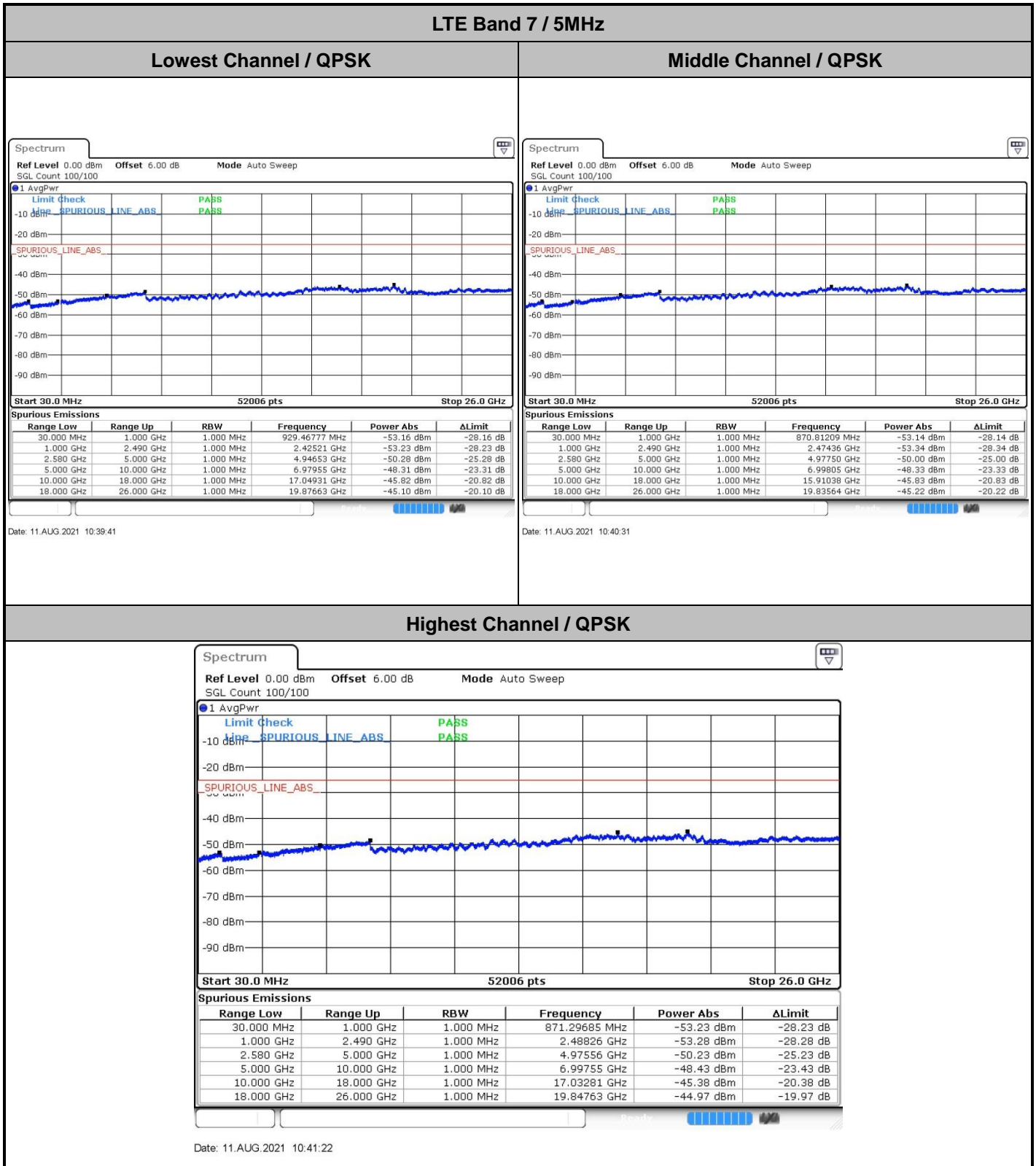




Conducted Spurious Emission

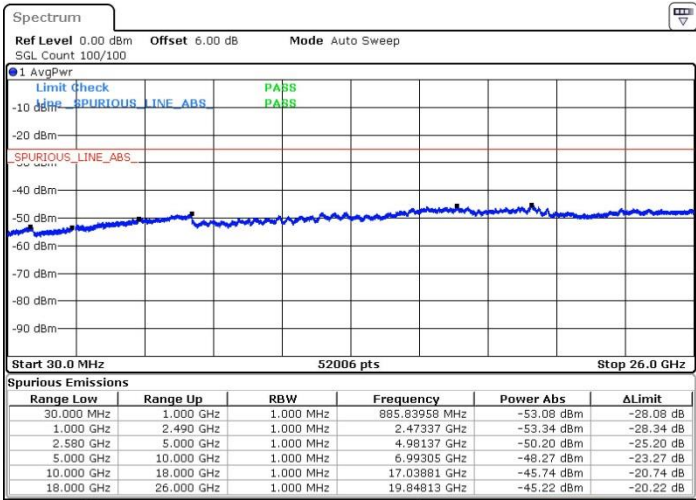




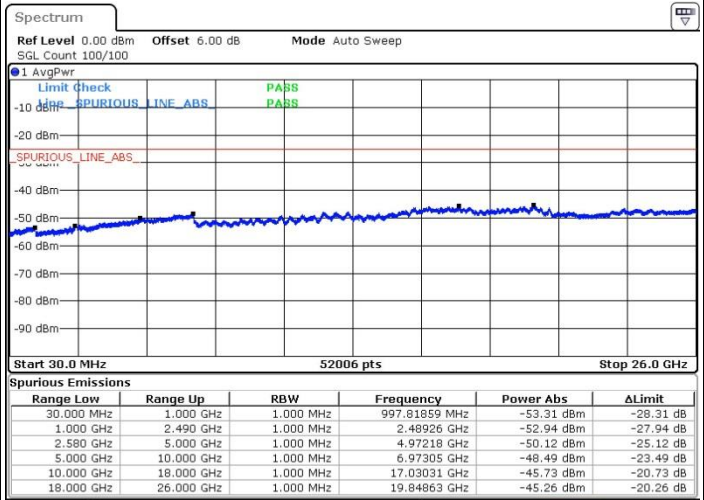
LTE Band 7 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

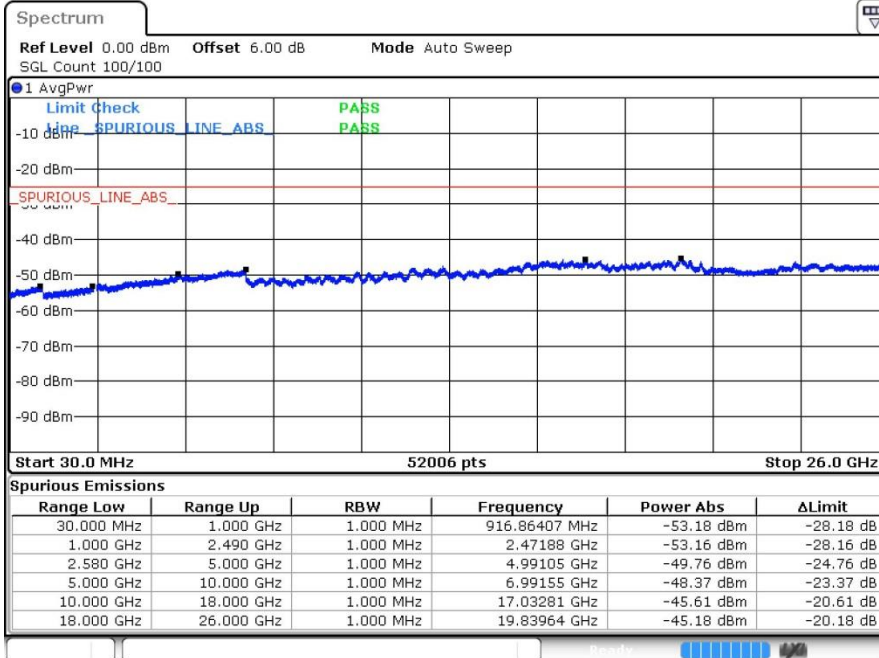


Date: 11.AUG.2021 10:42:15



Date: 11.AUG.2021 10:46:20

Highest Channel / QPSK

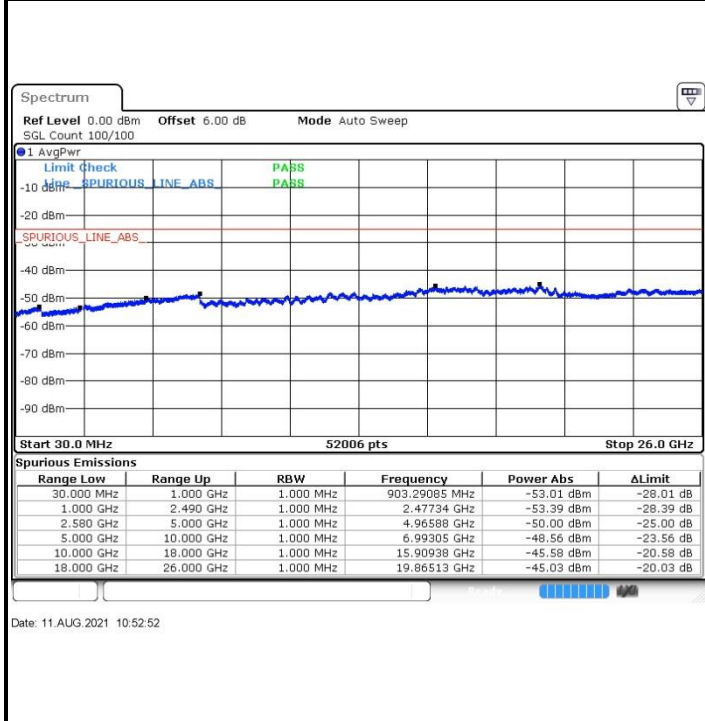


Date: 11.AUG.2021 10:47:47

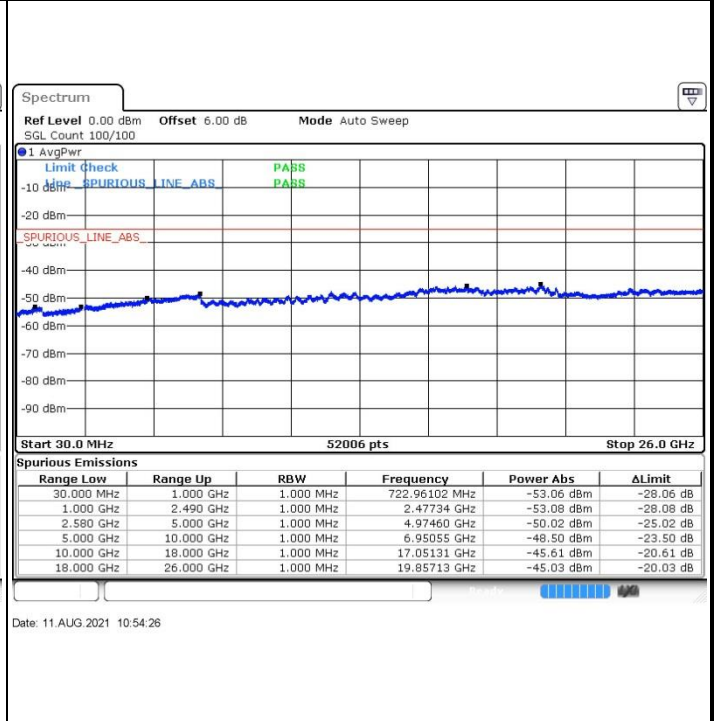


LTE Band 7 / 15MHz

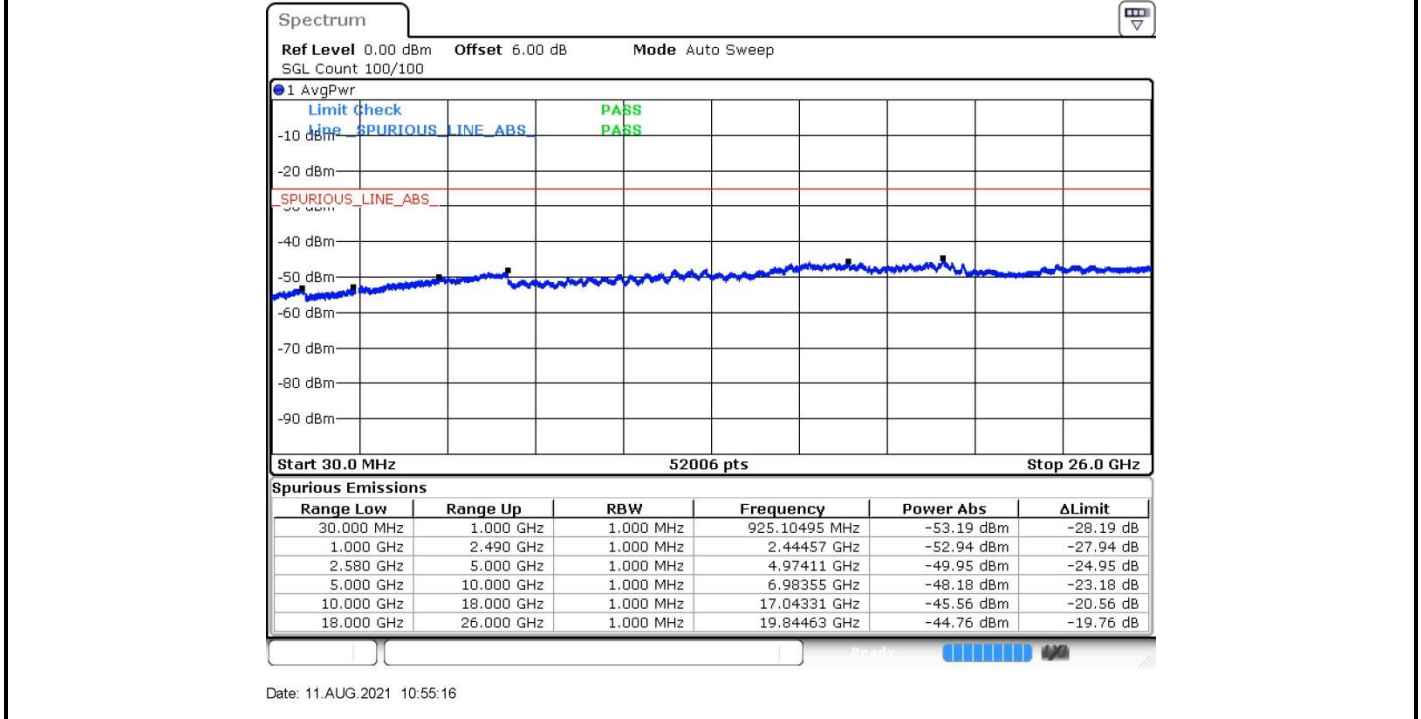
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

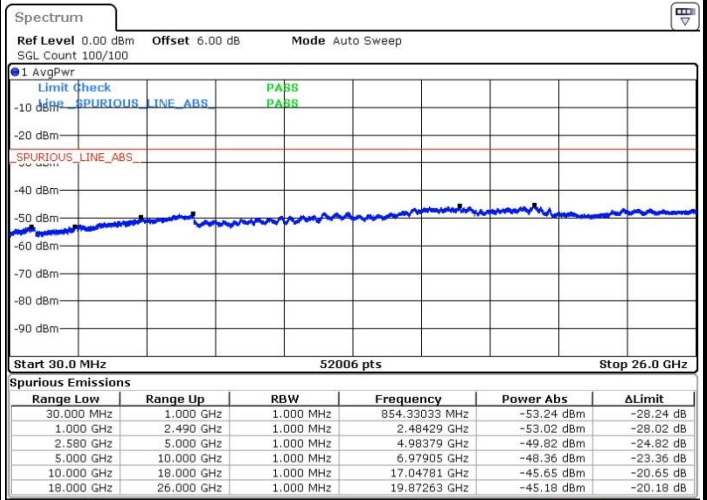
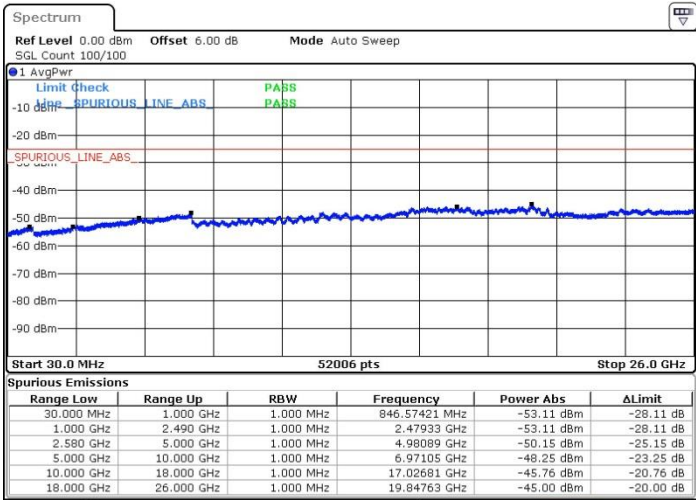




LTE Band 7 / 20MHz

Lowest Channel / QPSK

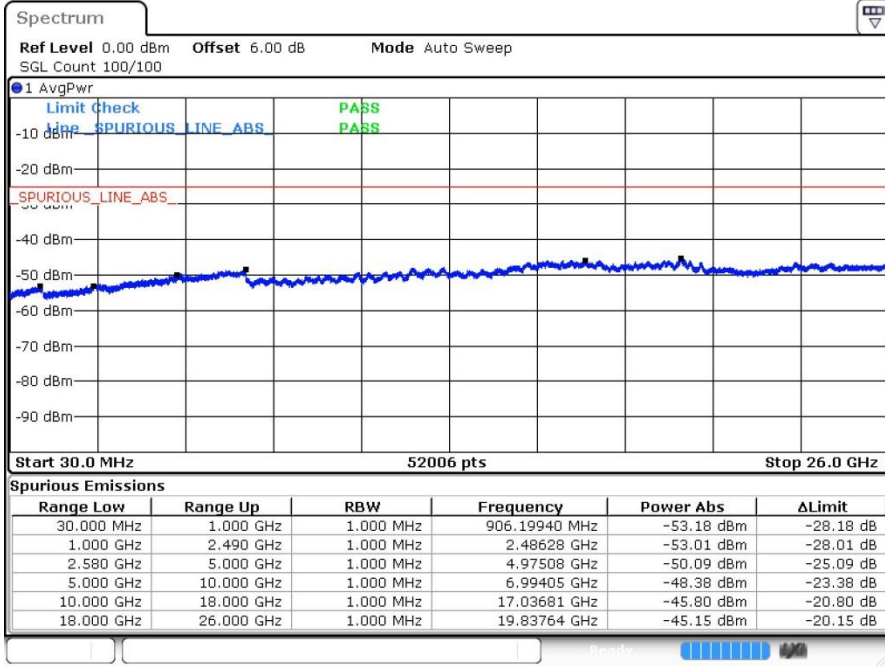
Middle Channel / QPSK



Date: 11.AUG.2021 10:56:46

Date: 11.AUG.2021 10:57:36

Highest Channel / QPSK



Date: 11.AUG.2021 10:59:51



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 | 0.0023 | PASS |
| 40 | Normal Voltage | 0.0028 | |
| 30 | Normal Voltage | 0.0008 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0019 | |
| 0 | Normal Voltage | 0.0032 | |
| -10 | Normal Voltage | 0.0002 | |
| -20 | Normal Voltage | 0.0004 | |
| -30 | Normal Voltage | 0.0020 | |
| 20 | Maximum Voltage | 0.0006 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0027 | |

Note:

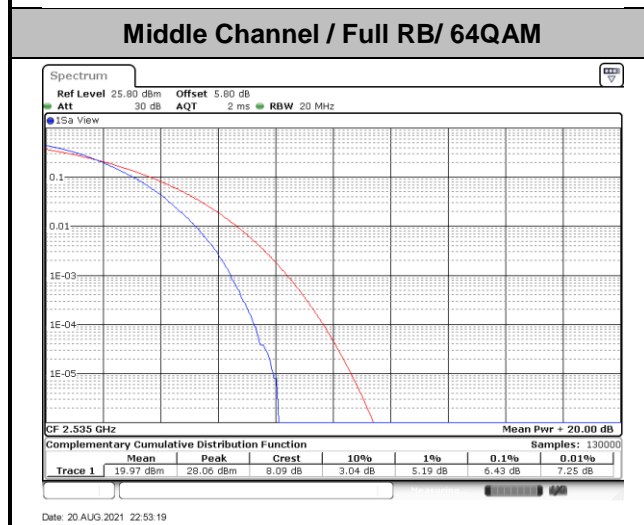
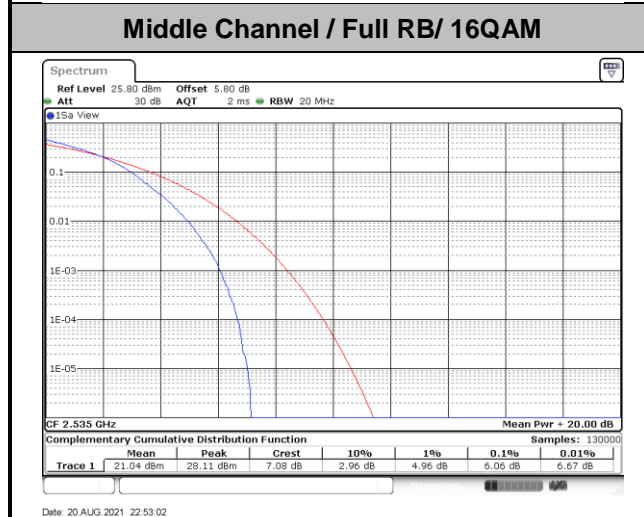
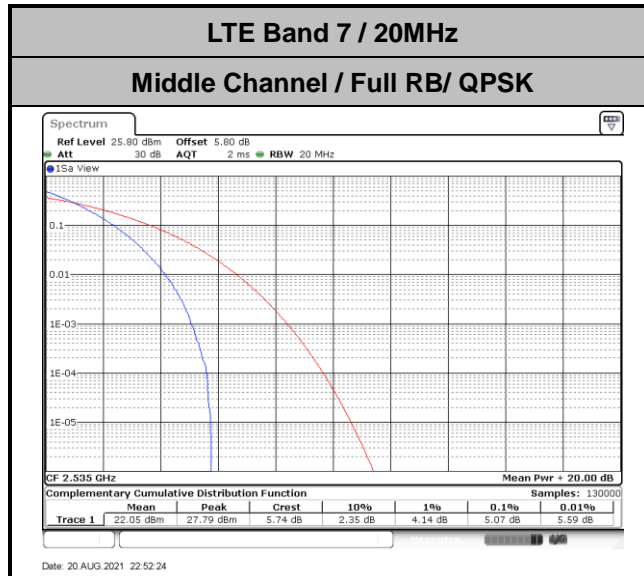
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7 for other PA

Peak-to-Average Ratio

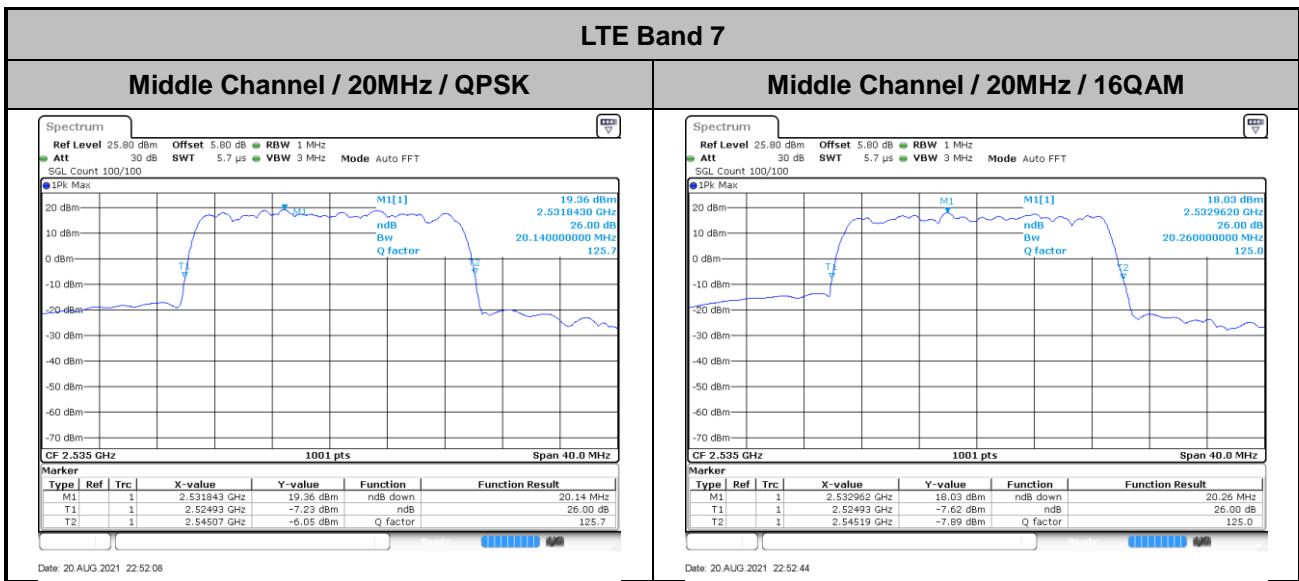
| Mode | LTE Band 7 / 20MHz | | | |
|-----------|--------------------|---------|---------|-------------|
| Mod. | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Result |
| Middle CH | 5.07 | 6.06 | 6.43 | PASS |





26dB Bandwidth

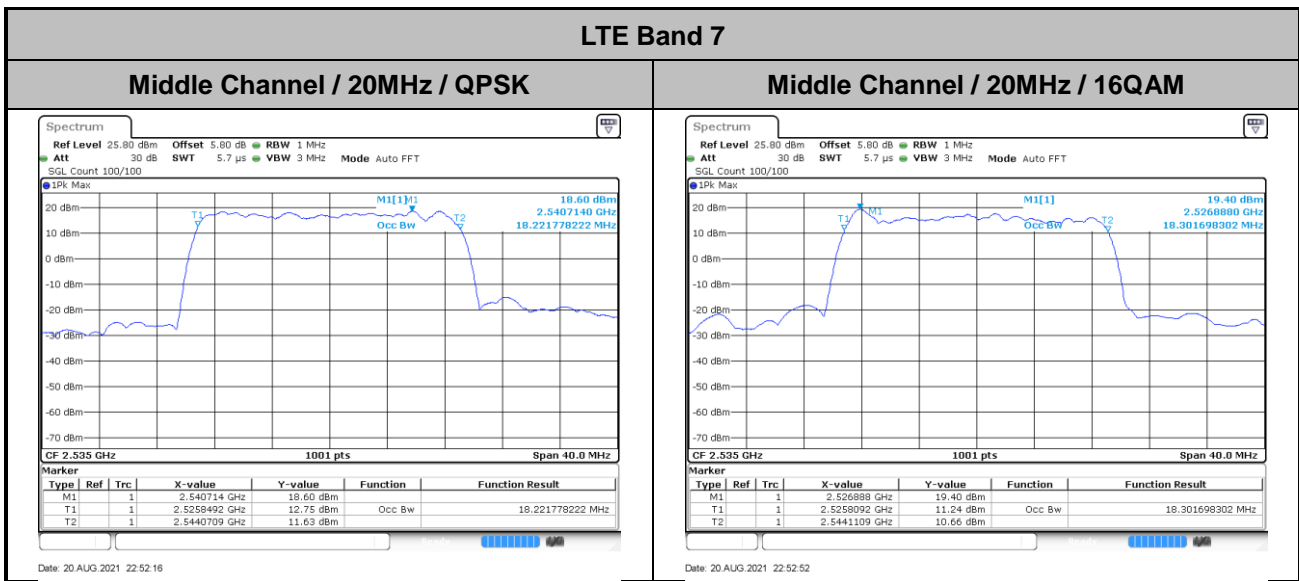
| | | |
|------------------|----------------------------------|--------------|
| Mode | LTE Band 7 : 26dB BW(MHz) | |
| BW | 20MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 20.14 | 20.26 |





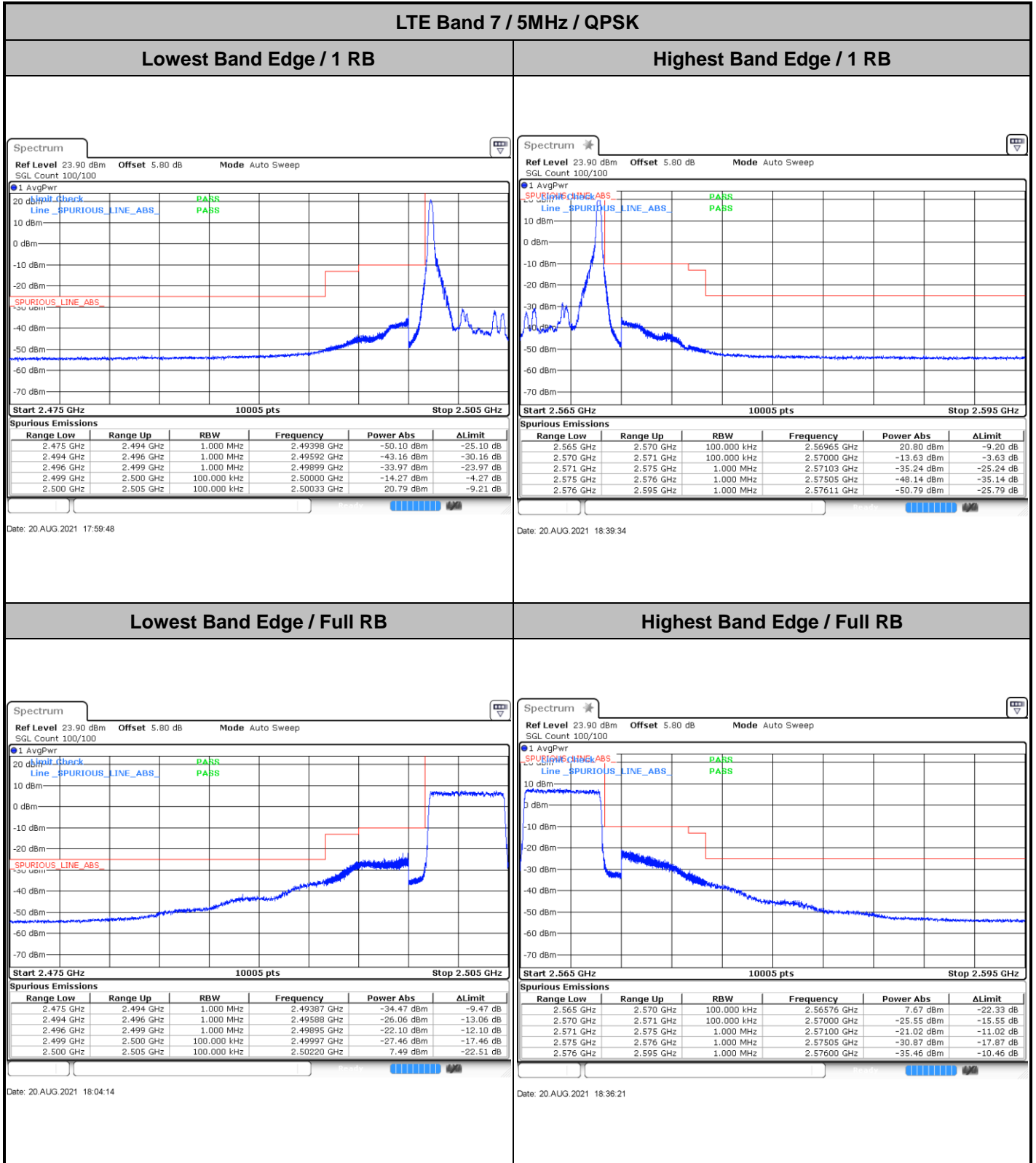
Occupied Bandwidth

| | | |
|------------------|---------------------------------|--------------|
| Mode | LTE Band 7 : 99%OBW(MHz) | |
| BW | 20MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 18.22 | 18.30 |





Conducted Band Edge

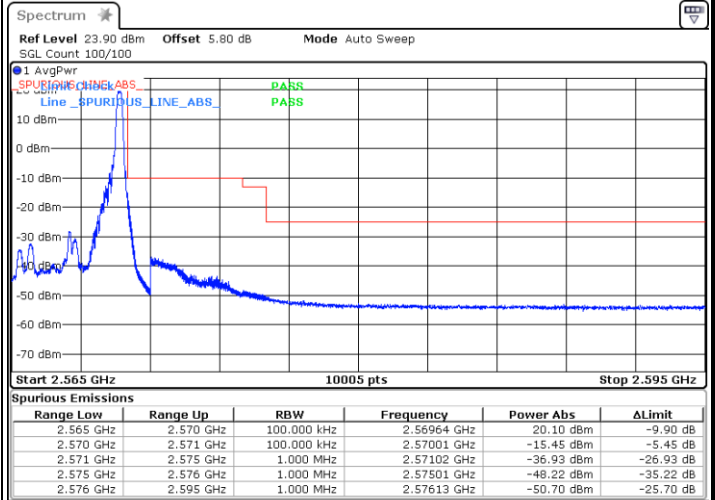
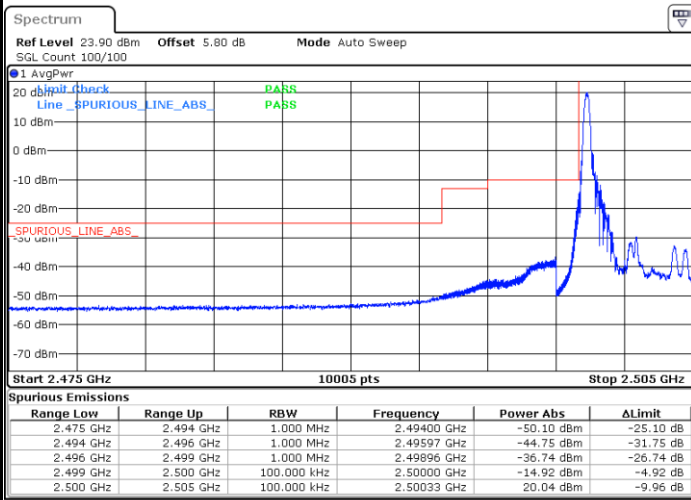




LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

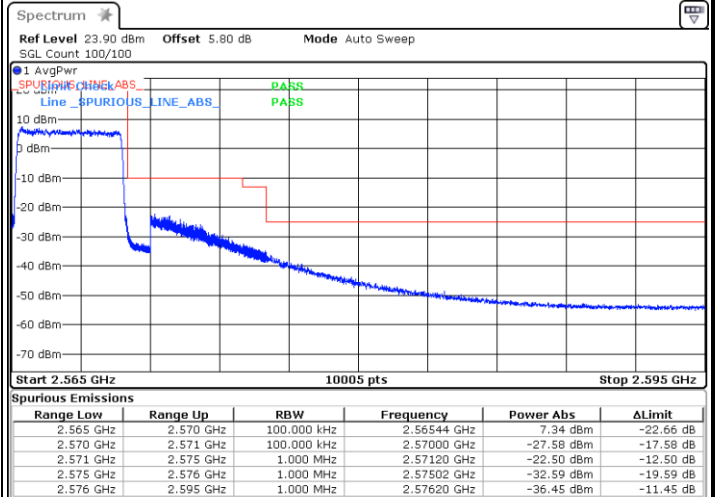
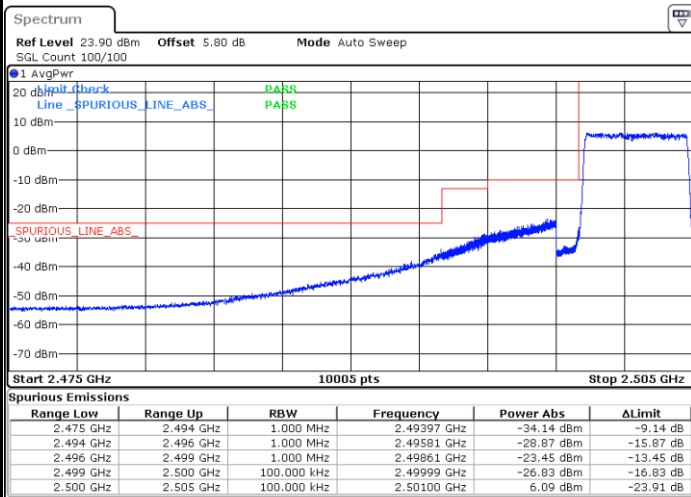


Date: 20 AUG 2021 18:00:16

Date: 20 AUG 2021 18:39:05

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



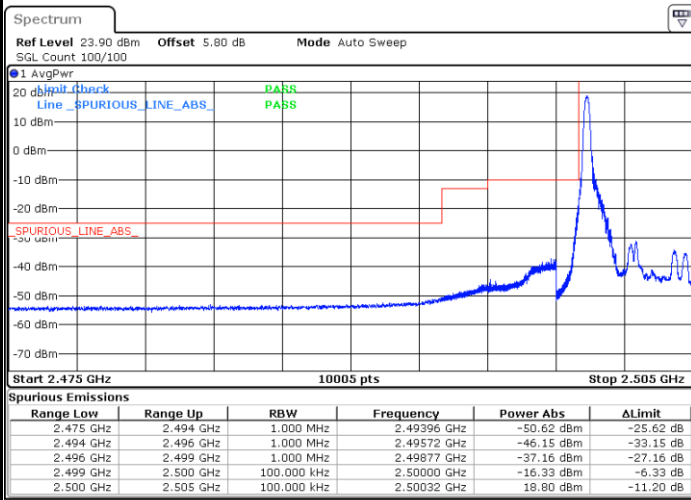
Date: 20 AUG 2021 18:03:52

Date: 20 AUG 2021 18:37:04



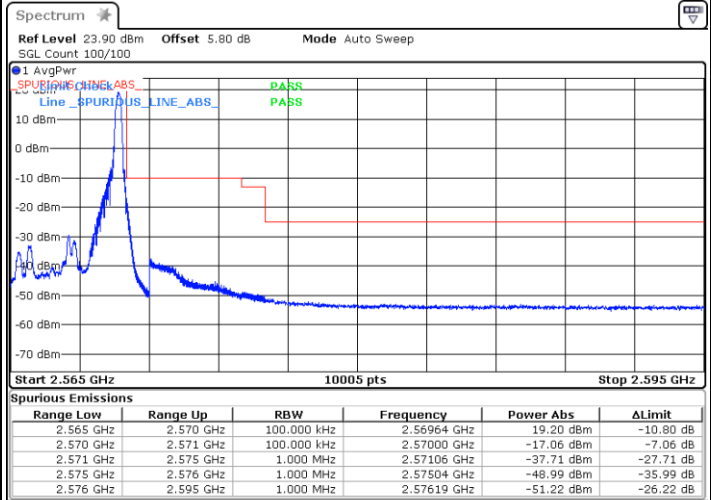
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



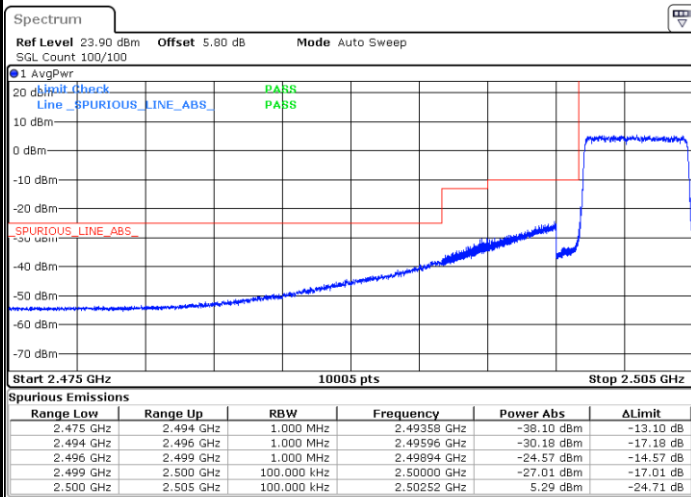
Date: 20 AUG 2021 18:00:45

Highest Band Edge / 1 RB



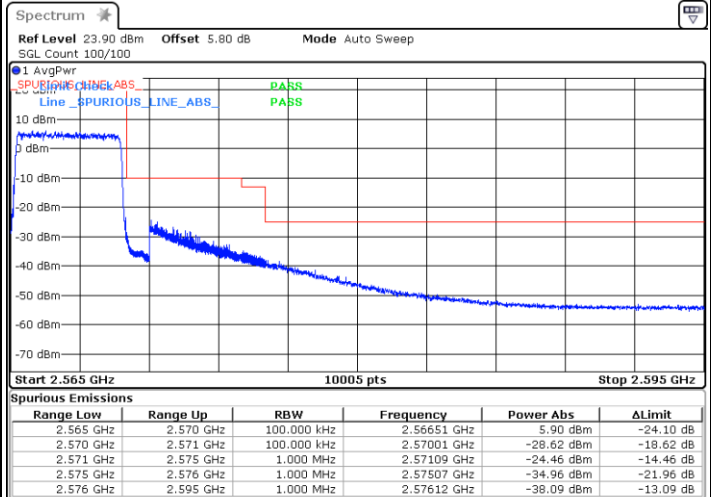
Date: 20 AUG 2021 18:38:32

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:03:29

Highest Band Edge / Full RB



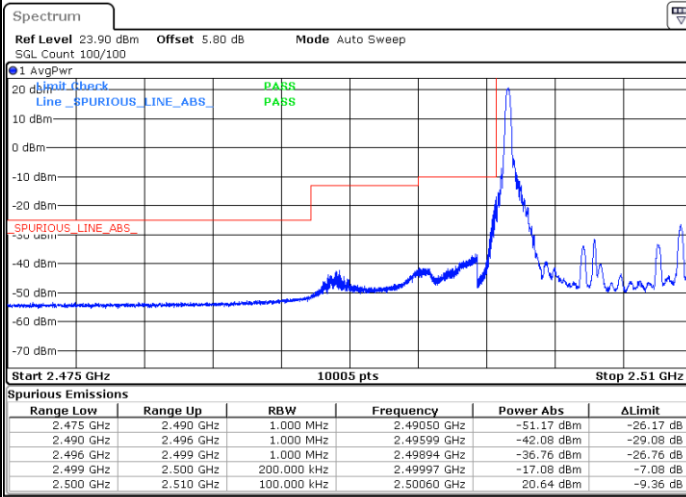
Date: 20 AUG 2021 18:37:34



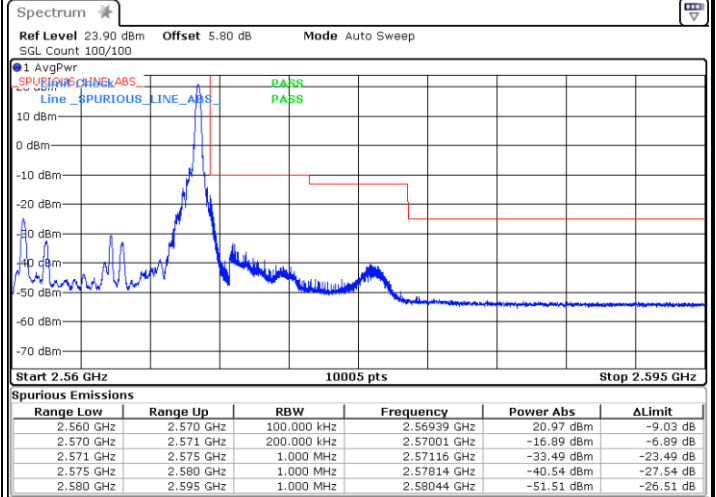
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



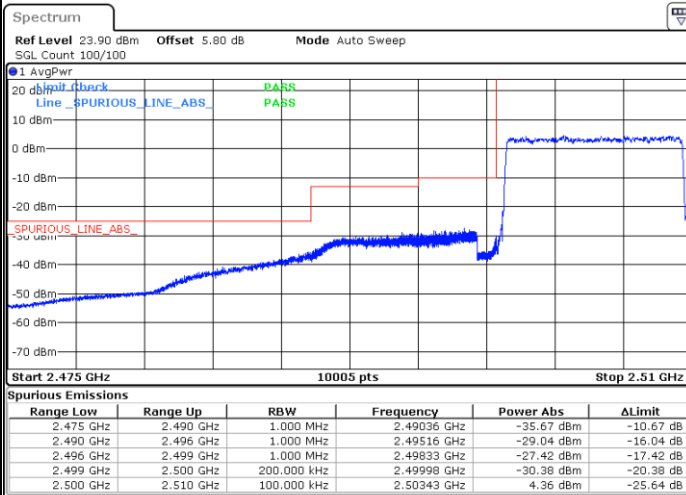
Date: 20 AUG 2021 18:25:12



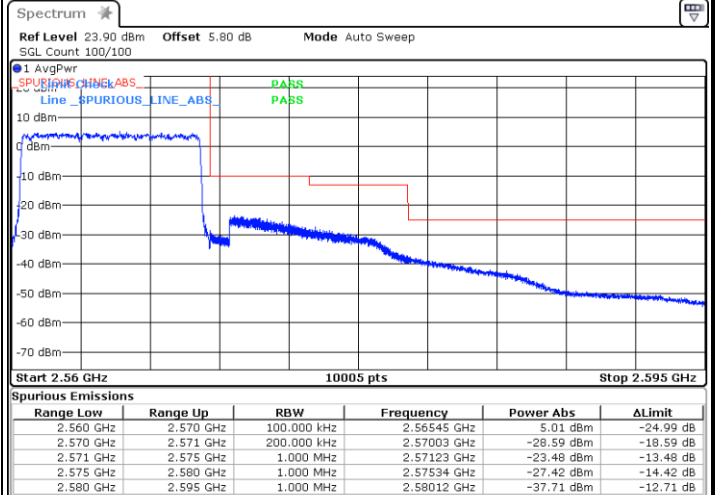
Date: 20 AUG 2021 18:31:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20 AUG 2021 18:27:18

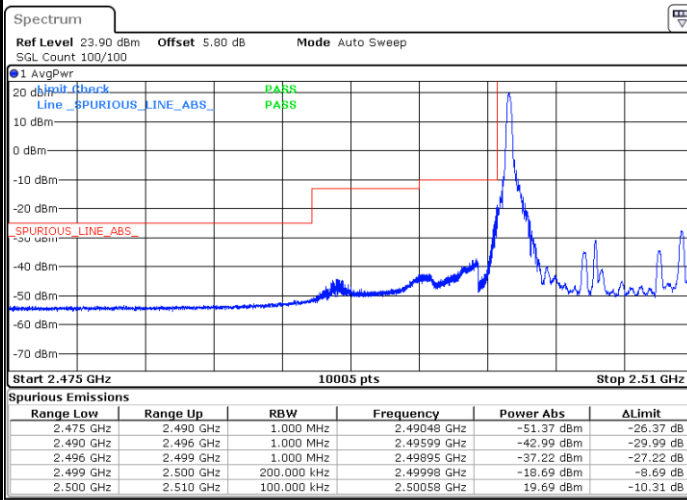


Date: 20 AUG 2021 18:34:32



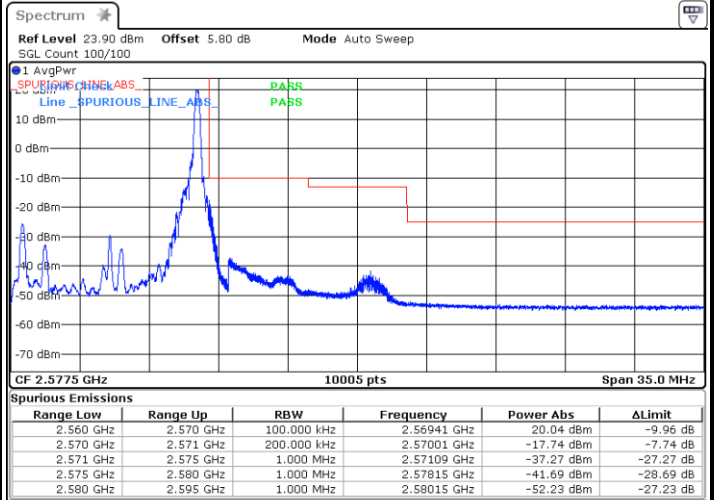
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



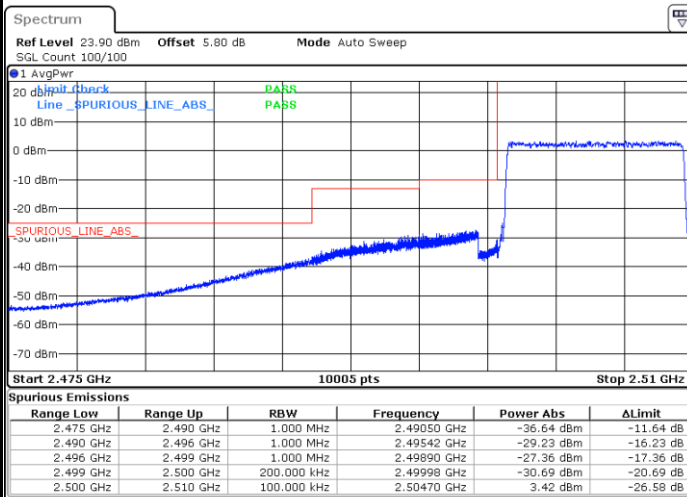
Date: 20 AUG 2021 18:25:35

Highest Band Edge / 1 RB



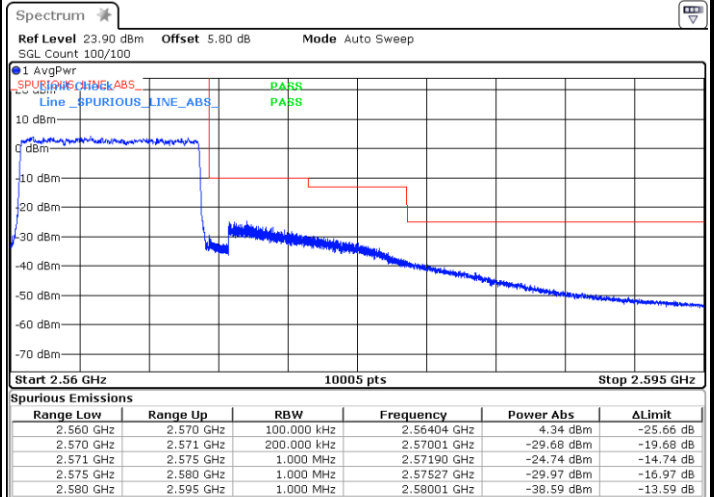
Date: 20 AUG 2021 18:32:23

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:26:57

Highest Band Edge / Full RB

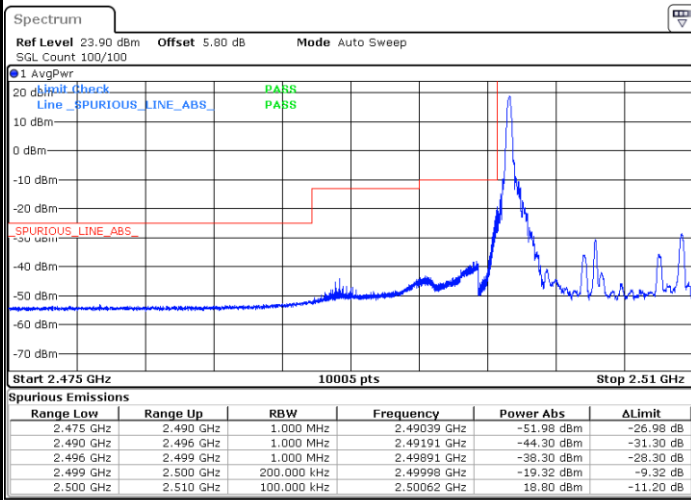


Date: 20 AUG 2021 18:34:04



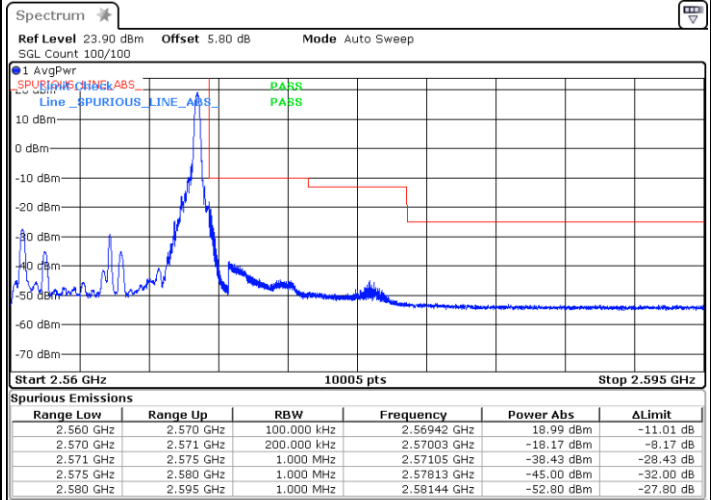
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



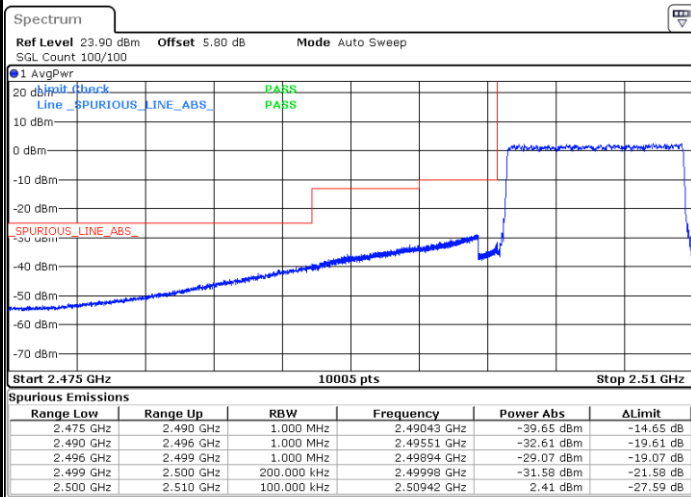
Date: 20 AUG 2021 18:25:59

Highest Band Edge / 1 RB



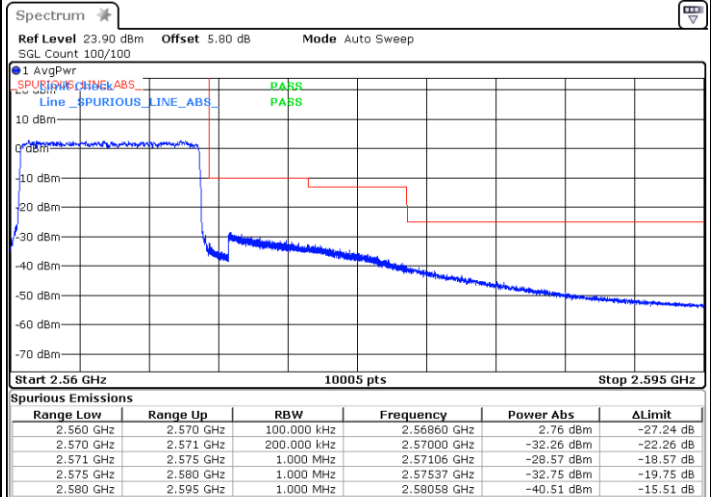
Date: 20 AUG 2021 18:32:56

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:26:35

Highest Band Edge / Full RB



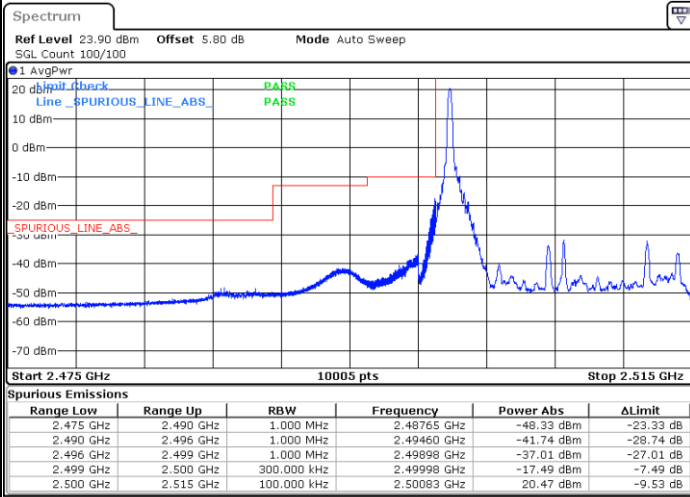
Date: 20 AUG 2021 18:33:33



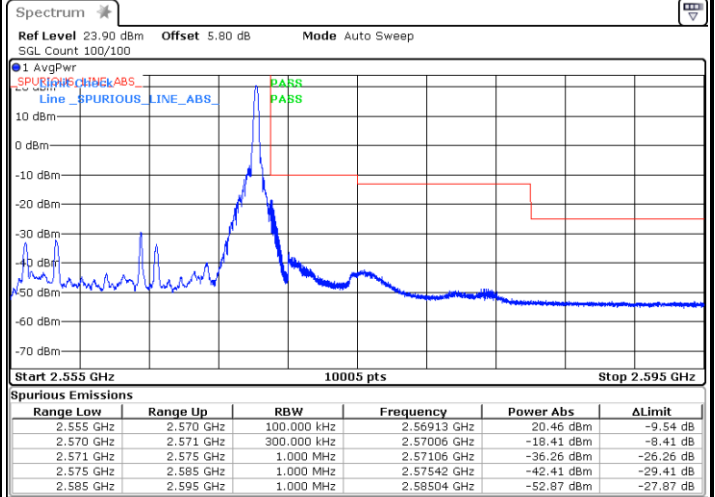
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



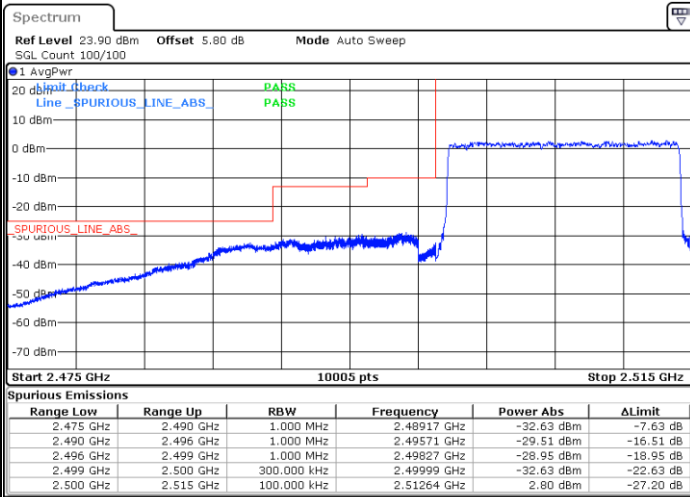
Date: 20 AUG 2021 18:42:29



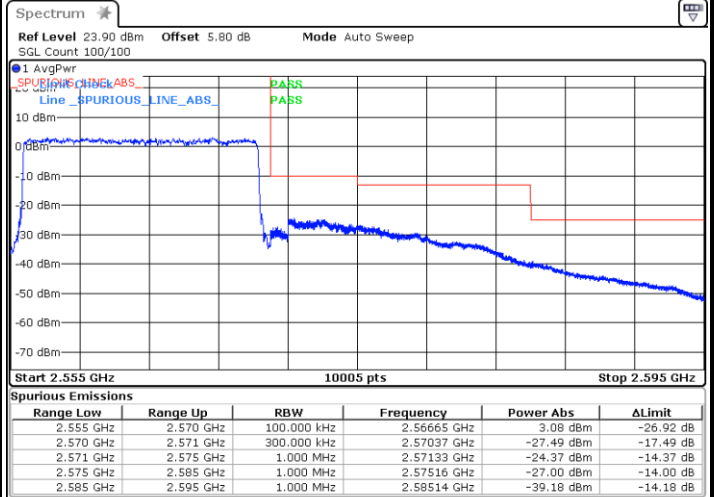
Date: 20 AUG 2021 18:47:50

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20 AUG 2021 18:44:36

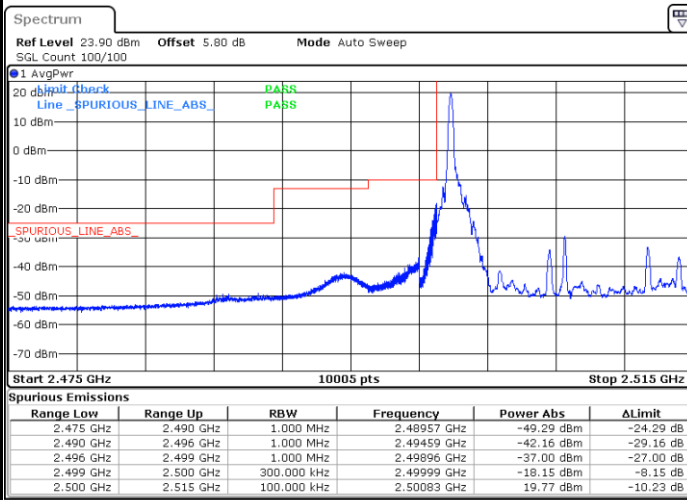


Date: 20 AUG 2021 18:50:43



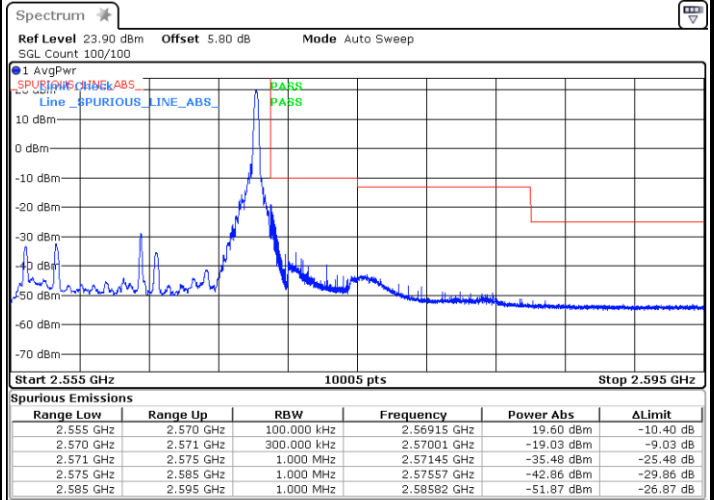
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



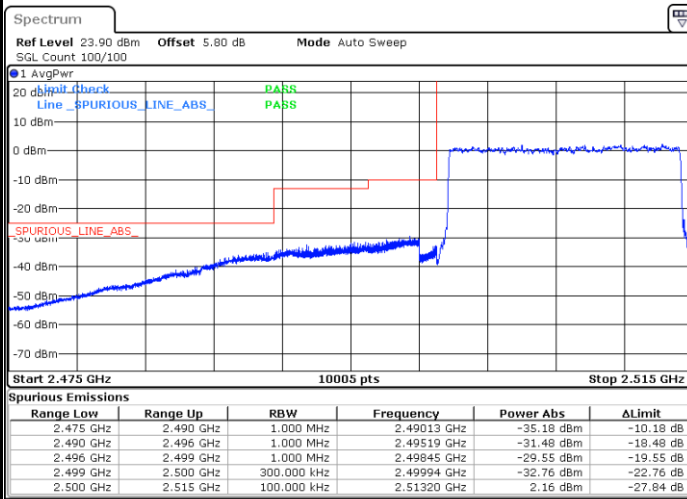
Date: 20 AUG 2021 18:43:08

Highest Band Edge / 1 RB



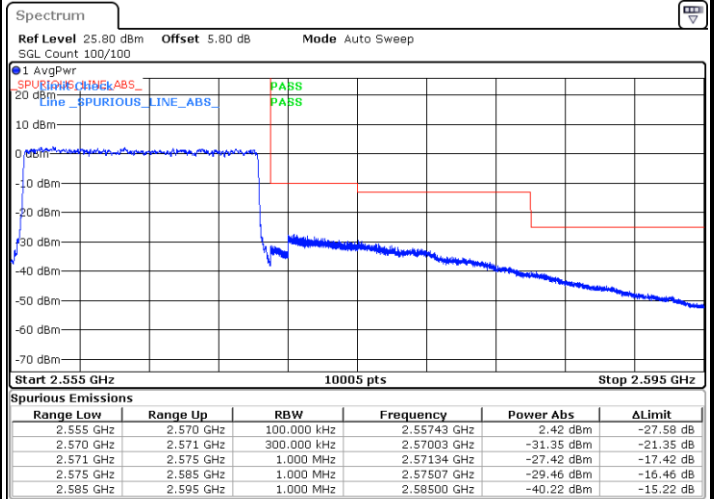
Date: 20 AUG 2021 18:48:17

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:44:18

Highest Band Edge / Full RB

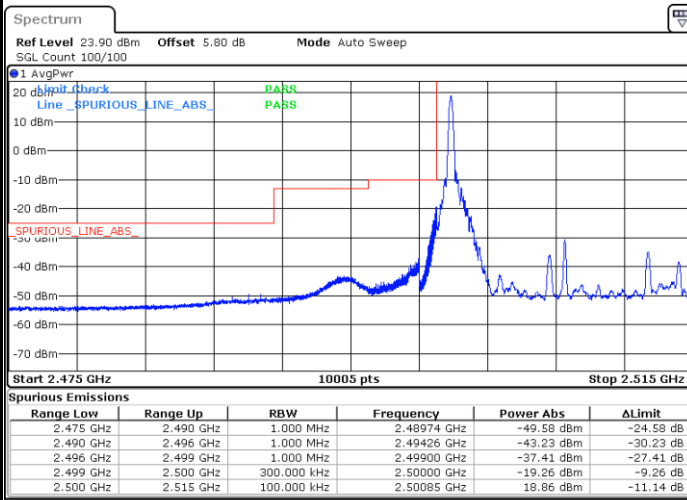


Date: 20 AUG 2021 18:50:03



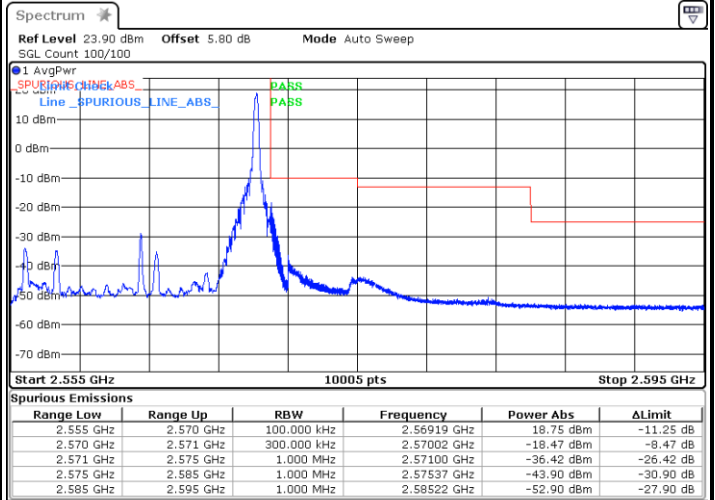
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



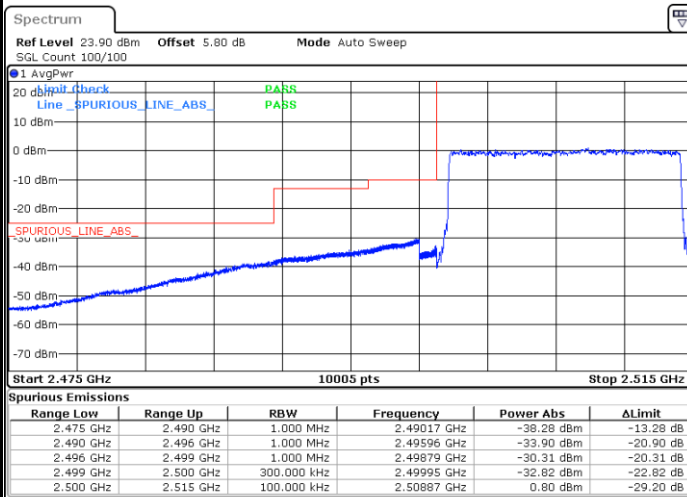
Date: 20 AUG 2021 18:43:29

Highest Band Edge / 1 RB



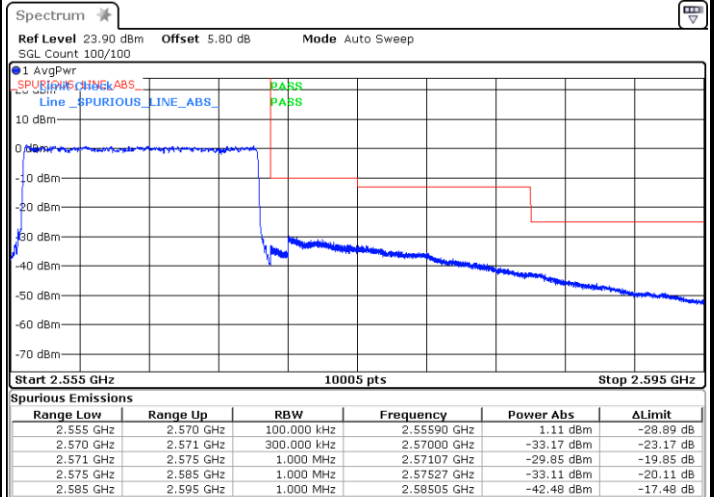
Date: 20 AUG 2021 18:48:47

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:43:58

Highest Band Edge / Full RB



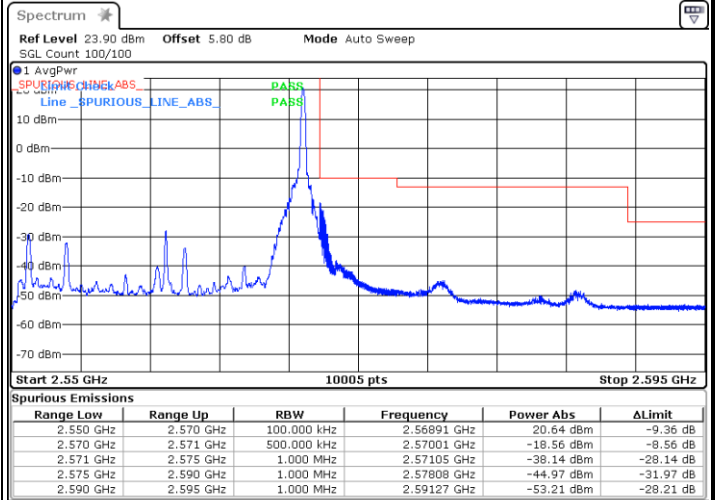
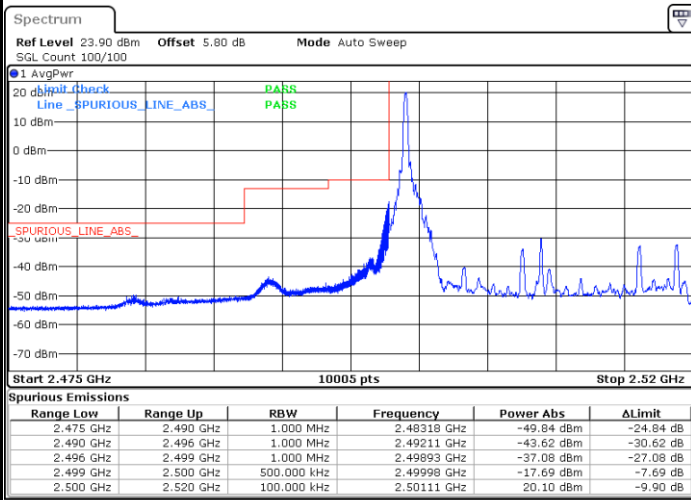
Date: 20 AUG 2021 18:49:29



LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

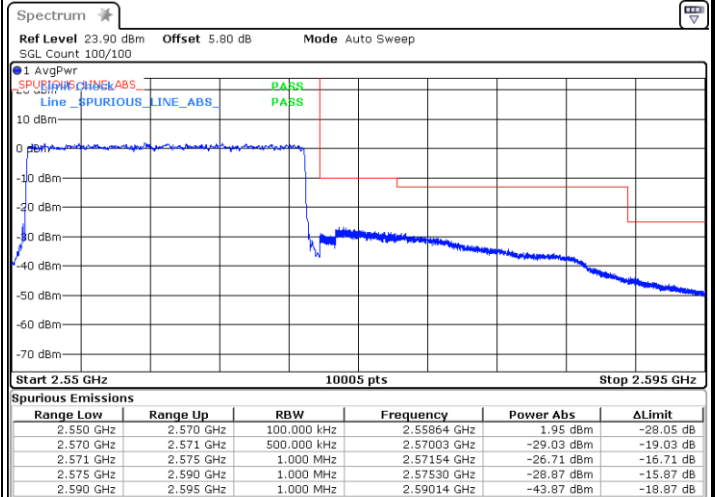
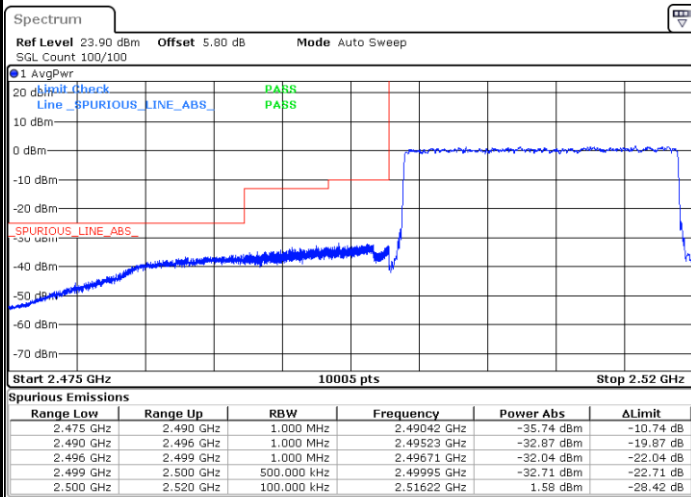


Date: 20 AUG 2021 18:53:26

Date: 20 AUG 2021 18:59:54

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



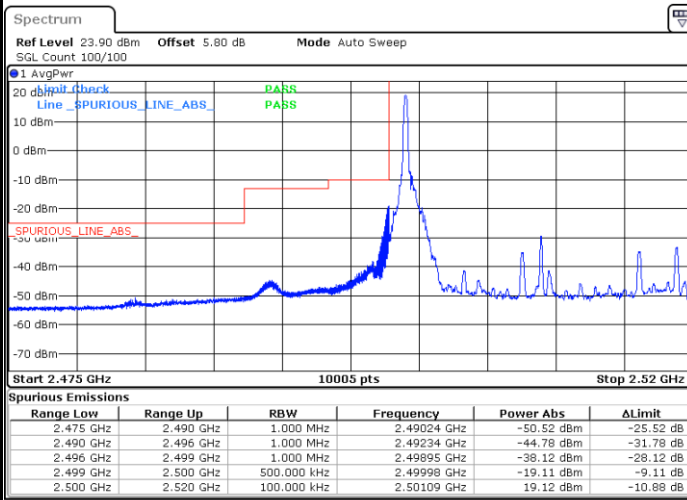
Date: 20 AUG 2021 18:57:25

Date: 20 AUG 2021 19:02:09



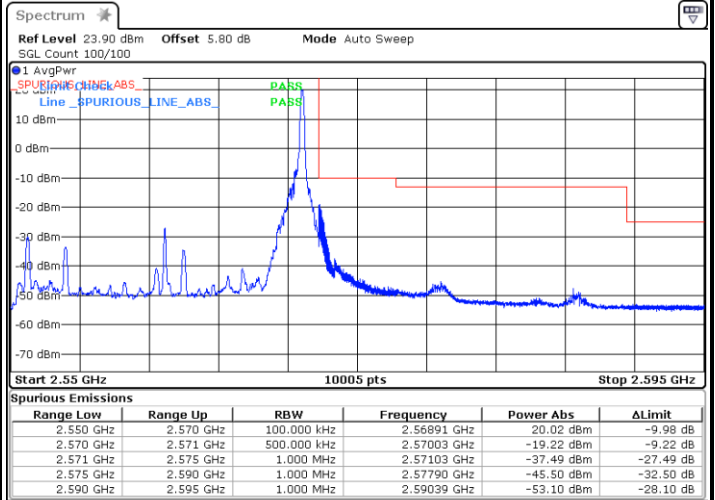
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



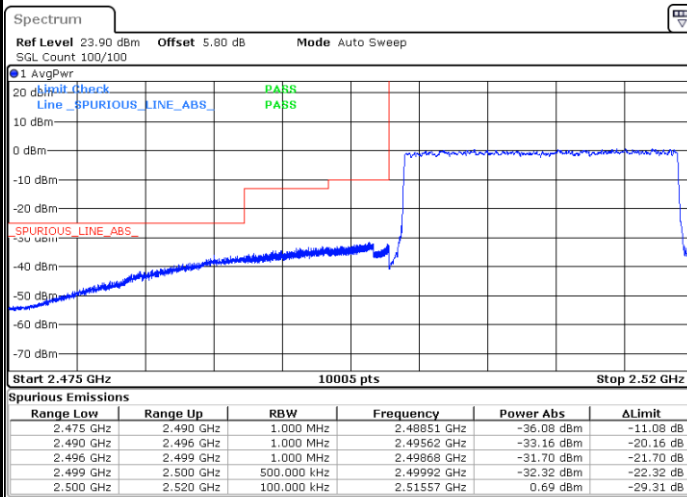
Date: 20 AUG 2021 18:53:46

Highest Band Edge / 1 RB



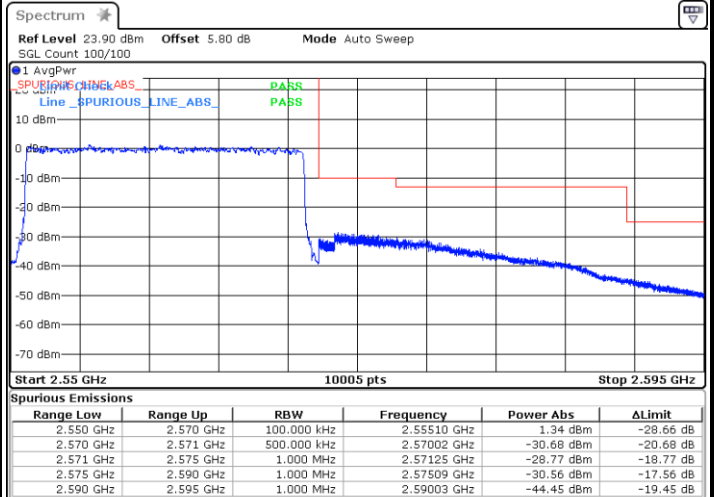
Date: 20 AUG 2021 19:00:18

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:56:12

Highest Band Edge / Full RB

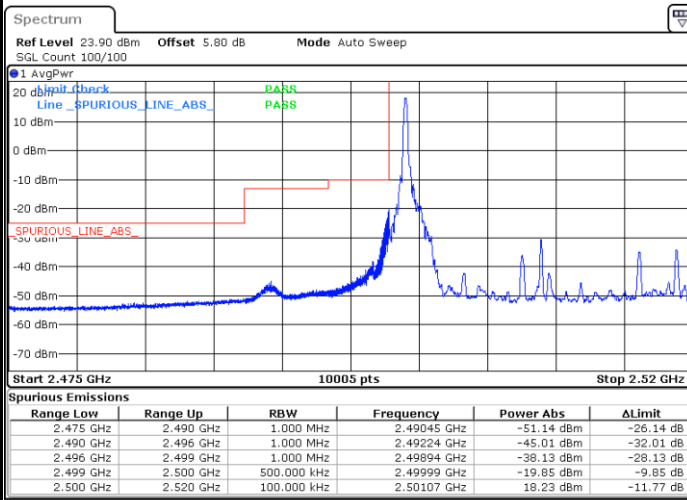


Date: 20 AUG 2021 19:01:45



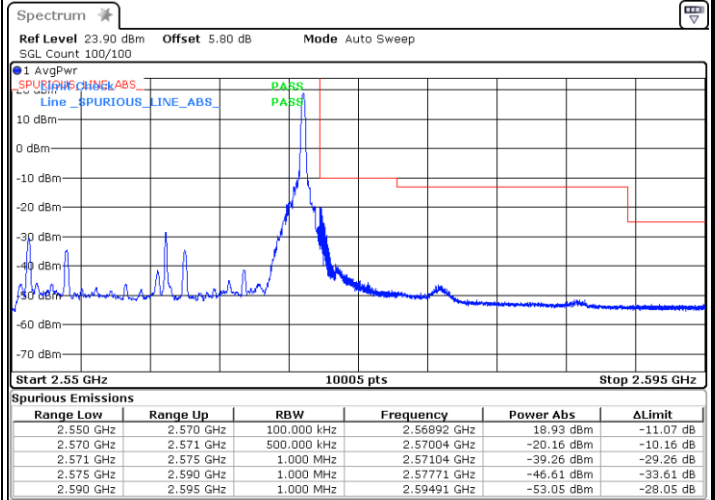
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



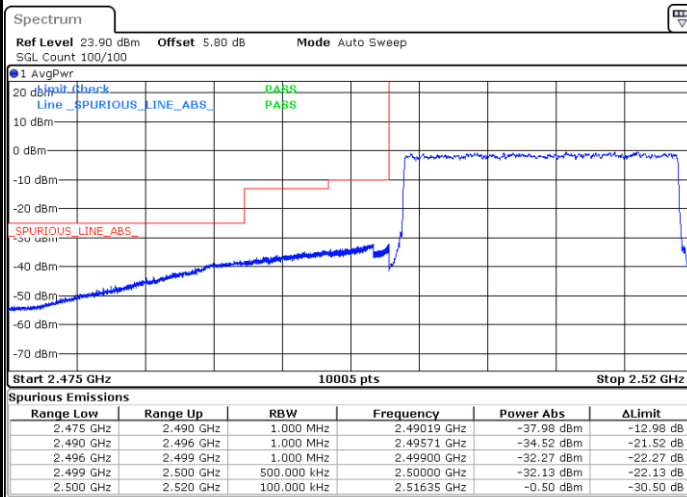
Date: 20 AUG 2021 18:55:12

Highest Band Edge / 1 RB



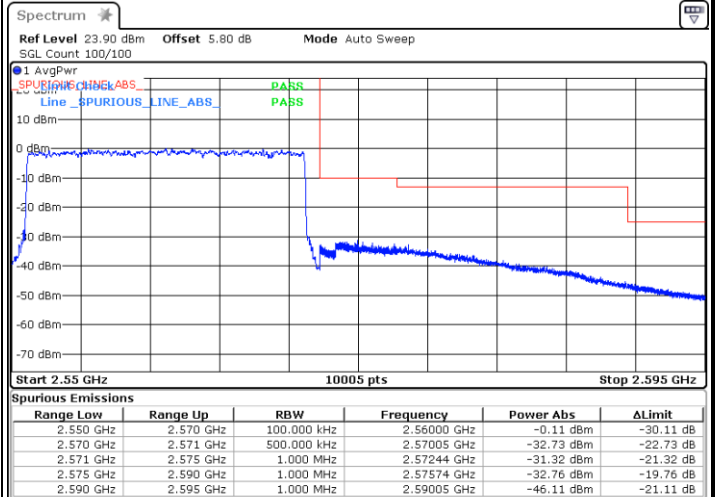
Date: 20 AUG 2021 19:00:43

Lowest Band Edge / Full RB



Date: 20 AUG 2021 18:55:50

Highest Band Edge / Full RB



Date: 20 AUG 2021 19:01:14



Conducted Spurious Emission

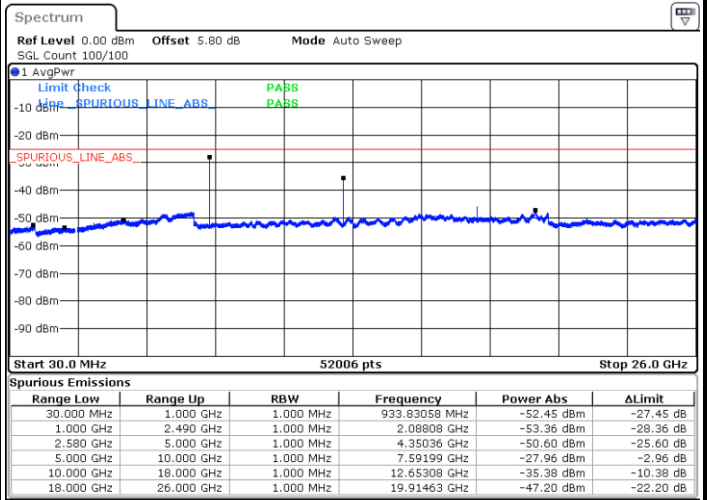
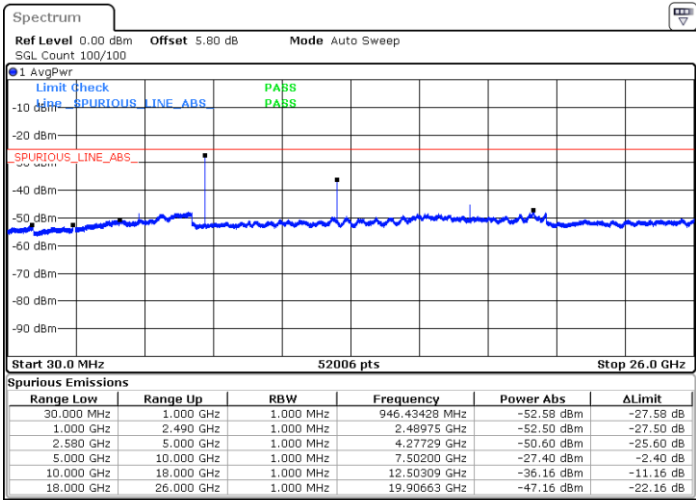




LTE Band 7 / 10MHz

Lowest Channel / QPSK

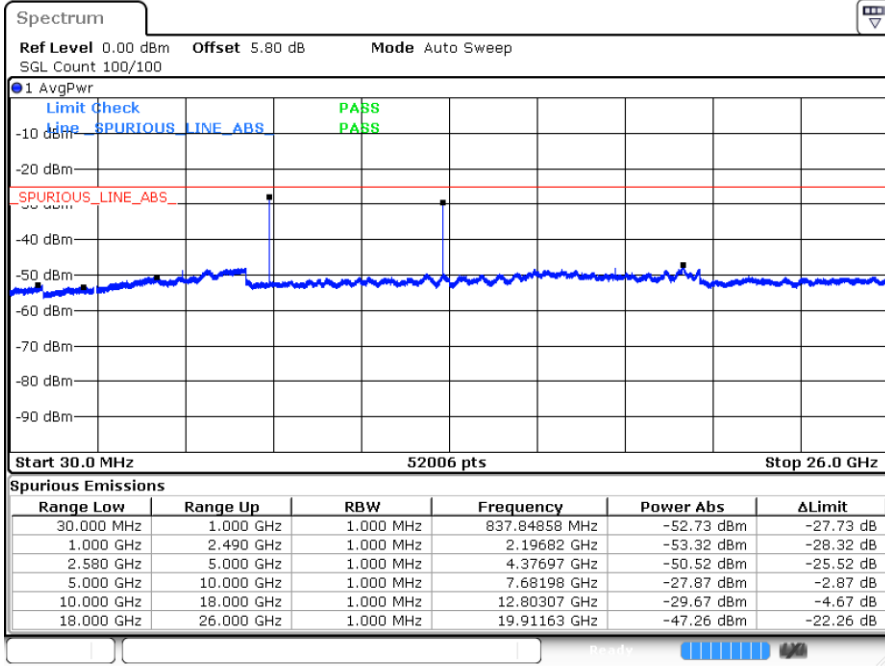
Middle Channel / QPSK



Date: 20.AUG.2021 18:23:30

Date: 20.AUG.2021 18:28:36

Highest Channel / QPSK



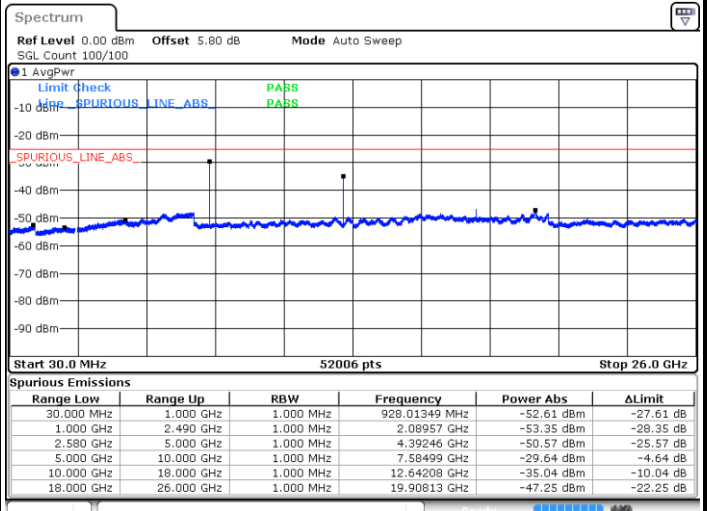
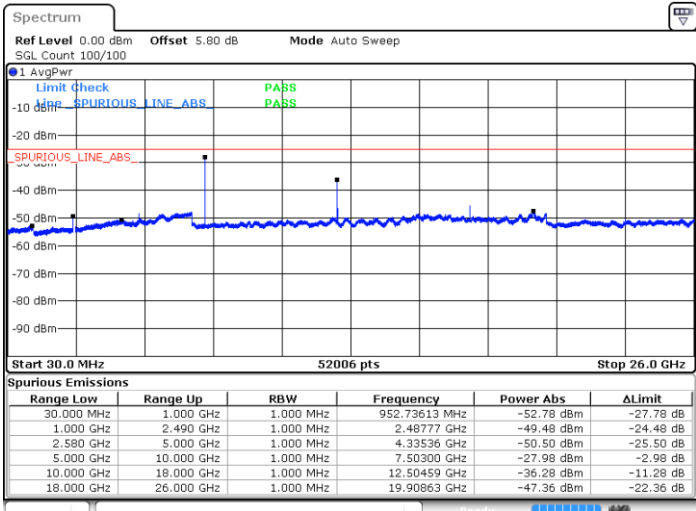
Date: 20.AUG.2021 18:30:07



LTE Band 7 / 15MHz

Lowest Channel / QPSK

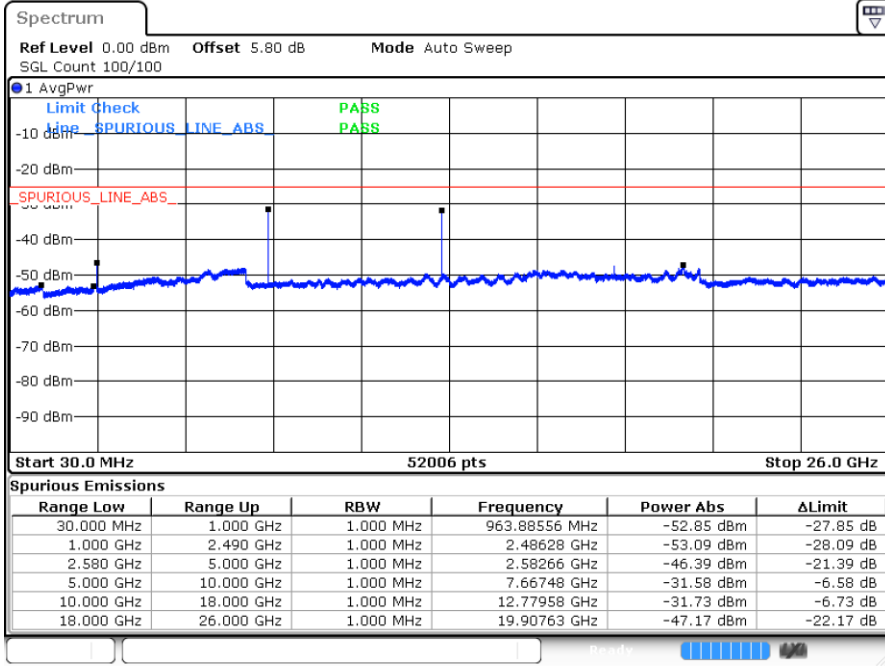
Middle Channel / QPSK



Date: 20.AUG.2021 18:42:15

Date: 20.AUG.2021 18:45:46

Highest Channel / QPSK



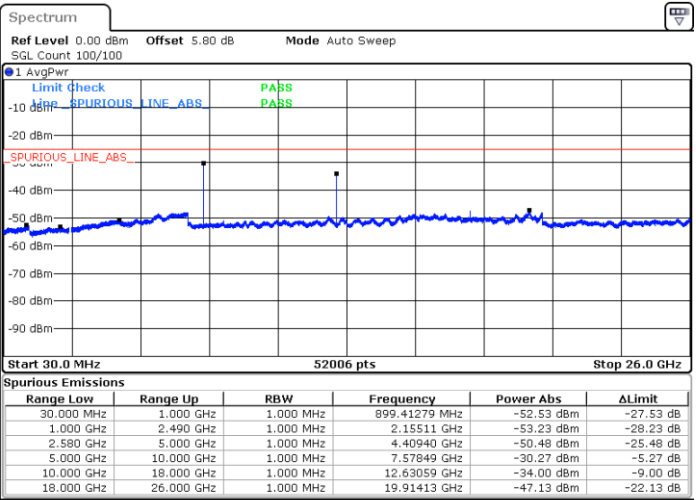
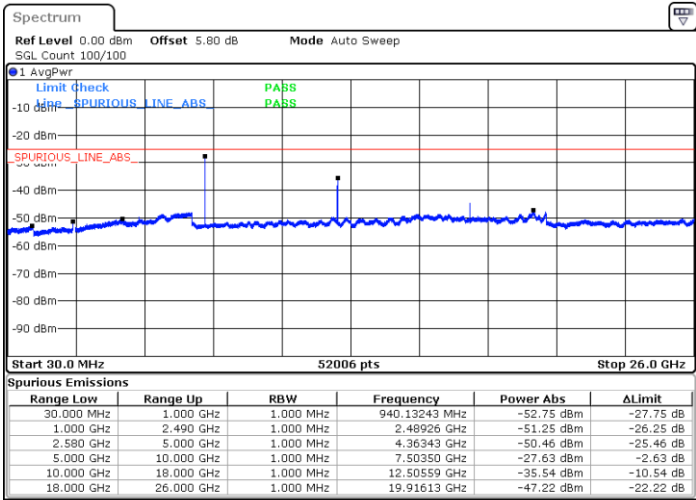
Date: 20.AUG.2021 18:47:12



LTE Band 7 / 20MHz

Lowest Channel / QPSK

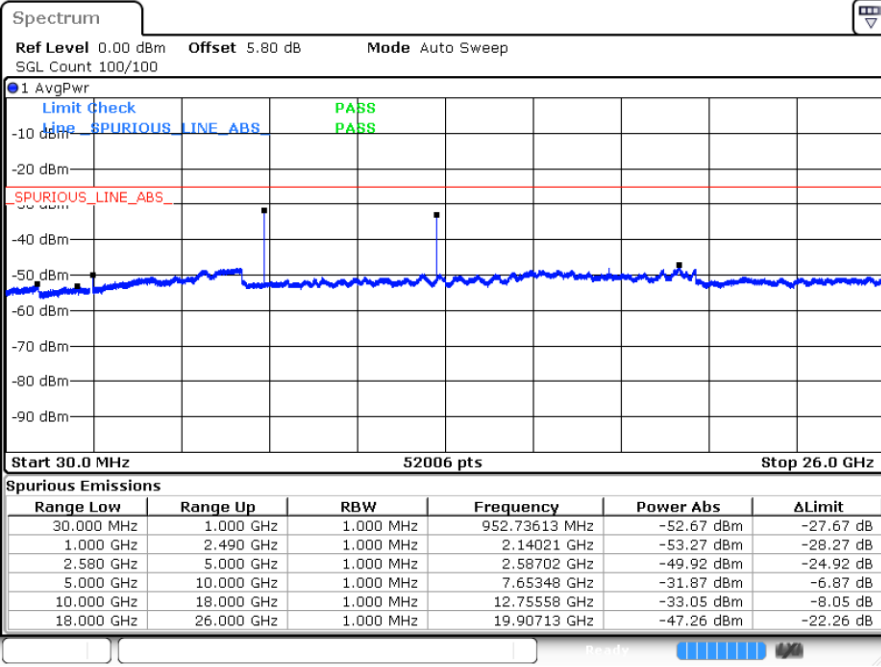
Middle Channel / QPSK



Date: 20.AUG.2021 18:52:59

Date: 20.AUG.2021 18:58:12

Highest Channel / QPSK



Date: 20.AUG.2021 18:59:13



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 | 0.0002 | PASS |
| 40 | Normal Voltage | 0.0010 | |
| 30 | Normal Voltage | 0.0002 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0009 | |
| 0 | Normal Voltage | 0.0032 | |
| -10 | Normal Voltage | 0.0012 | |
| -20 | Normal Voltage | 0.0000 | |
| -30 | Normal Voltage | 0.0001 | |
| 20 | Maximum Voltage | 0.0026 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0007 | |

Note:

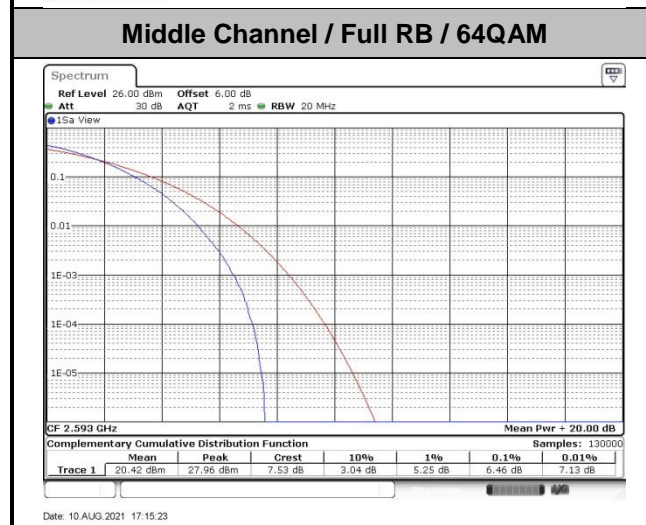
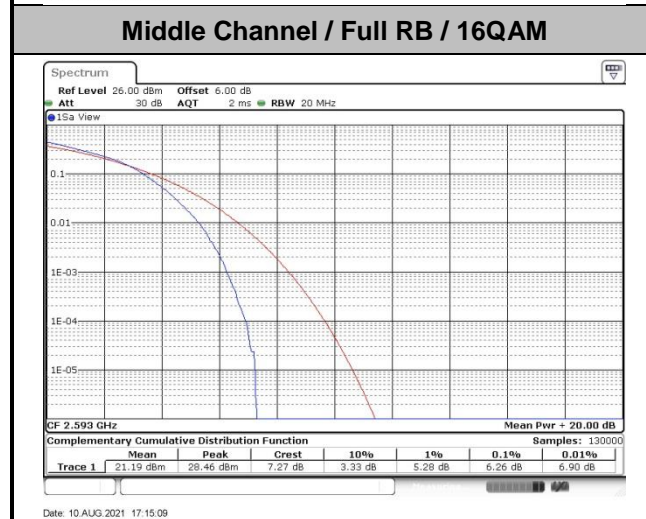
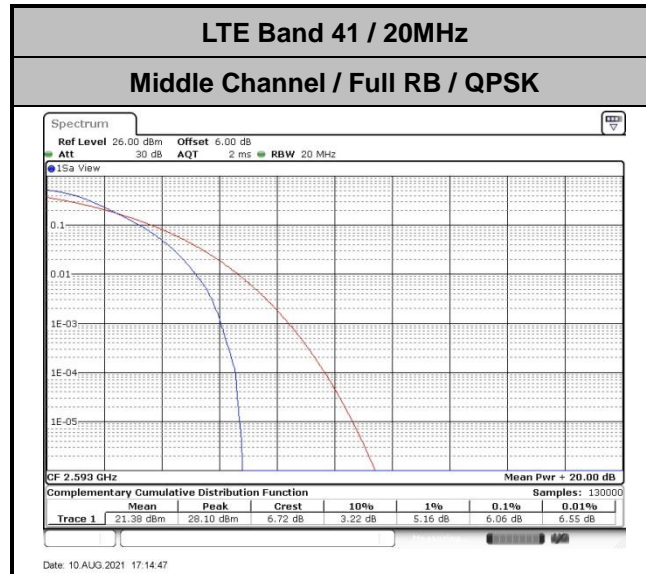
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41 for Main PA

Peak-to-Average Ratio

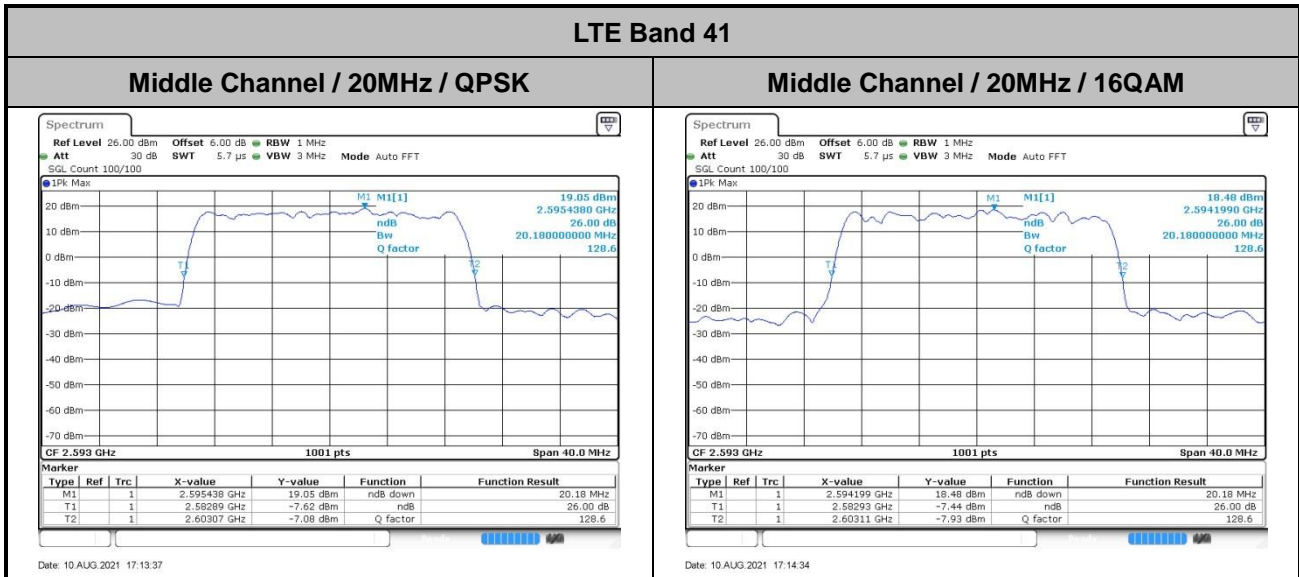
| Mode | LTE Band 41 / 20MHz | | | |
|-----------|---------------------|---------|---------|-------------|
| Mod. | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Result |
| Middle CH | 6.06 | 6.26 | 6.46 | PASS |





26dB Bandwidth

| | | |
|-----------|----------------------------|-------|
| Mode | LTE Band 41 : 26dB BW(MHz) | |
| BW | 20MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 20.18 | 20.18 |





Occupied Bandwidth

| | | |
|------------------|----------------------------------|--------------|
| Mode | LTE Band 41 : 99%OBW(MHz) | |
| BW | 20MHz | |
| Mod. | QPSK | 16QAM |
| Middle CH | 18.30 | 18.26 |

