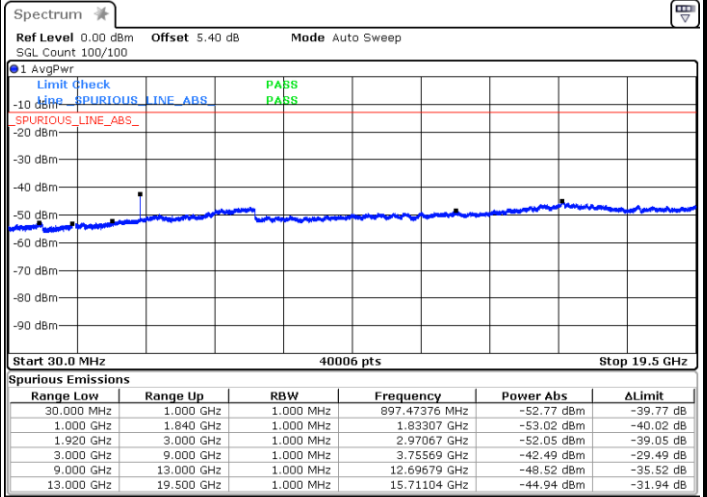
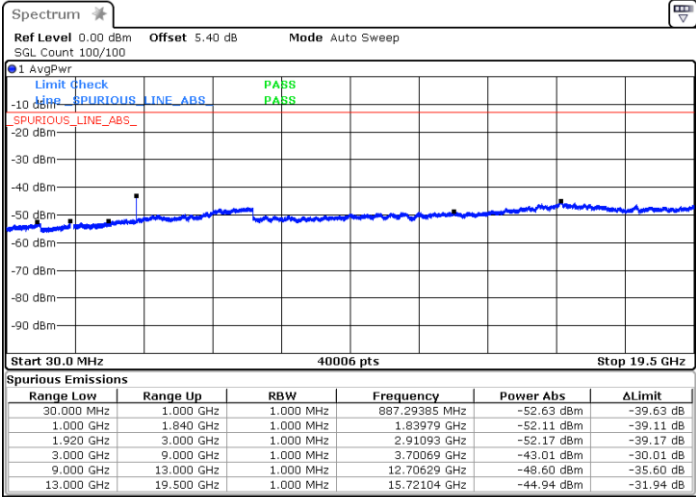




LTE Band 2 / 5MHz

Lowest Channel / QPSK

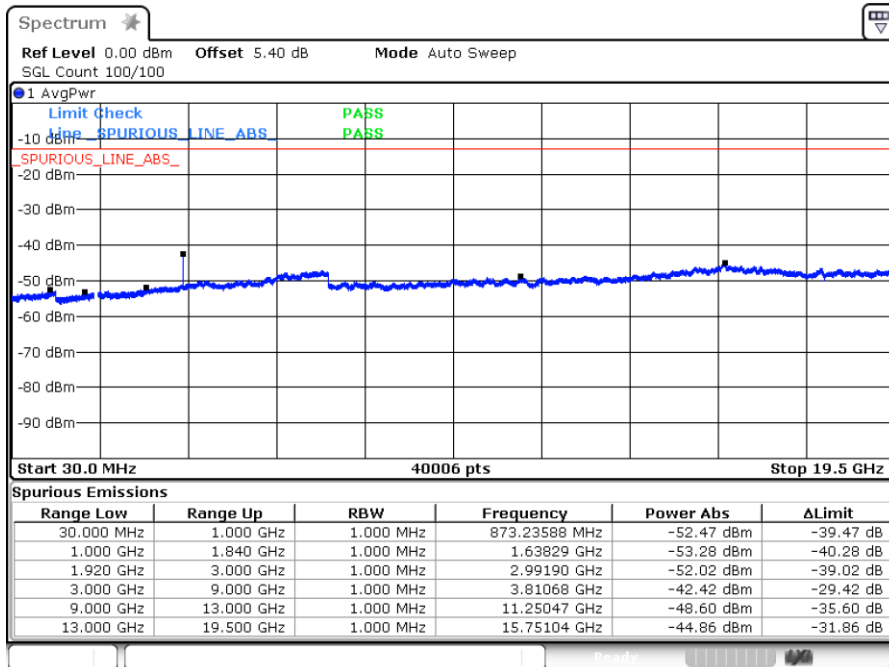
Middle Channel / QPSK



Date: 30 JUN 2021 02:47:37

Date: 30 JUN 2021 02:53:18

Highest Channel / QPSK



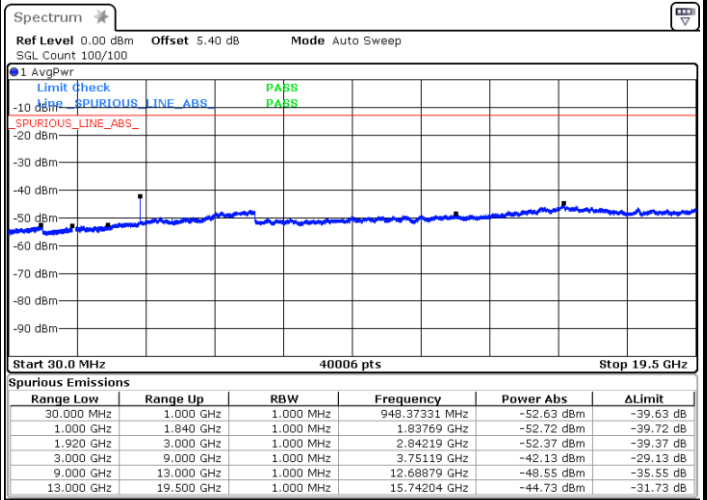
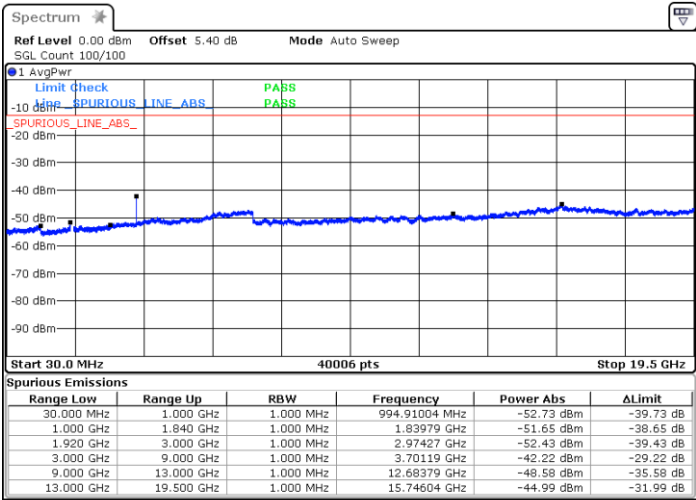
Date: 30 JUN 2021 02:54:55



LTE Band 2 / 10MHz

Lowest Channel / QPSK

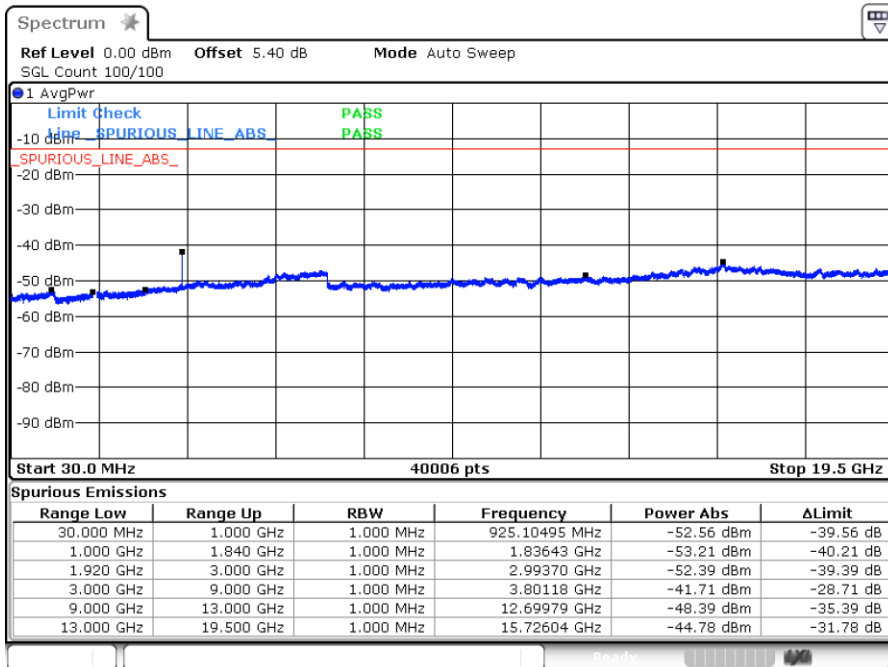
Middle Channel / QPSK



Date: 30 JUN 2021 03:00:56

Date: 30 JUN 2021 03:05:52

Highest Channel / QPSK

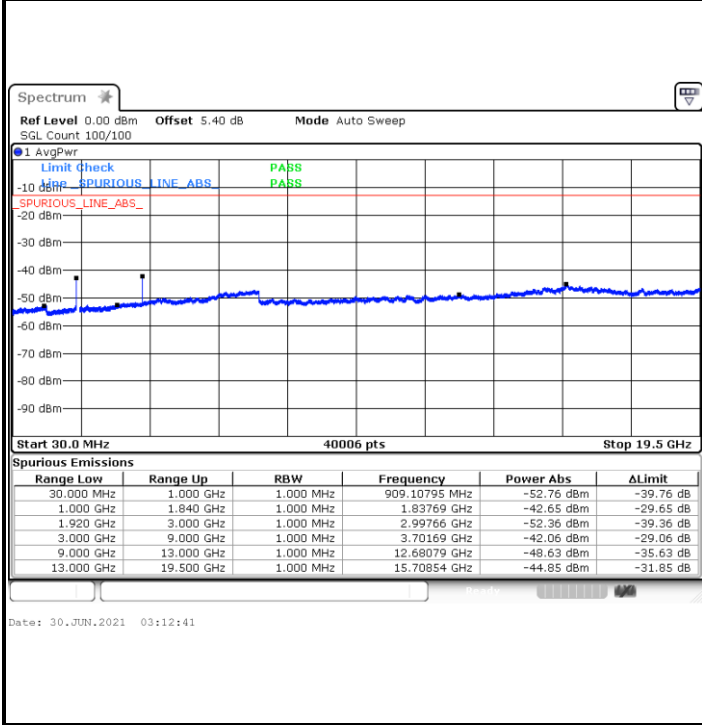


Date: 30 JUN 2021 03:07:24

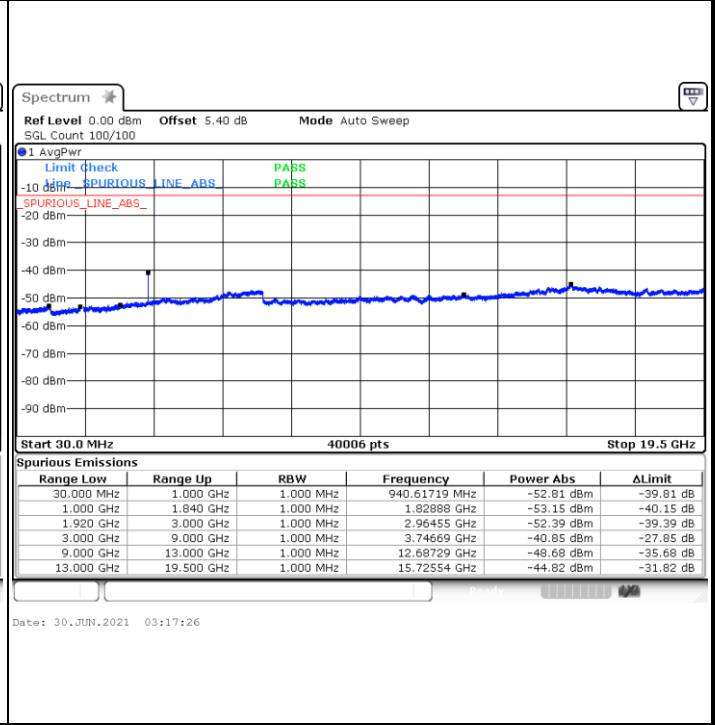


LTE Band 2 / 15MHz

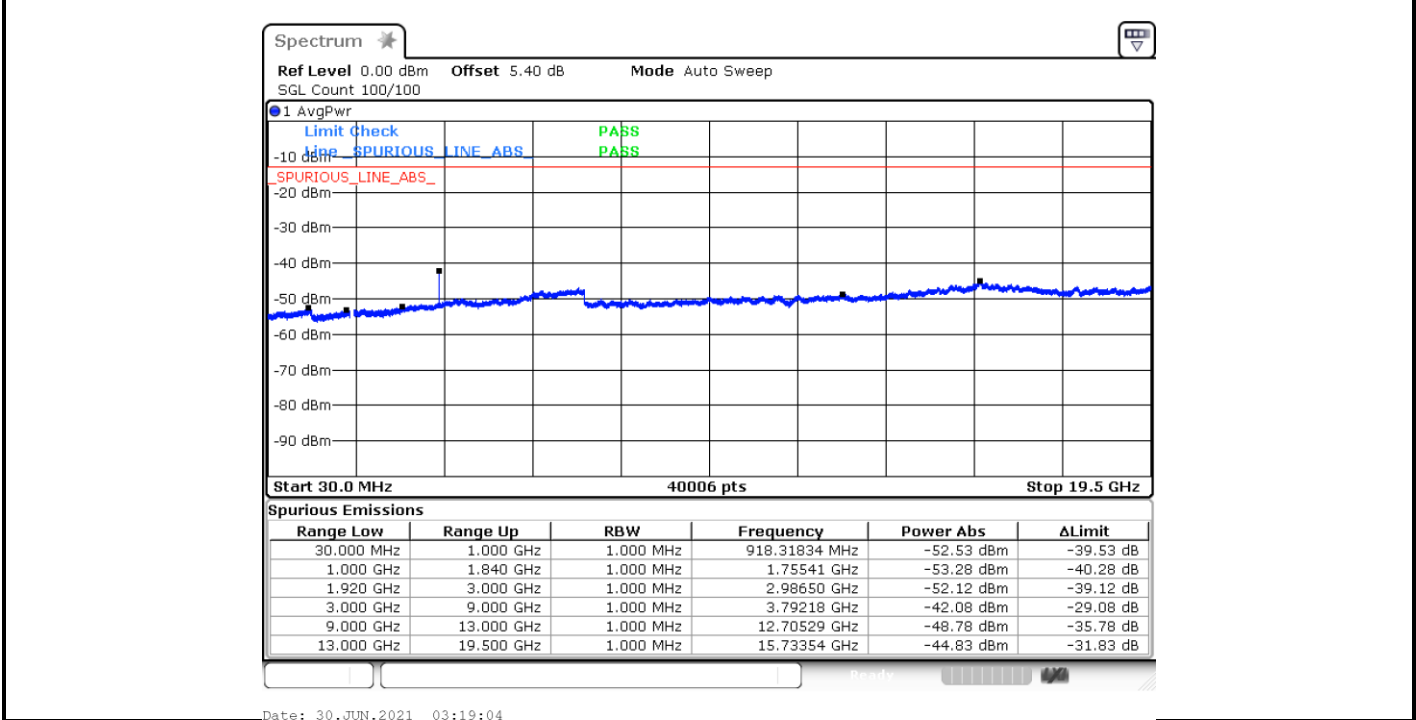
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

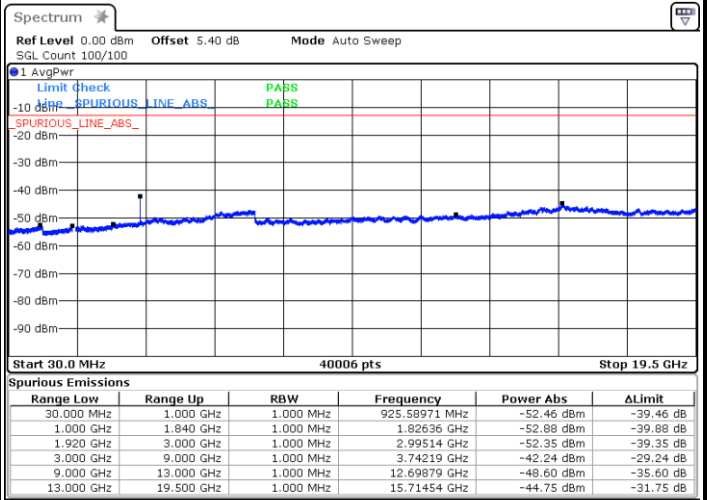
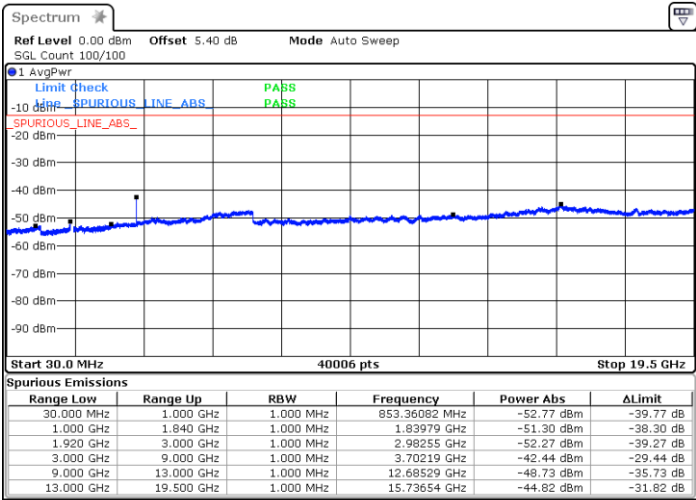




LTE Band 2 / 20MHz

Lowest Channel / QPSK

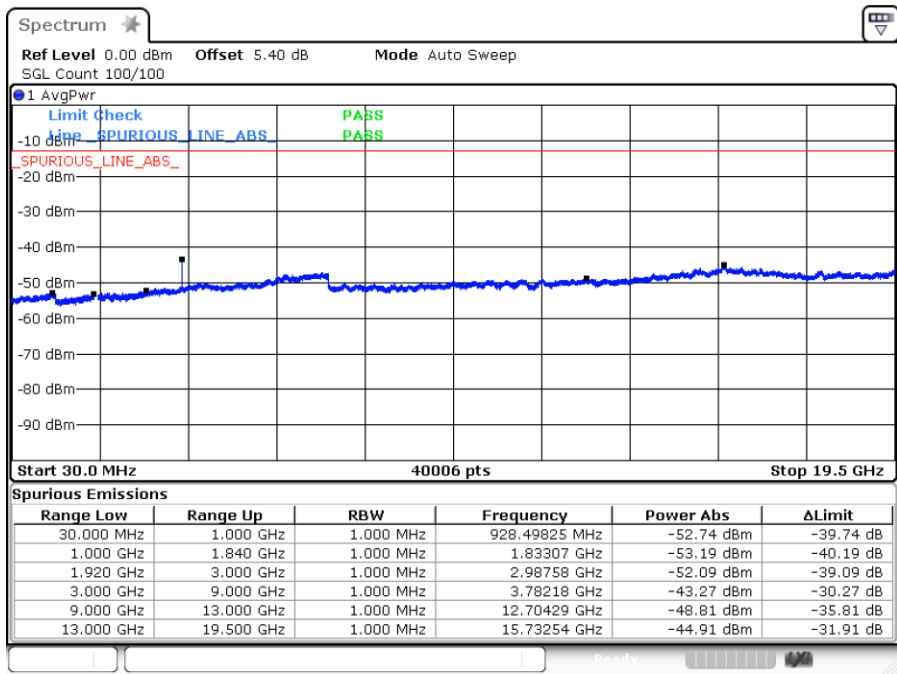
Middle Channel / QPSK



Date: 30 JUN 2021 03:24:19

Date: 30 JUN 2021 03:28:58

Highest Channel / QPSK



Date: 30 JUN 2021 03:35:44



Frequency Stability

| Test Conditions | | LTE Band 2 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 20MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0007 | PASS |
| 40 | Normal Voltage | 0.0008 | |
| 30 | Normal Voltage | 0.0018 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0008 | |
| 0 | Normal Voltage | 0.0019 | |
| -10 | Normal Voltage | 0.0025 | |
| -20 | Normal Voltage | 0.0003 | |
| -30 | Normal Voltage | 0.0018 | |
| 20 | Maximum Voltage | 0.0007 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0018 | |

Note:

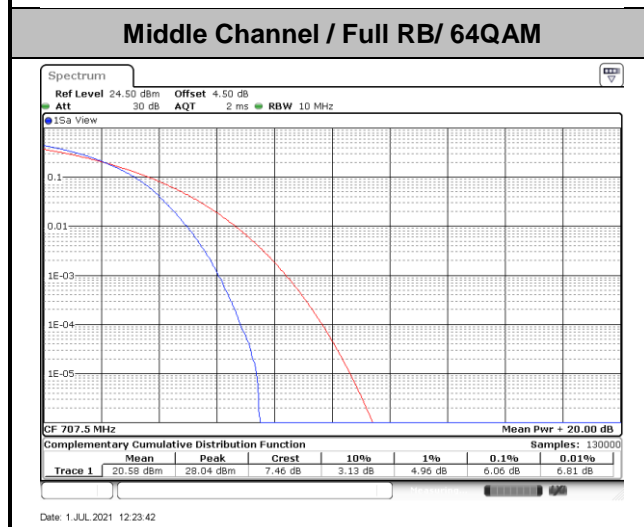
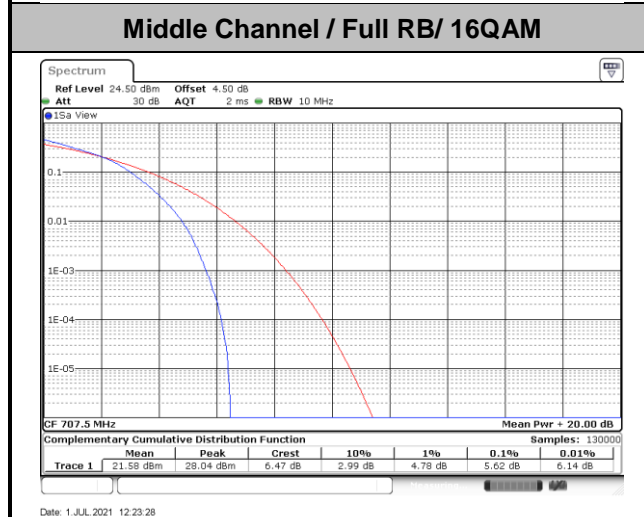
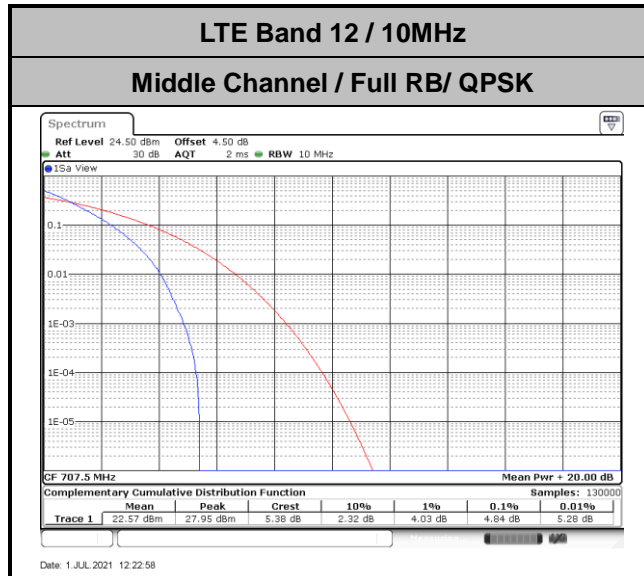
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

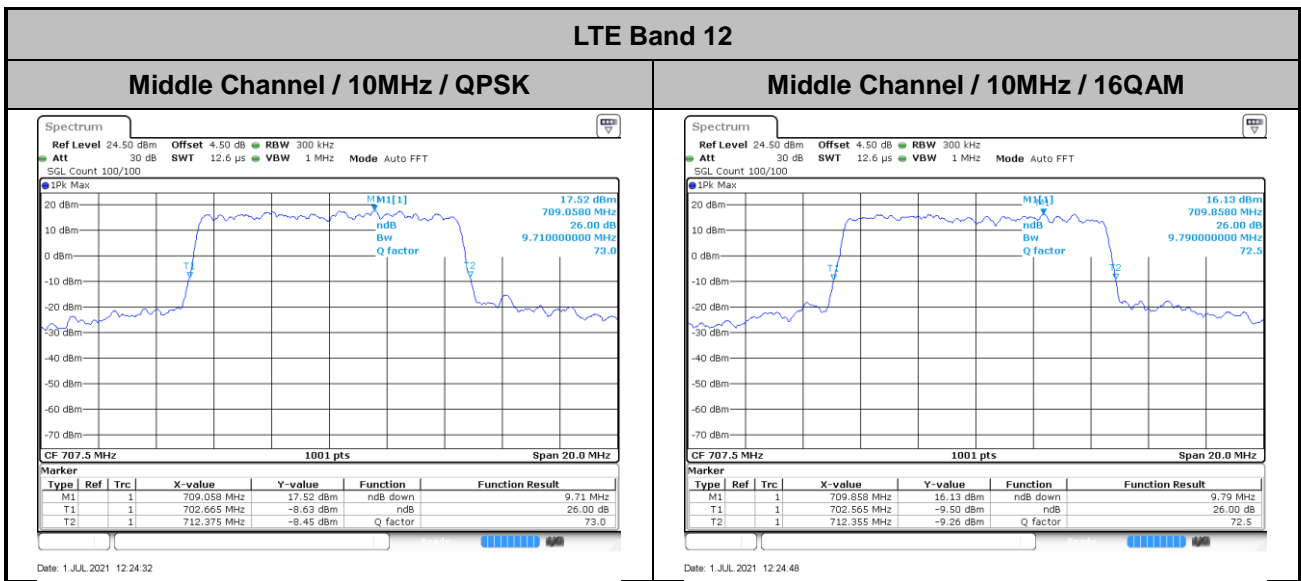
| Mode | LTE Band 12 / 10MHz | | | |
|-----------|---------------------|---------|---------|-------------|
| Mod. | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.84 | 5.62 | 6.06 | PASS |





26dB Bandwidth

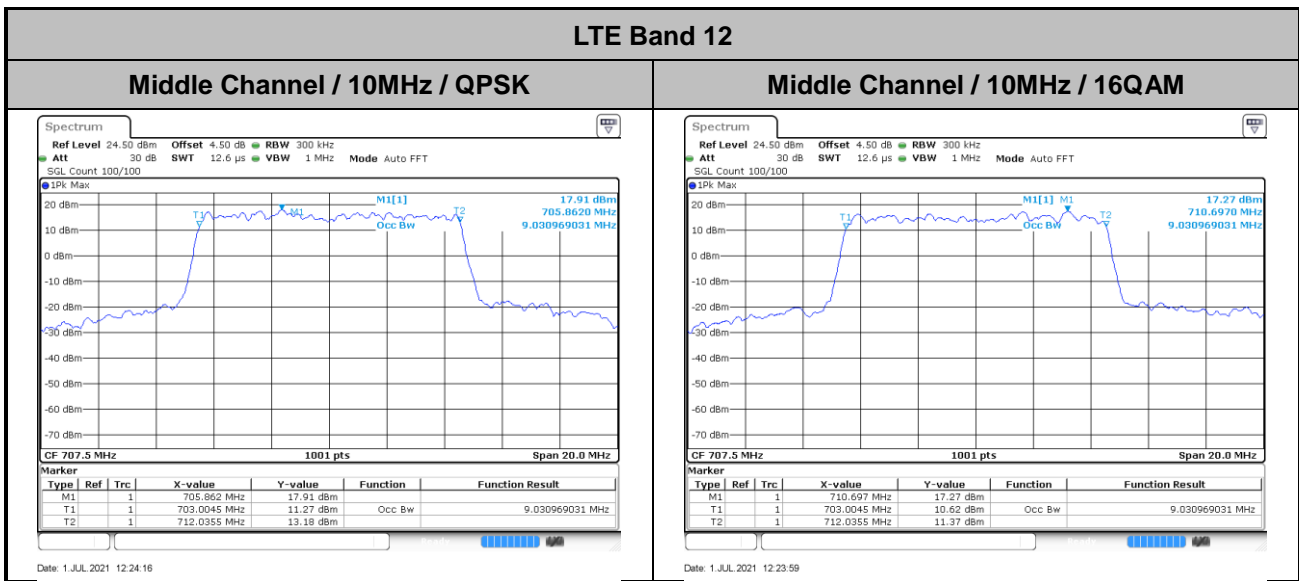
| | | |
|------------------|-----------------------------------|--------------|
| Mode | LTE Band 12 : 26dB BW(MHz) | |
| BW | 10MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 9.71 | 9.79 |





Occupied Bandwidth

| | | |
|-----------|---------------------------|-------|
| Mode | LTE Band 12 : 99%OBW(MHz) | |
| BW | 10MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 9.03 | 9.03 |



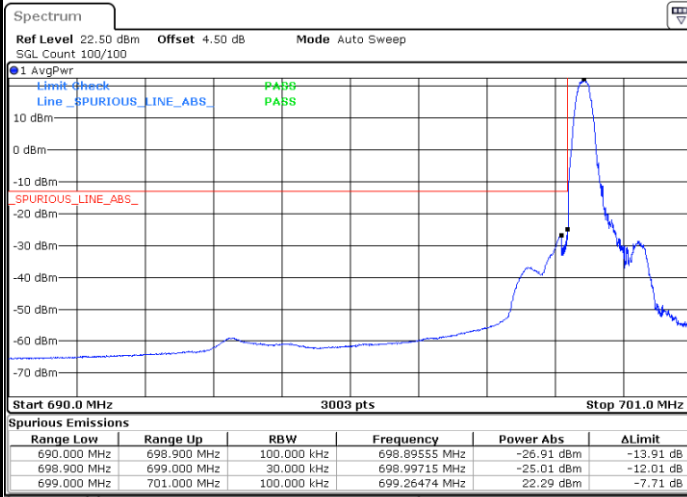


Conducted Band Edge



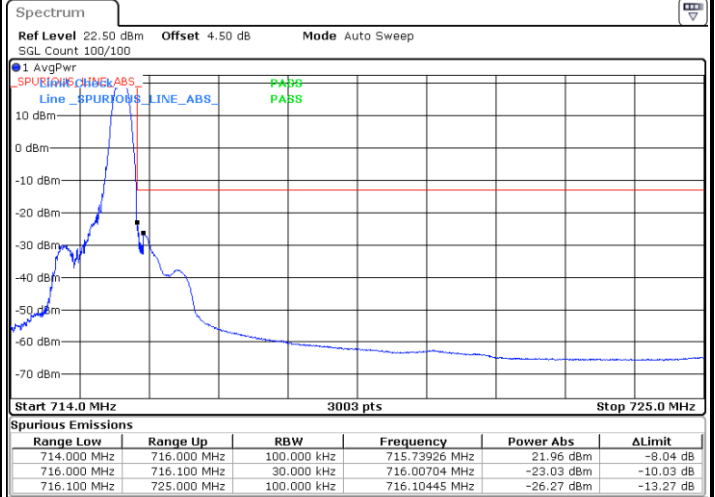
LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



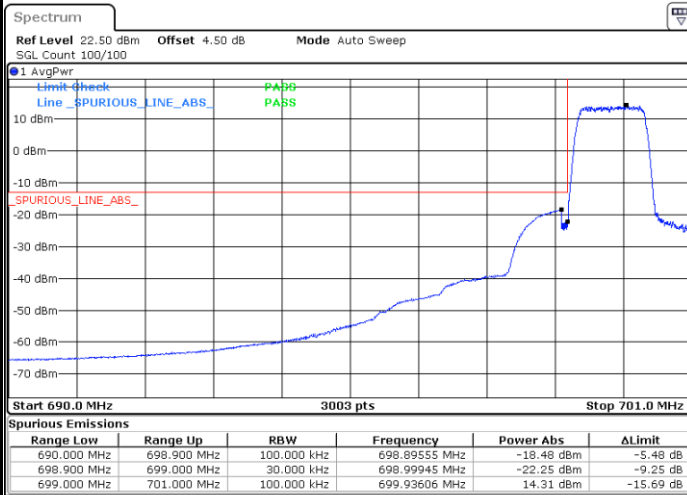
Date: 1 JUL 2021 11:01:01

Highest Band Edge / 1RB



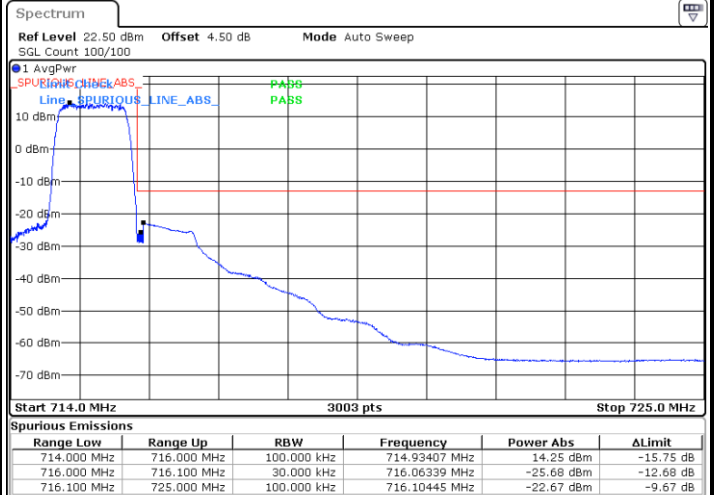
Date: 1 JUL 2021 11:05:40

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:03:09

Highest Band Edge / Full RB

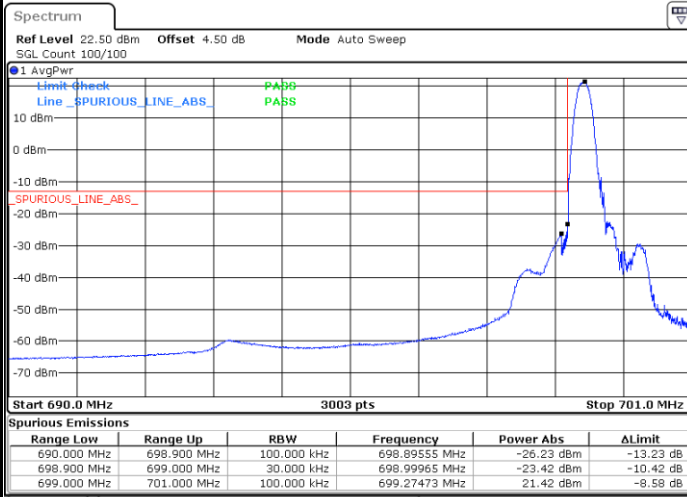


Date: 1 JUL 2021 11:10:22



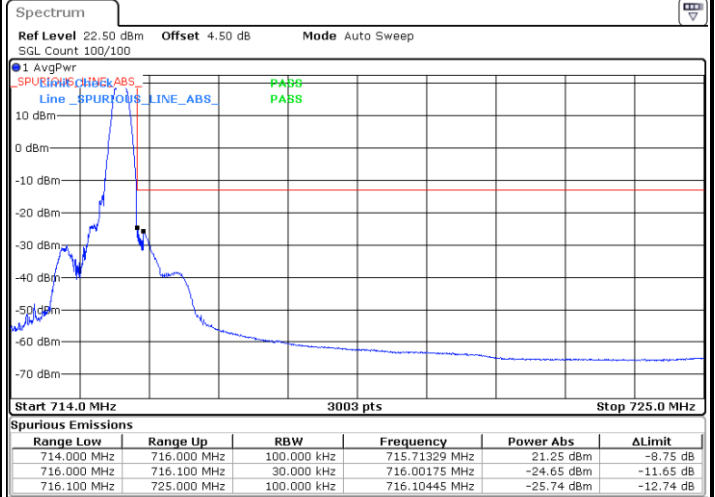
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



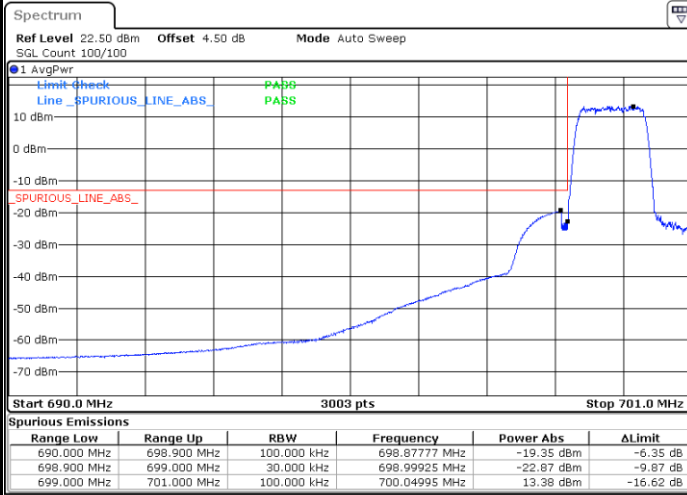
Date: 1 JUL 2021 11:01:44

Highest Band Edge / 1 RB



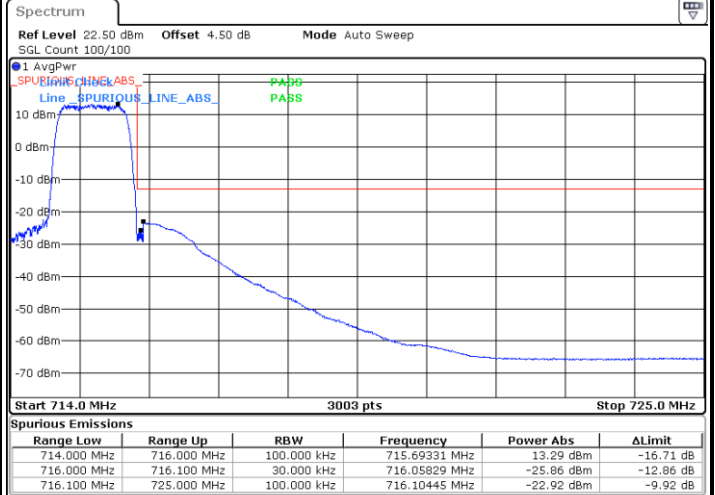
Date: 1 JUL 2021 11:07:03

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:03:55

Highest Band Edge / Full RB

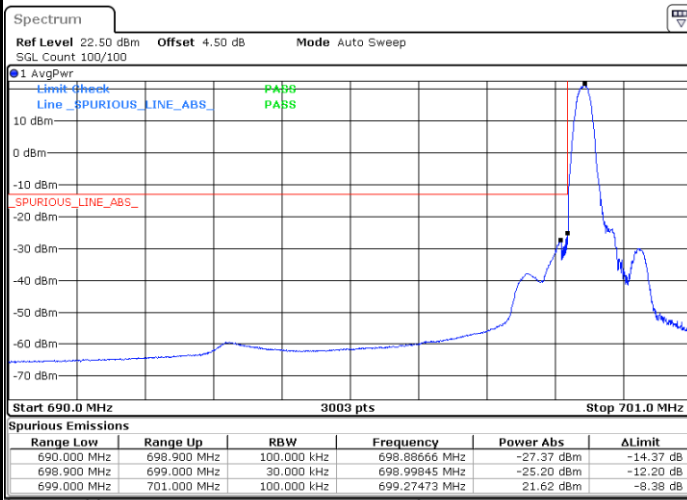


Date: 1 JUL 2021 11:09:39



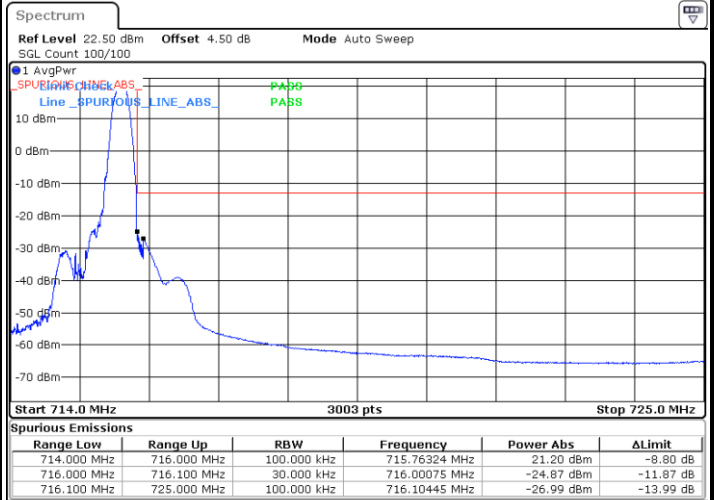
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



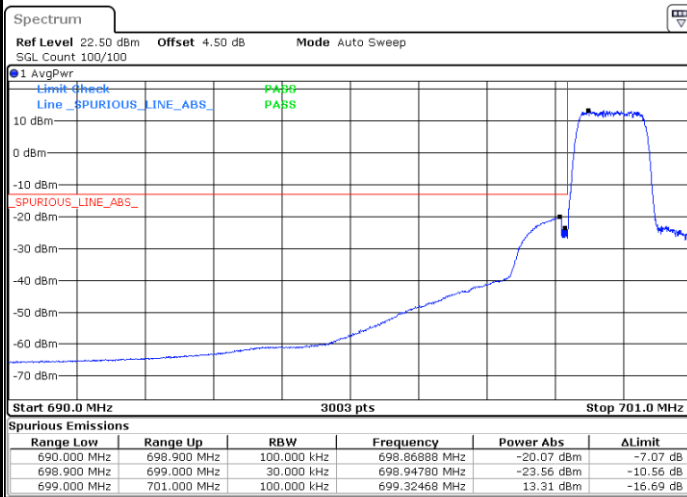
Date: 1 JUL 2021 11:02:21

Highest Band Edge / 1 RB



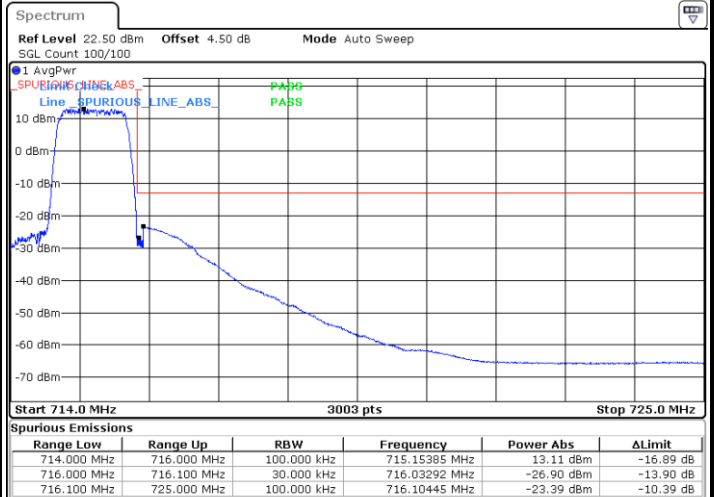
Date: 1 JUL 2021 11:07:59

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:04:48

Highest Band Edge / Full RB

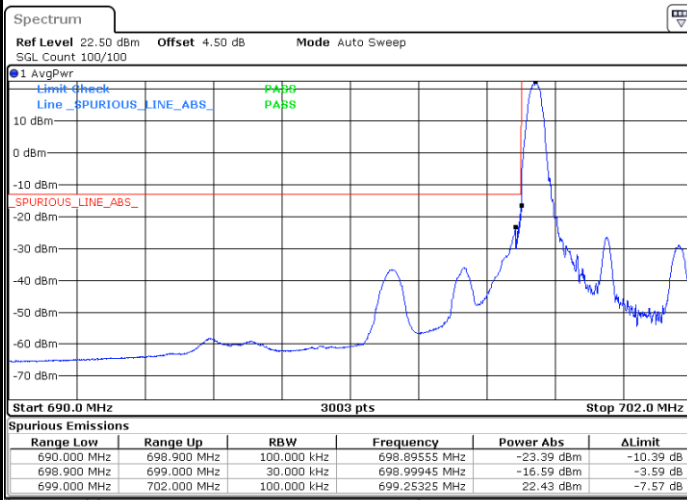


Date: 1 JUL 2021 11:08:42



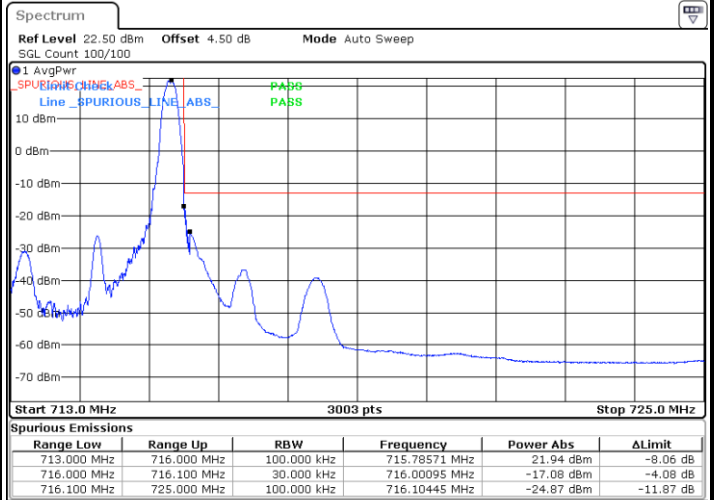
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



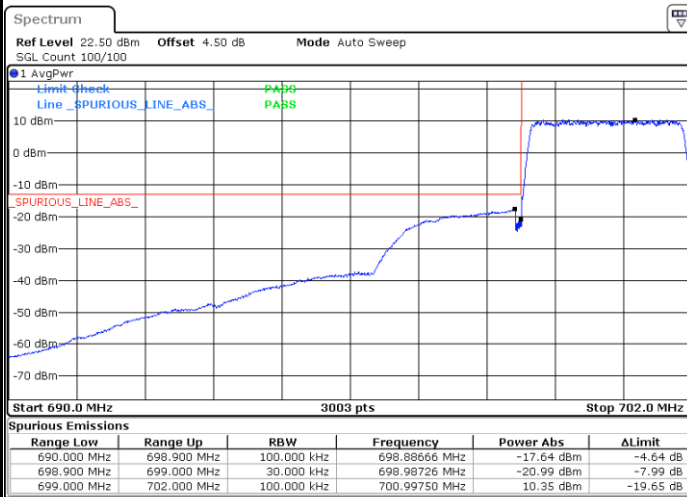
Date: 1 JUL 2021 11:30:23

Highest Band Edge / 1 RB



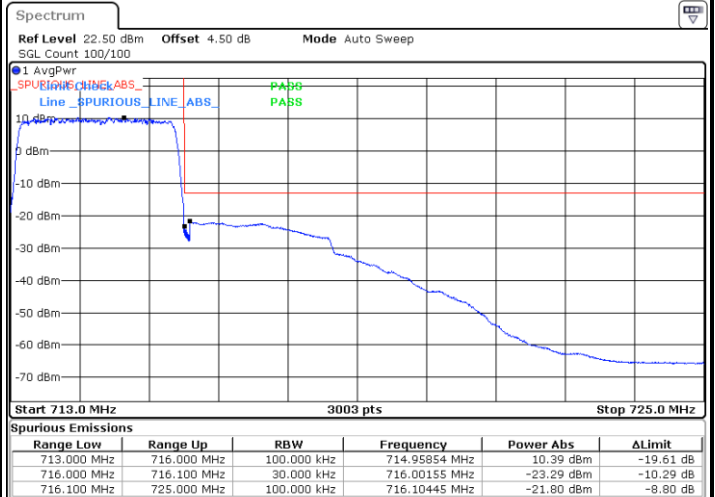
Date: 1 JUL 2021 11:34:35

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:33:47

Highest Band Edge / Full RB

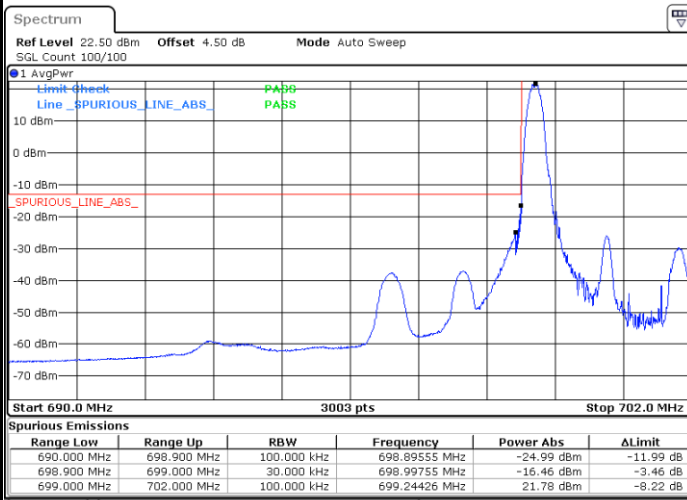


Date: 1 JUL 2021 11:37:52



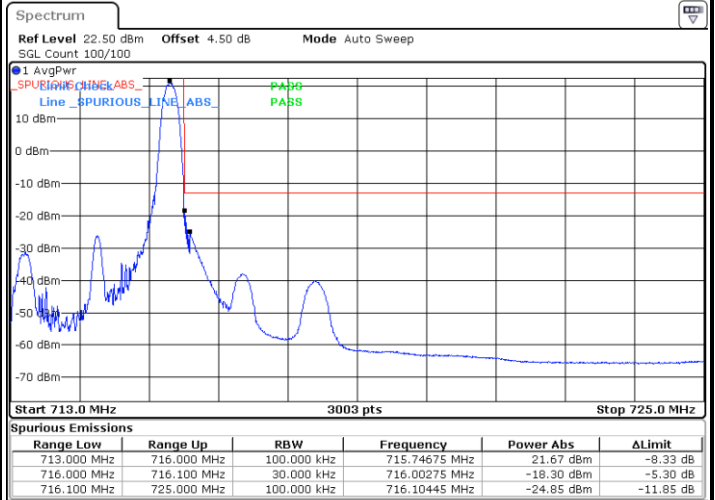
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



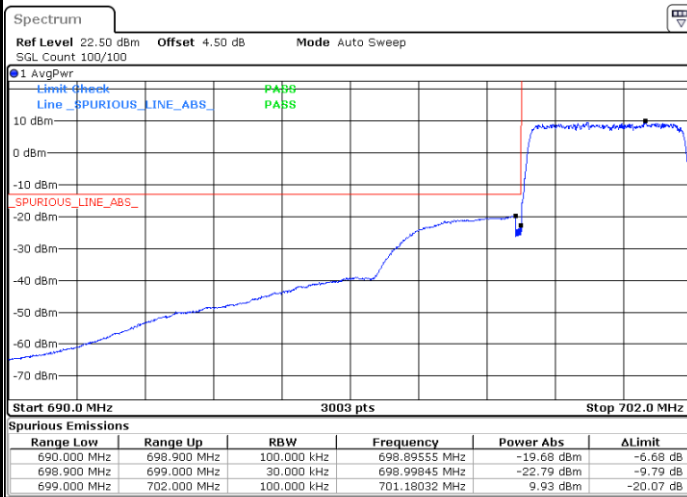
Date: 1 JUL 2021 11:31:00

Highest Band Edge / 1 RB



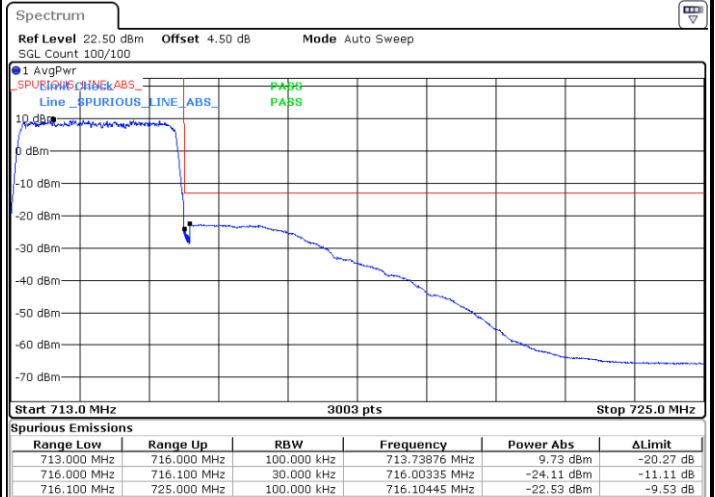
Date: 1 JUL 2021 11:35:11

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:33:02

Highest Band Edge / Full RB

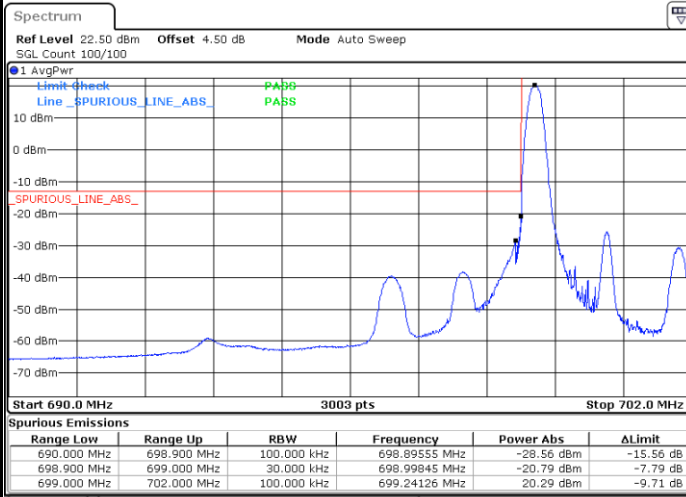


Date: 1 JUL 2021 11:37:13



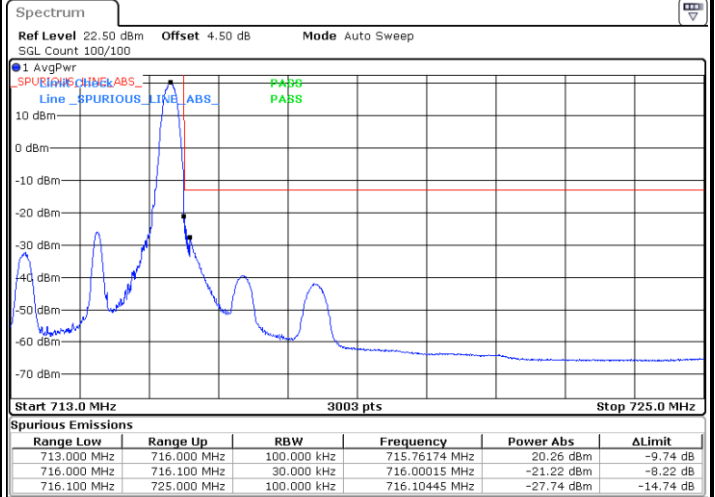
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



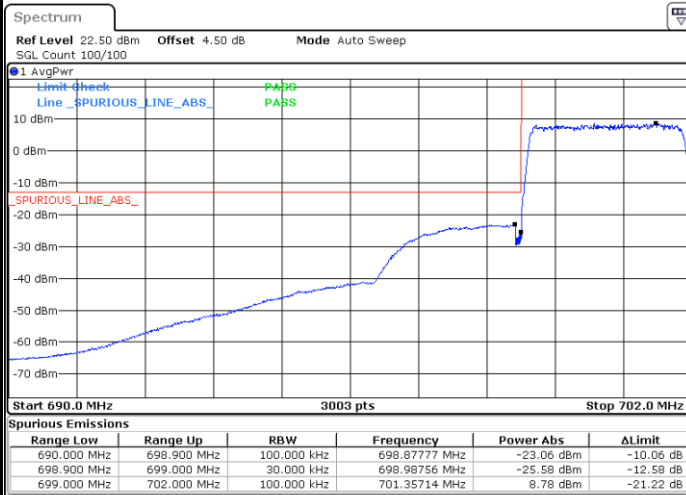
Date: 1 JUL 2021 11:31:41

Highest Band Edge / 1 RB



Date: 1 JUL 2021 11:35:56

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:32:26

Highest Band Edge / Full RB

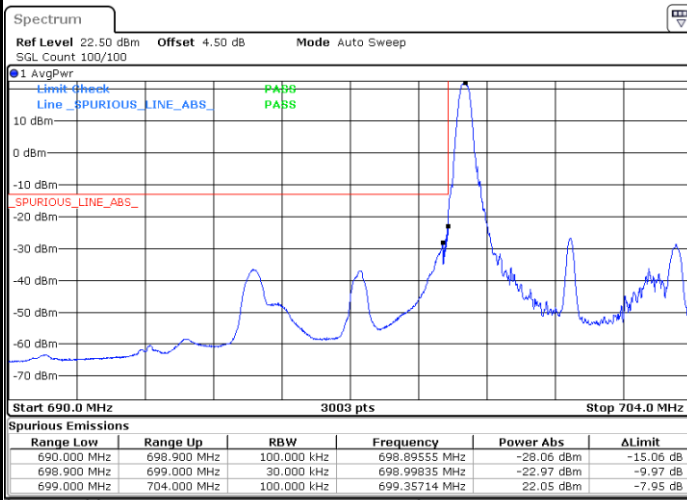


Date: 1 JUL 2021 11:36:36



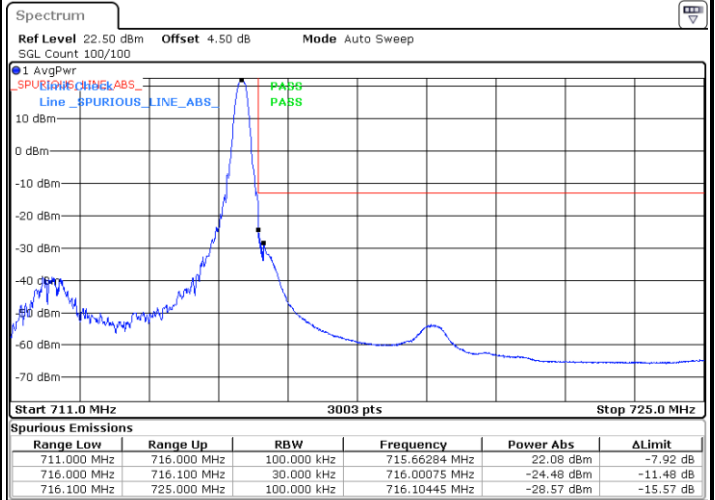
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



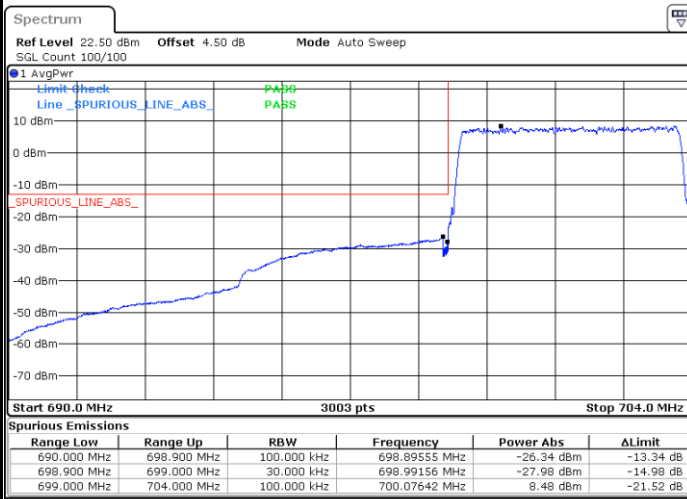
Date: 1 JUL 2021 11:40:48

Highest Band Edge / 1 RB



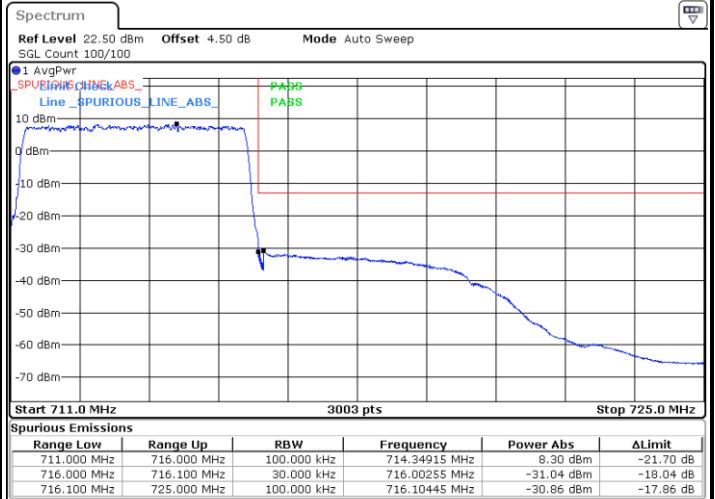
Date: 1 JUL 2021 11:52:31

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:51:49

Highest Band Edge / Full RB

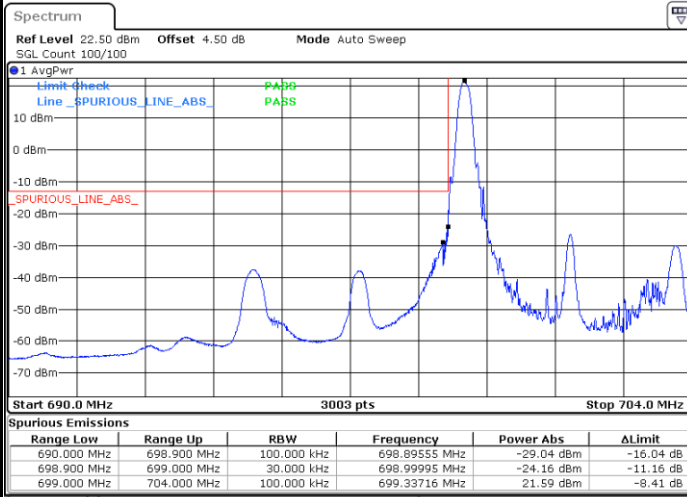


Date: 1 JUL 2021 11:55:50



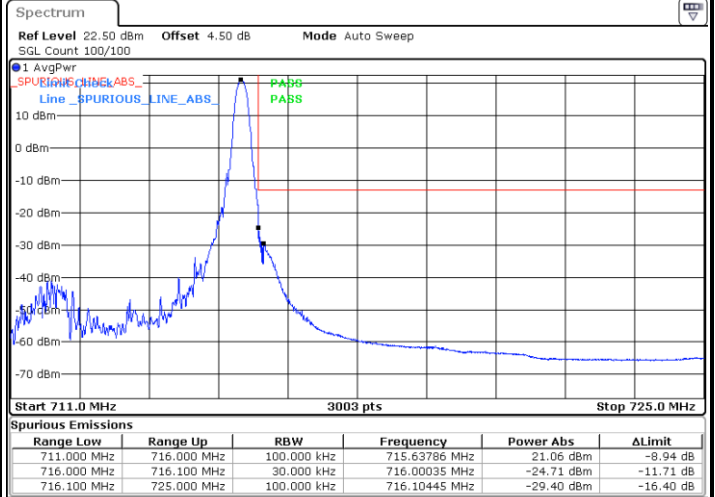
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



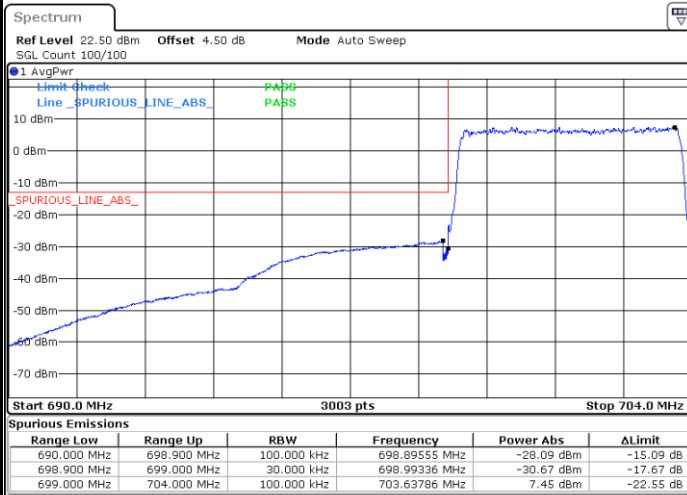
Date: 1 JUL 2021 11:48:44

Highest Band Edge / 1 RB



Date: 1 JUL 2021 11:53:10

Lowest Band Edge / Full RB



Date: 1 JUL 2021 11:51:07

Highest Band Edge / Full RB

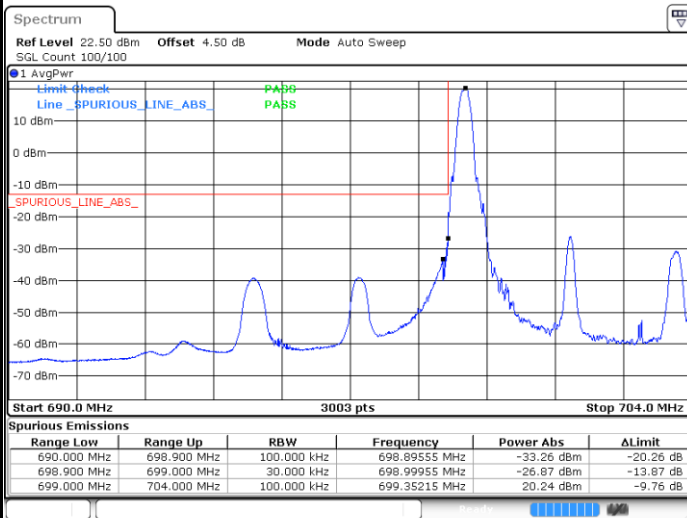


Date: 1 JUL 2021 11:55:03

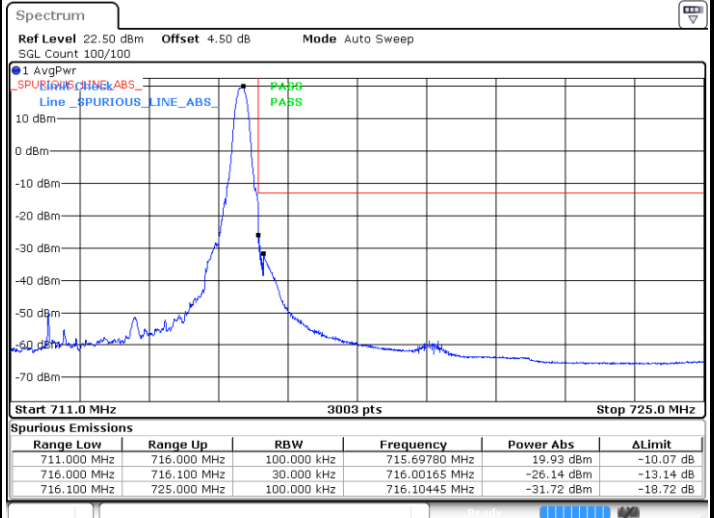


LTE Band 12 / 5MHz / 64QAM

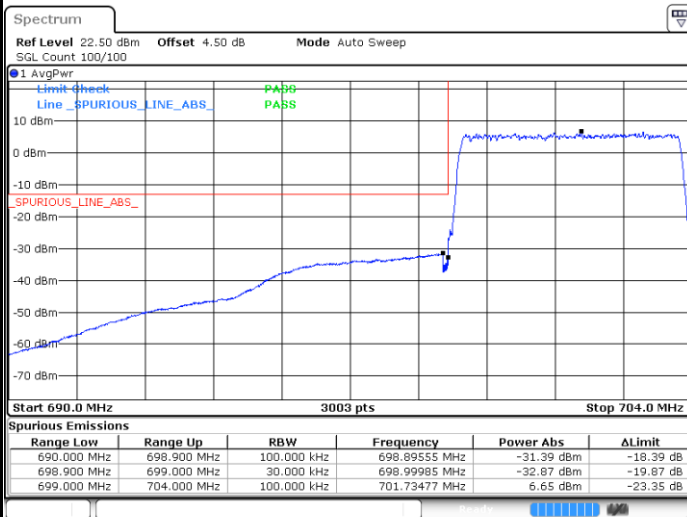
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



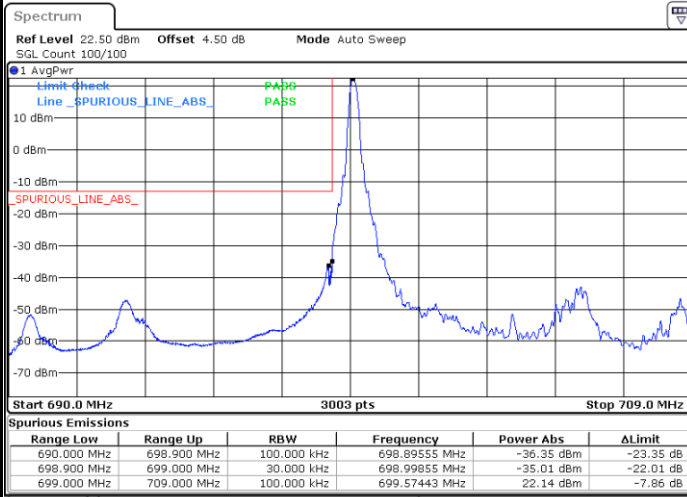
Highest Band Edge / Full RB





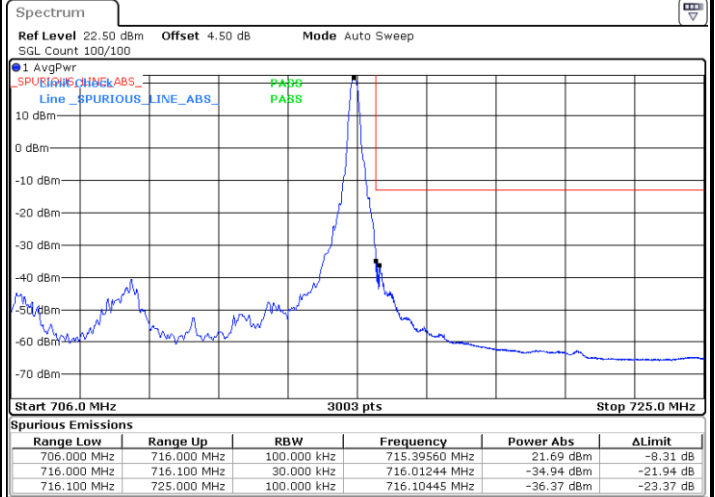
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



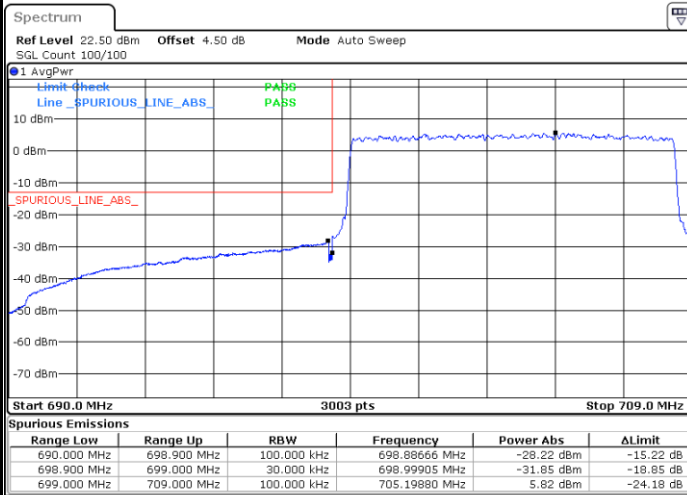
Date: 1 JUL 2021 12:01:51

Highest Band Edge / 1 RB



Date: 1 JUL 2021 12:08:28

Lowest Band Edge / Full RB



Date: 1 JUL 2021 12:06:29

Highest Band Edge / Full RB

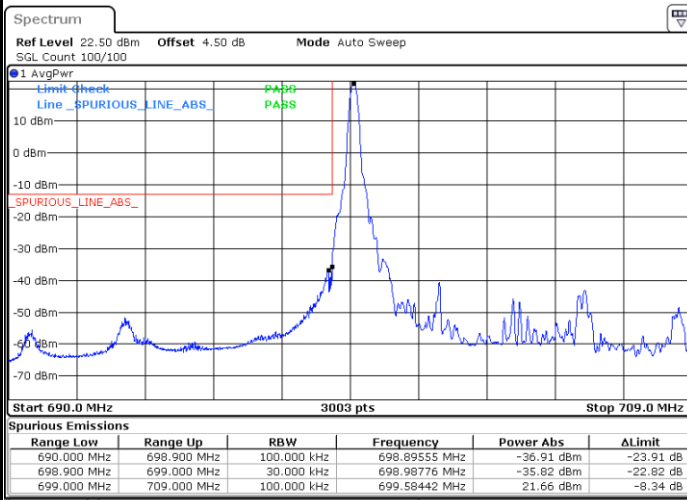


Date: 1 JUL 2021 12:13:36

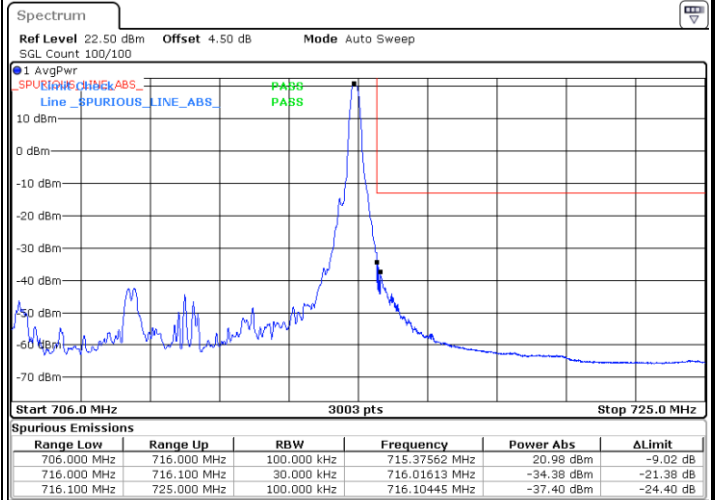


LTE Band 12 / 10MHz / 16QAM

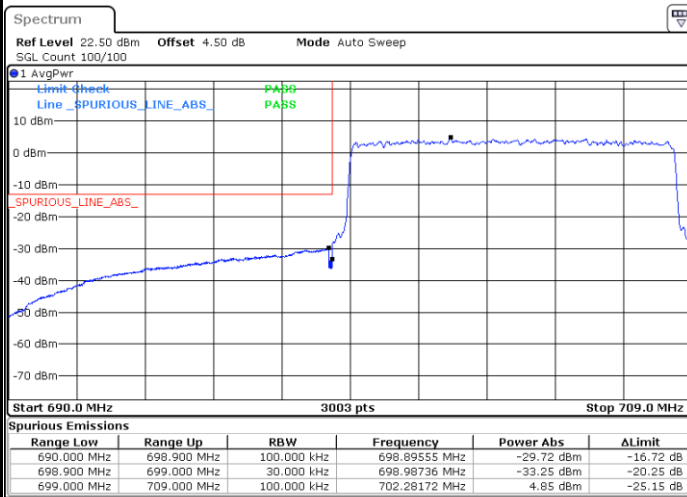
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



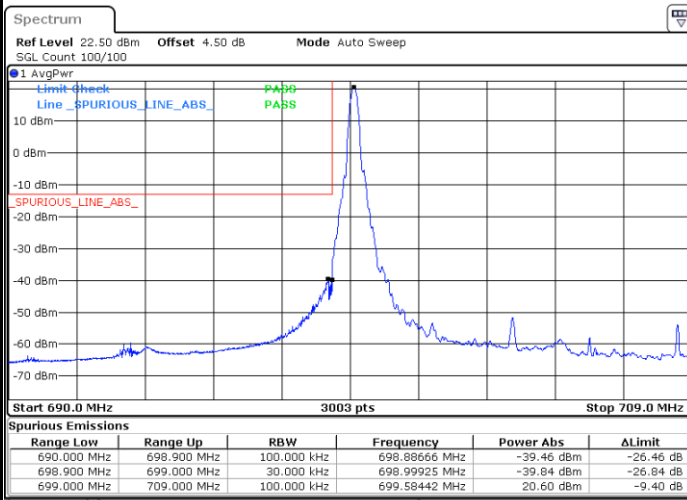
Highest Band Edge / Full RB





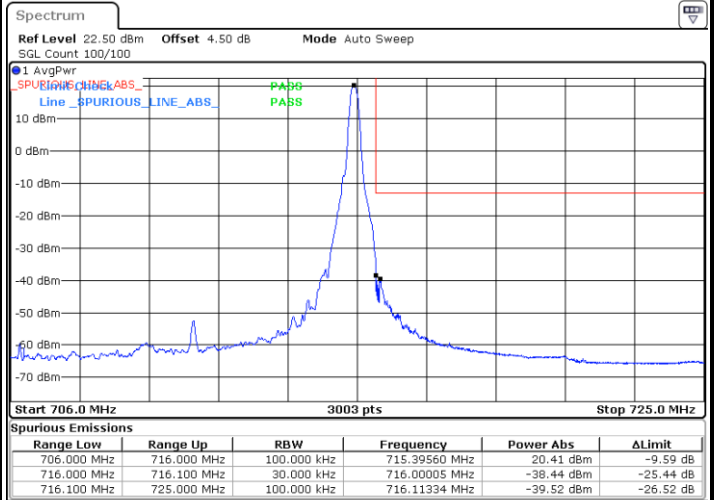
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



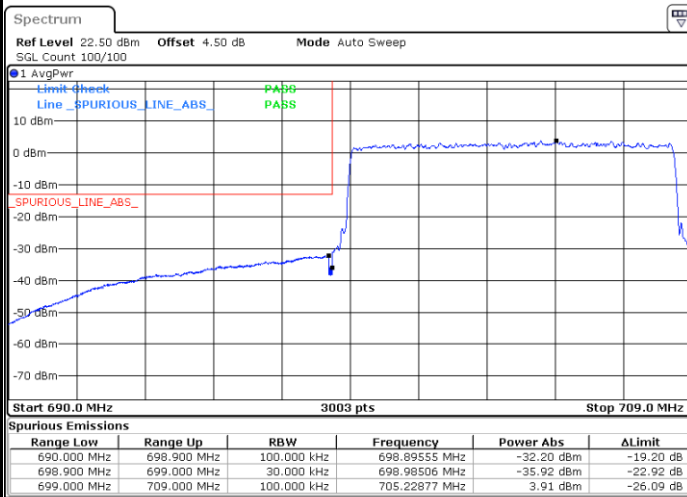
Date: 1 JUL 2021 12:03:37

Highest Band Edge / 1 RB



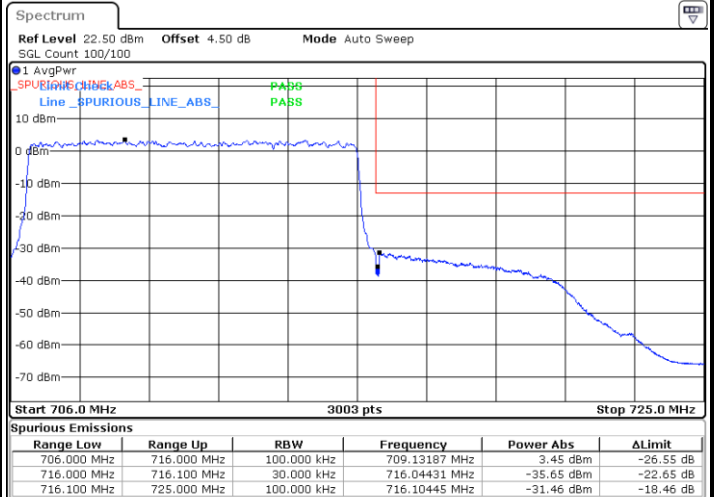
Date: 1 JUL 2021 12:10:14

Lowest Band Edge / Full RB



Date: 1 JUL 2021 12:05:45

Highest Band Edge / Full RB



Date: 1 JUL 2021 12:10:59



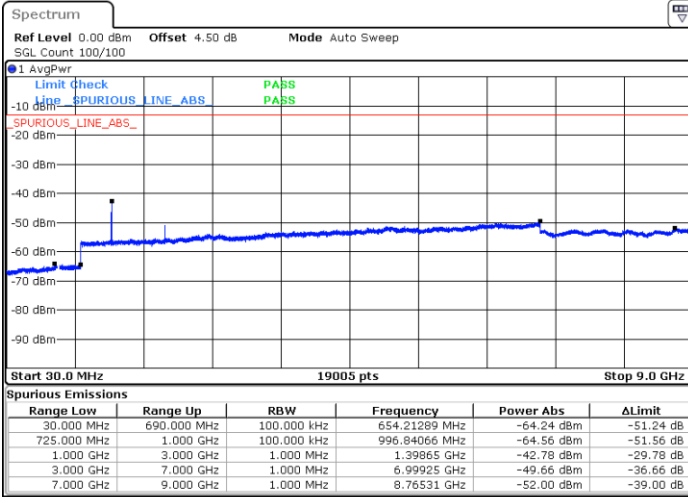
Conducted Spurious Emission



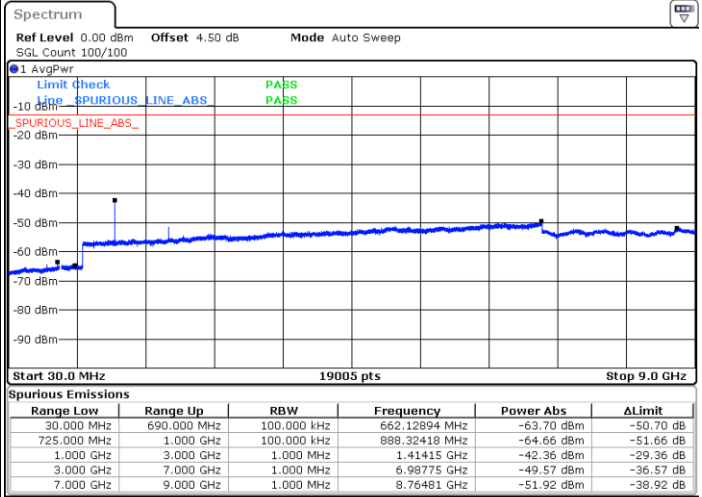
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

Middle Channel / QPSK

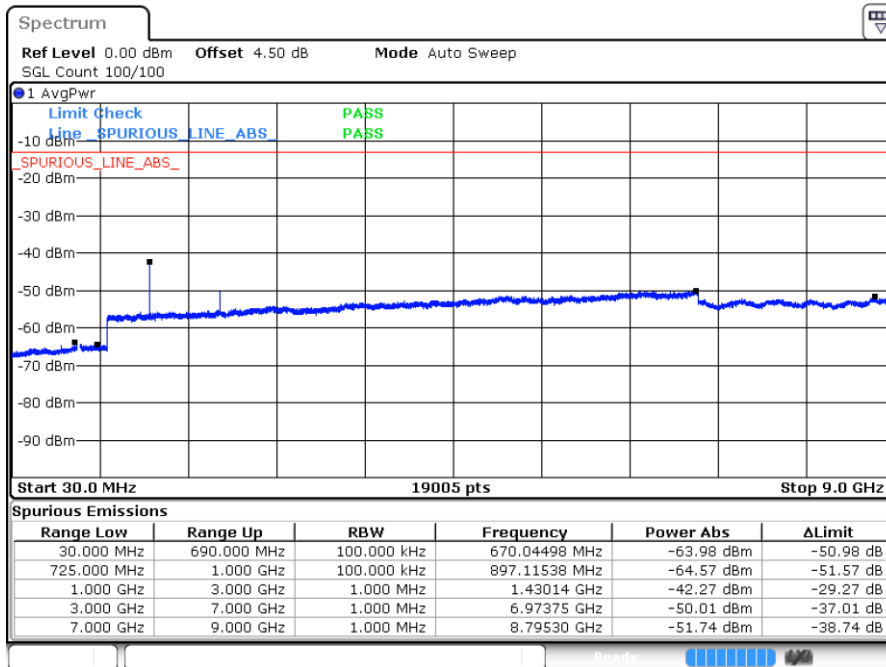


Date: 1 JUL 2021 11:12:17



Date: 1 JUL 2021 11:11:31

Highest Channel / QPSK



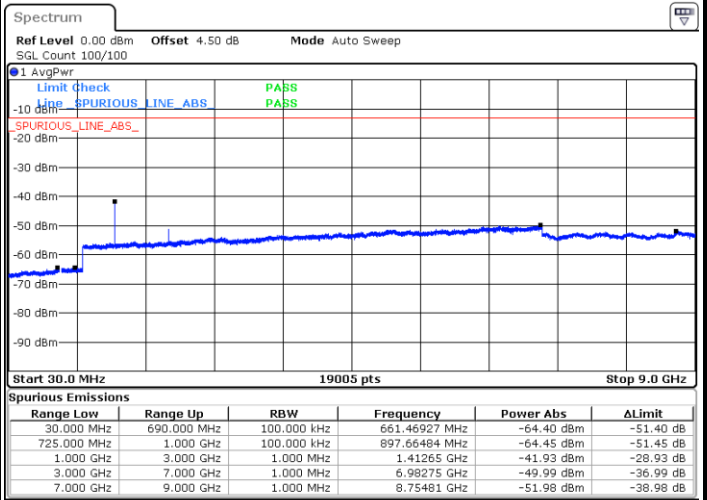
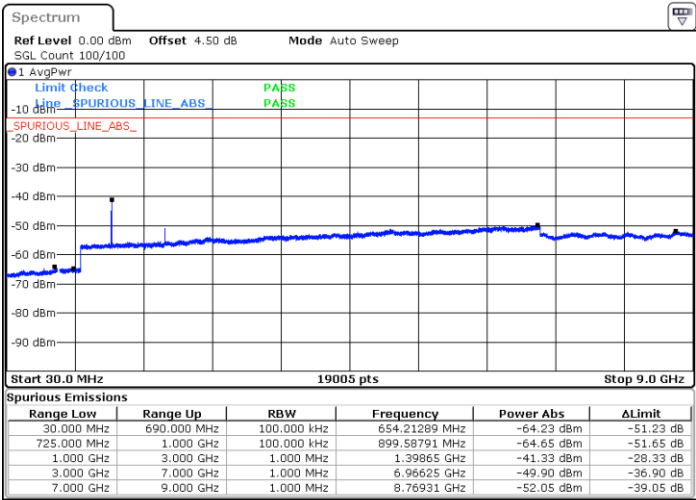
Date: 1 JUL 2021 11:10:59



LTE Band 12 / 3MHz

Lowest Channel / QPSK

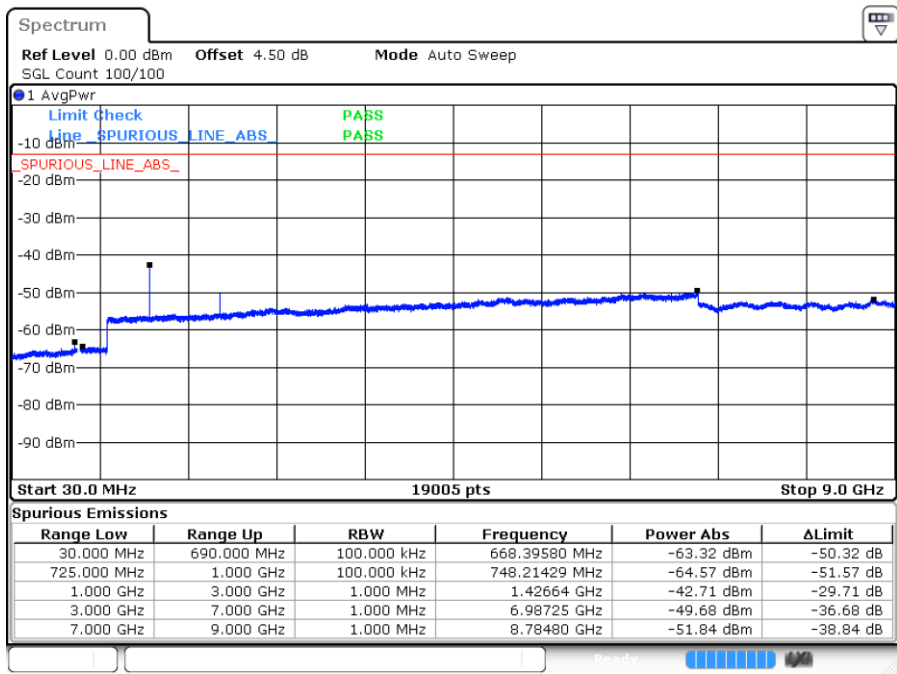
Middle Channel / QPSK



Date: 1 JUL 2021 11:39:22

Date: 1 JUL 2021 11:38:53

Highest Channel / QPSK



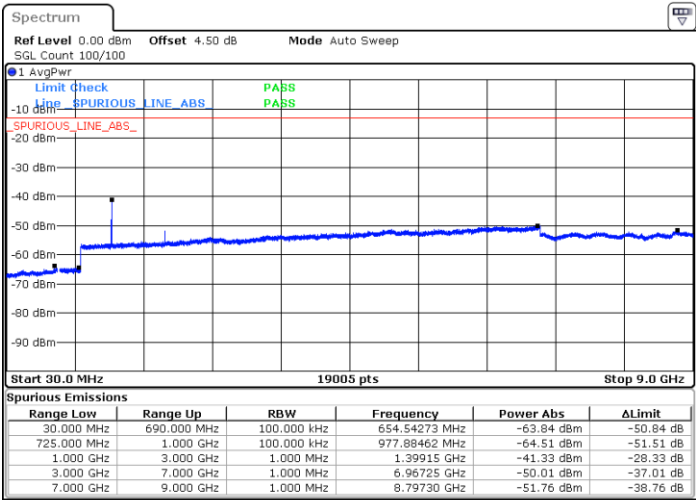
Date: 1 JUL 2021 11:38:26



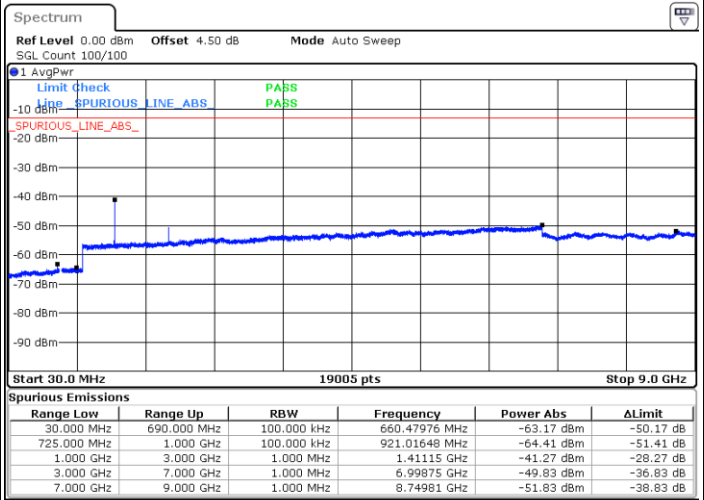
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

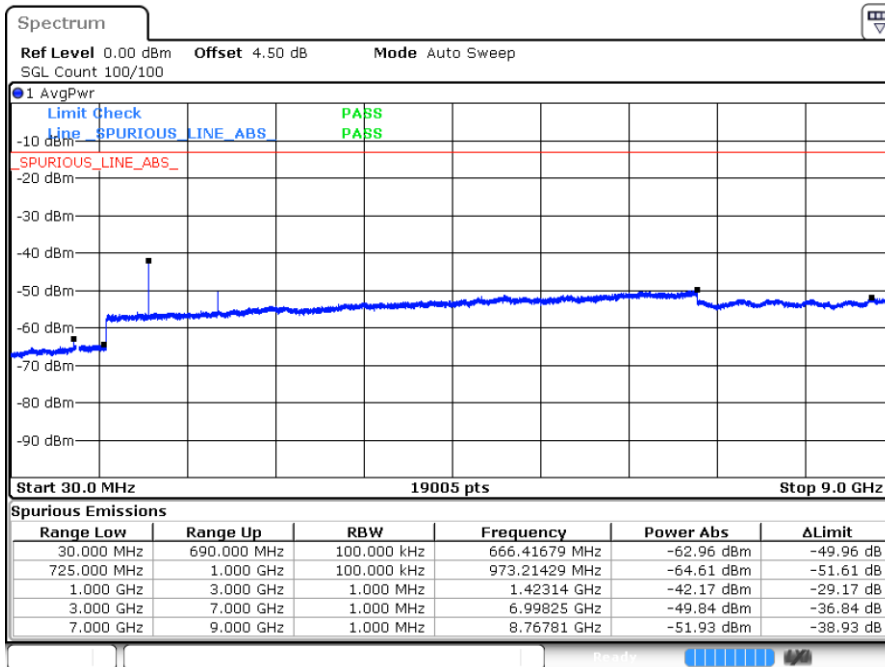


Date: 1 JUL 2021 11:57:30



Date: 1 JUL 2021 11:56:49

Highest Channel / QPSK



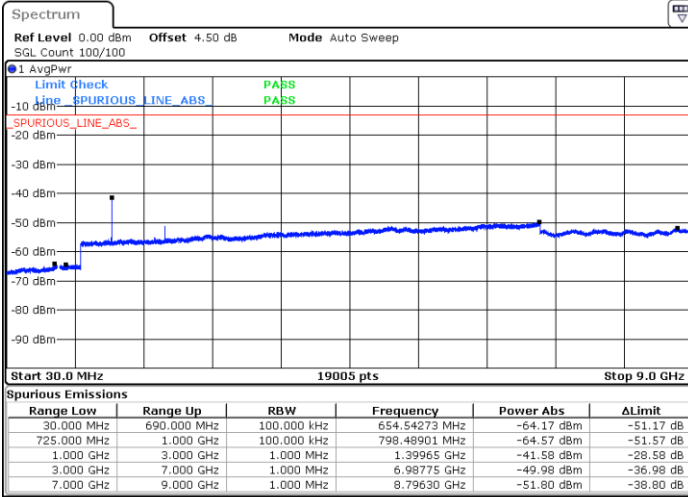
Date: 1 JUL 2021 11:56:18



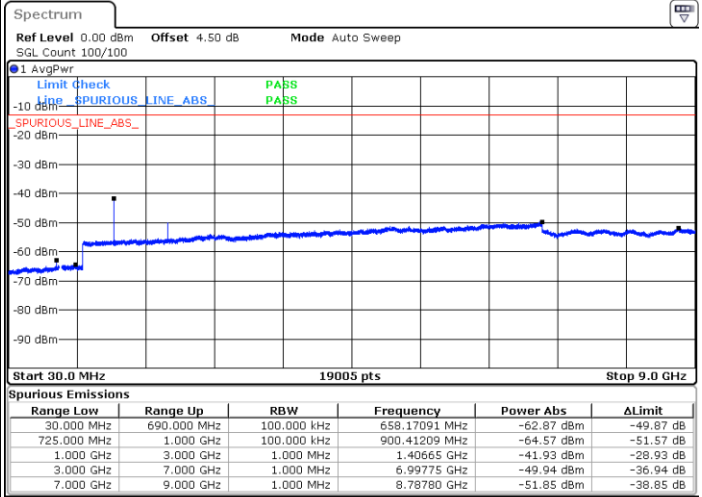
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

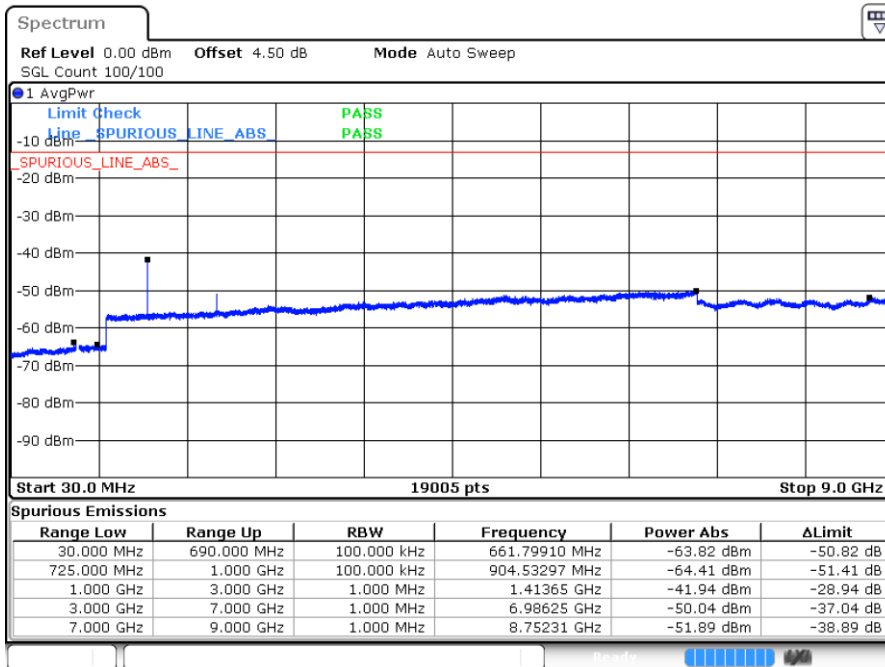


Date: 1 JUL 2021 12:15:08



Date: 1 JUL 2021 12:14:38

Highest Channel / QPSK



Date: 1 JUL 2021 12:14:11



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 | 0.0018 | PASS |
| 40 | Normal Voltage | 0.0016 | |
| 30 | Normal Voltage | 0.0028 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0021 | |
| 0 | Normal Voltage | 0.0026 | |
| -10 | Normal Voltage | 0.0004 | |
| -20 | Normal Voltage | 0.0012 | |
| -30 | Normal Voltage | 0.0023 | |
| 20 | Maximum Voltage | 0.0022 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0008 | |

Note:

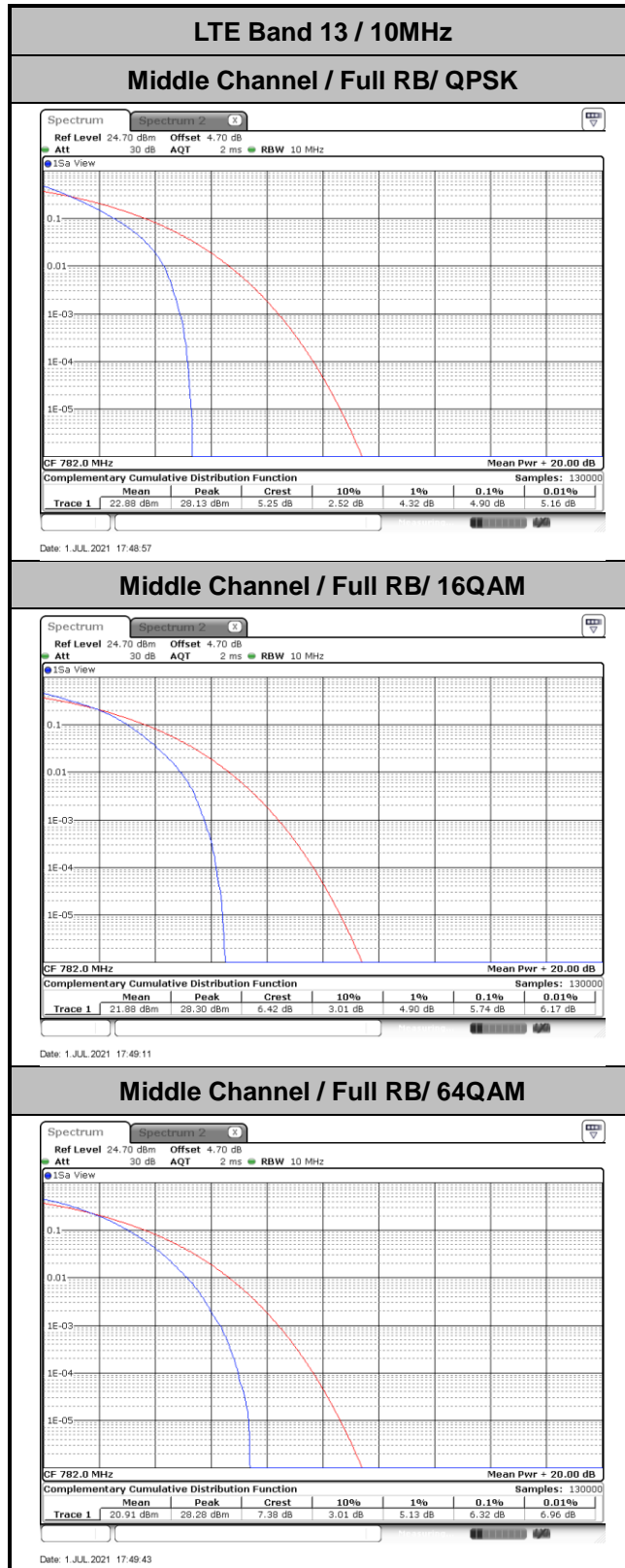
1. Normal Voltage =3.87V ; Battery End Point (BEP) =3.6V ; Maximum Voltage =4.4V
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

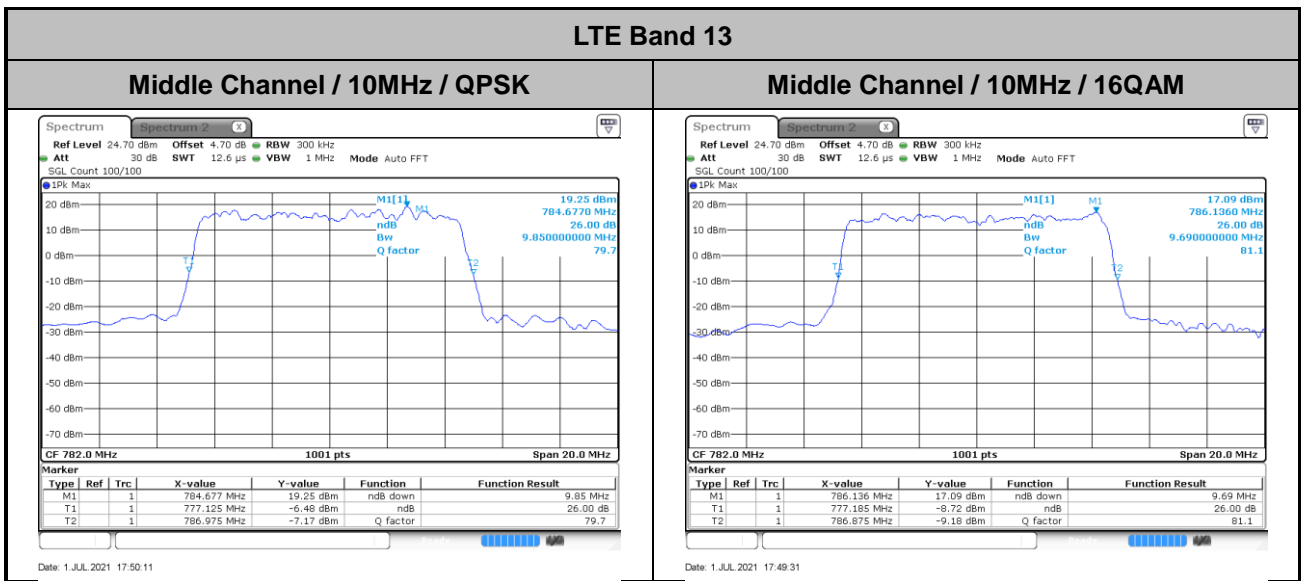
| Mode | LTE Band 13 / 10MHz | | | |
|-----------|---------------------|---------|---------|-------------|
| Mod. | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.90 | 5.74 | 6.32 | PASS |





26dB Bandwidth

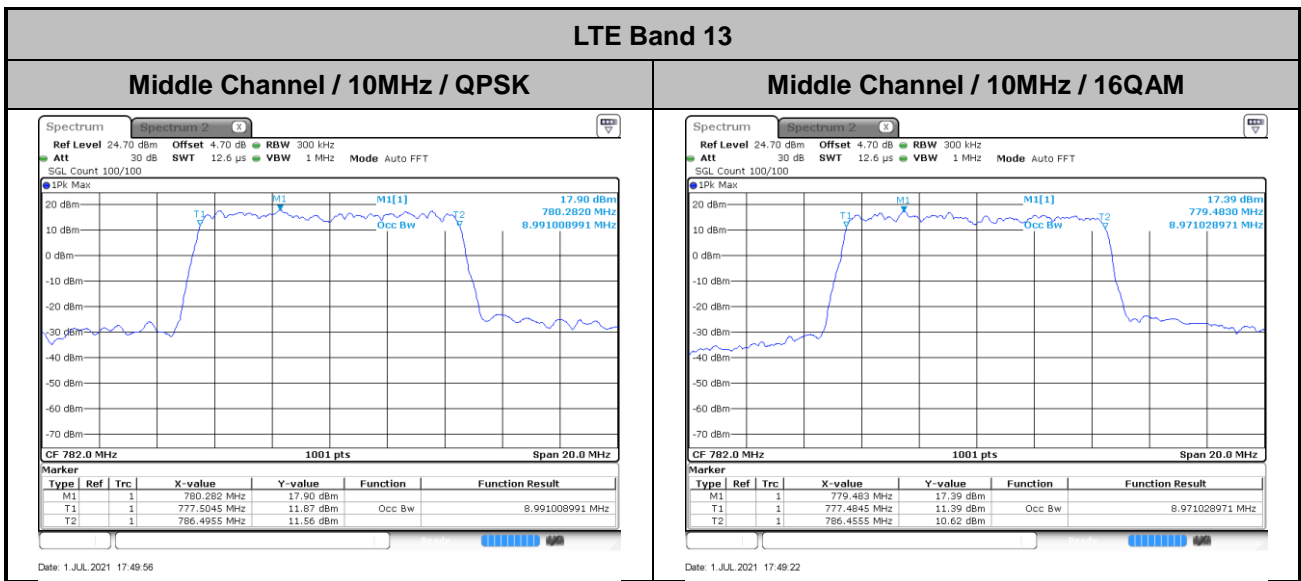
| | | |
|-----------|----------------------------|-------|
| Mode | LTE Band 13 : 26dB BW(MHz) | |
| BW | 10MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 9.85 | 9.69 |





Occupied Bandwidth

| | | |
|-----------|---------------------------|-------|
| Mode | LTE Band 13 : 99%OBW(MHz) | |
| BW | 10MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 8.99 | 8.97 |





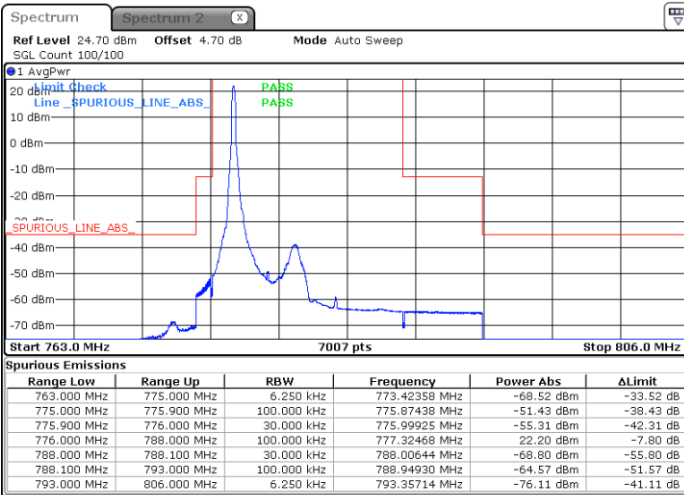
Conducted Band Edge



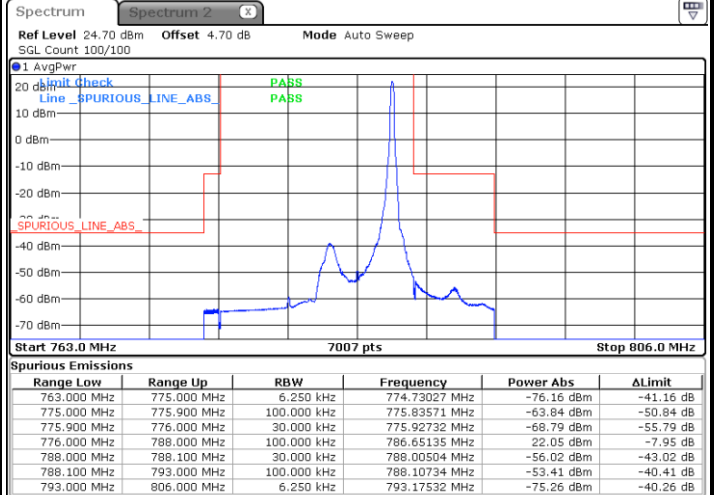
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



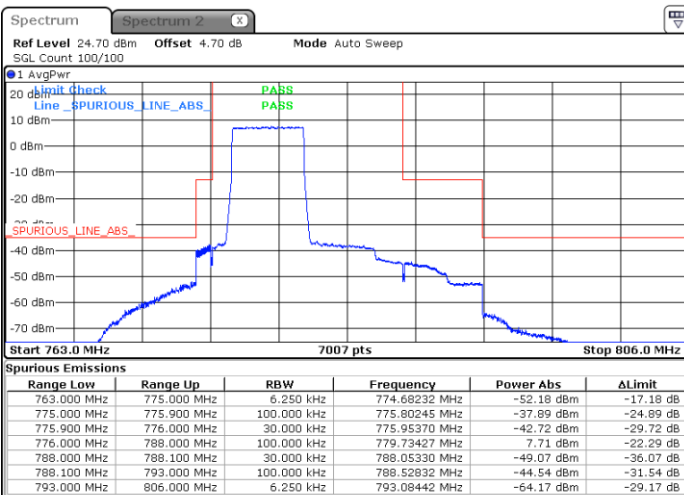
Date: 1 JUL 2021 16:53:50



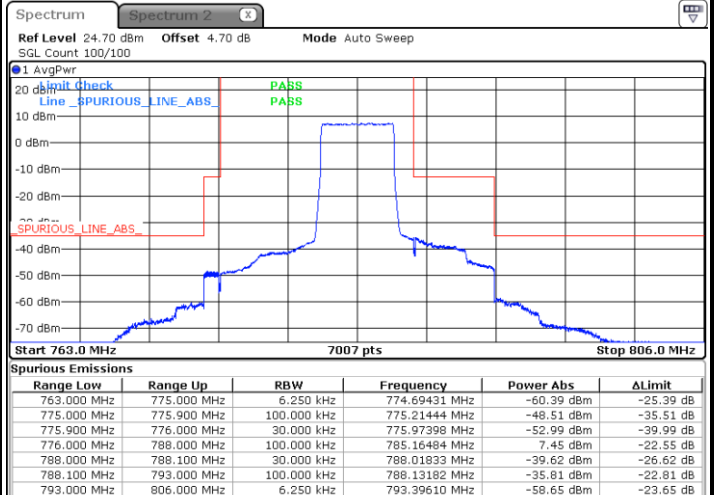
Date: 1 JUL 2021 17:31:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 1 JUL 2021 17:21:01



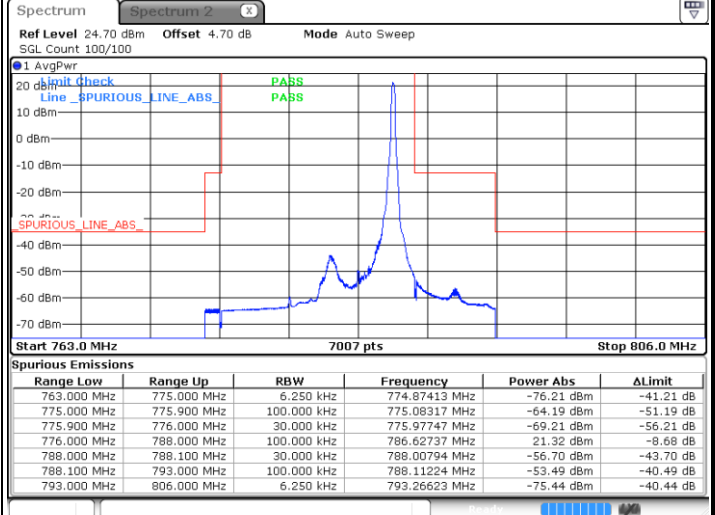
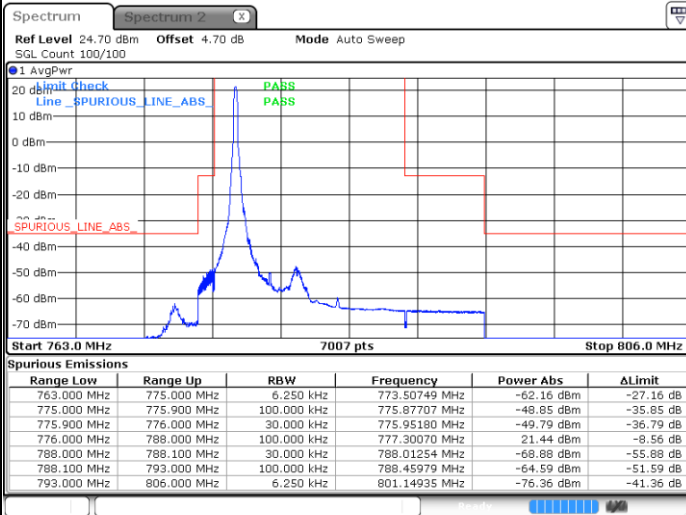
Date: 1 JUL 2021 17:23:15



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

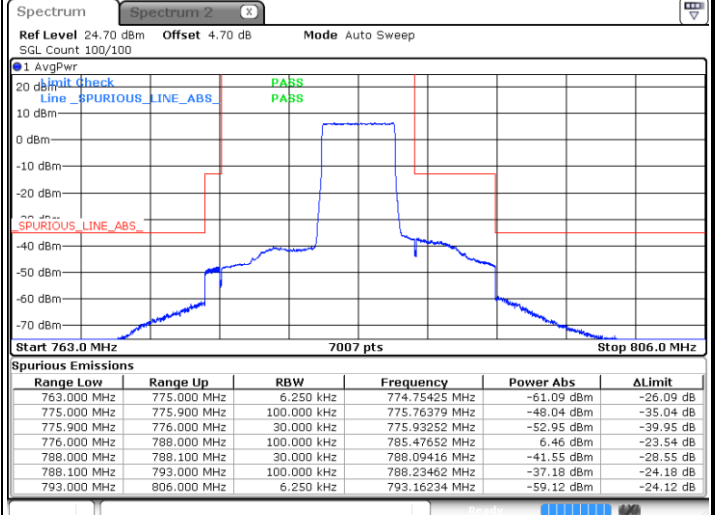
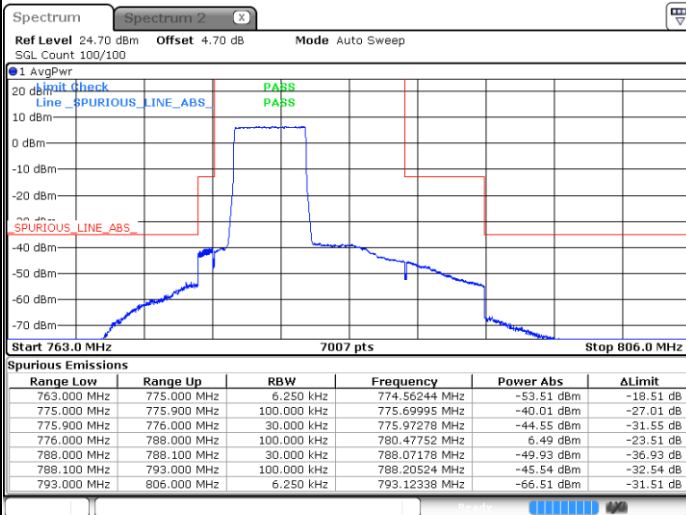


Date: 1 JUL 2021 16:56:05

Date: 1 JUL 2021 17:29:42

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



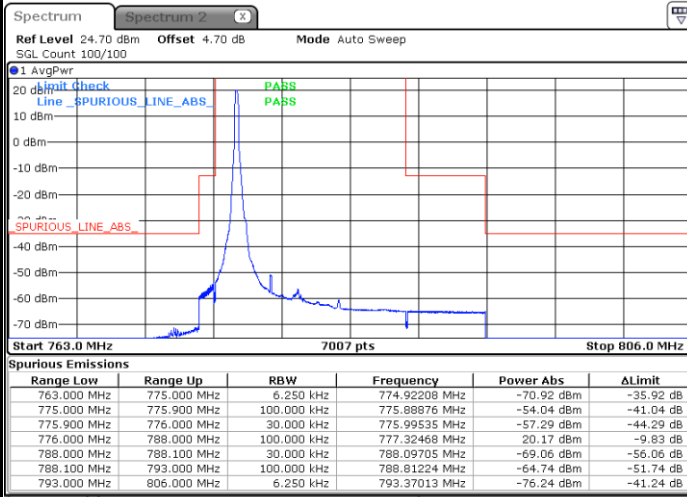
Date: 1 JUL 2021 17:19:46

Date: 1 JUL 2021 17:24:23



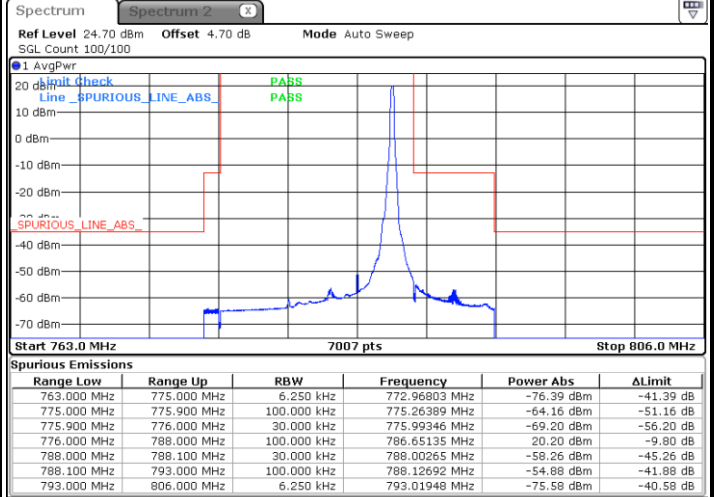
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



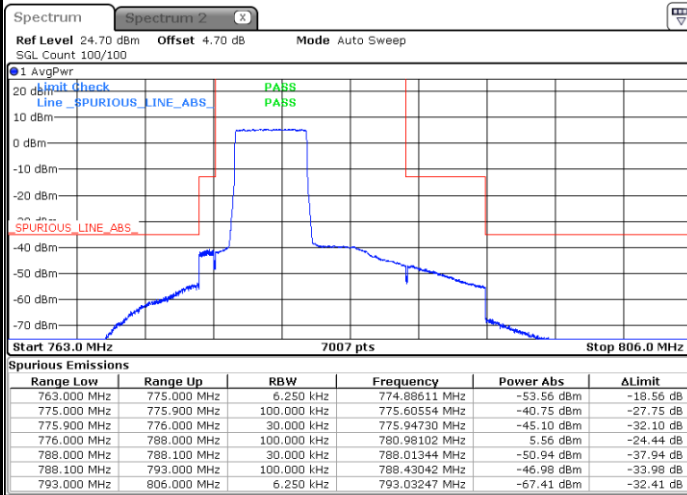
Date: 1 JUL 2021 16:57:28

Highest Band Edge / 1 RB



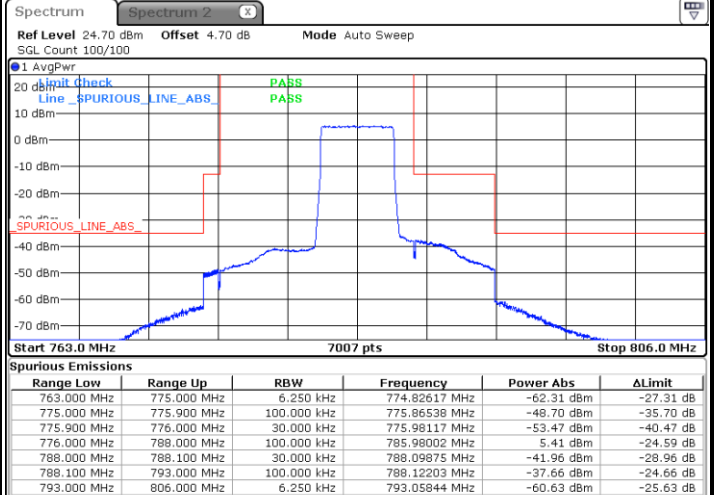
Date: 1 JUL 2021 17:28:08

Lowest Band Edge / Full RB



Date: 1 JUL 2021 17:17:15

Highest Band Edge / Full RB



Date: 1 JUL 2021 17:26:48