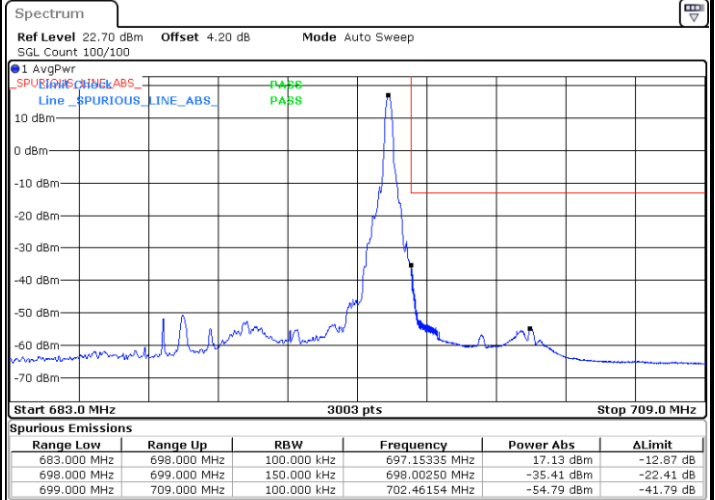
LTE Band 71 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



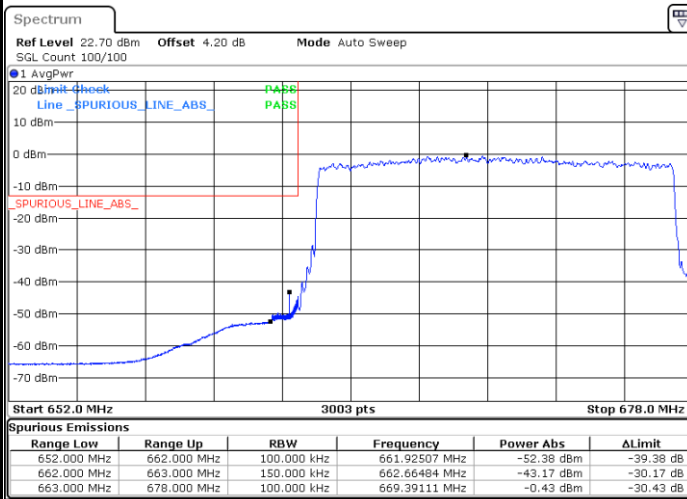
Date: 18. DEC. 2020 03:31:29

Highest Band Edge / 1 RB



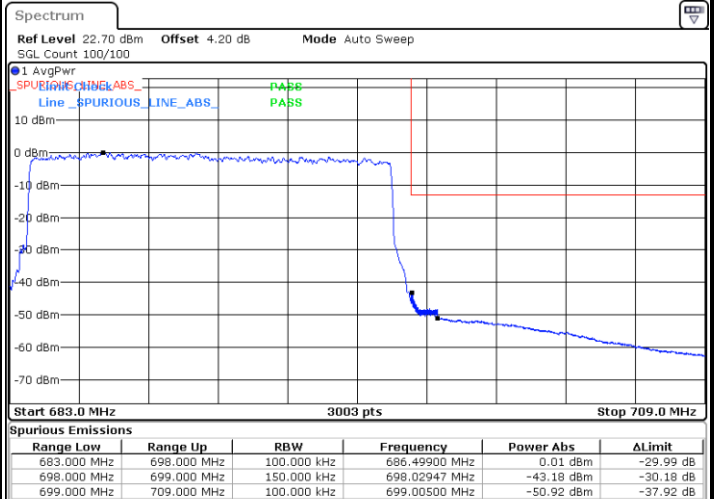
Date: 18. DEC. 2020 03:36:26

Lowest Band Edge / Full RB



Date: 18. DEC. 2020 03:30:41

Highest Band Edge / Full RB

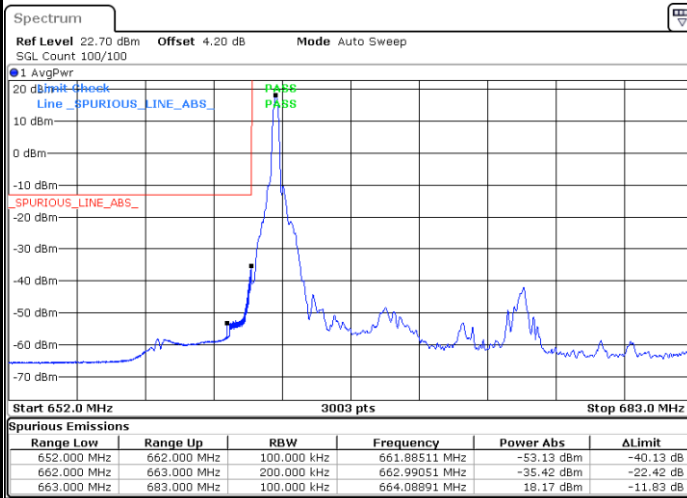


Date: 18. DEC. 2020 03:35:35



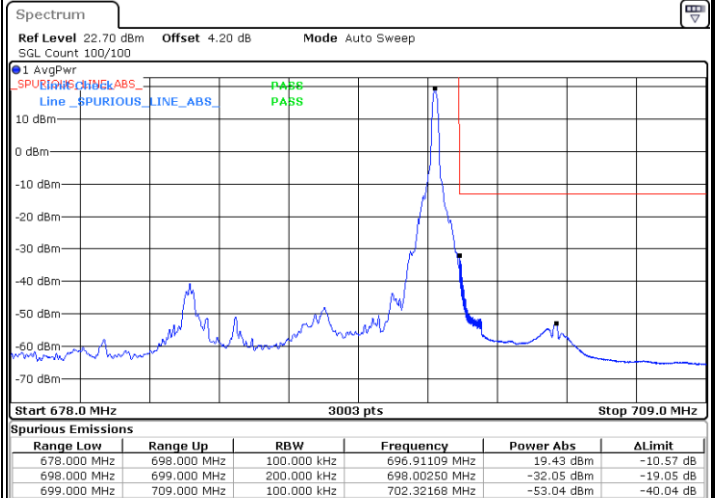
LTE Band 71 / 20MHz / QPSK

Lowest Band Edge / 1 RB



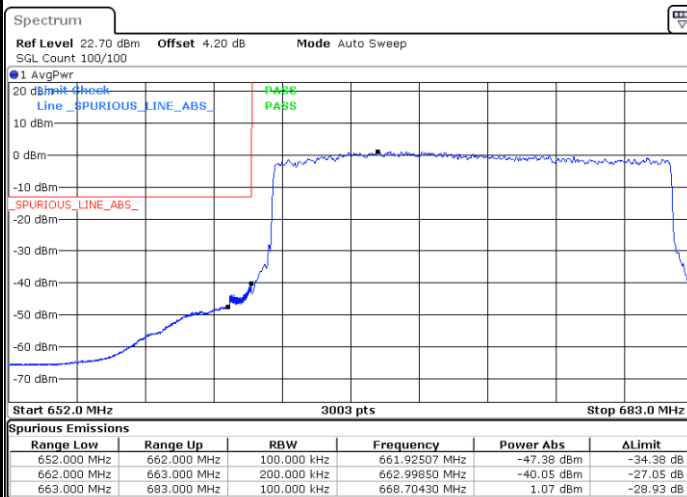
Date: 18.DEC.2020 04:00:00

Highest Band Edge / 1 RB



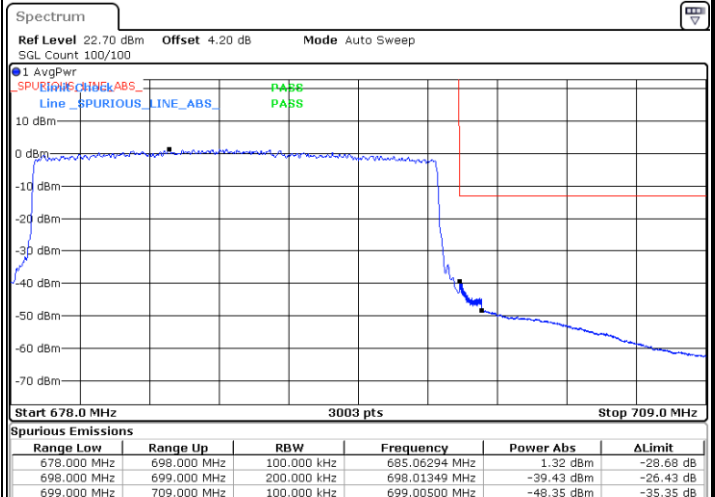
Date: 18.DEC.2020 04:04:43

Lowest Band Edge / Full RB



Date: 18.DEC.2020 03:40:46

Highest Band Edge / Full RB

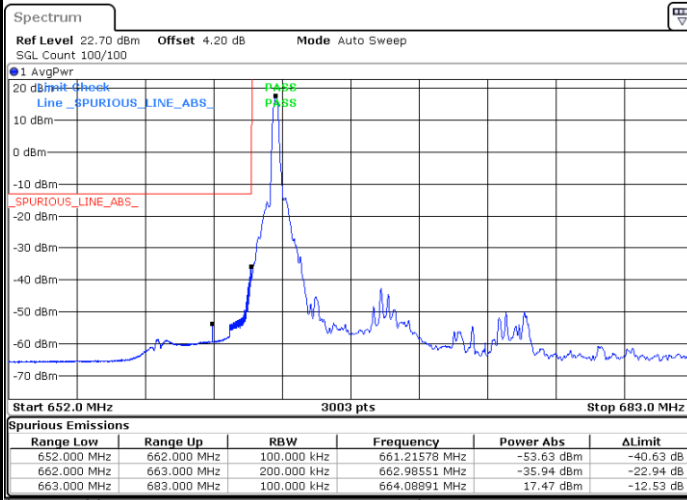


Date: 18.DEC.2020 04:00:57



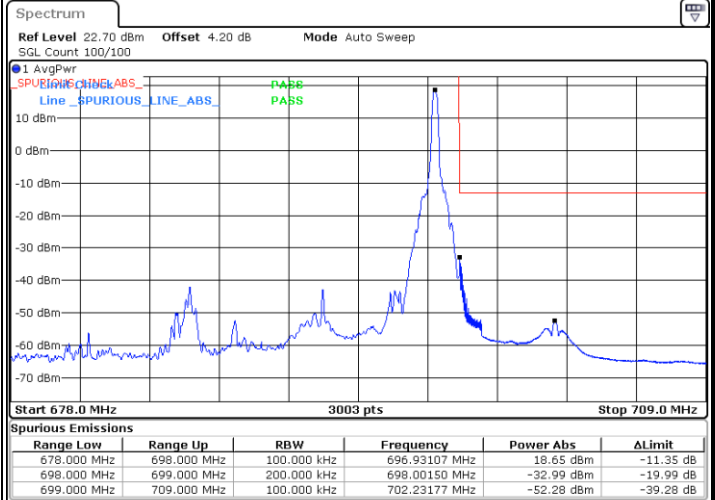
LTE Band 71 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



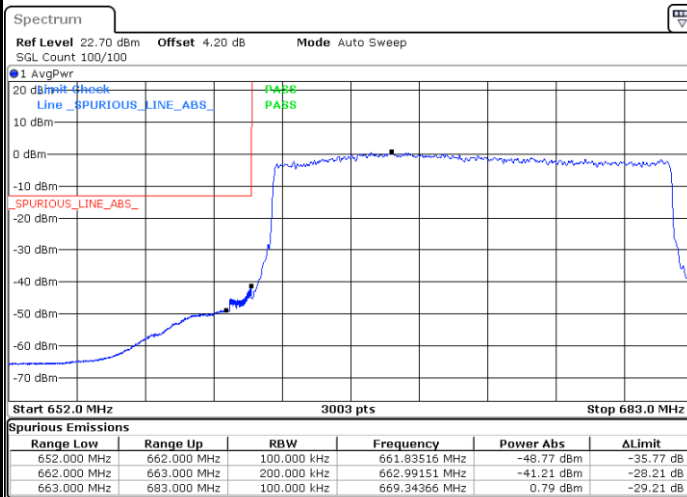
Date: 18 DEC 2020 03:59:24

Highest Band Edge / 1RB



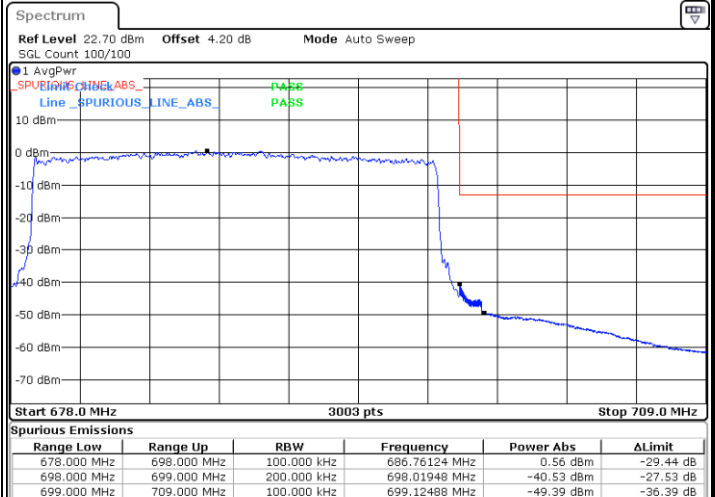
Date: 18 DEC 2020 04:04:01

Lowest Band Edge / Full RB



Date: 18 DEC 2020 03:57:24

Highest Band Edge / Full RB

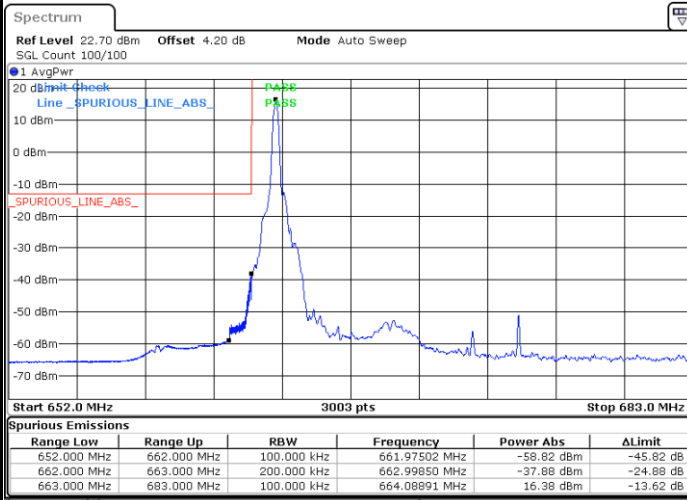


Date: 18 DEC 2020 04:01:40



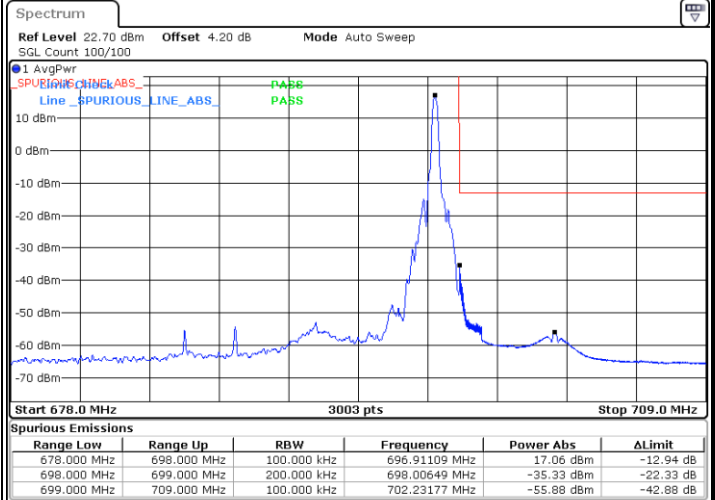
LTE Band 71 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



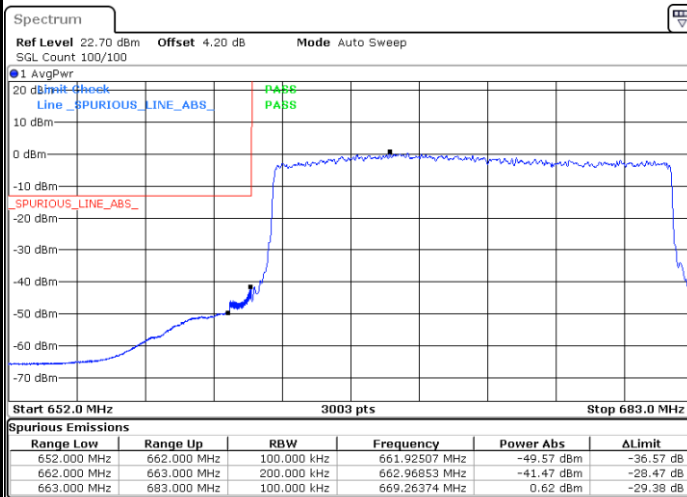
Date: 18 DEC 2020 03:58:46

Highest Band Edge / 1 RB



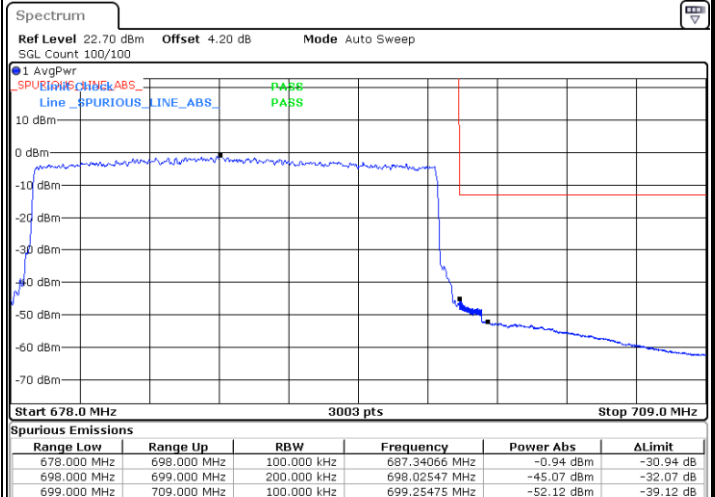
Date: 18 DEC 2020 04:03:21

Lowest Band Edge / Full RB



Date: 18 DEC 2020 03:58:01

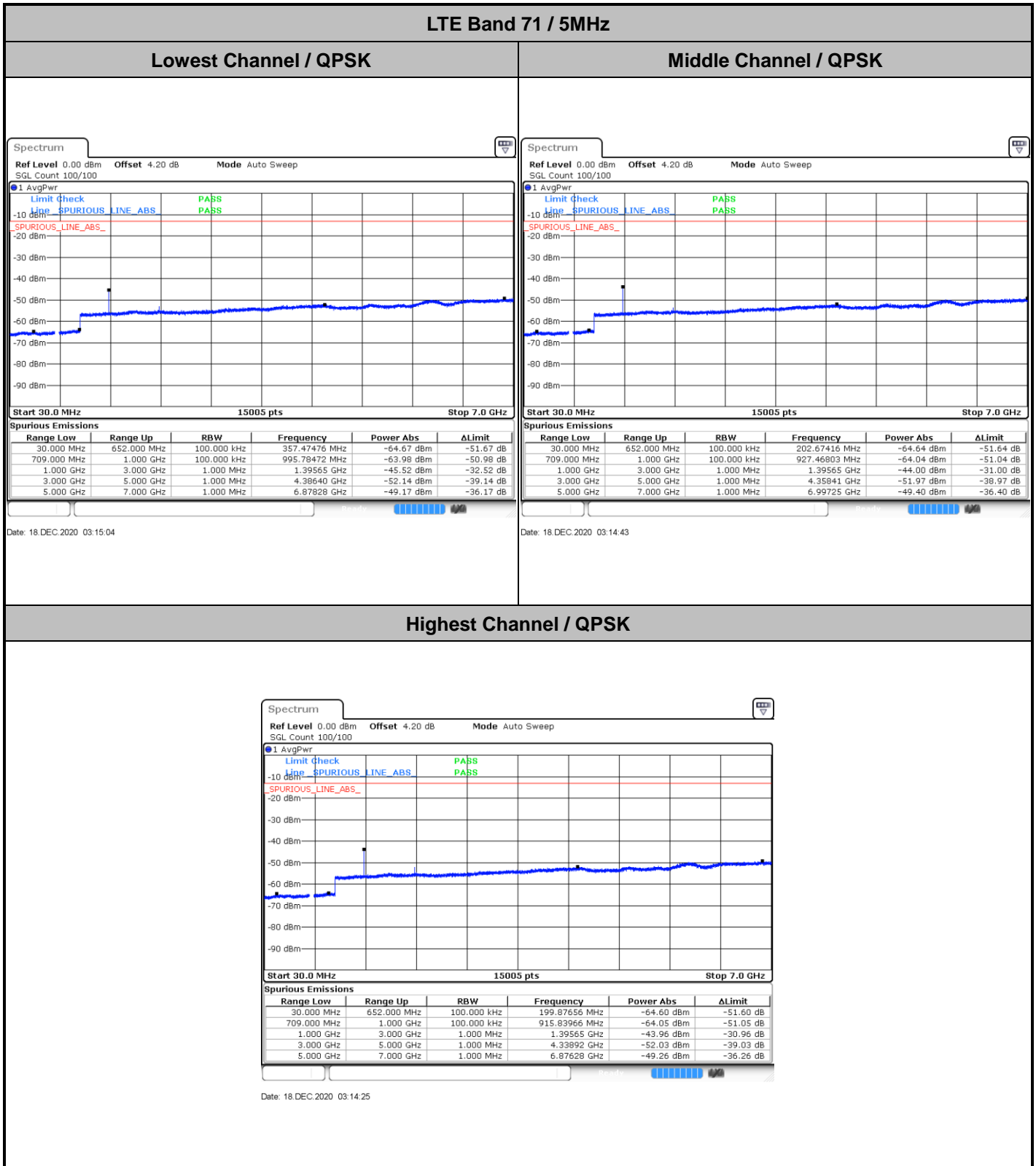
Highest Band Edge / Full RB



Date: 18 DEC 2020 04:02:36



# Conducted Spurious Emission

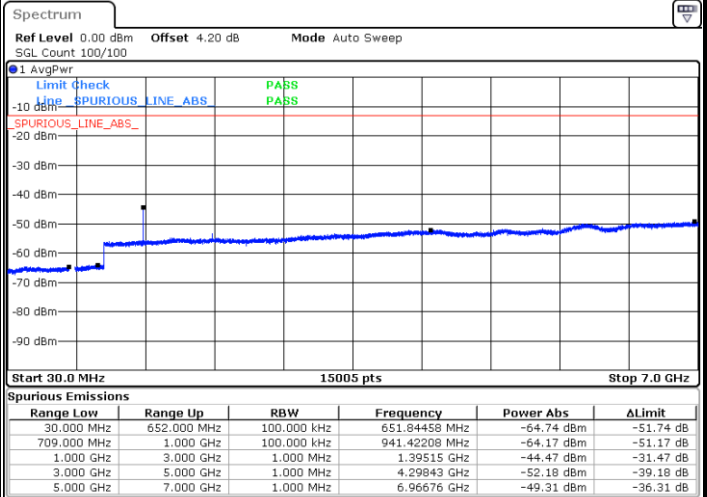
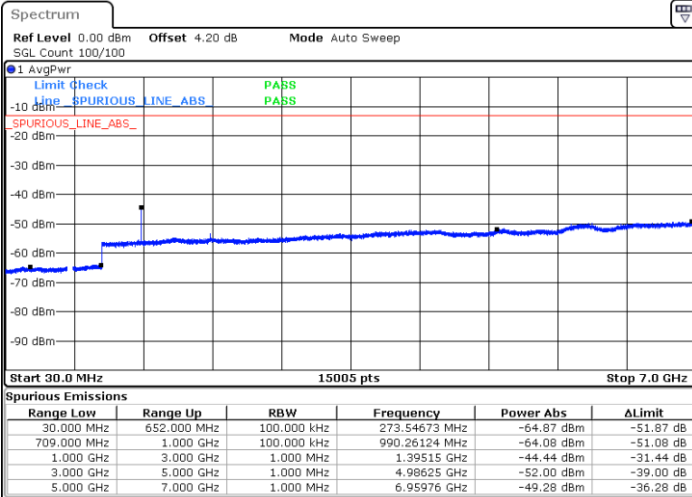




LTE Band 71 / 10MHz

Lowest Channel / QPSK

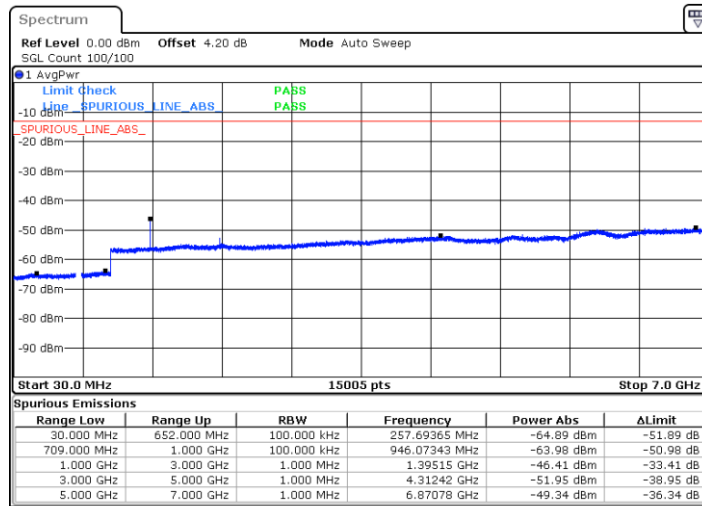
Middle Channel / QPSK



Date: 18.DEC.2020 03:27:18

Date: 18.DEC.2020 03:27:53

Highest Channel / QPSK



Date: 18.DEC.2020 03:26:06

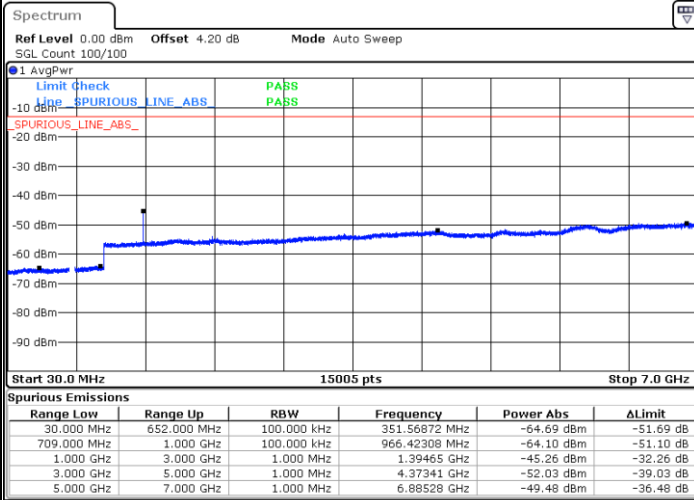




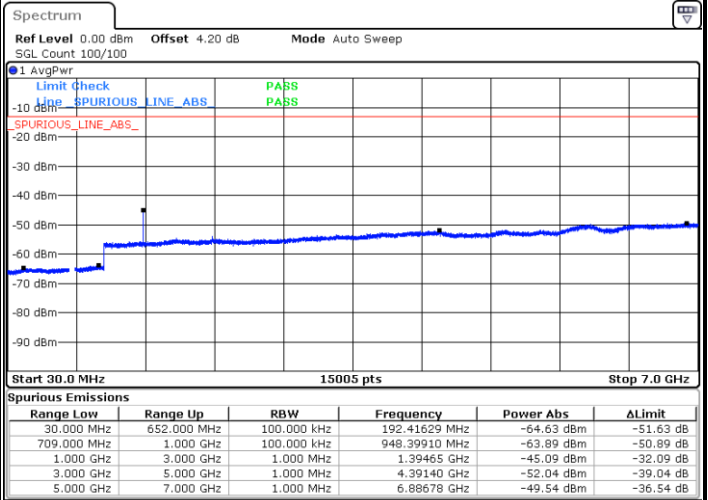
LTE Band 71 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

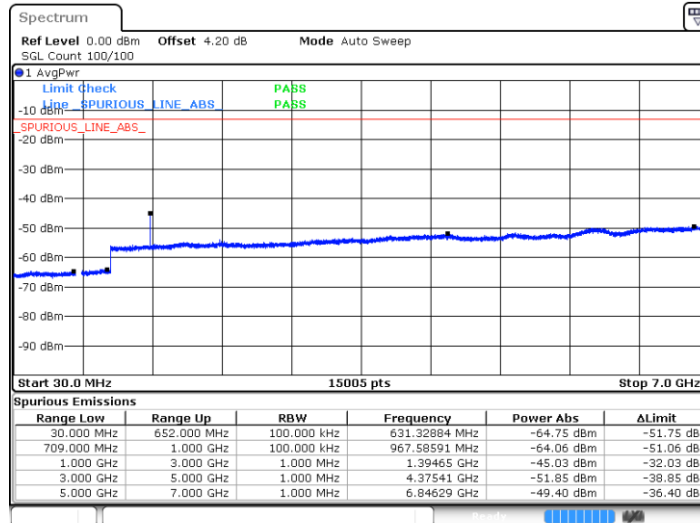


Date: 18.DEC.2020 03:38:52



Date: 18.DEC.2020 03:38:27

Highest Channel / QPSK



Date: 18.DEC.2020 03:38:08