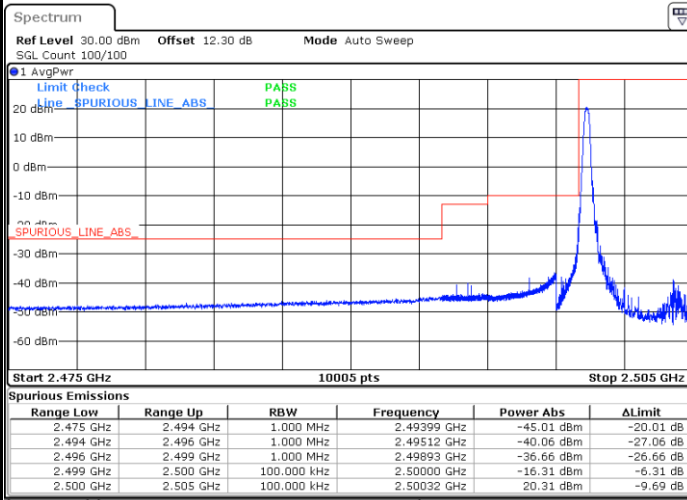




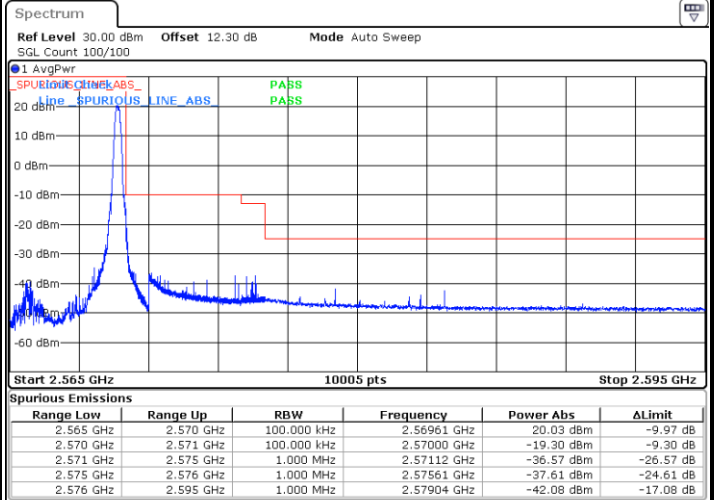
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



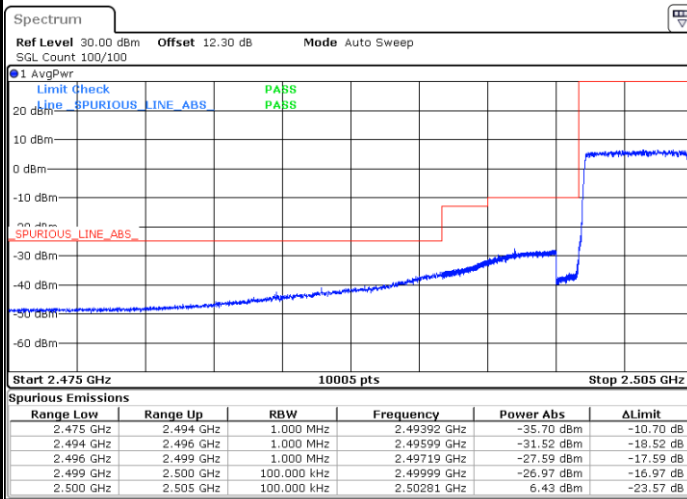
Date: 12 DEC 2020 13:33:00

Highest Band Edge / 1 RB



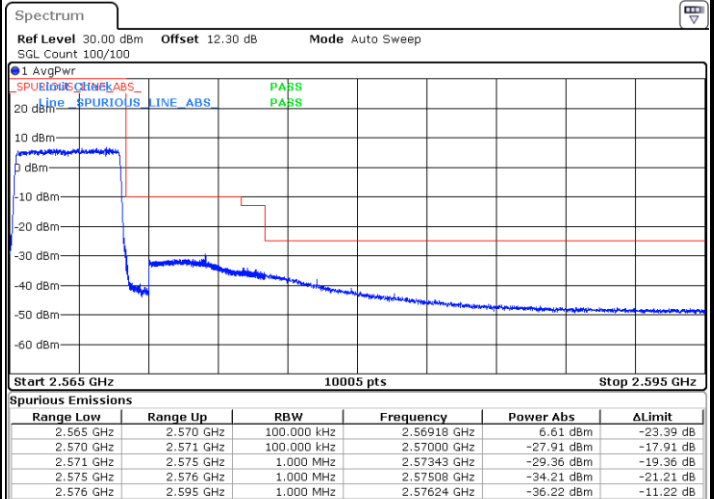
Date: 12 DEC 2020 13:37:19

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:33:56

Highest Band Edge / Full RB

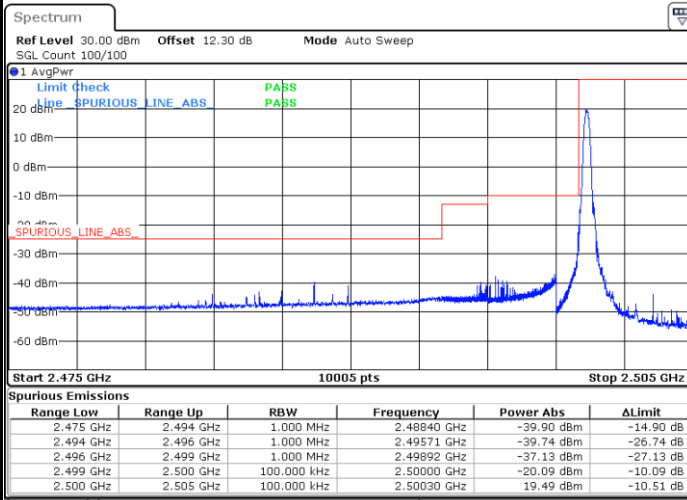


Date: 12 DEC 2020 13:38:14



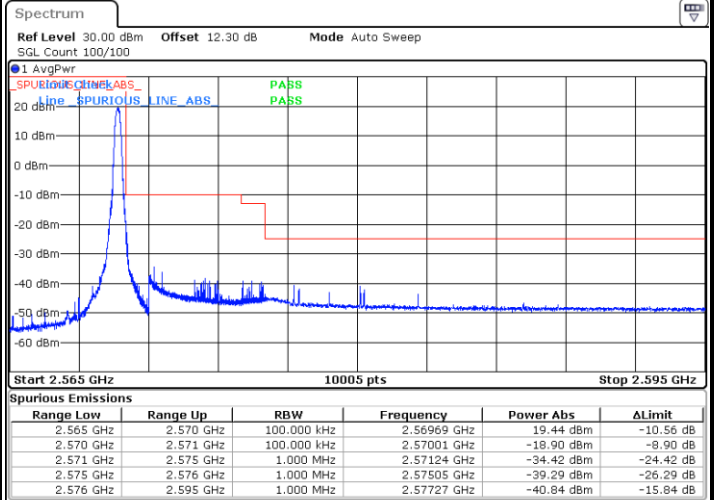
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



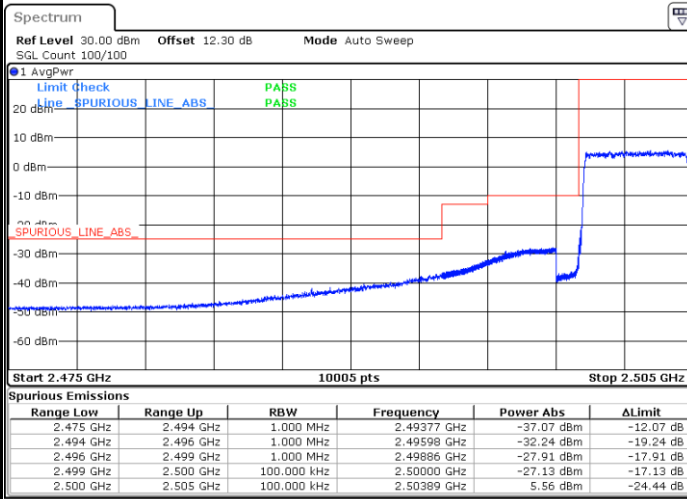
Date: 12 DEC 2020 13:39:35

Highest Band Edge / 1 RB



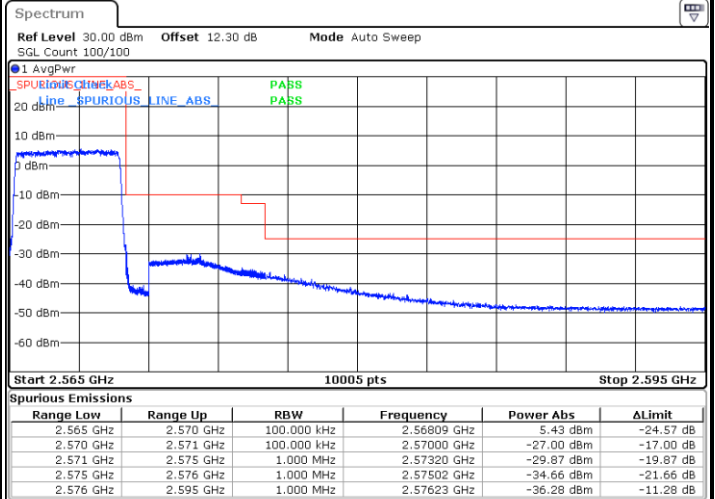
Date: 12 DEC 2020 13:40:53

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:40:02

Highest Band Edge / Full RB

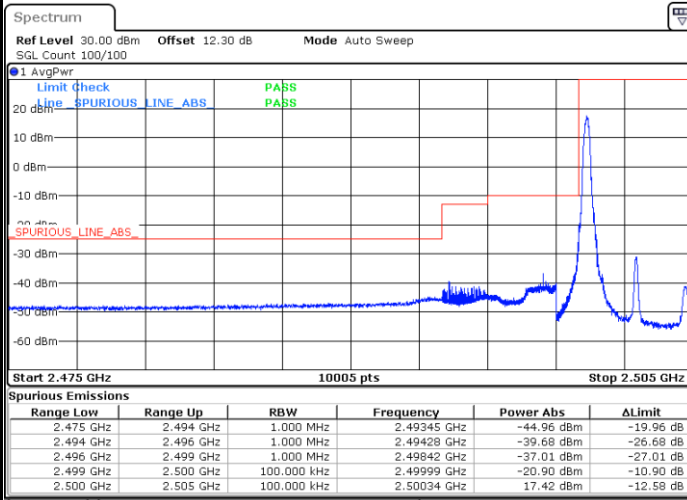


Date: 12 DEC 2020 13:41:20



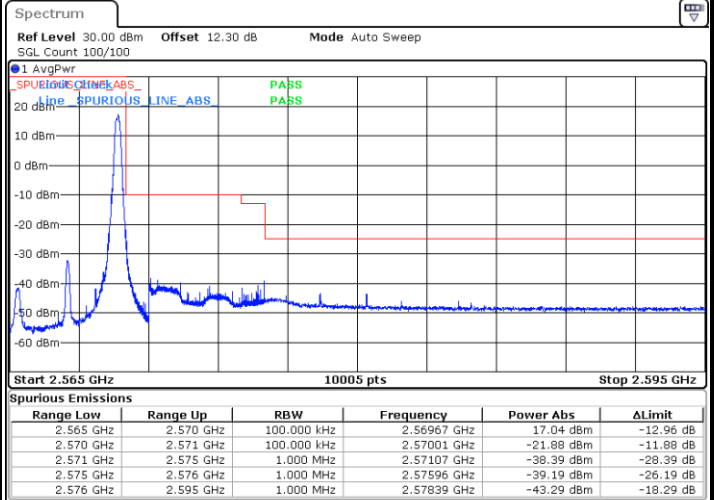
LTE Band 7 / 5MHz / 256QAM

Lowest Band Edge / 1RB



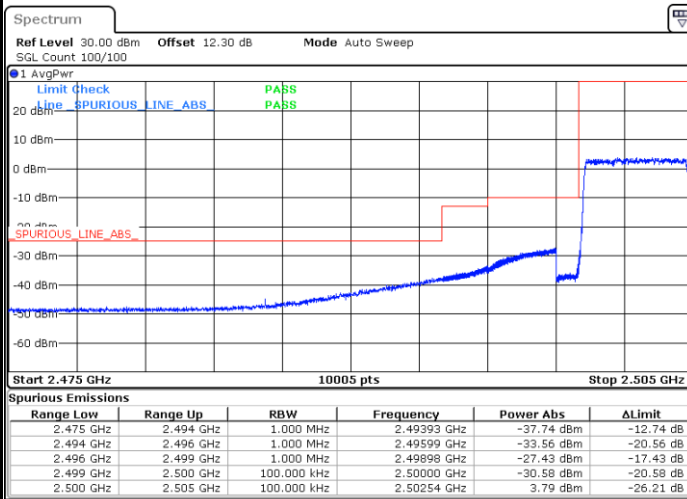
Date: 31 DEC 2020 10:29:04

Highest Band Edge / 1 RB



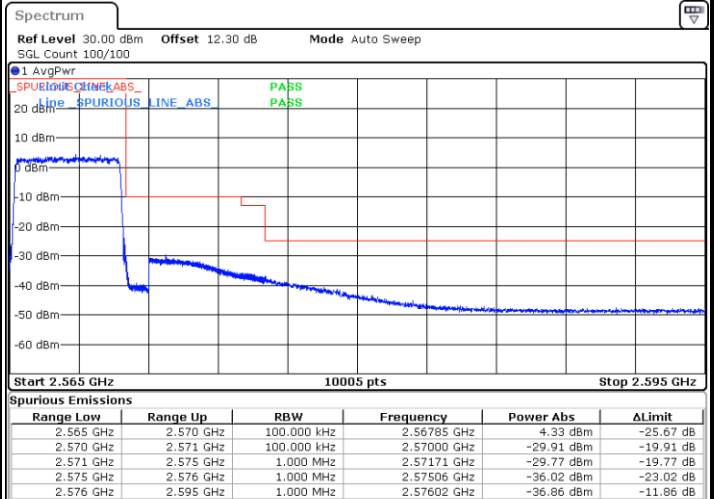
Date: 31 DEC 2020 10:32:11

Lowest Band Edge / Full RB



Date: 31 DEC 2020 10:28:42

Highest Band Edge / Full RB



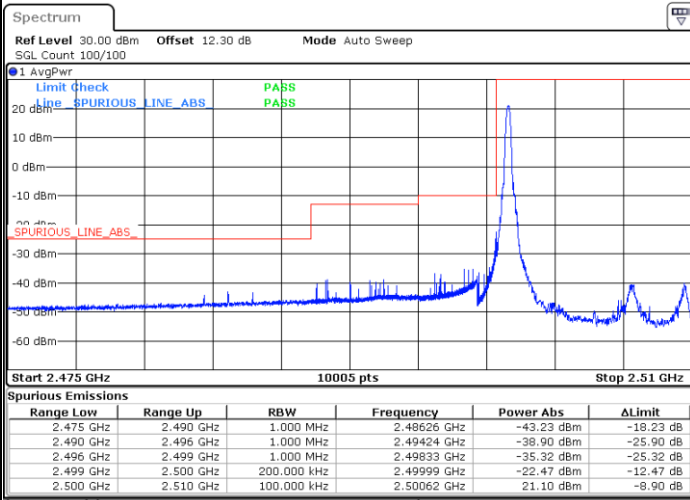
Date: 31 DEC 2020 10:31:35



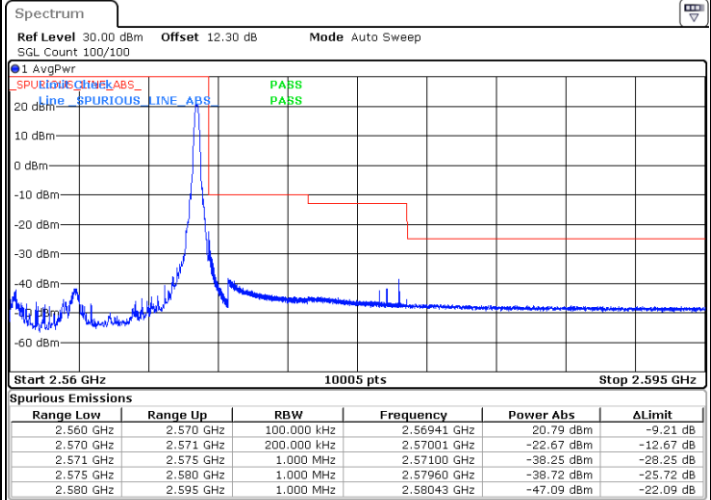
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



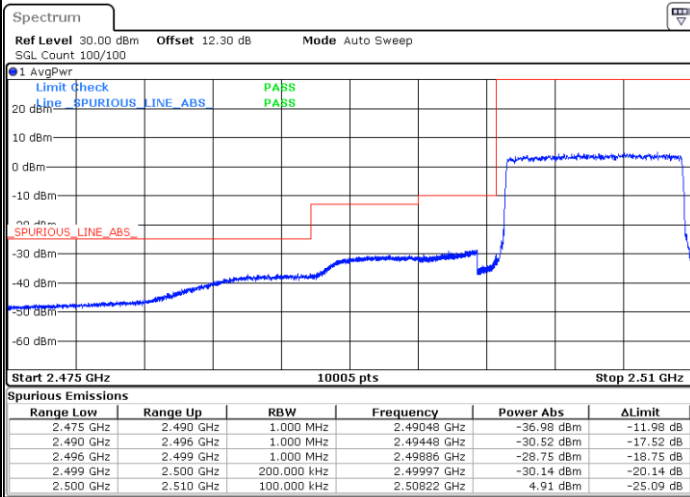
Date: 12 DEC 2020 13:41:49



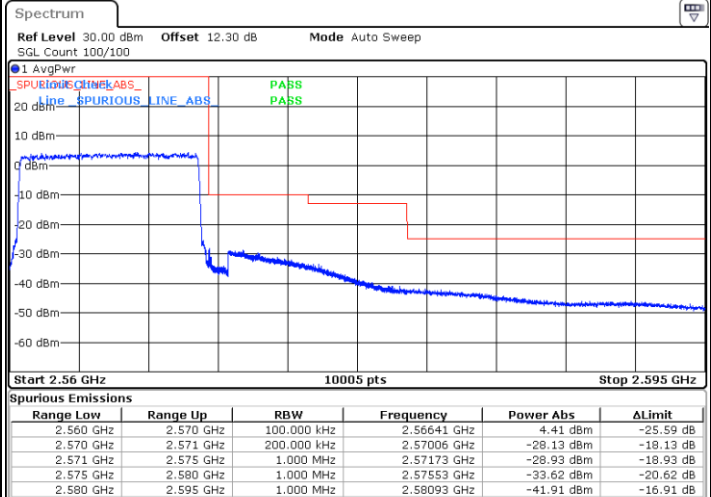
Date: 12 DEC 2020 13:46:08

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12 DEC 2020 13:42:44

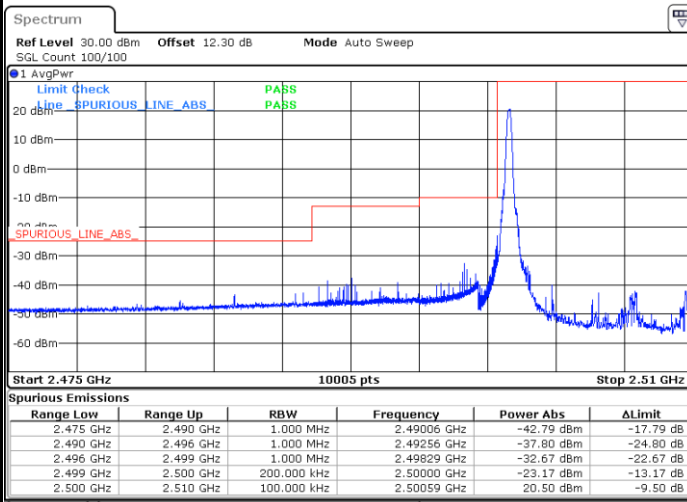


Date: 12 DEC 2020 13:47:03



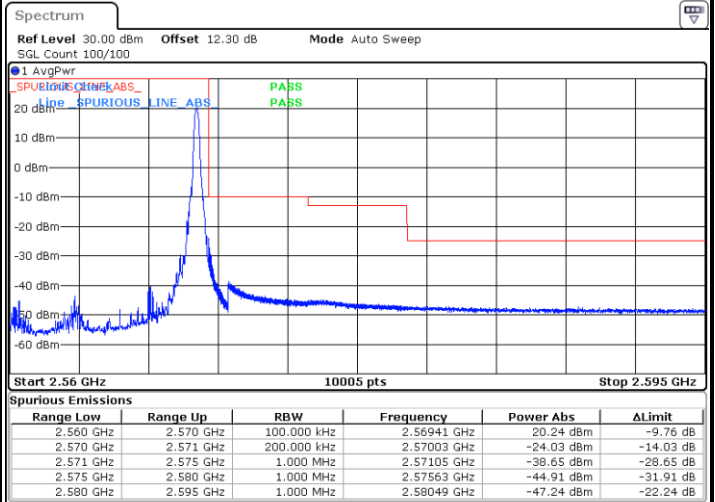
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



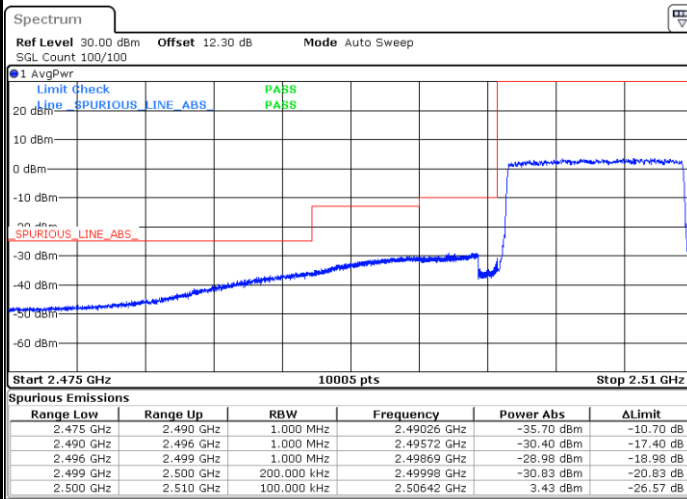
Date: 12 DEC 2020 13:42:16

Highest Band Edge / 1 RB



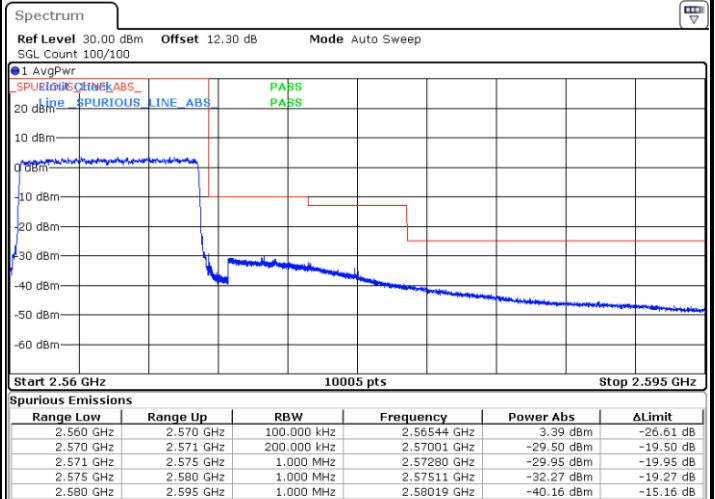
Date: 12 DEC 2020 13:46:35

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:43:11

Highest Band Edge / Full RB

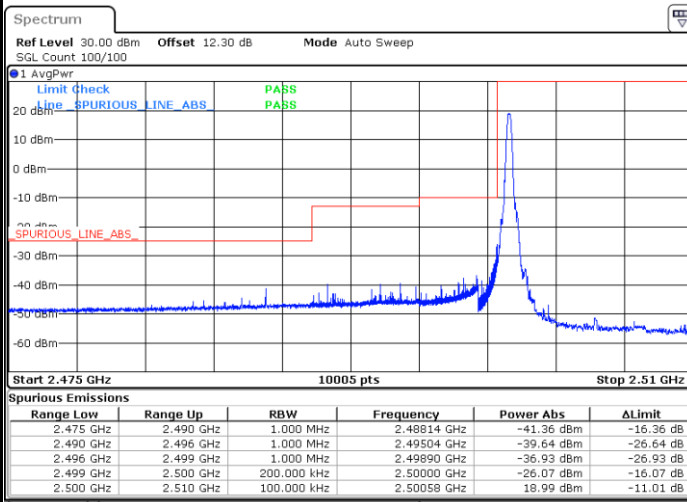


Date: 12 DEC 2020 13:47:30



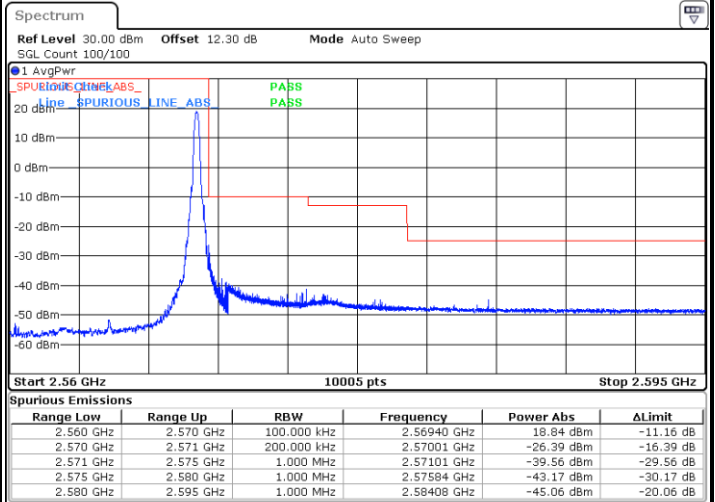
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



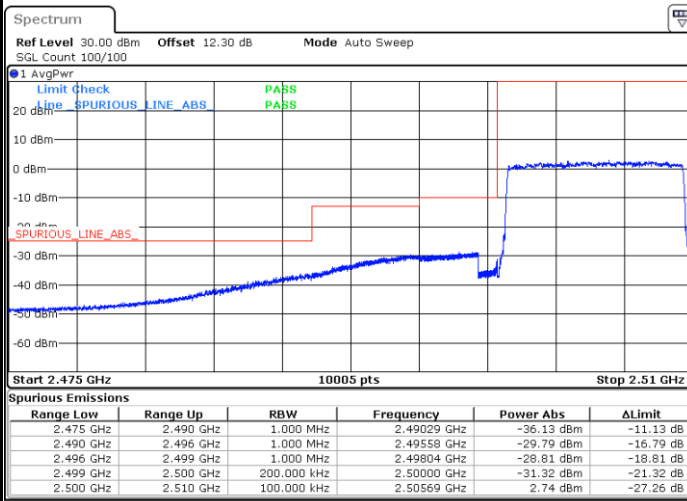
Date: 12 DEC 2020 13:48:50

Highest Band Edge / 1 RB



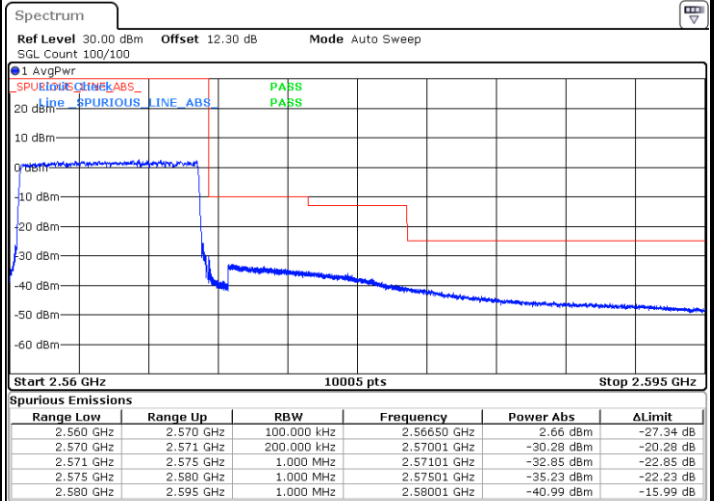
Date: 12 DEC 2020 13:50:07

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:49:17

Highest Band Edge / Full RB

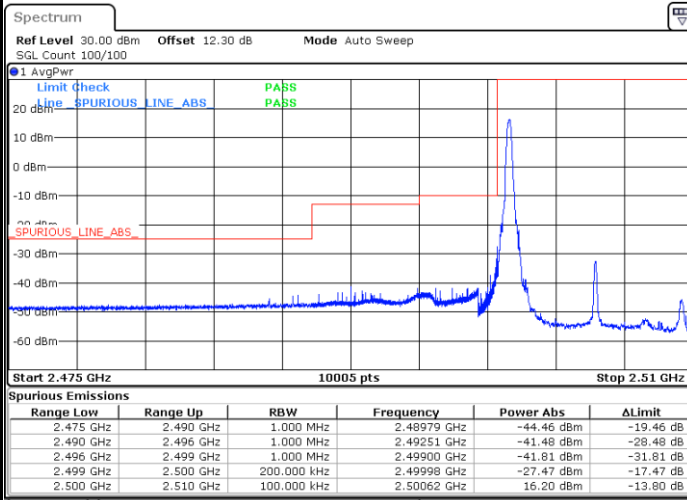


Date: 12 DEC 2020 13:50:34



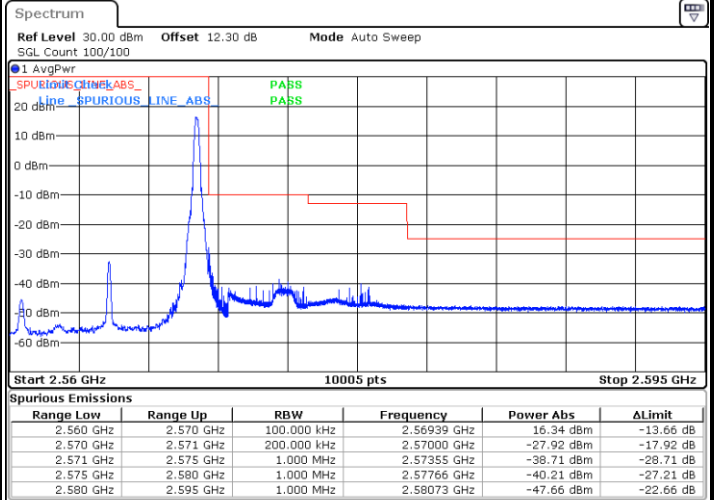
LTE Band 7 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



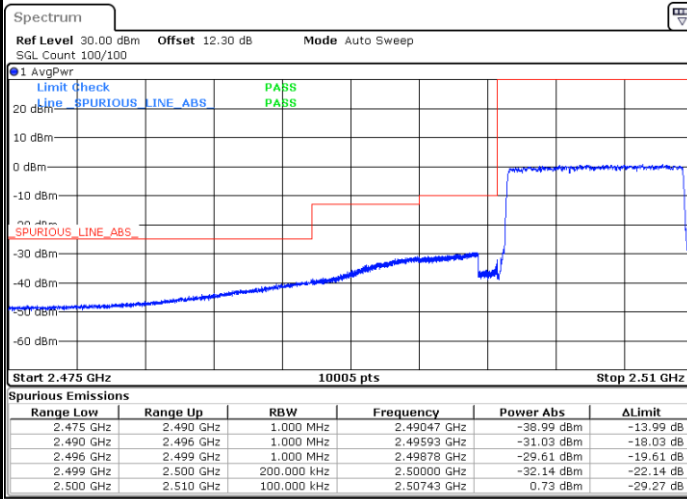
Date: 31 DEC 2020 10:39:18

Highest Band Edge / 1 RB



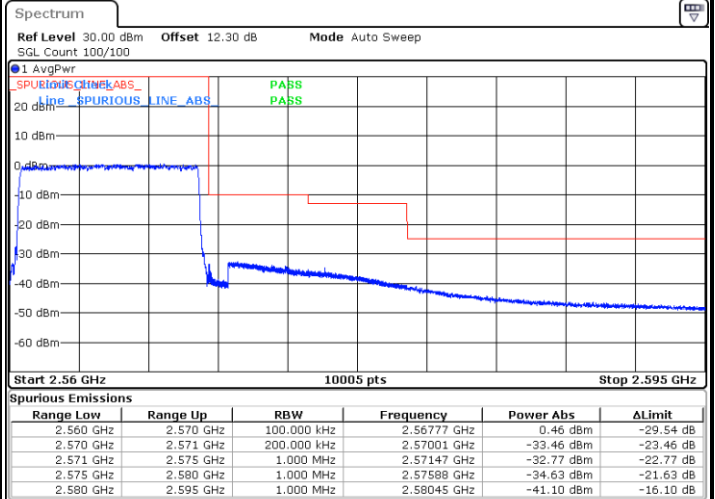
Date: 31 DEC 2020 10:40:31

Lowest Band Edge / Full RB



Date: 31 DEC 2020 10:38:58

Highest Band Edge / Full RB

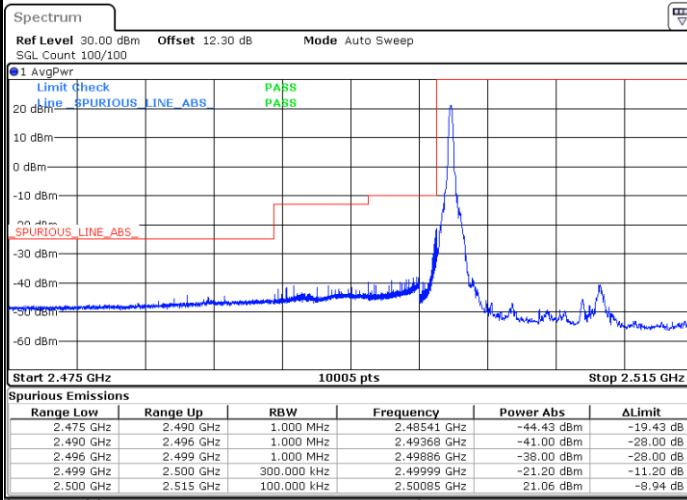


Date: 31 DEC 2020 10:40:00



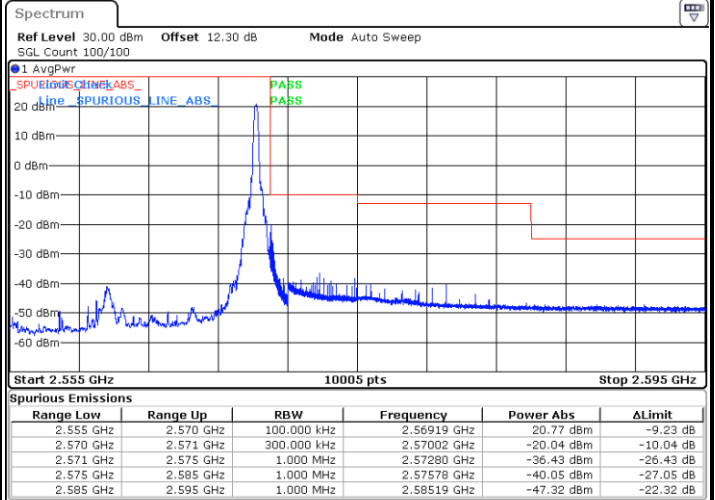
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



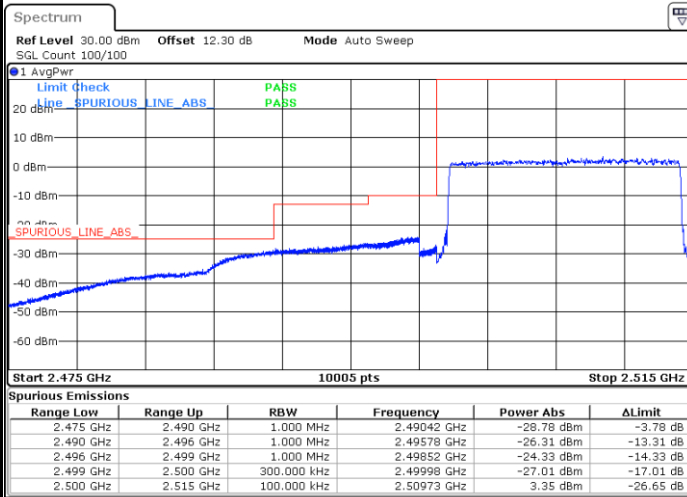
Date: 12 DEC 2020 13:51:04

Highest Band Edge / 1 RB



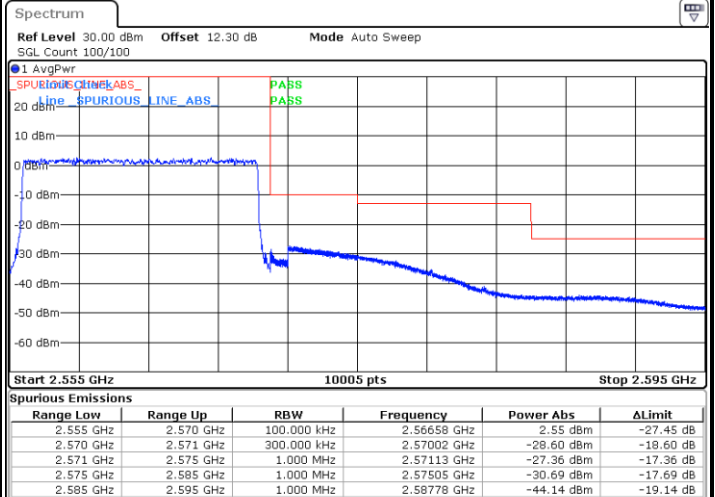
Date: 12 DEC 2020 13:55:24

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:51:59

Highest Band Edge / Full RB

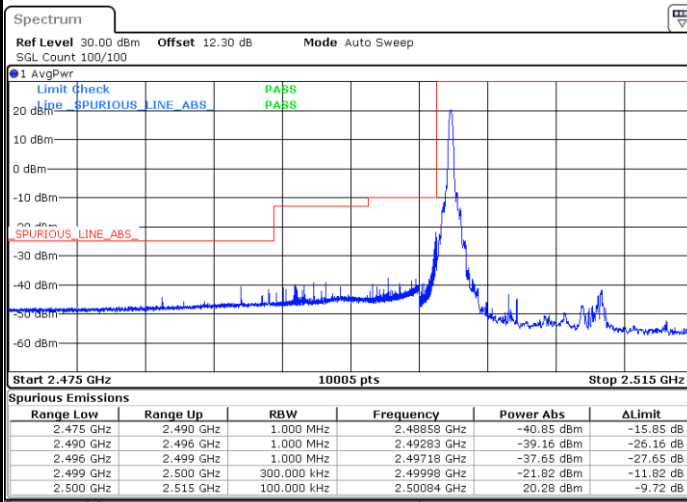


Date: 12 DEC 2020 13:56:19



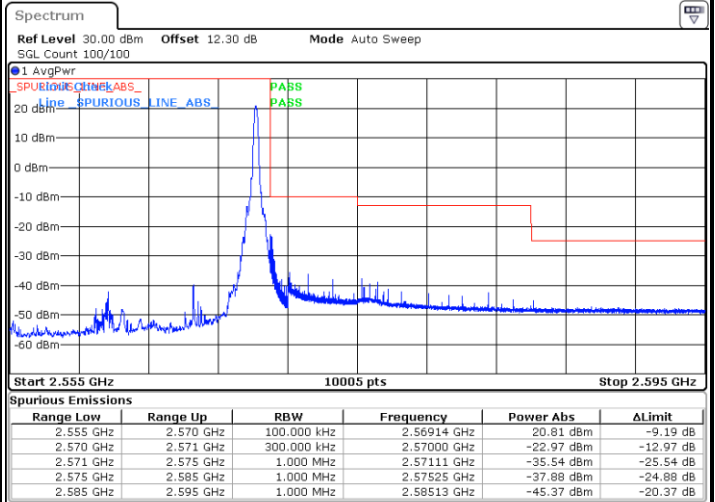
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



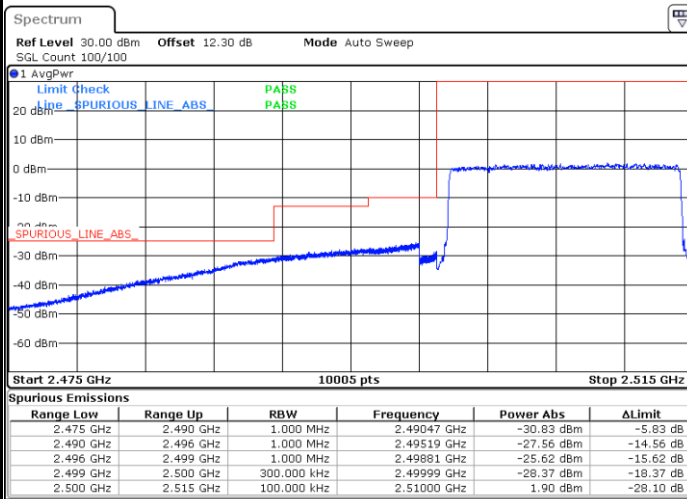
Date: 12 DEC 2020 13:51:31

Highest Band Edge / 1 RB



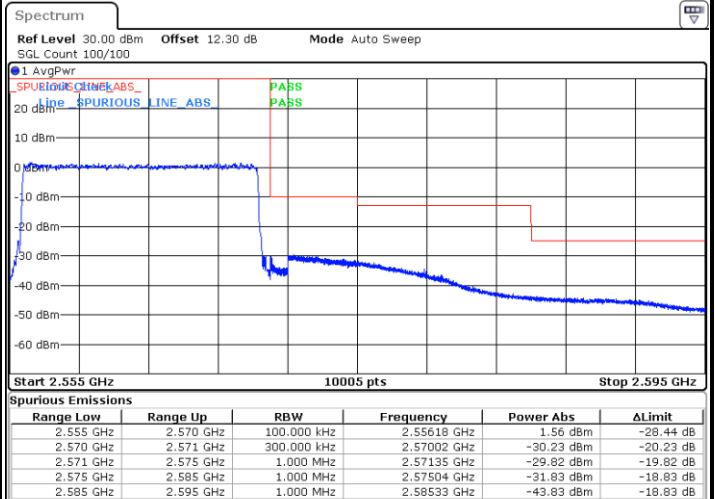
Date: 12 DEC 2020 13:55:52

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:52:27

Highest Band Edge / Full RB

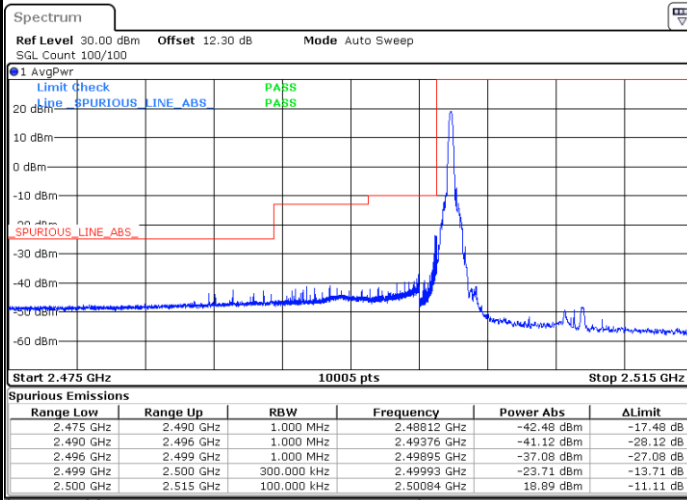


Date: 12 DEC 2020 13:56:46



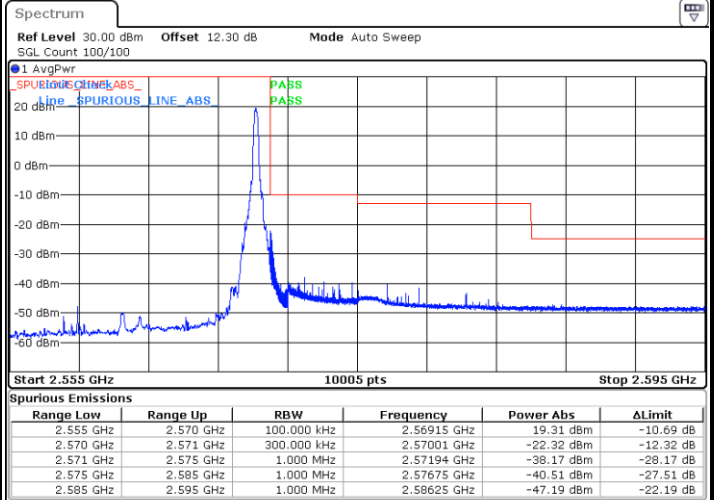
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



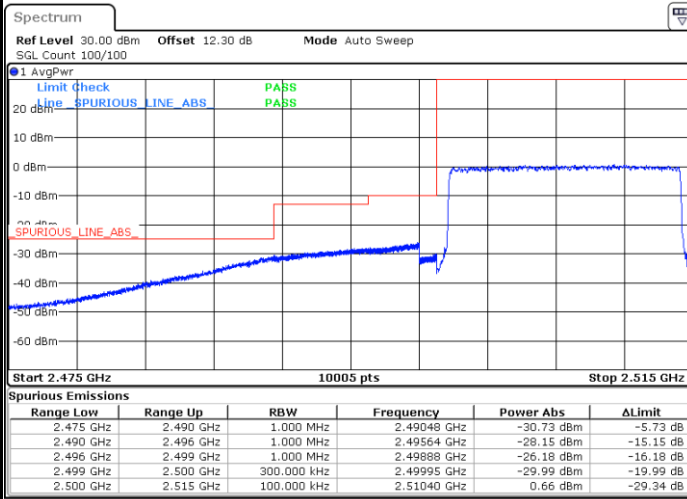
Date: 12 DEC 2020 13:58:07

Highest Band Edge / 1 RB



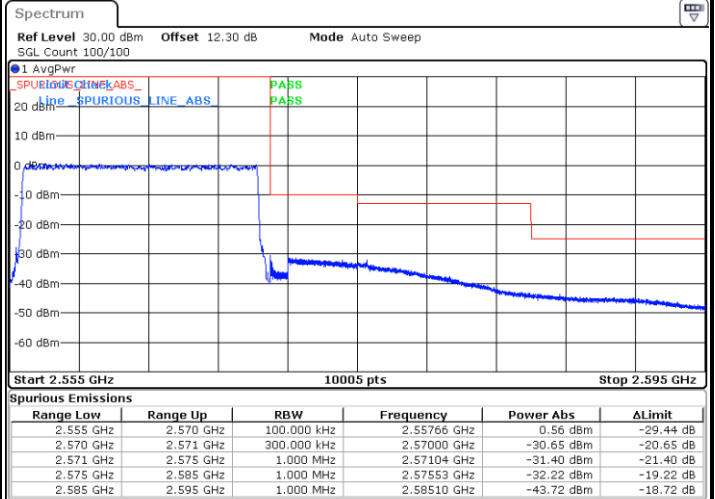
Date: 12 DEC 2020 13:59:25

Lowest Band Edge / Full RB



Date: 12 DEC 2020 13:58:34

Highest Band Edge / Full RB

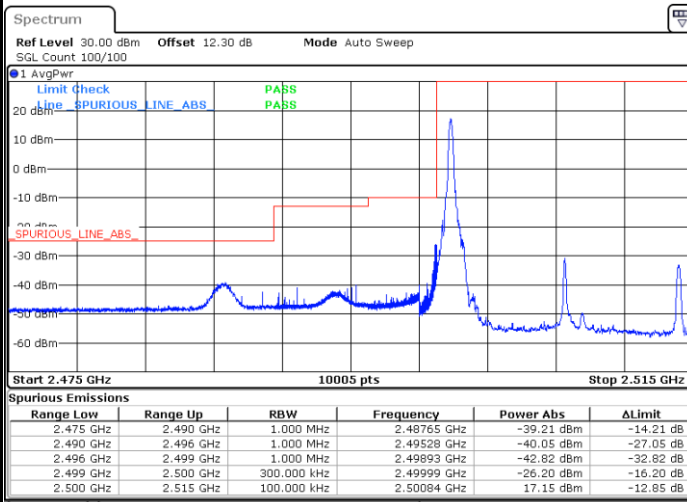


Date: 12 DEC 2020 13:59:52



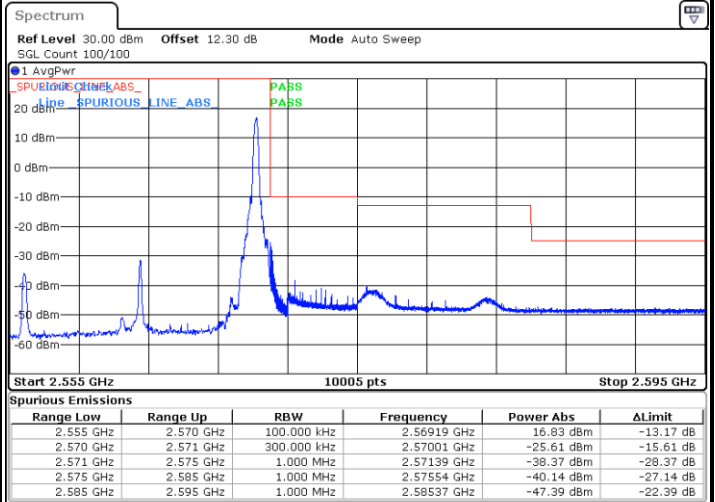
LTE Band 7 / 15MHz / 256QAM

Lowest Band Edge / 1 RB



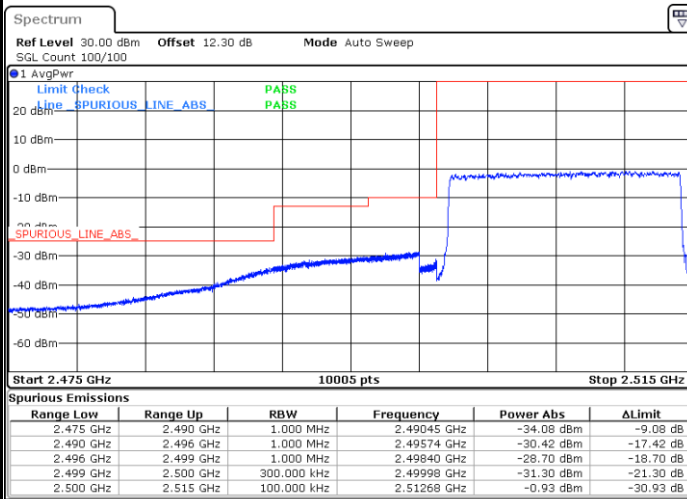
Date: 31 DEC 2020 10:42:46

Highest Band Edge / 1 RB



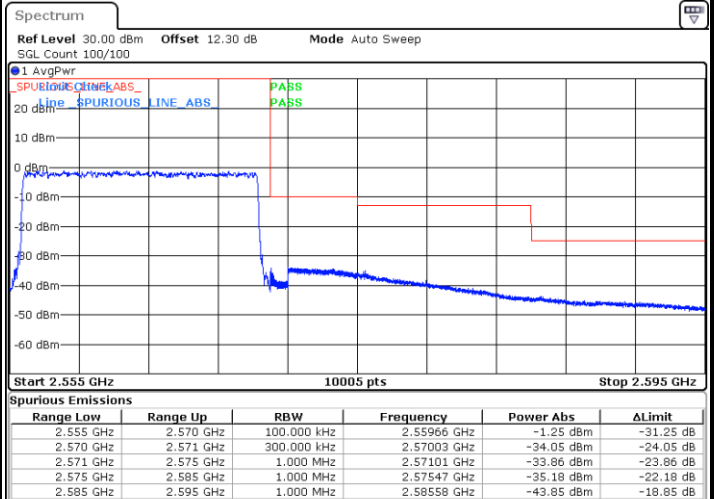
Date: 31 DEC 2020 10:44:12

Lowest Band Edge / Full RB



Date: 31 DEC 2020 10:42:24

Highest Band Edge / Full RB

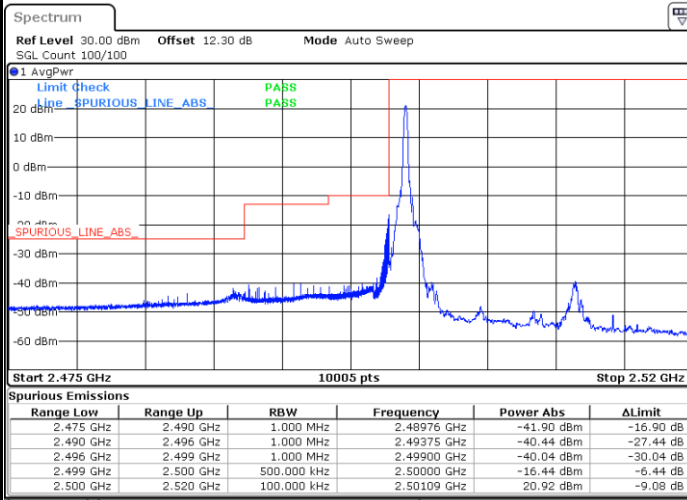


Date: 31 DEC 2020 10:44:38



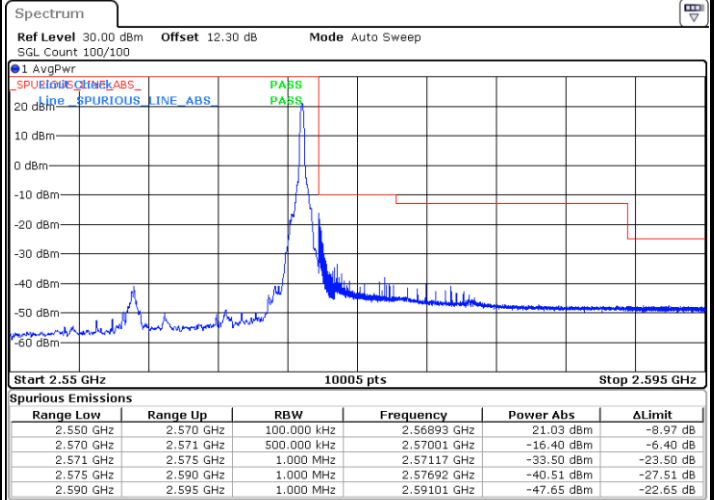
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



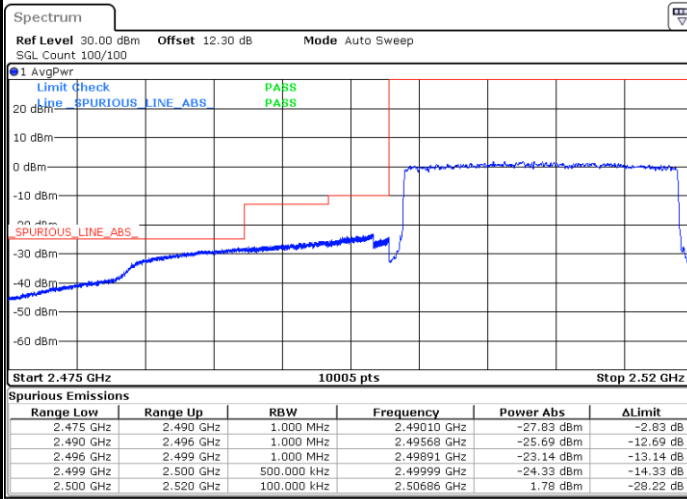
Date: 12 DEC 2020 14:00:21

Highest Band Edge / 1 RB



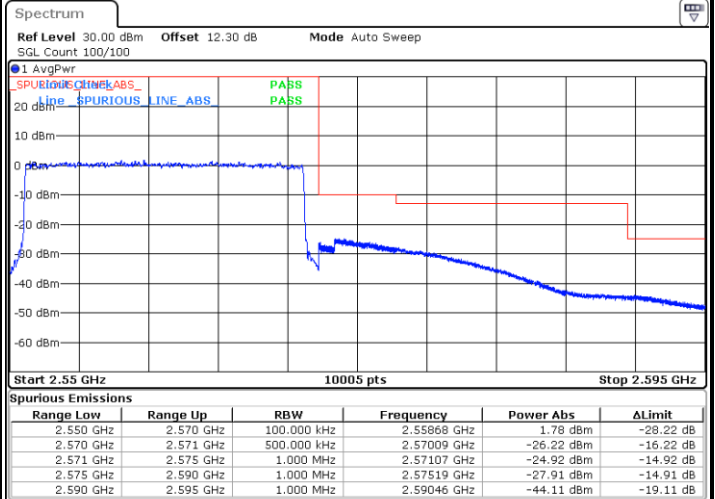
Date: 12 DEC 2020 14:07:39

Lowest Band Edge / Full RB



Date: 12 DEC 2020 14:01:17

Highest Band Edge / Full RB

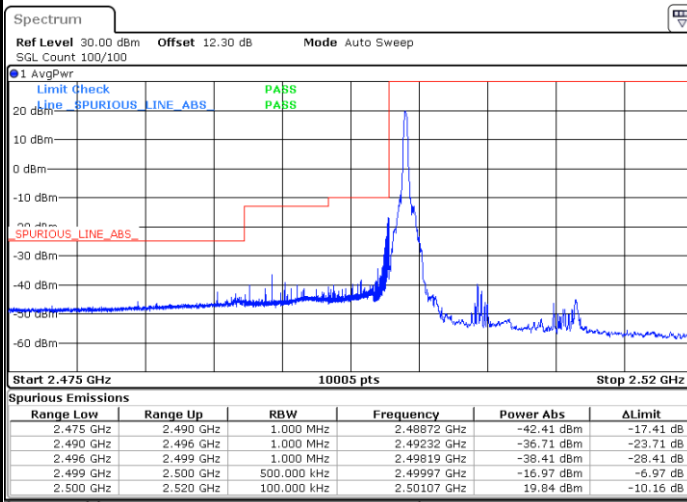


Date: 12 DEC 2020 14:09:01



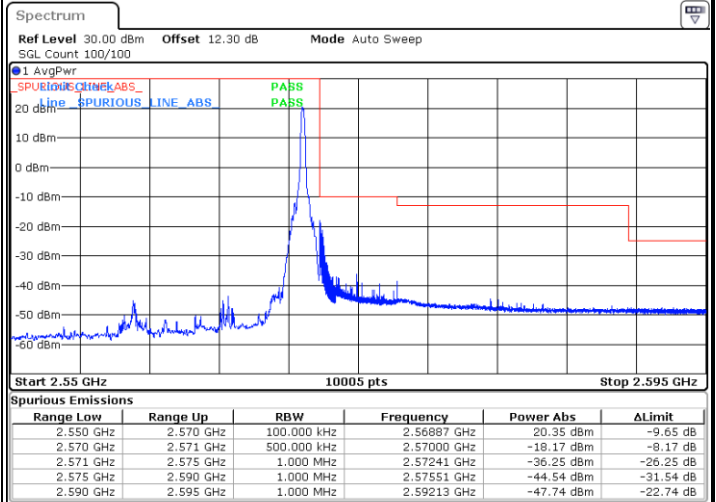
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



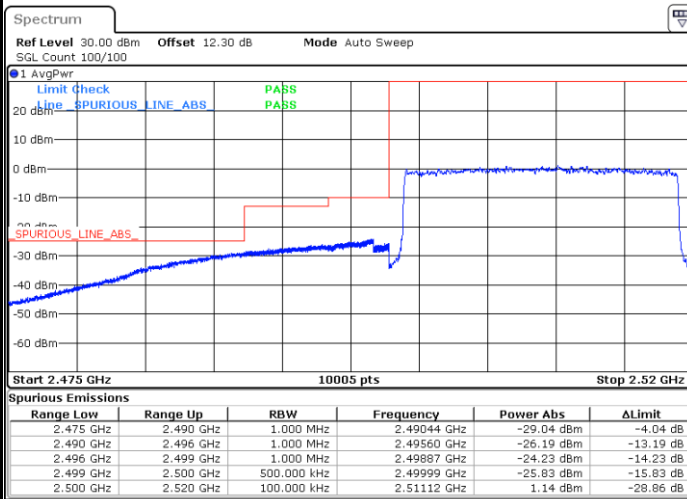
Date: 12 DEC 2020 14:00:49

Highest Band Edge / 1 RB



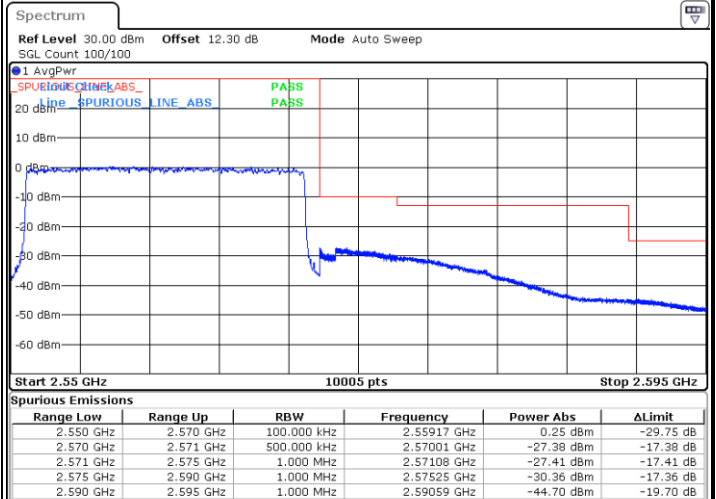
Date: 12 DEC 2020 14:08:06

Lowest Band Edge / Full RB



Date: 12 DEC 2020 14:01:45

Highest Band Edge / Full RB

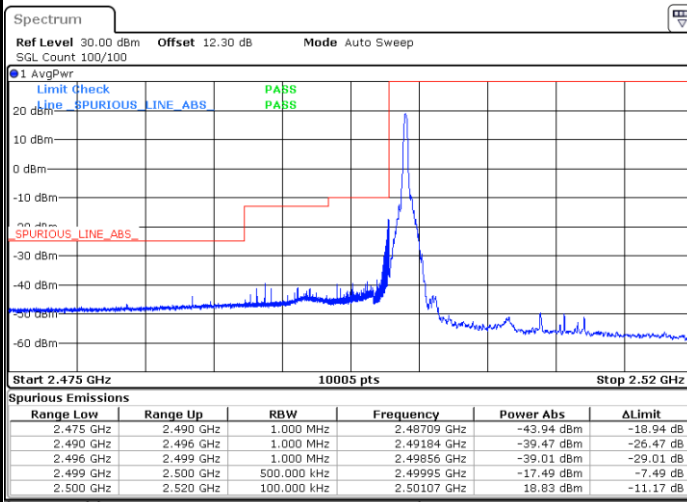


Date: 12 DEC 2020 14:08:34



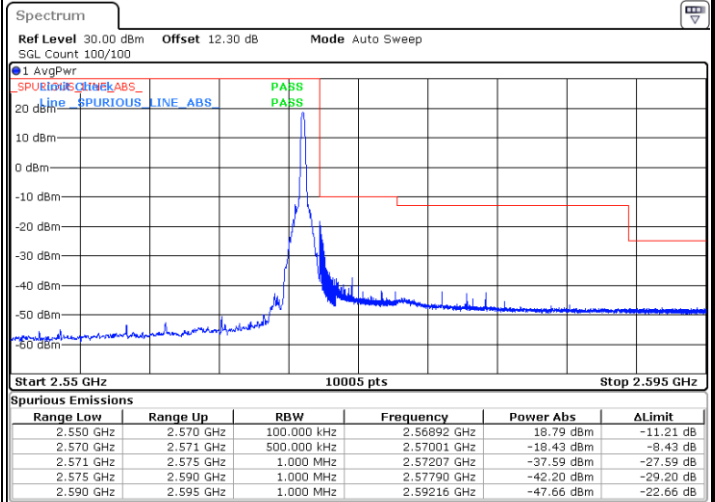
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



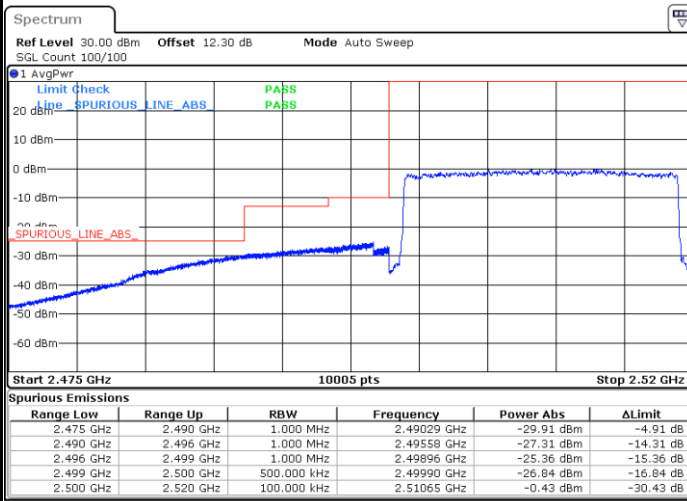
Date: 12 DEC 2020 14:10:21

Highest Band Edge / 1 RB



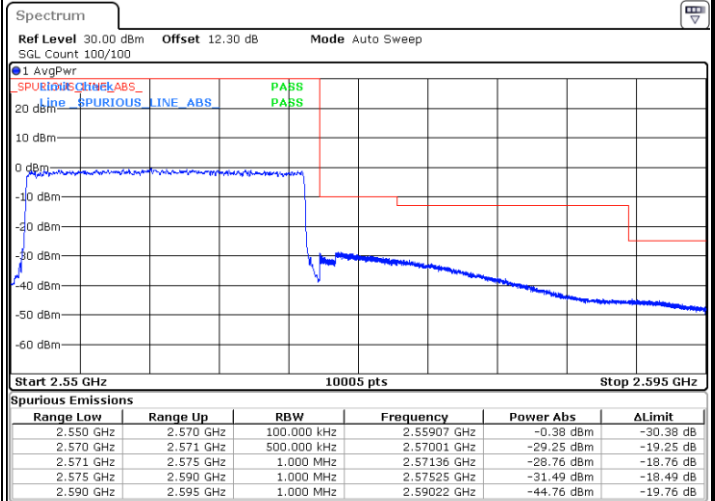
Date: 12 DEC 2020 14:11:39

Lowest Band Edge / Full RB



Date: 12 DEC 2020 14:10:49

Highest Band Edge / Full RB

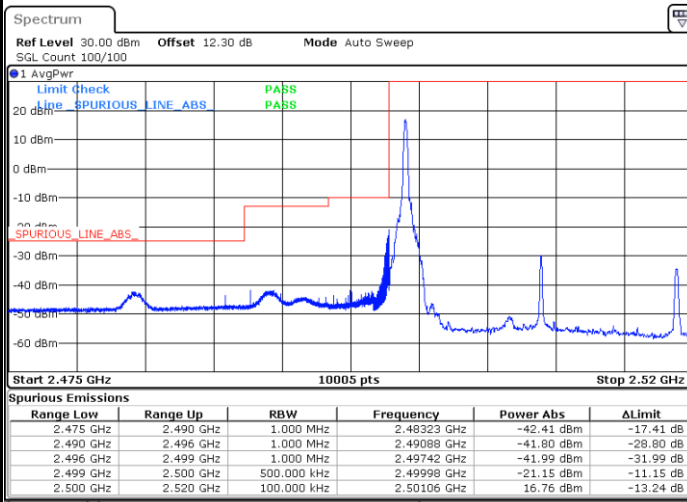


Date: 12 DEC 2020 14:12:07



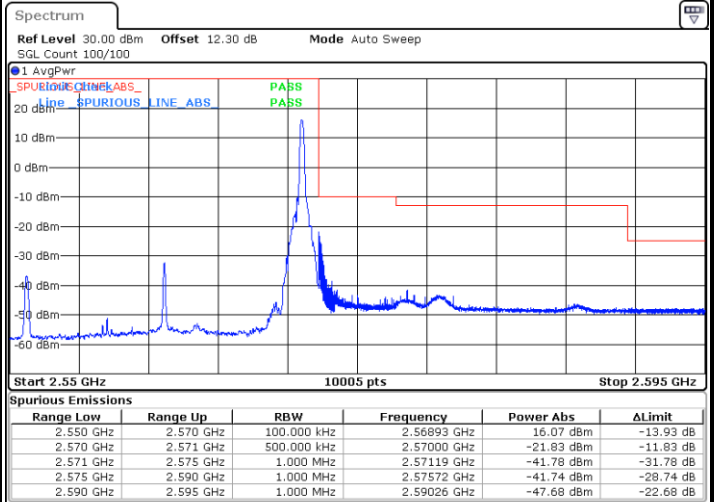
LTE Band 7 / 20MHz / 256QAM

Lowest Band Edge / 1 RB



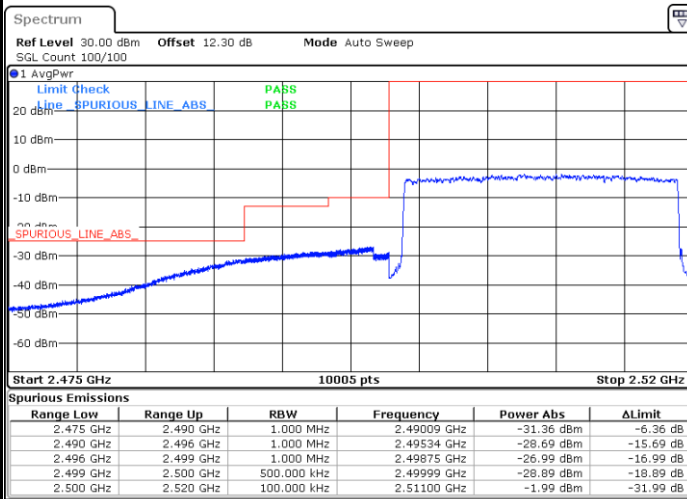
Date: 31 DEC 2020 10:46:51

Highest Band Edge / 1 RB



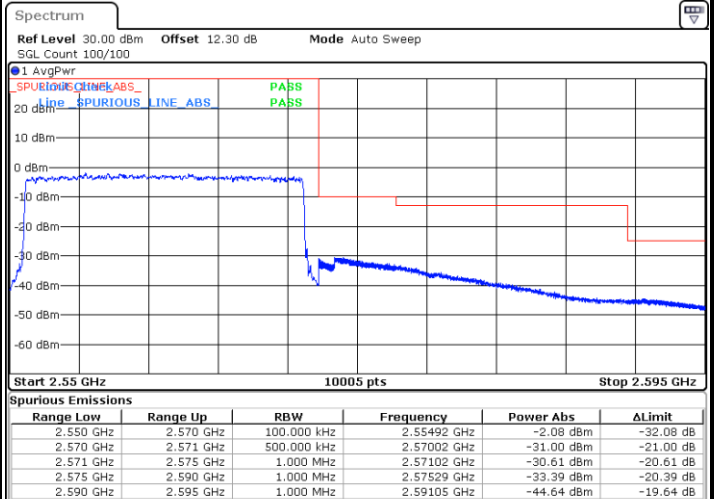
Date: 31 DEC 2020 10:47:57

Lowest Band Edge / Full RB



Date: 31 DEC 2020 10:46:29

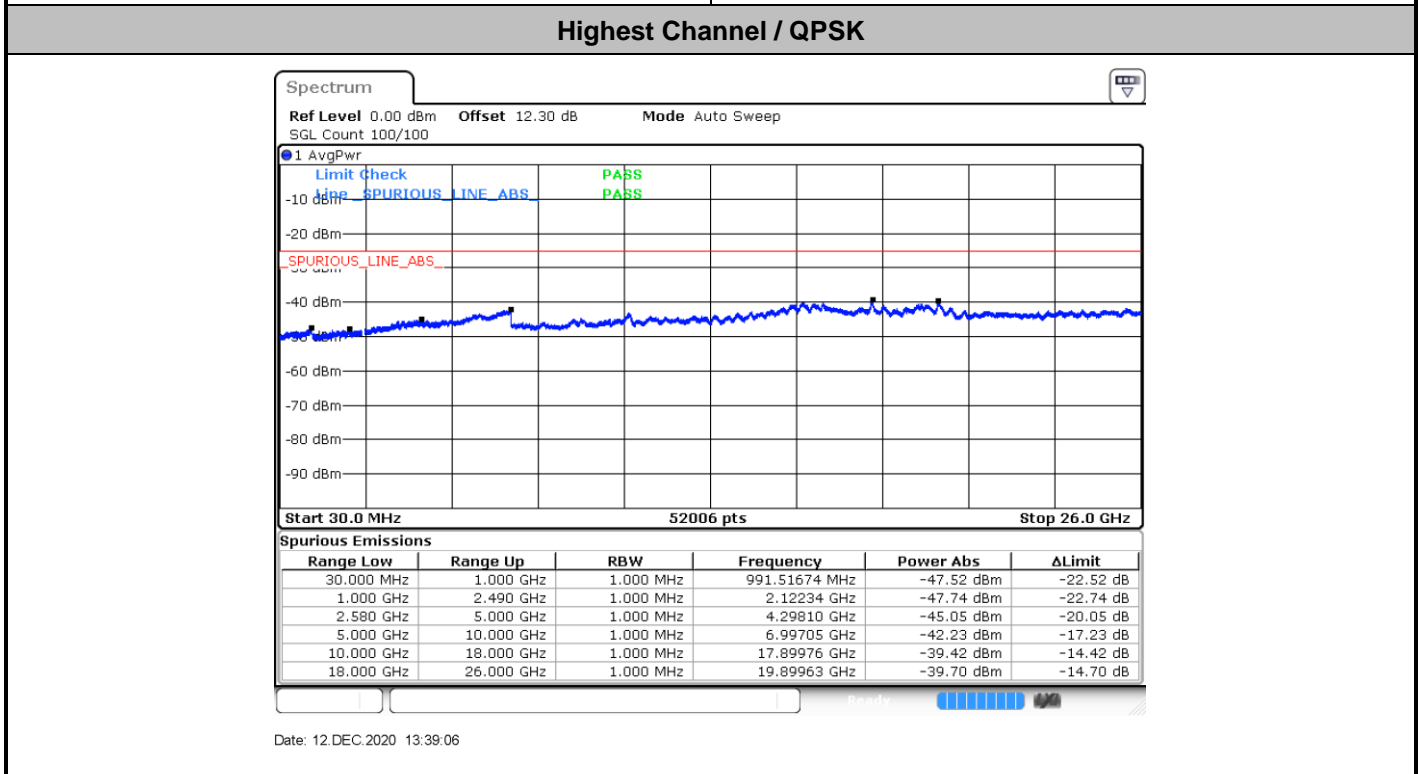
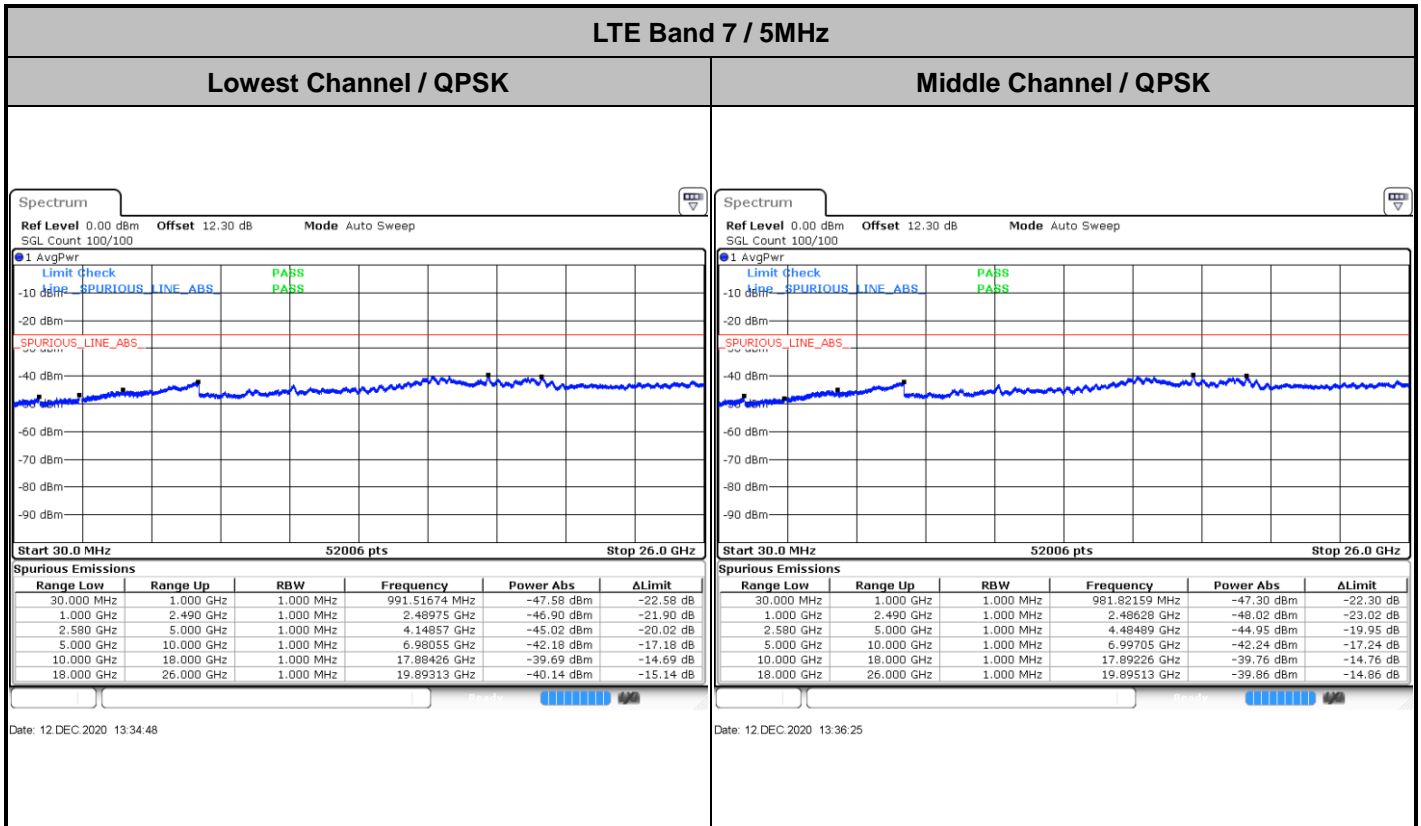
Highest Band Edge / Full RB



Date: 31 DEC 2020 10:48:23



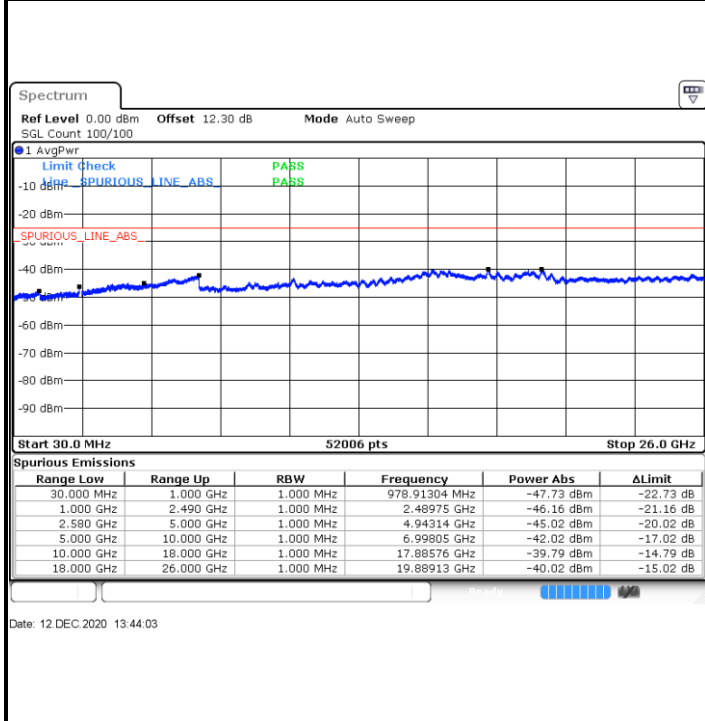
Conducted Spurious Emission



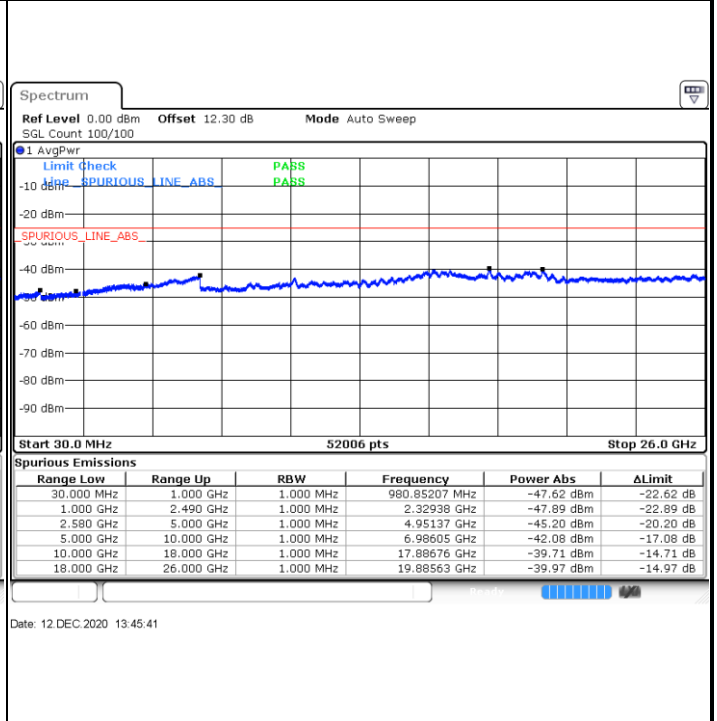


LTE Band 7 / 10MHz

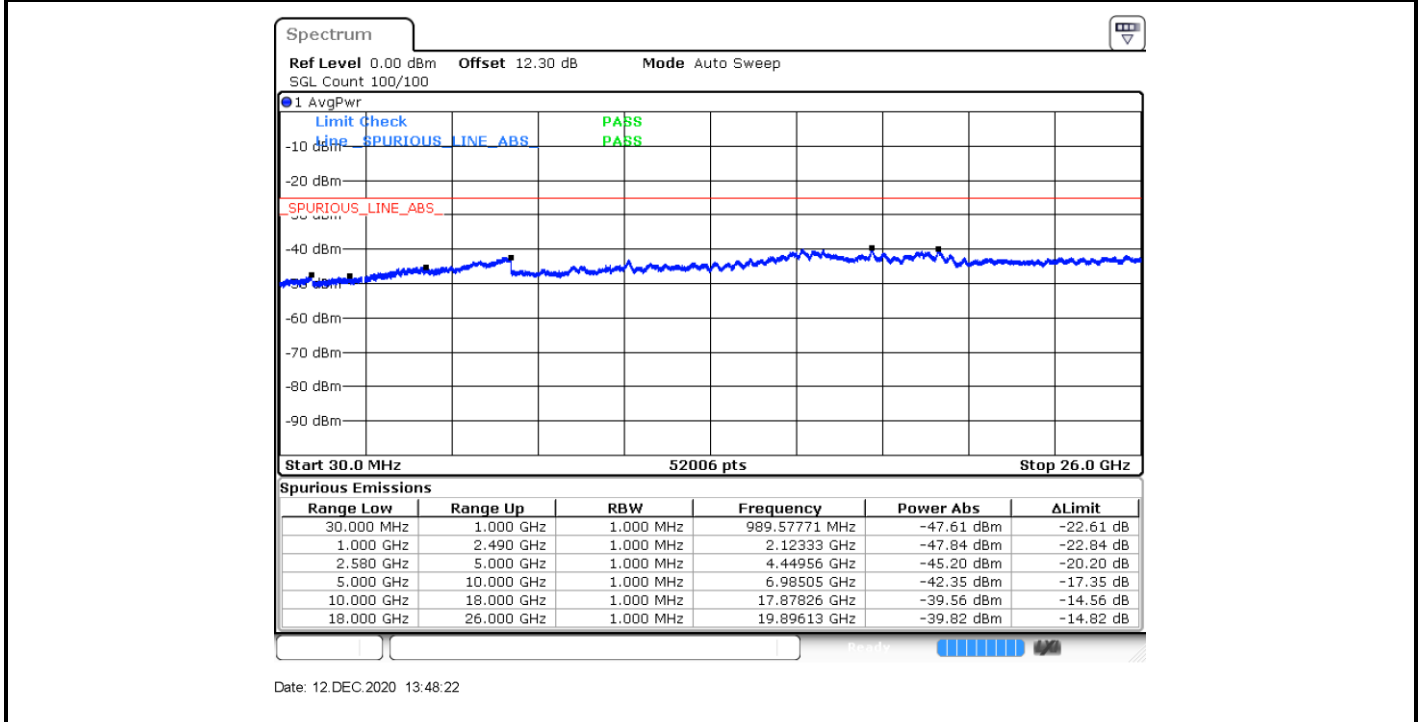
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

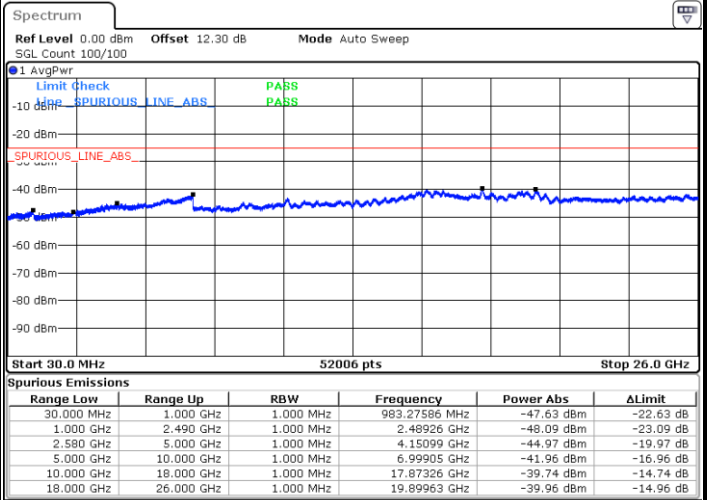
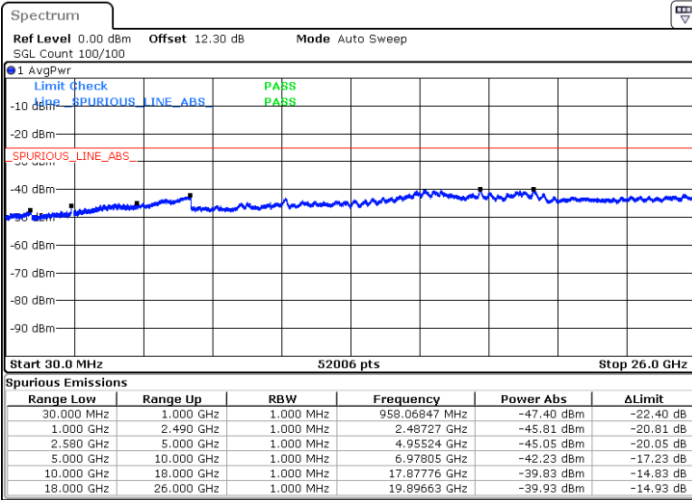




LTE Band 7 / 15MHz

Lowest Channel / QPSK

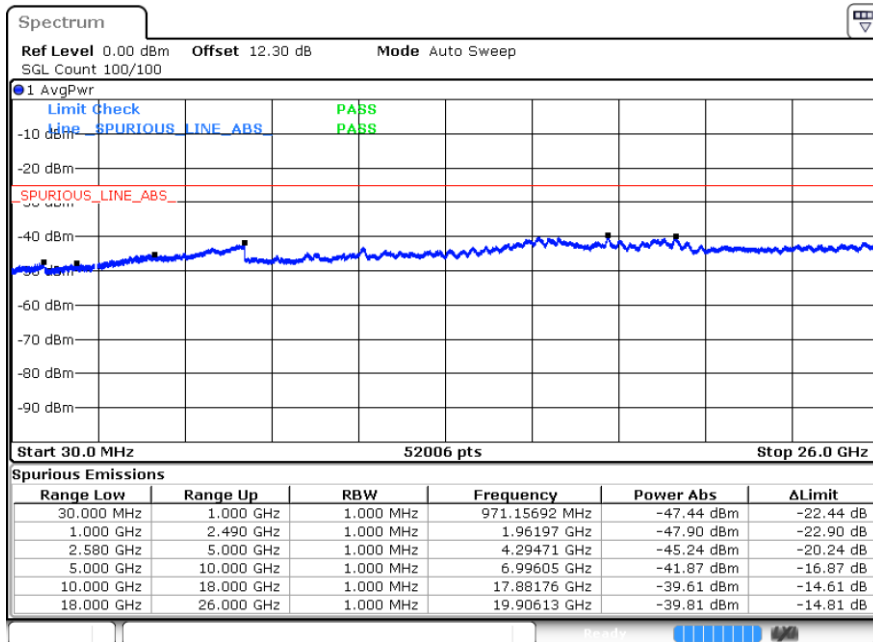
Middle Channel / QPSK



Date: 12.DEC.2020 13:53:19

Date: 12.DEC.2020 13:54:57

Highest Channel / QPSK

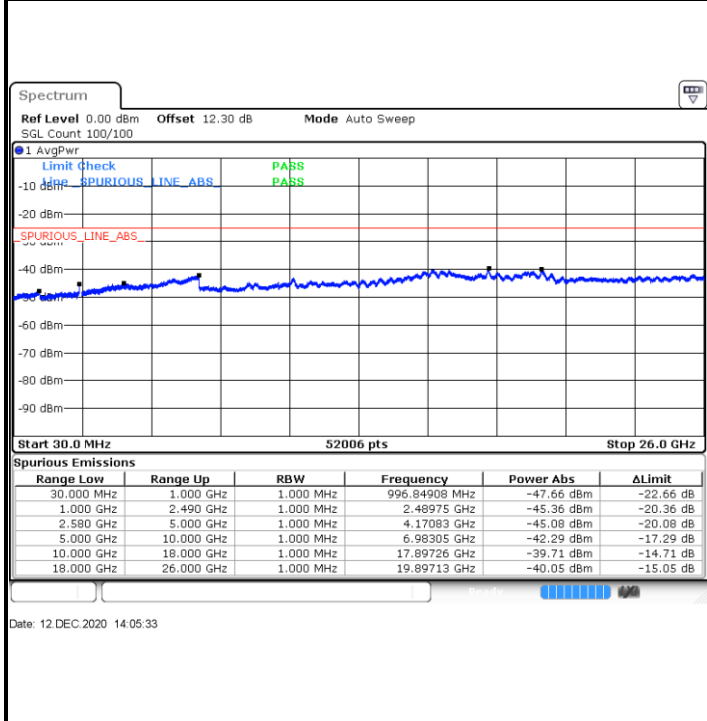


Date: 12.DEC.2020 13:57:39

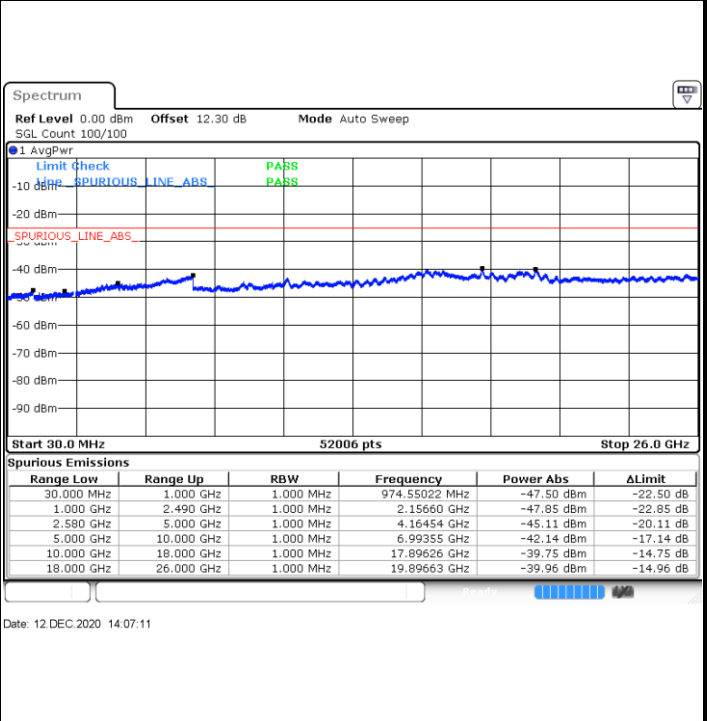


LTE Band 7 / 20MHz

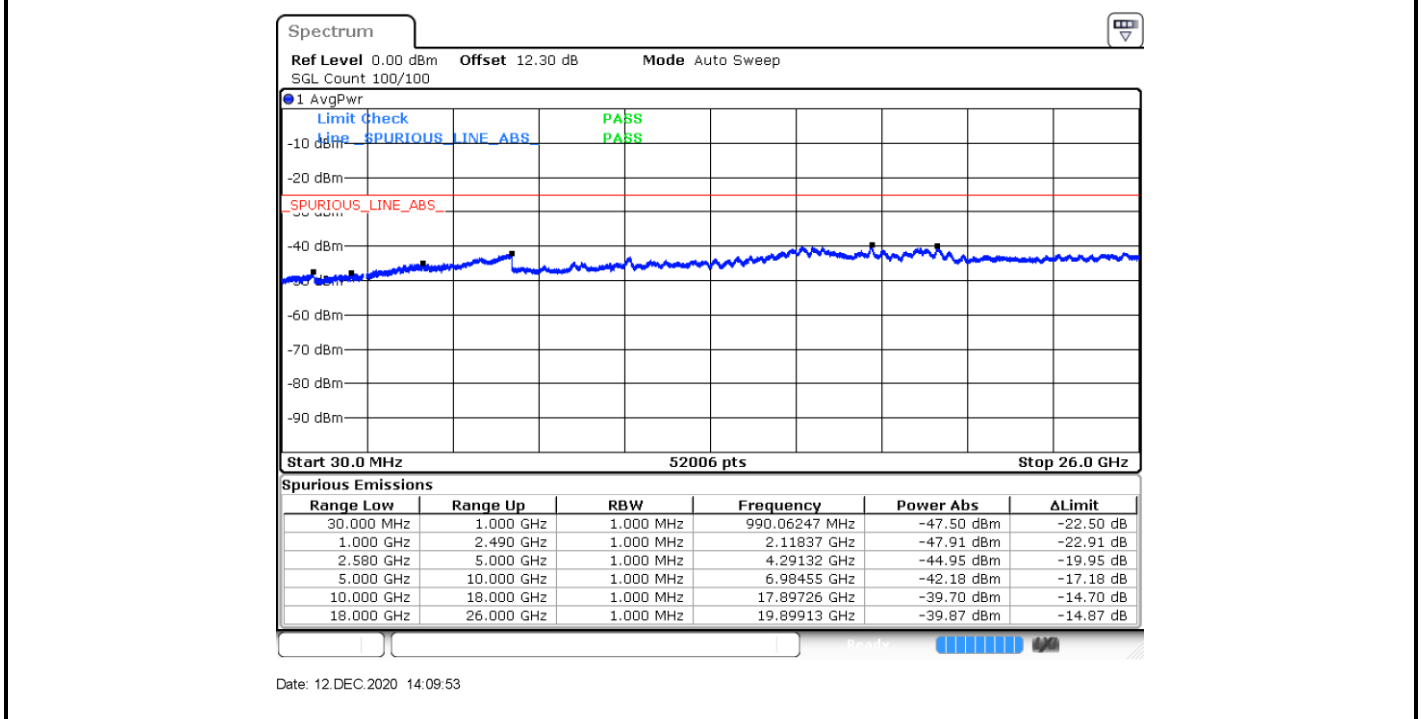
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK



Frequency Stability

| Test Conditions | | LTE Band 7 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0022 | PASS |
| 40 | Normal Voltage | 0.0049 | |
| 30 | Normal Voltage | 0.0048 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0028 | |
| 0 | Normal Voltage | 0.0000 | |
| -10 | Normal Voltage | 0.0055 | |
| -20 | Normal Voltage | 0.0047 | |
| -30 | Normal Voltage | 0.0015 | |
| 20 | Maximum Voltage | 0.0010 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0024 | |

Note:

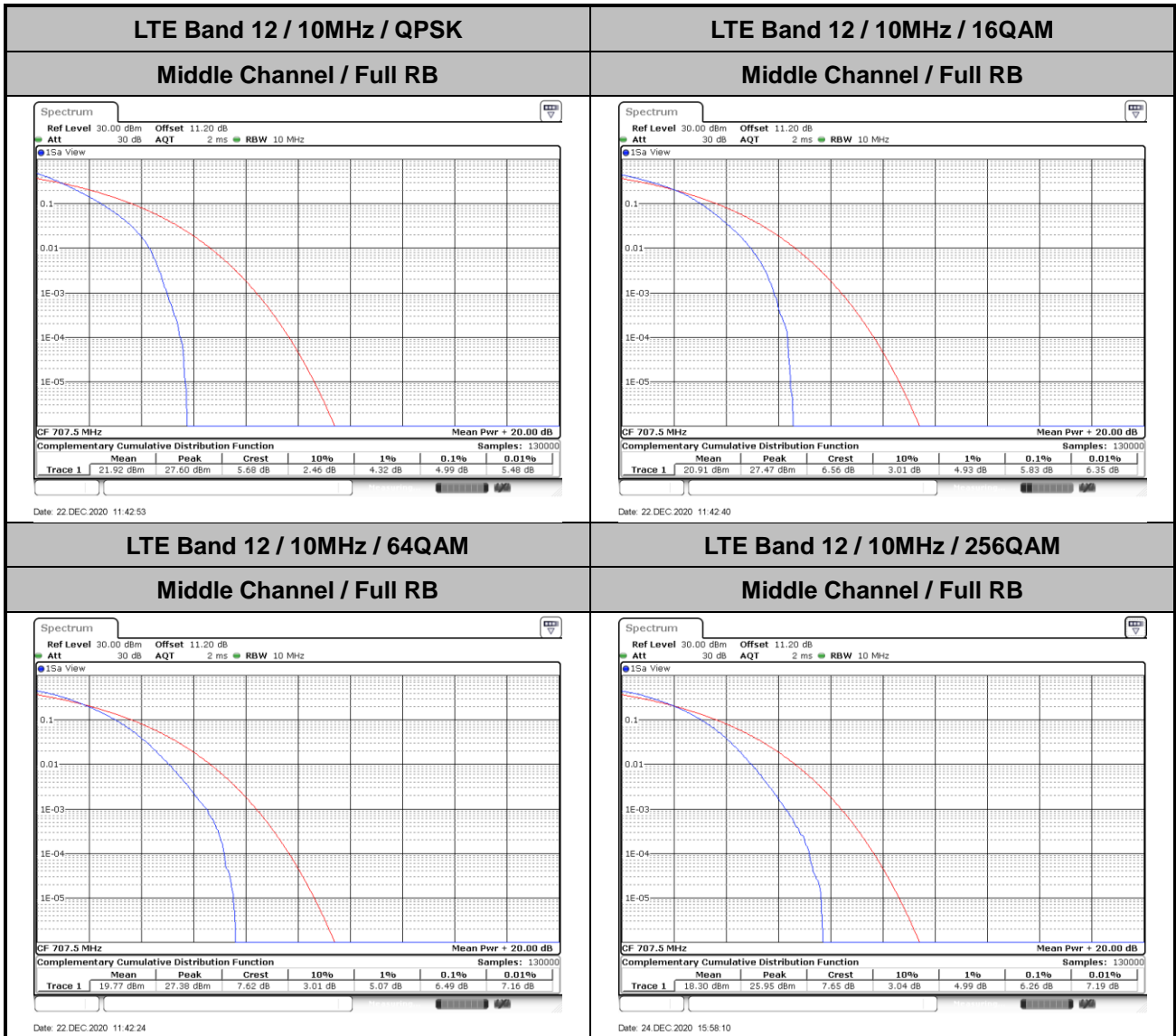
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

| Mode | LTE Band 12 / 10MHz | | | | |
|-----------|---------------------|---------|---------|---------|-------------|
| Mod. | QPSK | 16QAM | 64QAM | 256QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.99 | 5.83 | 6.49 | 6.26 | PASS |





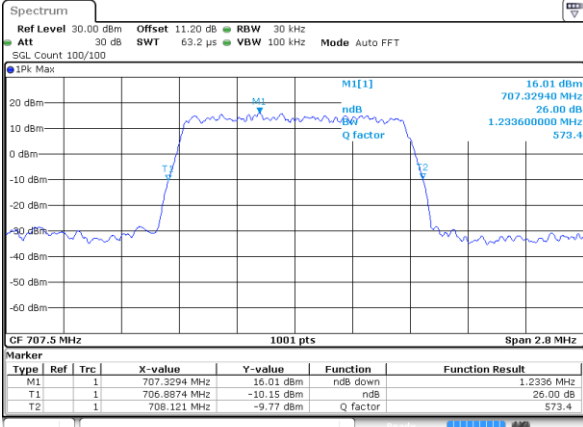
26dB Bandwidth

| Mode | LTE Band 12 : 26dB BW(MHz) | | | | | | | | | | | |
|-----------|----------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 1.23 | 1.24 | 3.03 | 3.01 | 4.84 | 4.85 | 9.89 | 9.81 | - | - | - | - |
| Mode | LTE Band 12 : 26dB BW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | 1.24 | 1.22 | 2.98 | 2.98 | 4.85 | 4.82 | 9.75 | 9.79 | - | - | - | - |



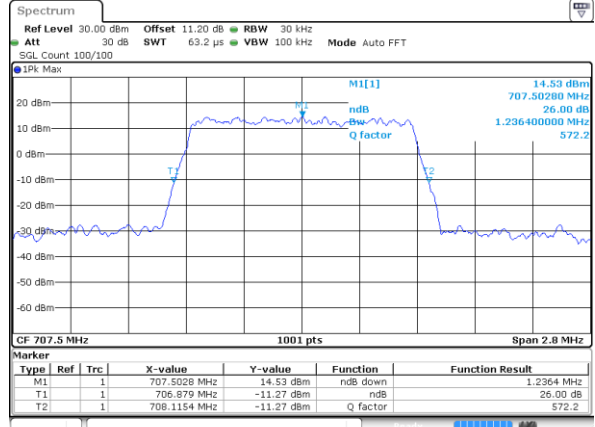
LTE Band 12

Middle Channel / 1.4MHz / QPSK



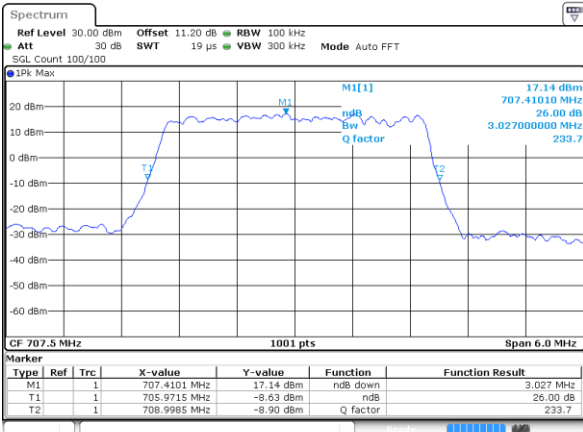
Date: 22 DEC 2020 10:16:42

Middle Channel / 1.4MHz / 16QAM



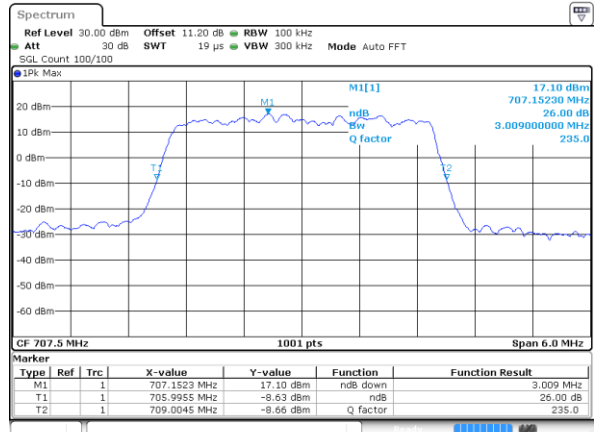
Date: 22 DEC 2020 10:16:55

Middle Channel / 3MHz / QPSK



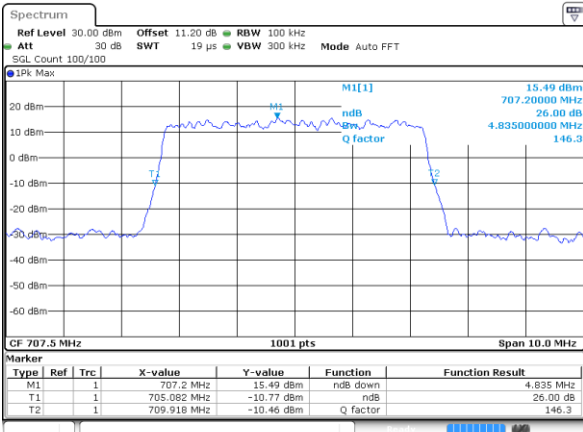
Date: 22 DEC 2020 10:28:34

Middle Channel / 3MHz / 16QAM



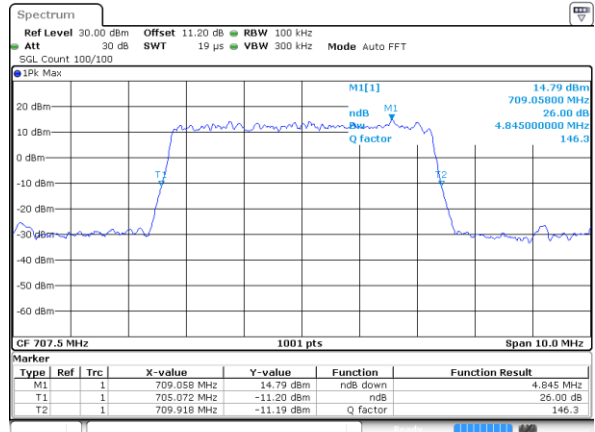
Date: 22 DEC 2020 10:28:47

Middle Channel / 5MHz / QPSK



Date: 22 DEC 2020 10:43:40

Middle Channel / 5MHz / 16QAM

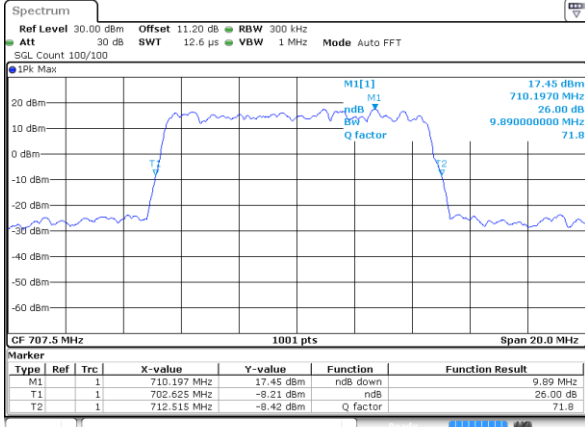


Date: 22 DEC 2020 10:43:53



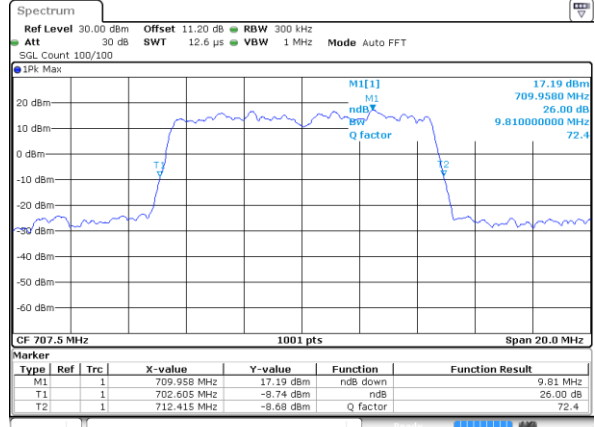
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 22 DEC 2020 10:52:17

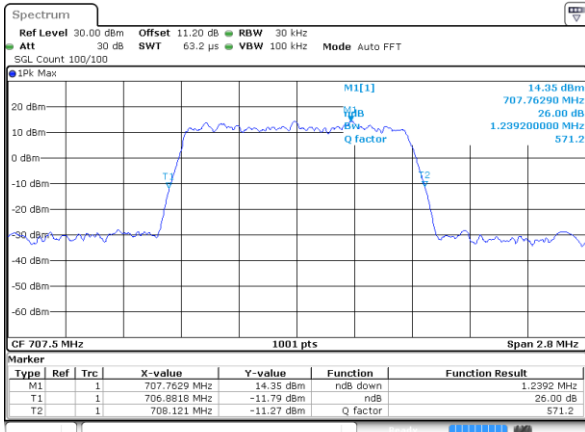
Middle Channel / 10MHz / 16QAM



Date: 22 DEC 2020 10:52:30

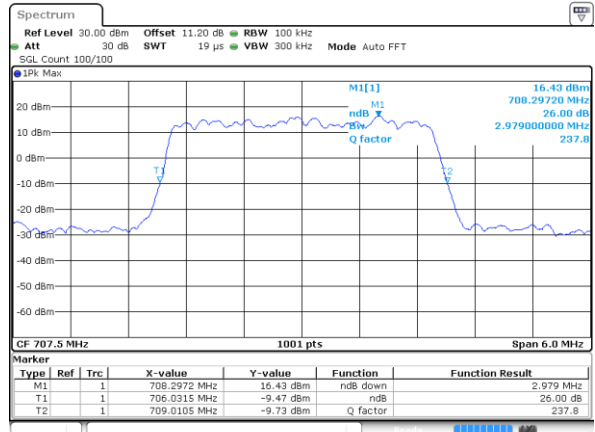
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



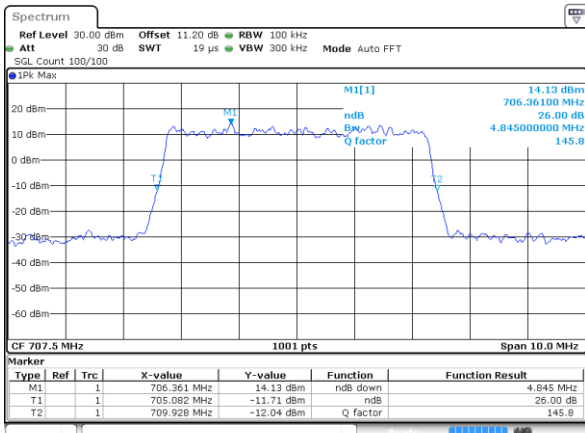
Date: 22 DEC 2020 10:22:59

Middle Channel / 3MHz / 64QAM



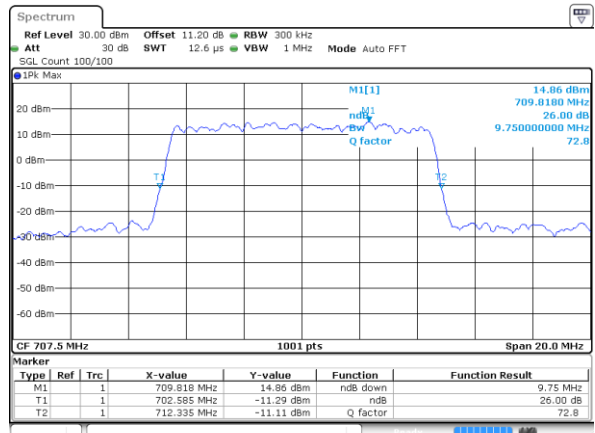
Date: 22 DEC 2020 10:34:51

Middle Channel / 5MHz / 64QAM



Date: 22 DEC 2020 10:38:06

Middle Channel / 10MHz / 64QAM

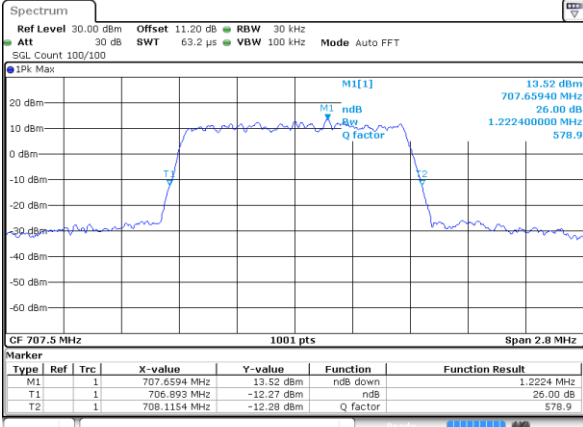


Date: 22 DEC 2020 10:58:33



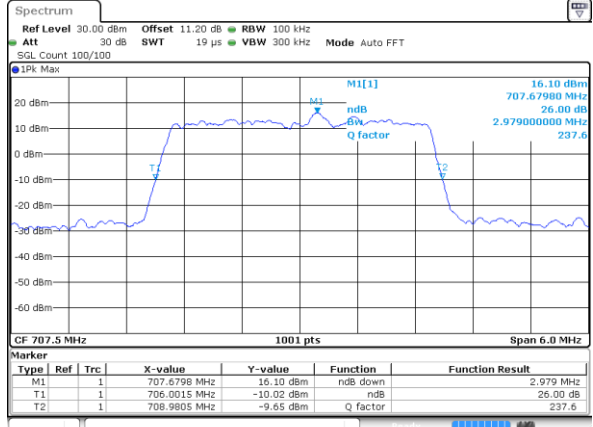
LTE Band 12

Middle Channel / 1.4MHz / 256QAM



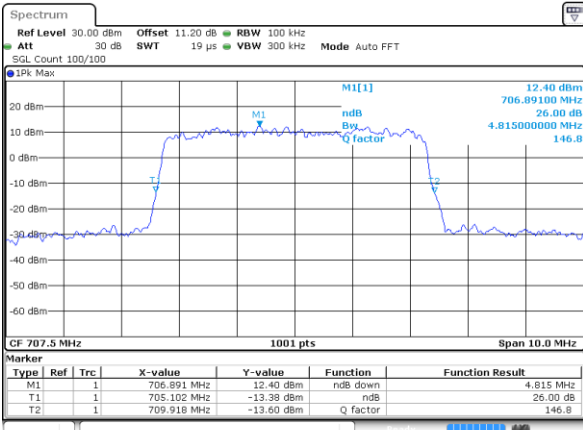
Date: 24 DEC 2020 16:00:02

Middle Channel / 3MHz / 256QAM



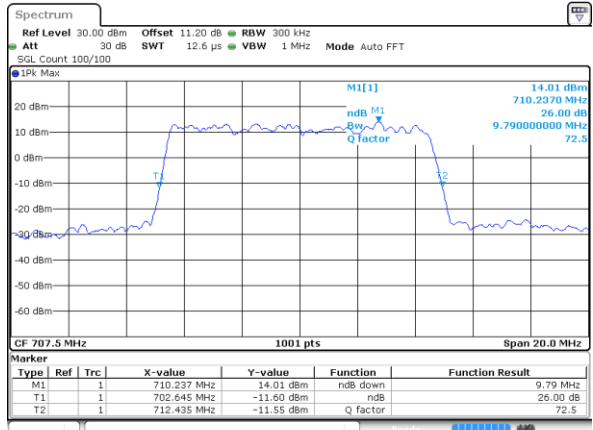
Date: 24 DEC 2020 16:06:35

Middle Channel / 5MHz / 256QAM



Date: 24 DEC 2020 16:10:35

Middle Channel / 10MHz / 256QAM



Date: 24 DEC 2020 16:13:07



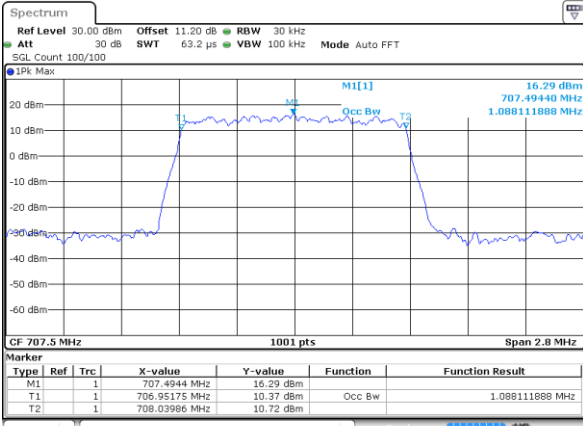
Occupied Bandwidth

| Mode | LTE Band 12 : 99%OBW(MHz) | | | | | | | | | | | |
|-----------|---------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 1.09 | 1.10 | 2.70 | 2.72 | 4.49 | 4.50 | 9.01 | 9.01 | - | - | - | - |
| Mode | LTE Band 12 : 99%OBW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | 1.09 | 1.09 | 2.72 | 2.72 | 4.48 | 4.47 | 9.01 | 9.03 | - | - | - | - |

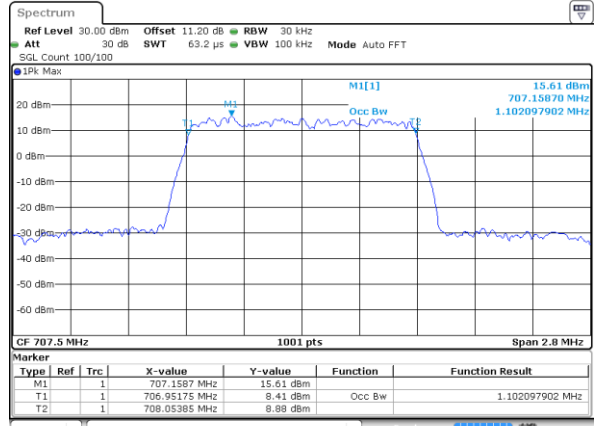


LTE Band 12

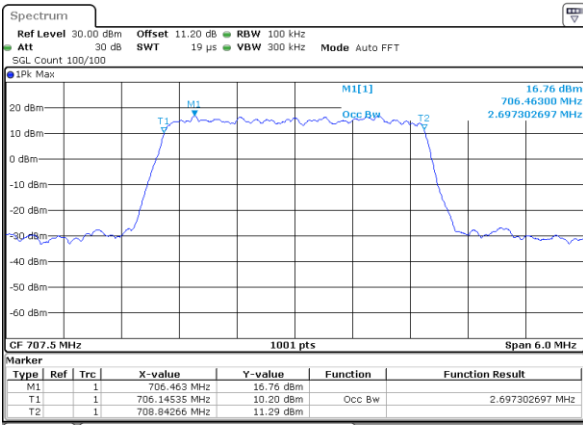
Middle Channel / 1.4MHz / QPSK



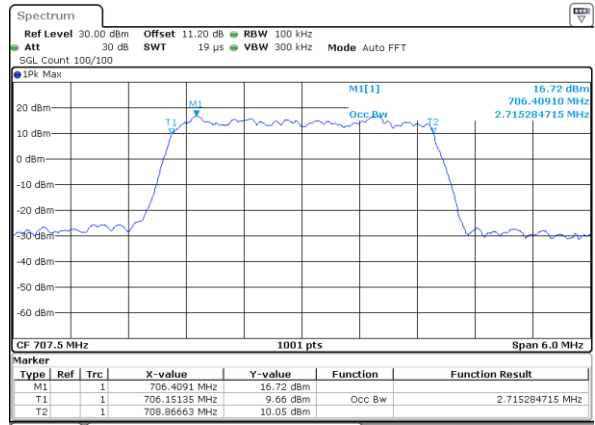
Middle Channel / 1.4MHz / 16QAM



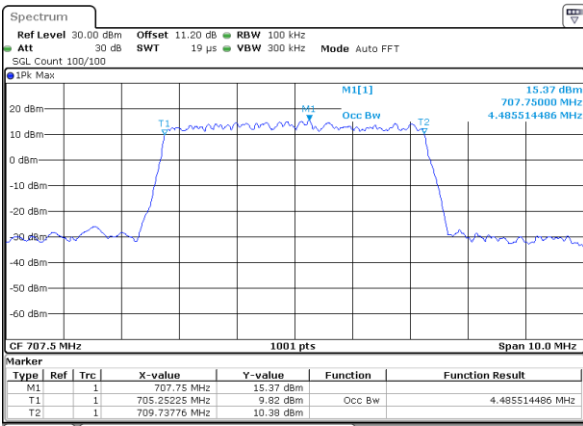
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM

