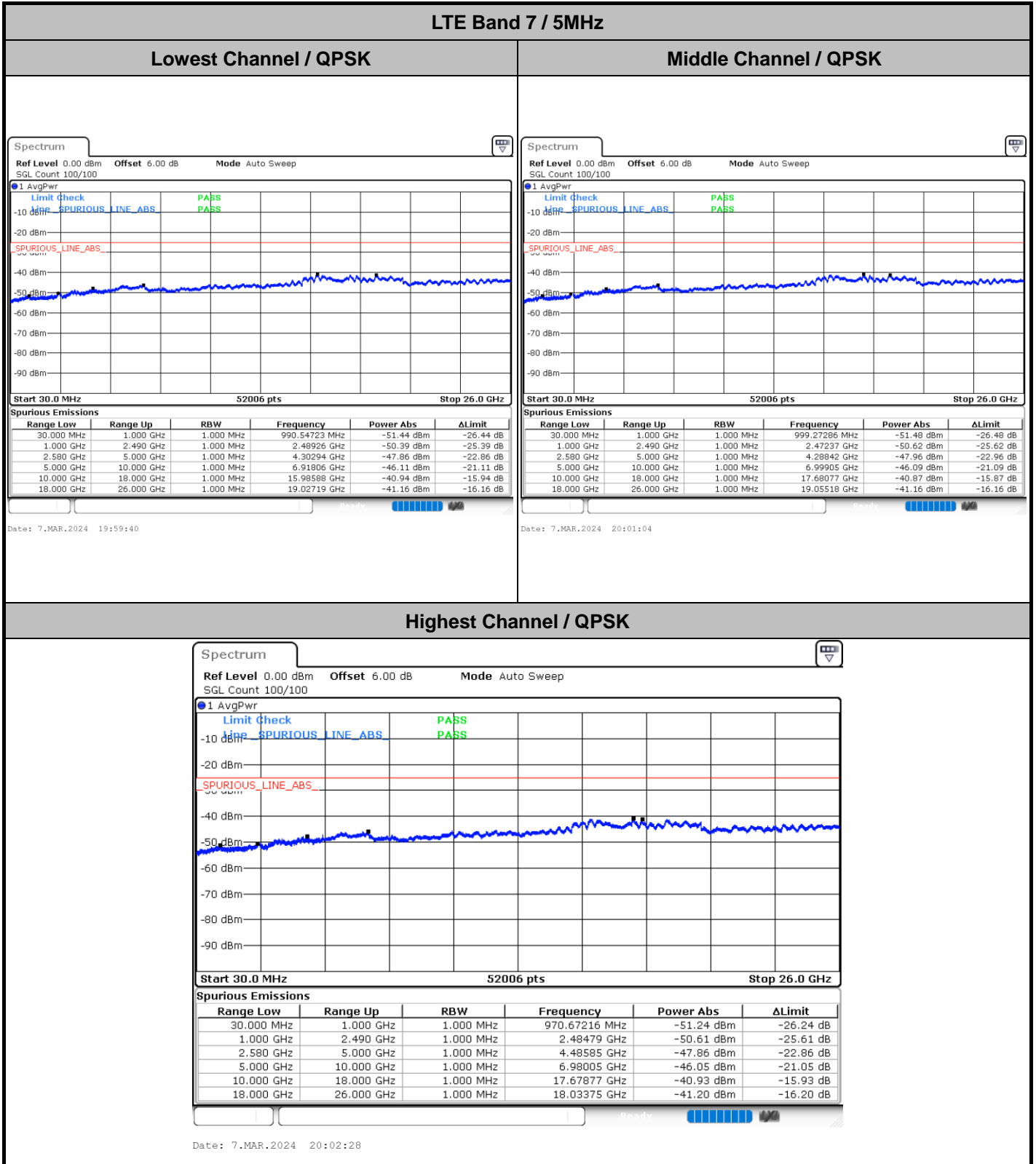




# Conducted Spurious Emission

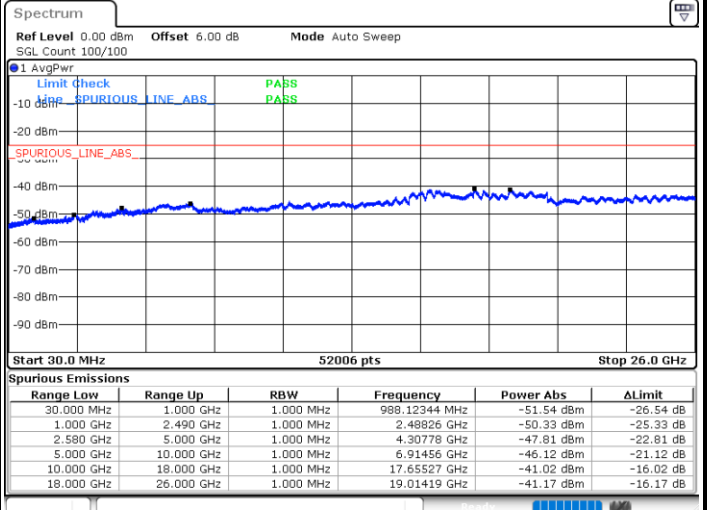
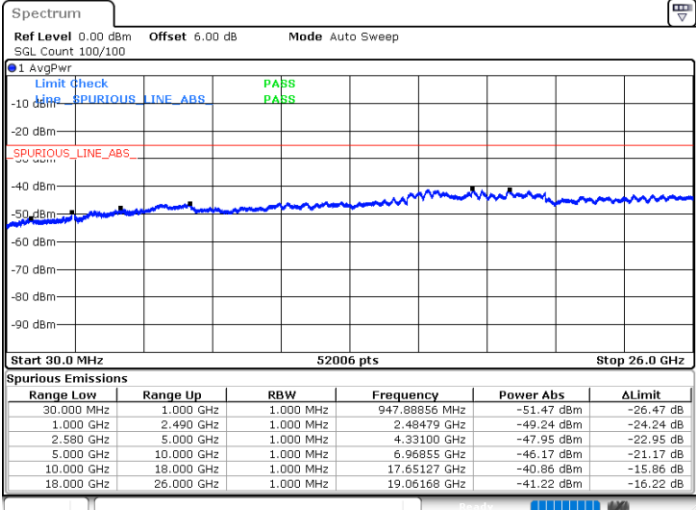




LTE Band 7 / 10MHz

Lowest Channel / QPSK

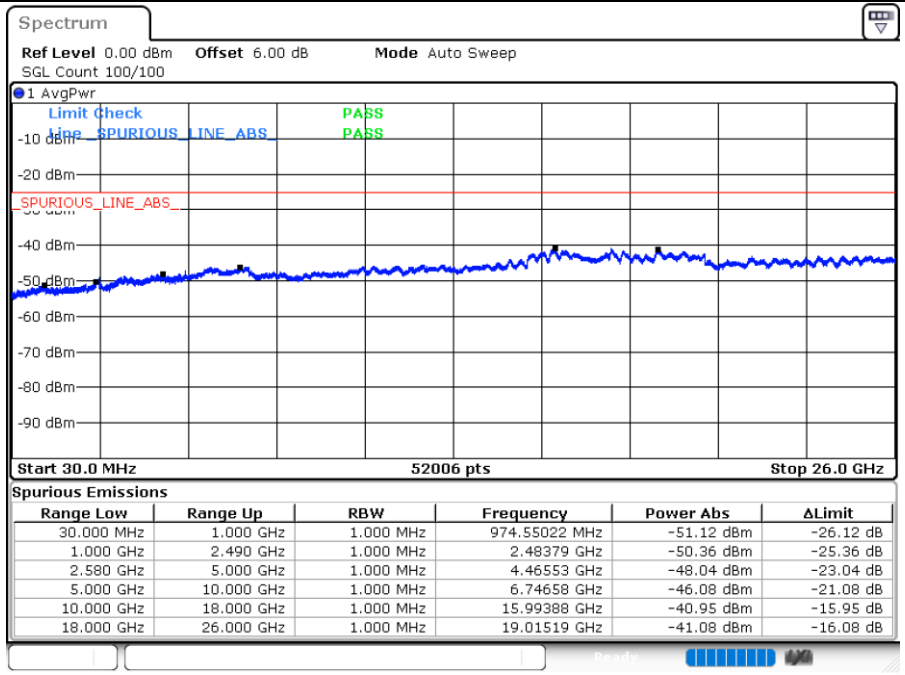
Middle Channel / QPSK



Date: 7.MAR.2024 20:23:54

Date: 7.MAR.2024 20:25:18

Highest Channel / QPSK



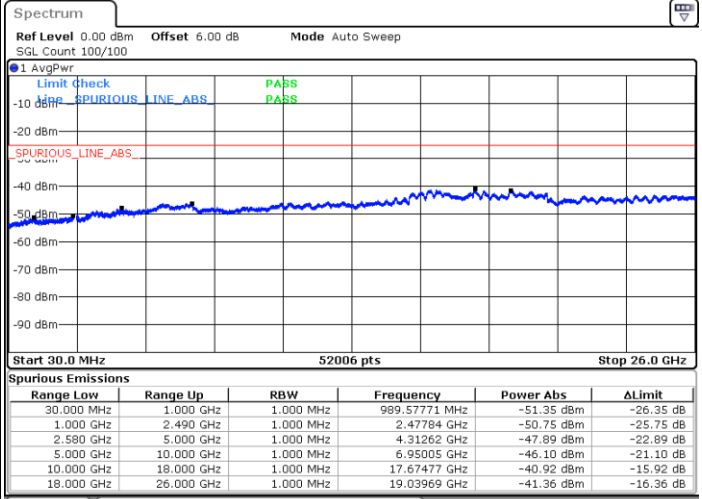
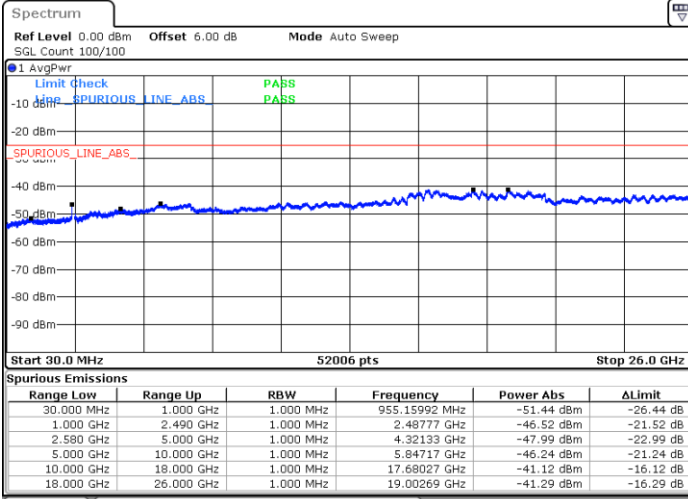
Date: 7.MAR.2024 20:26:42



LTE Band 7 / 15MHz

Lowest Channel / QPSK

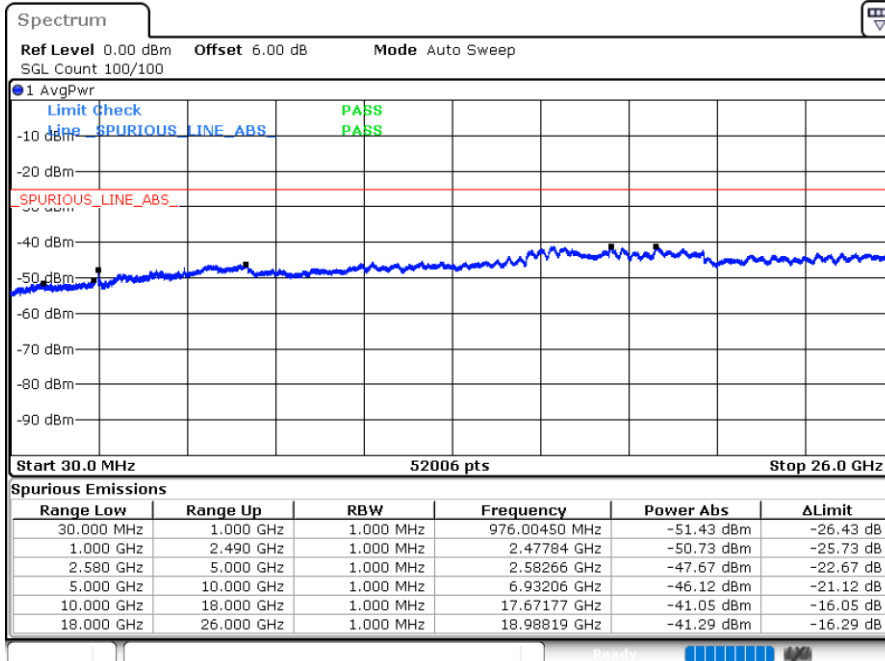
Middle Channel / QPSK



Date: 7.MAR.2024 20:47:03

Date: 7.MAR.2024 20:48:27

Highest Channel / QPSK



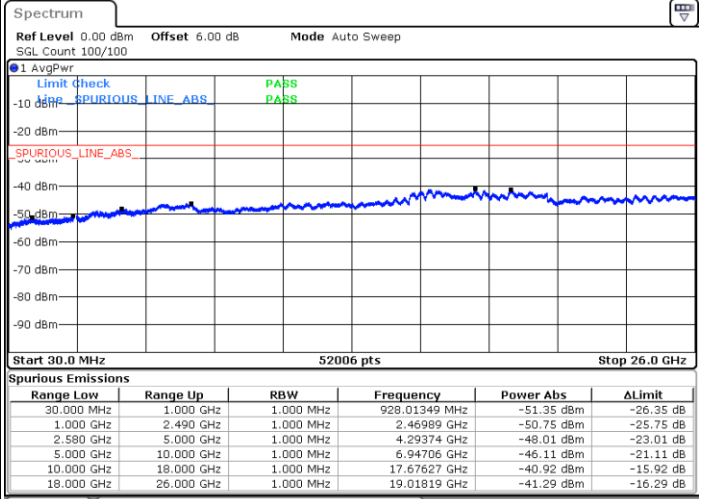
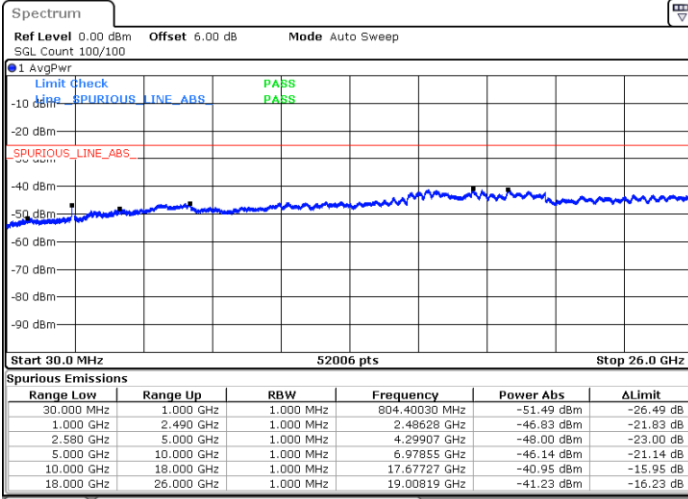
Date: 7.MAR.2024 20:49:51



LTE Band 7 / 20MHz

Lowest Channel / QPSK

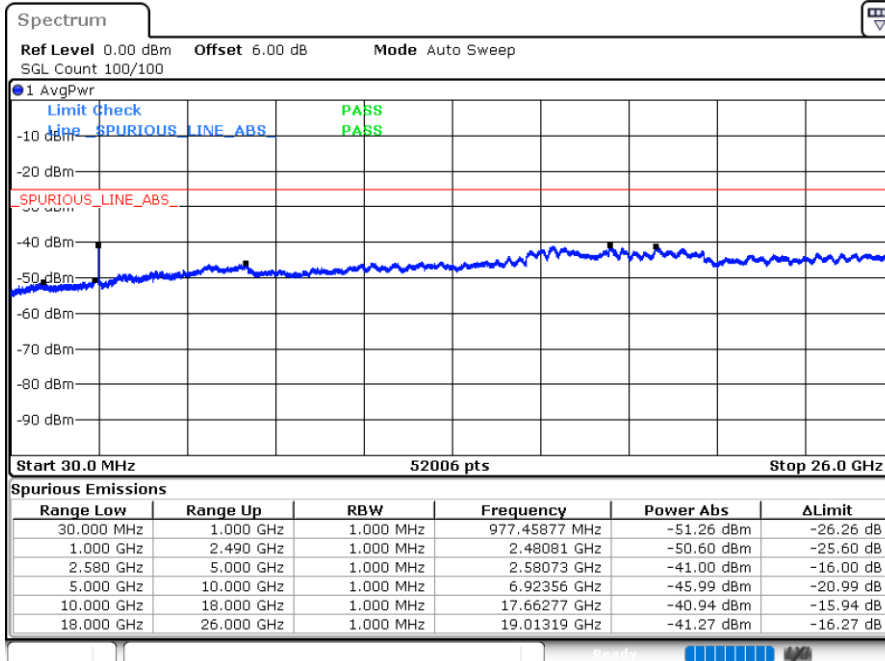
Middle Channel / QPSK



Date: 7.MAR.2024 21:10:53

Date: 7.MAR.2024 21:12:17

Highest Channel / QPSK



Date: 7.MAR.2024 21:13:41



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    | 0.0019                             |         |
| 30               | Normal Voltage    | 0.0014                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0013                             |         |
| 0                | Normal Voltage    | 0.0010                             |         |
| -10              | Normal Voltage    | 0.0029                             |         |
| -20              | Normal Voltage    | 0.0023                             |         |
| -30              | Normal Voltage    | 0.0017                             |         |
| 20               | Maximum Voltage   | 0.0012                             |         |
| 20               | Normal Voltage    | 0.0005                             |         |
| 20               | Battery End Point | 0.0016                             |         |

Note:

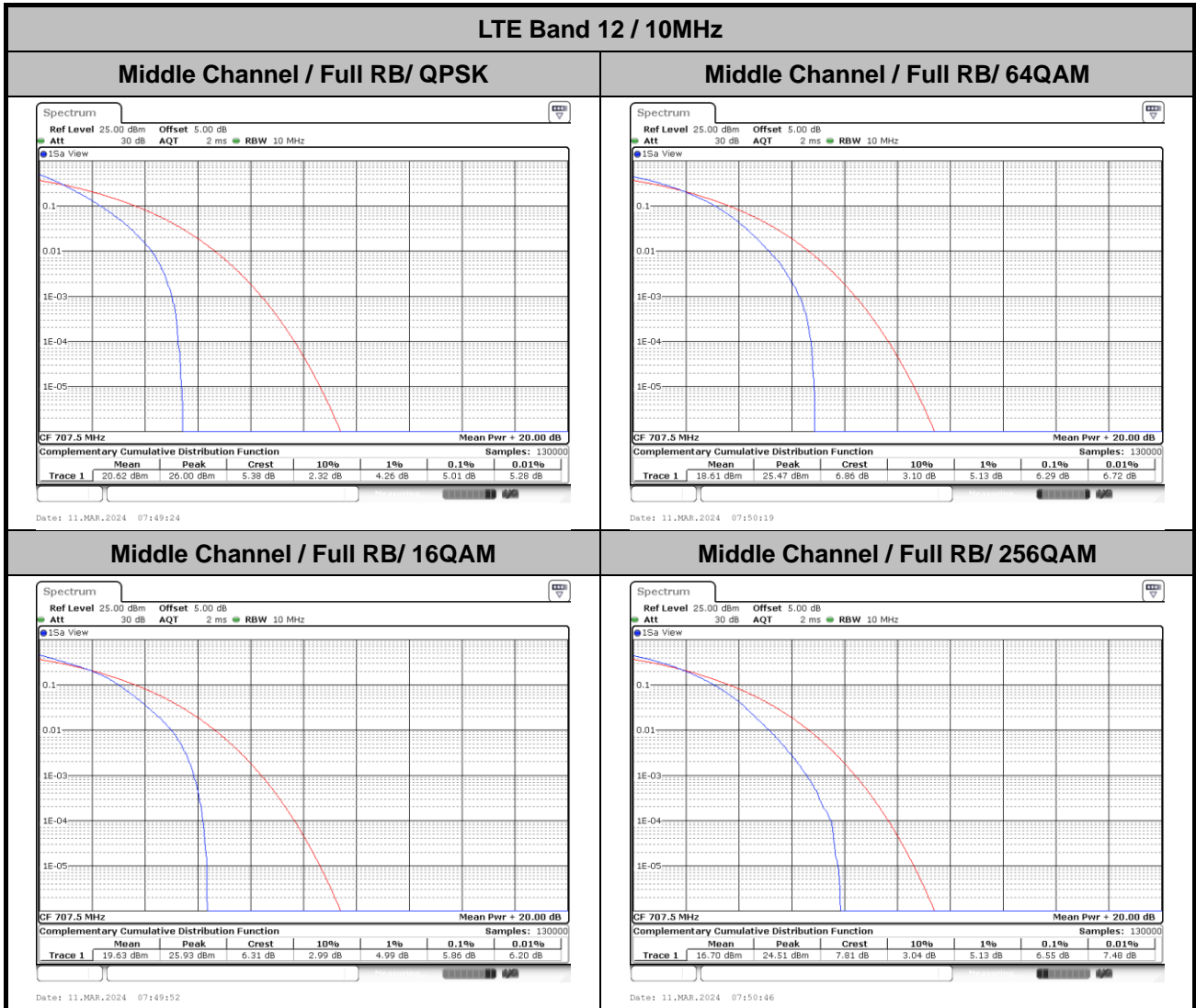
1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 12

## Peak-to-Average Ratio

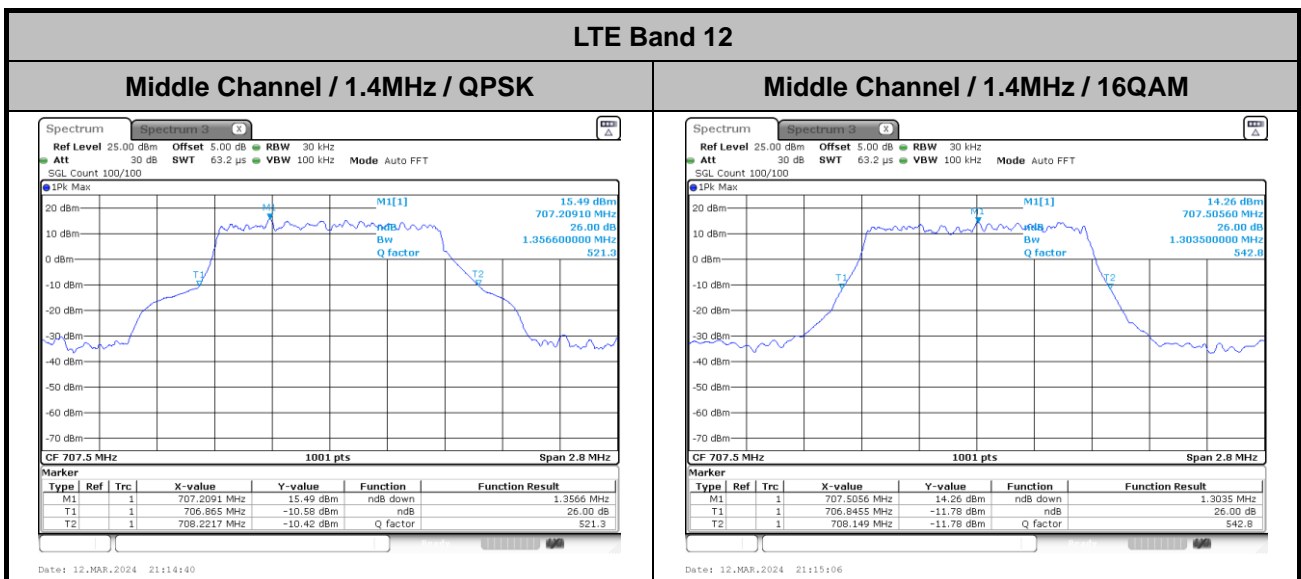
| Mode      | LTE Band 12 / 10MHz |         |         |         |             |
|-----------|---------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Full RB | Result      |
| Middle CH | 5.01                | 5.86    | 6.29    | 6.55    | PASS        |





## 26dB Bandwidth

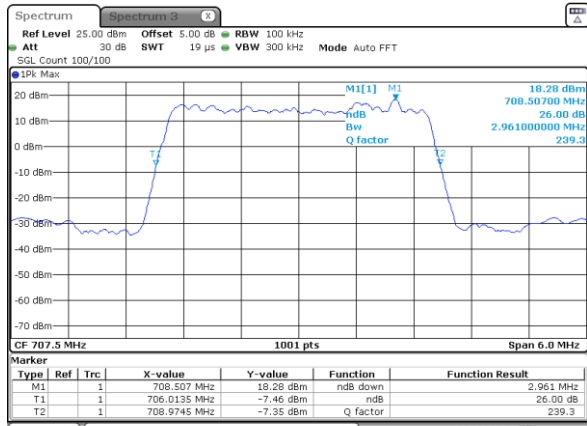
| Mode      | LTE Band 12 : 26dB BW(MHz) |       |
|-----------|----------------------------|-------|
| BW        | 1.4MHz                     |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 1.36                       | 1.30  |
| BW        | 3MHz                       |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 2.96                       | 2.93  |
| BW        | 5MHz                       |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 4.88                       | 4.92  |
| BW        | 10MHz                      |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 9.83                       | 9.85  |





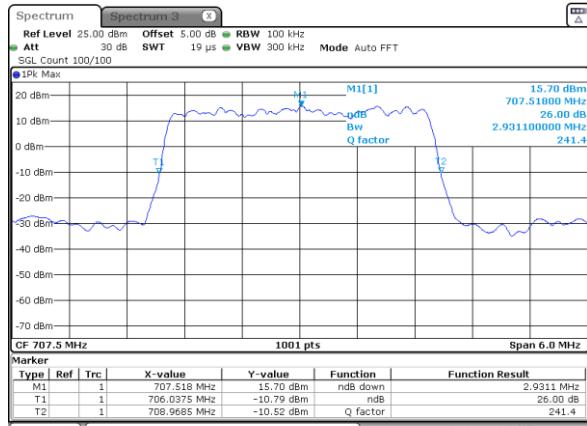
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 12\_MAR\_2024 20:47:53

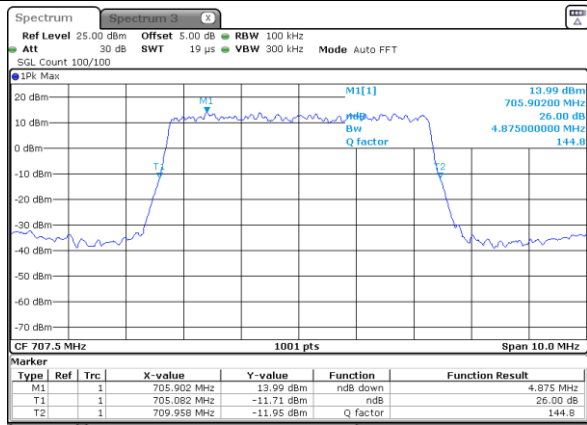
Middle Channel / 3MHz / 16QAM



Date: 12\_MAR\_2024 20:48:18

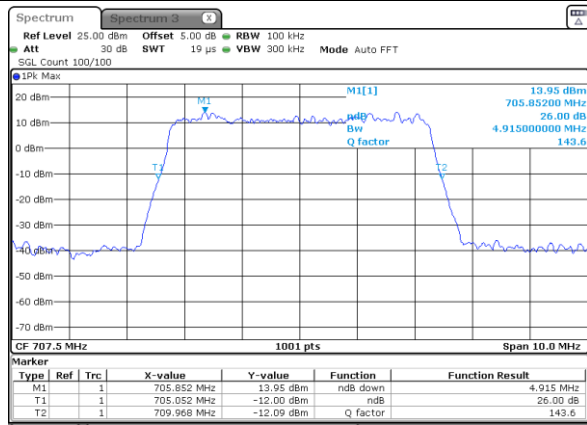
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 12\_MAR\_2024 20:53:59

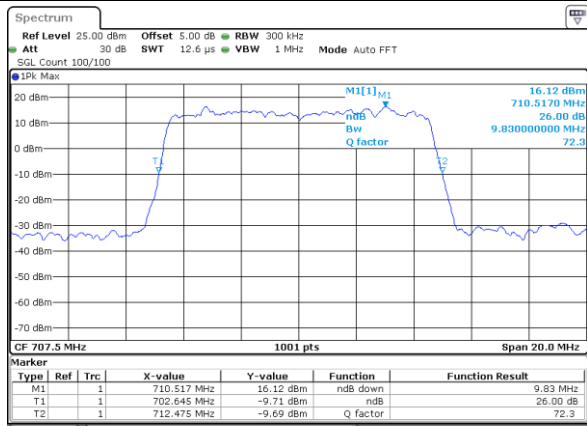
Middle Channel / 5MHz / 16QAM



Date: 12\_MAR\_2024 20:54:25

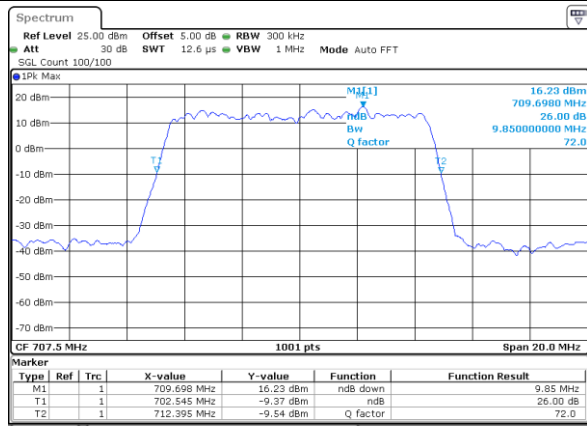
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 11\_MAR\_2024 07:52:03

Middle Channel / 10MHz / 16QAM



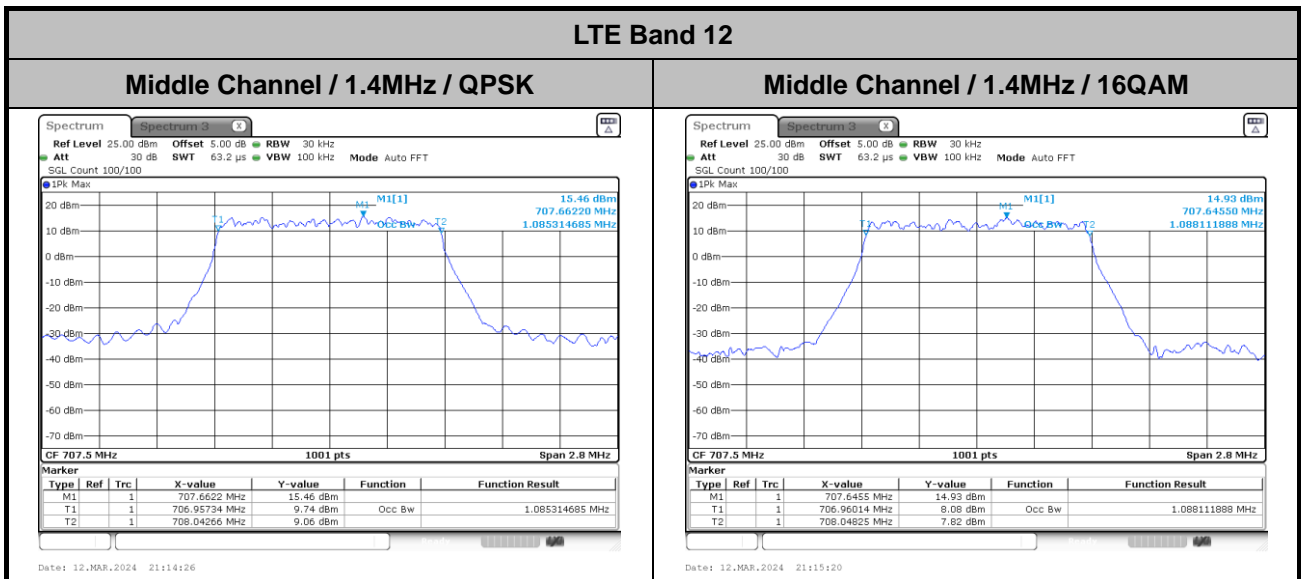
Date: 11\_MAR\_2024 07:52:29





# Occupied Bandwidth

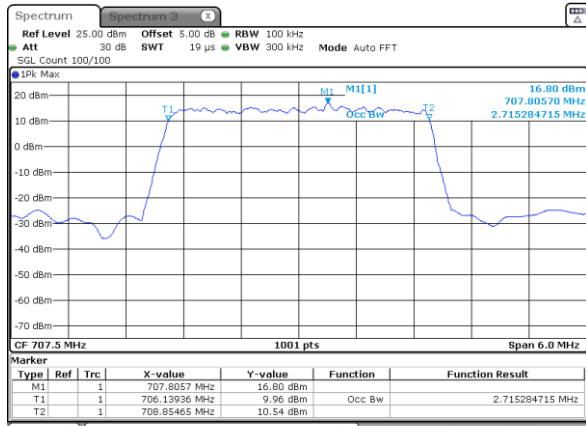
| Mode      | LTE Band 12 : 99%OBW(MHz) |       |
|-----------|---------------------------|-------|
| BW        | 1.4MHz                    |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 1.09                      | 1.09  |
| BW        | 3MHz                      |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 2.72                      | 2.71  |
| BW        | 5MHz                      |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 4.51                      | 4.48  |
| BW        | 10MHz                     |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 9.05                      | 8.99  |





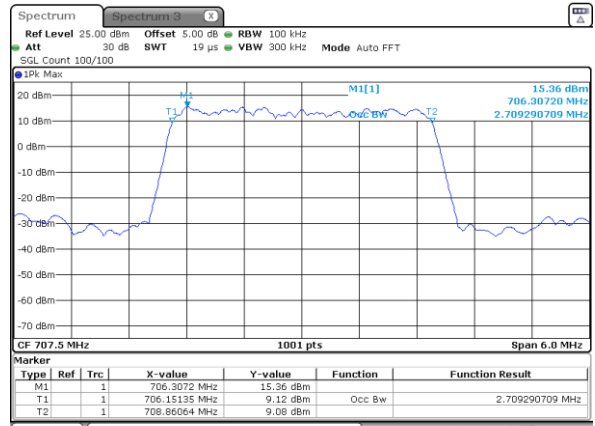
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 12.MAR.2024 20:47:38

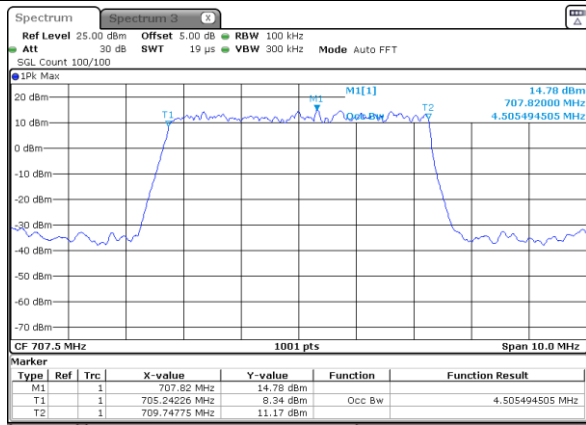
Middle Channel / 3MHz / 16QAM



Date: 12.MAR.2024 20:48:33

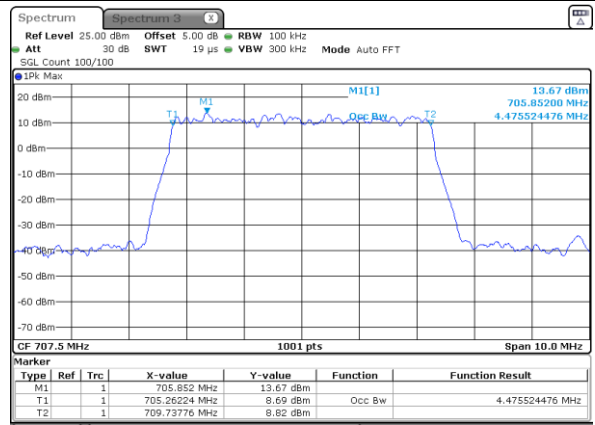
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 12.MAR.2024 20:53:44

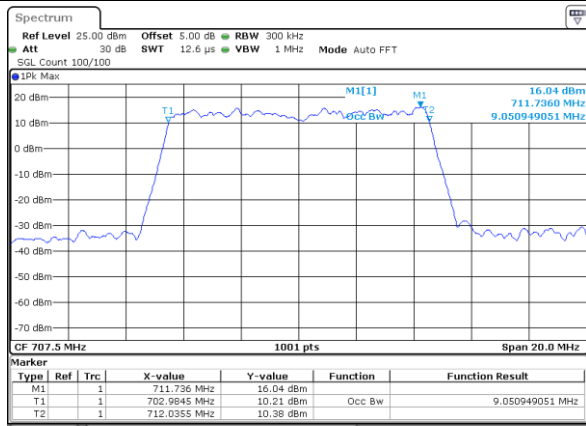
Middle Channel / 5MHz / 16QAM



Date: 12.MAR.2024 20:54:39

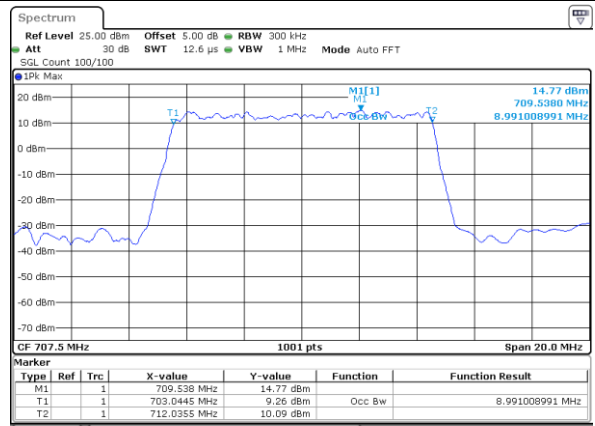
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 11.MAR.2024 07:51:12

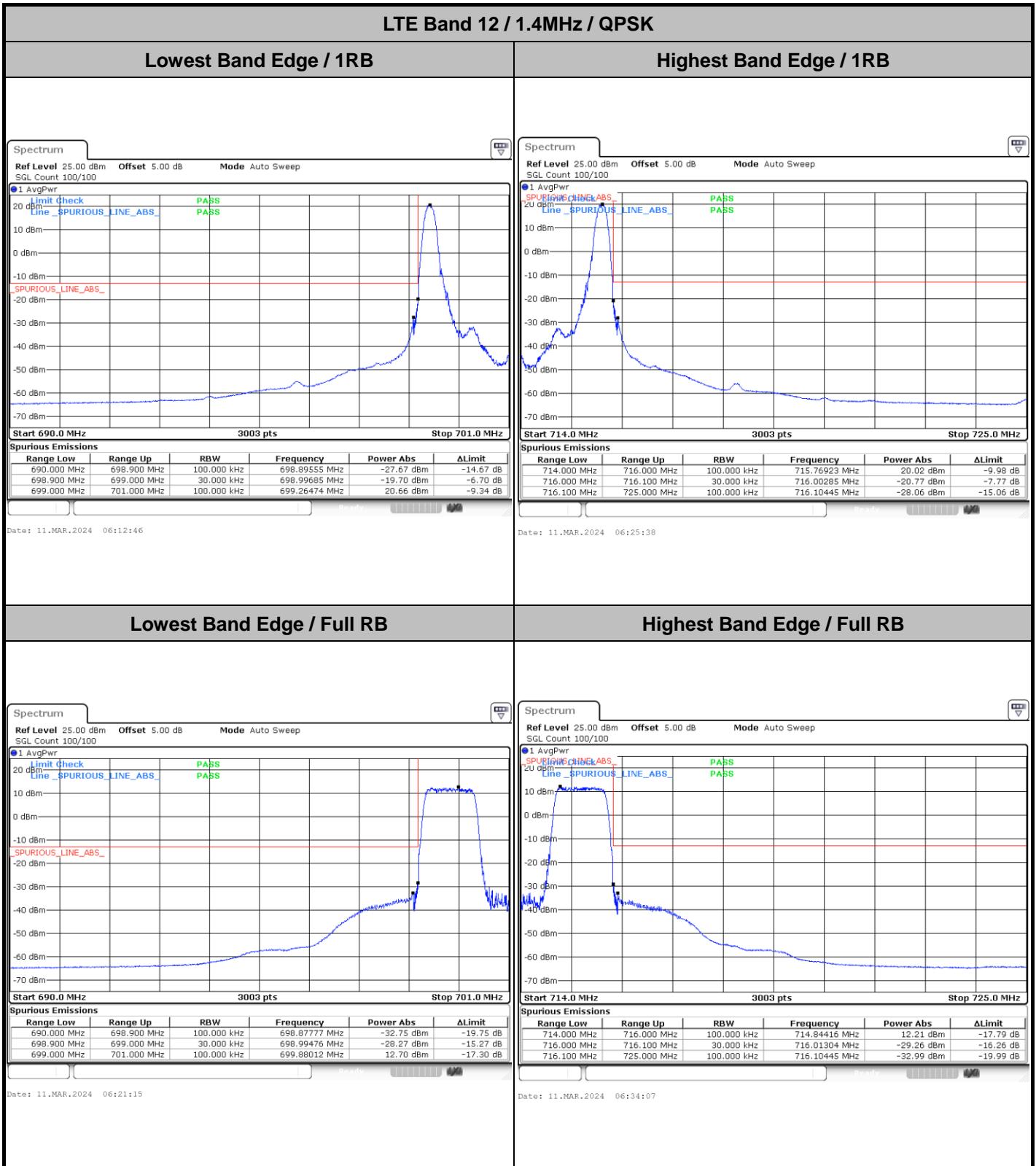
Middle Channel / 10MHz / 16QAM



Date: 11.MAR.2024 07:51:37



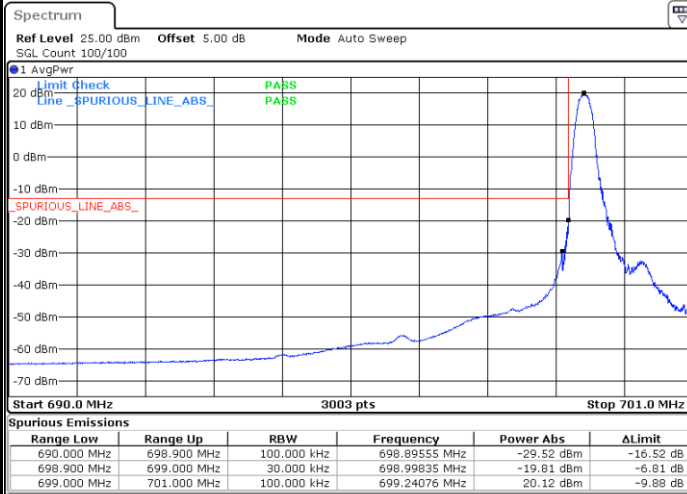
# Conducted Band Edge





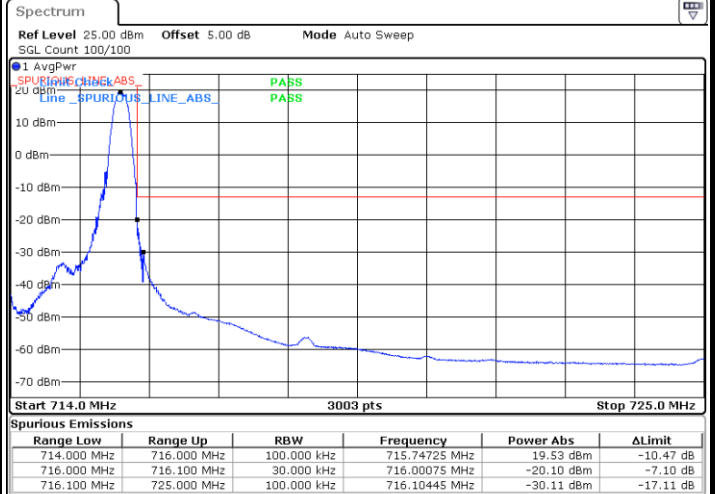
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



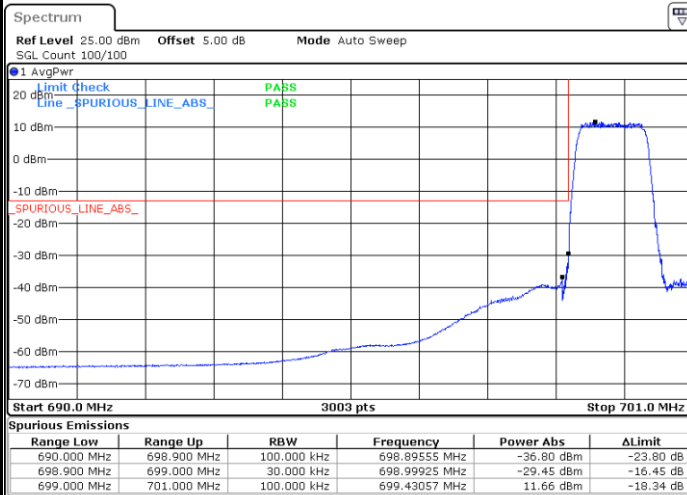
Date: 11.MAR.2024 06:14:02

Highest Band Edge / 1 RB



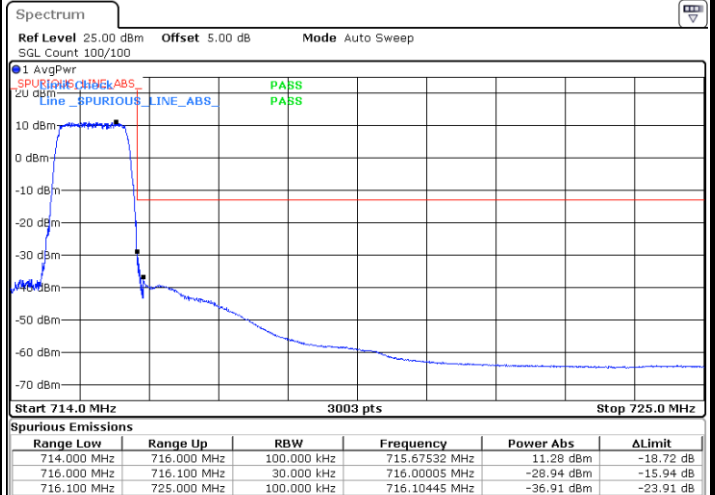
Date: 11.MAR.2024 06:26:54

Lowest Band Edge / Full RB



Date: 11.MAR.2024 06:20:03

Highest Band Edge / Full RB



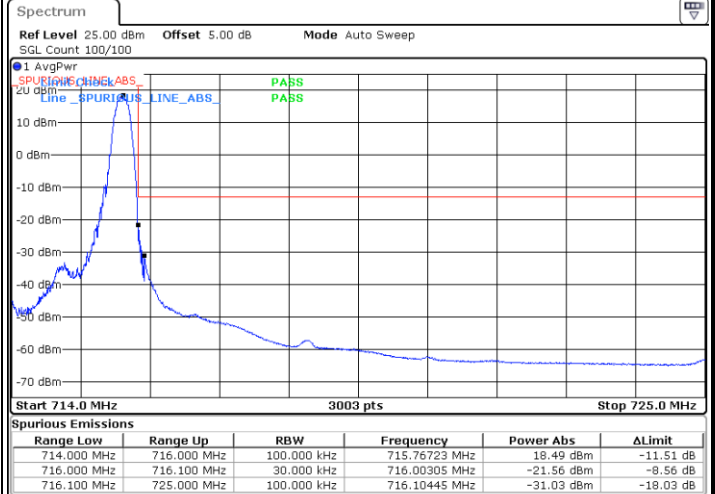
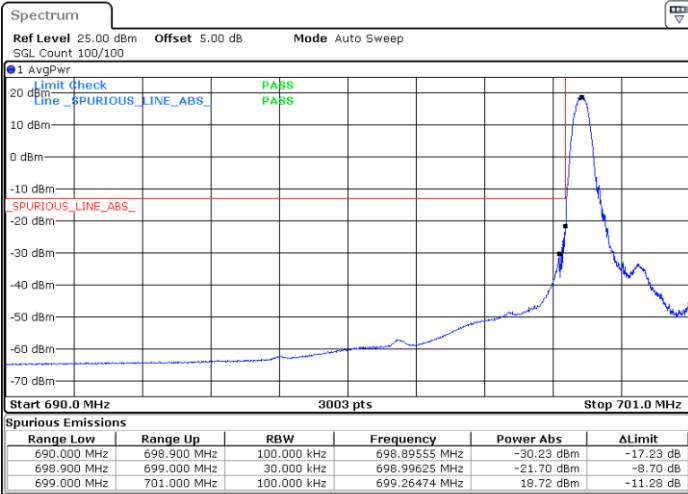
Date: 11.MAR.2024 06:32:55



LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

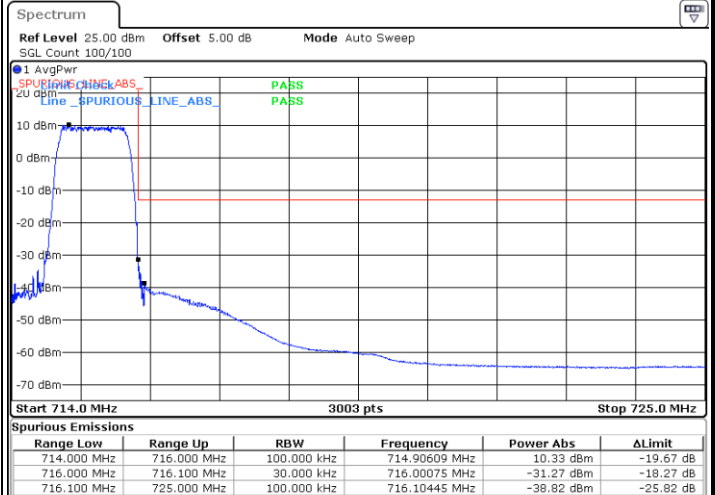
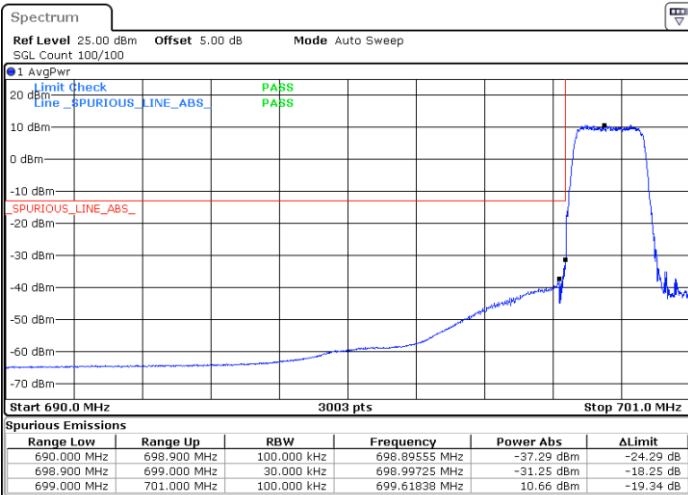


Date: 11.MAR.2024 06:15:14

Date: 11.MAR.2024 06:28:06

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 11.MAR.2024 06:18:51

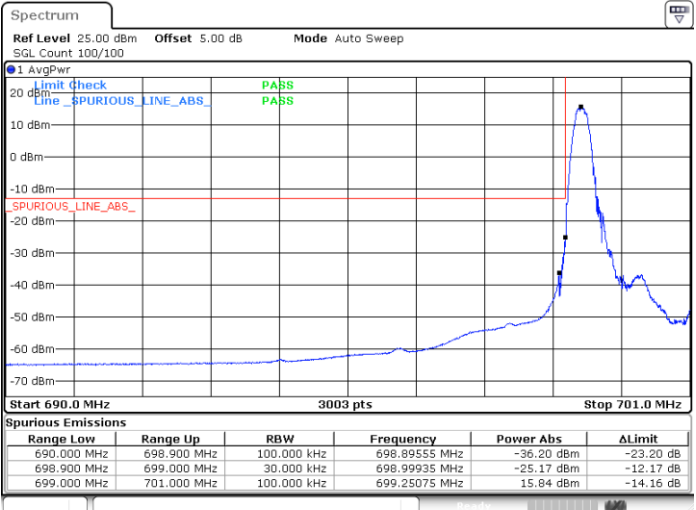
Date: 11.MAR.2024 06:31:43



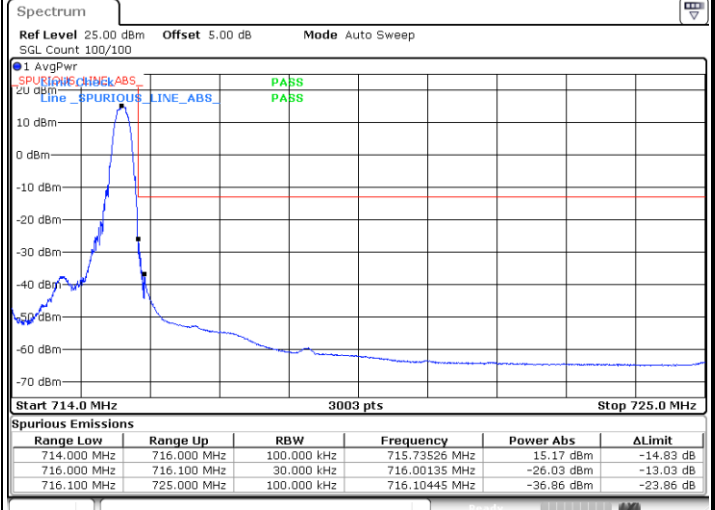
LTE Band 12 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



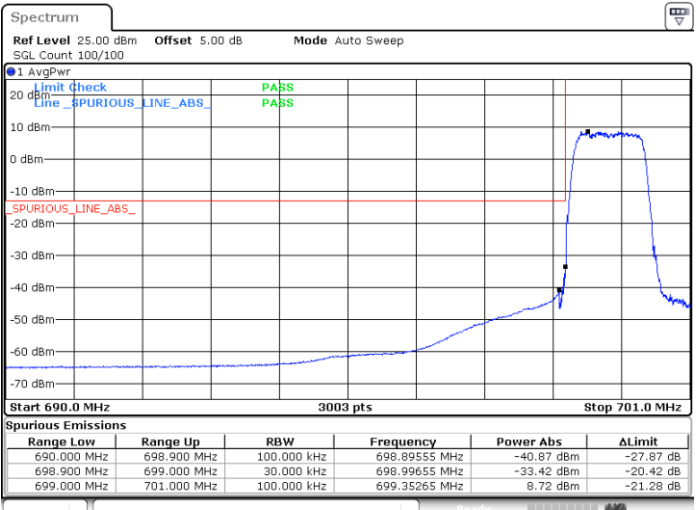
Date: 11.MAR.2024 06:16:26



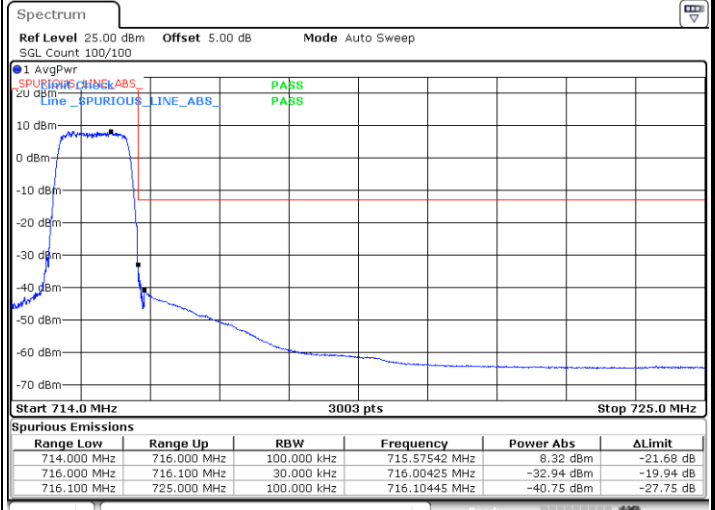
Date: 11.MAR.2024 06:29:18

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 11.MAR.2024 06:17:38

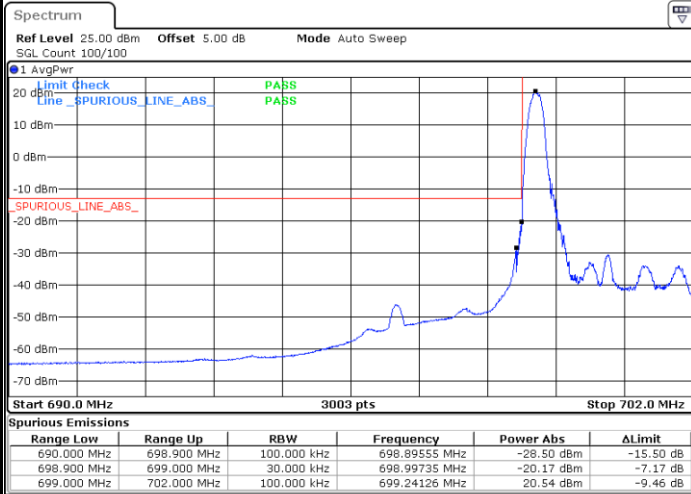


Date: 11.MAR.2024 06:30:30



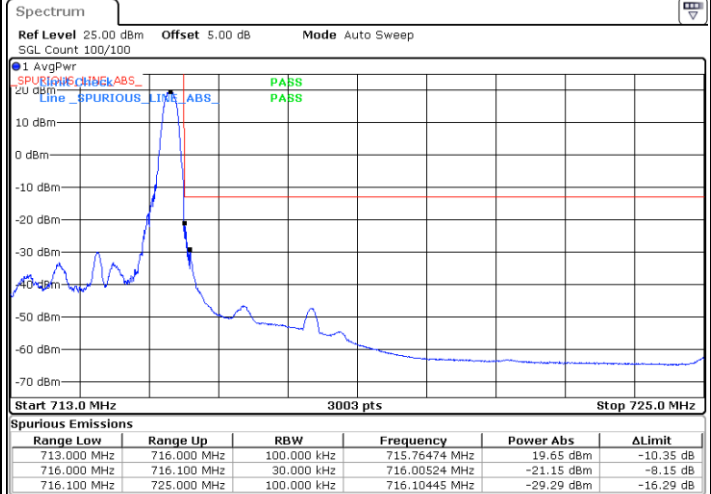
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



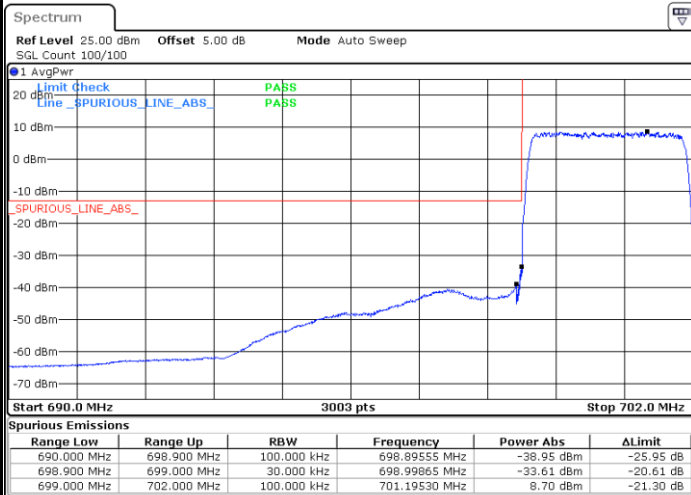
Date: 11.MAR.2024 06:37:02

Highest Band Edge / 1 RB



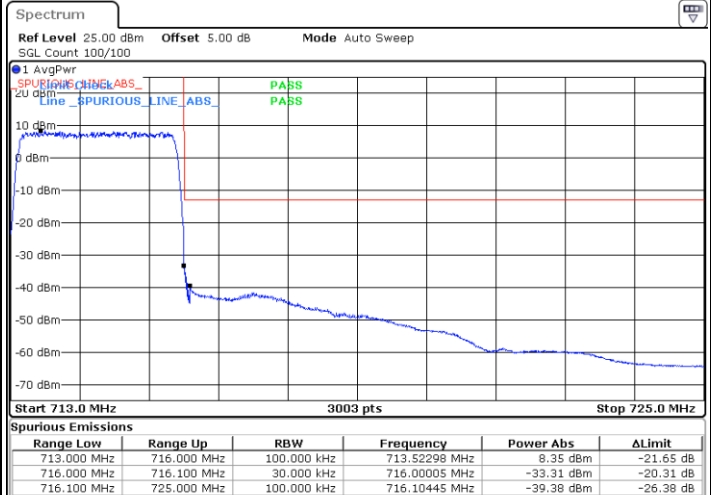
Date: 11.MAR.2024 06:50:26

Lowest Band Edge / Full RB



Date: 11.MAR.2024 06:46:48

Highest Band Edge / Full RB

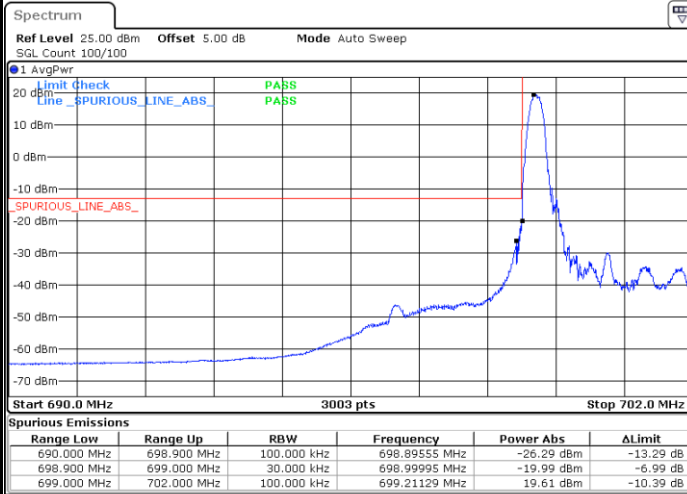


Date: 11.MAR.2024 06:58:53

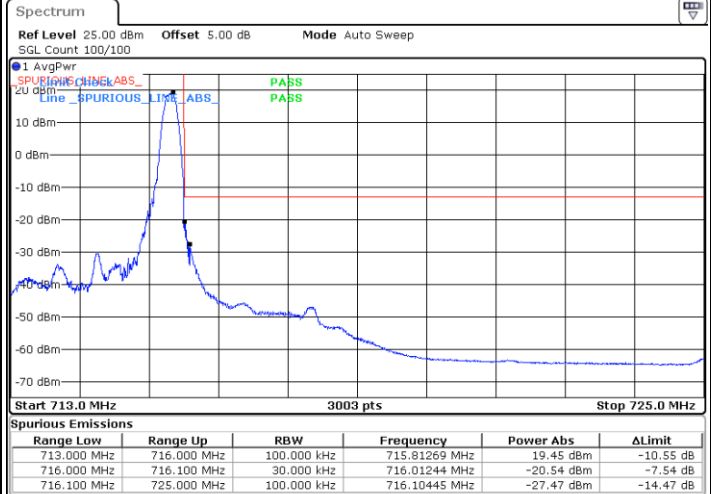


LTE Band 12 / 3MHz / 16QAM

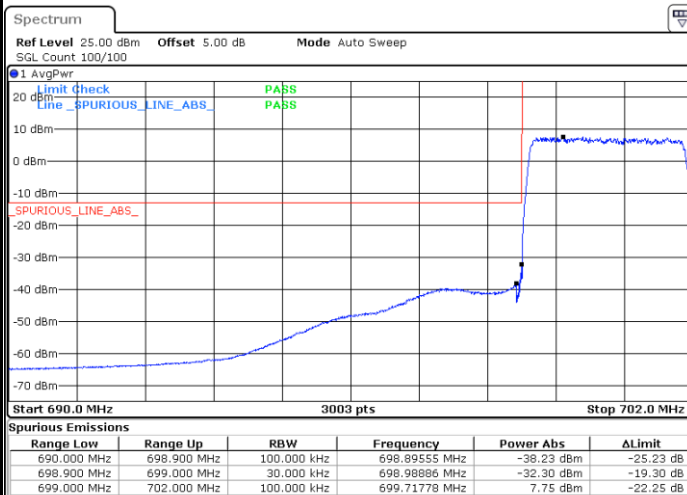
Lowest Band Edge / 1 RB



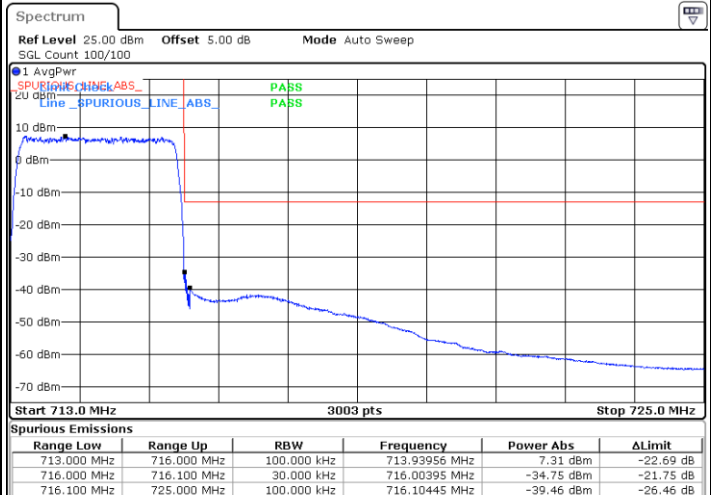
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

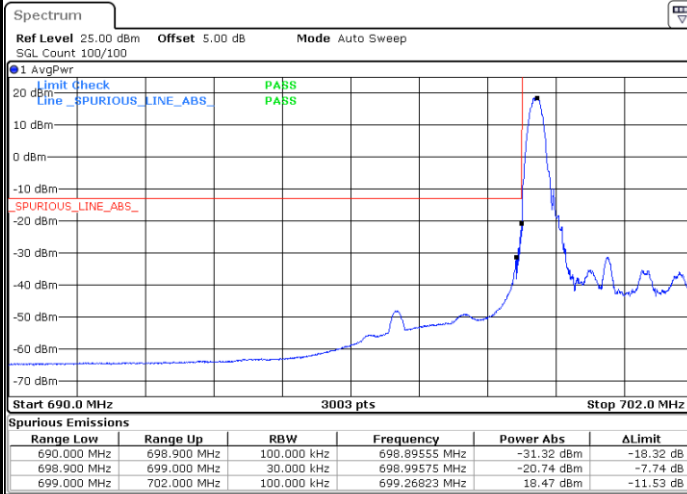






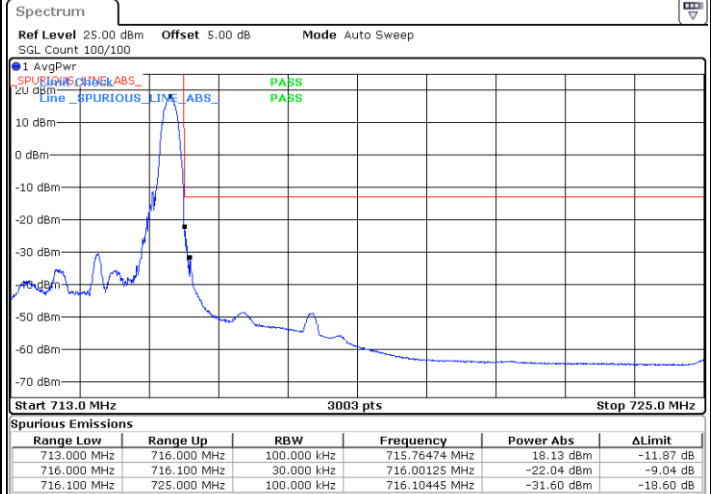
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



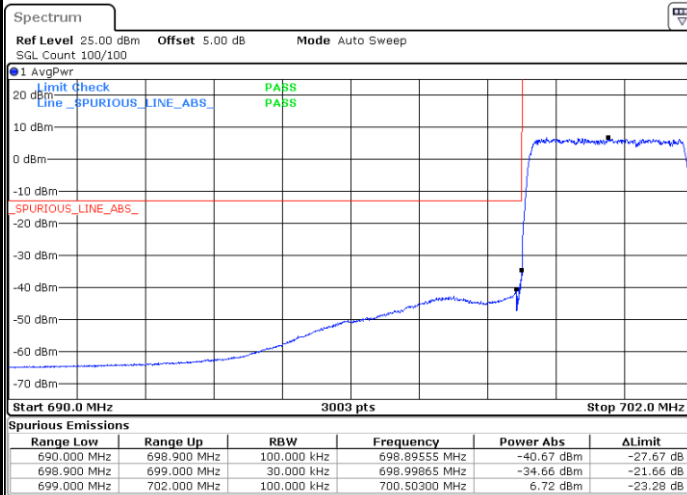
Date: 11.MAR.2024 06:39:30

Highest Band Edge / 1 RB



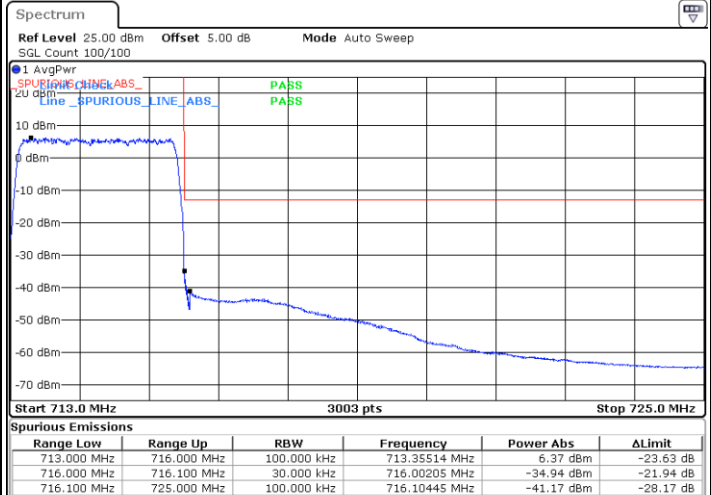
Date: 11.MAR.2024 06:52:53

Lowest Band Edge / Full RB



Date: 11.MAR.2024 06:44:23

Highest Band Edge / Full RB

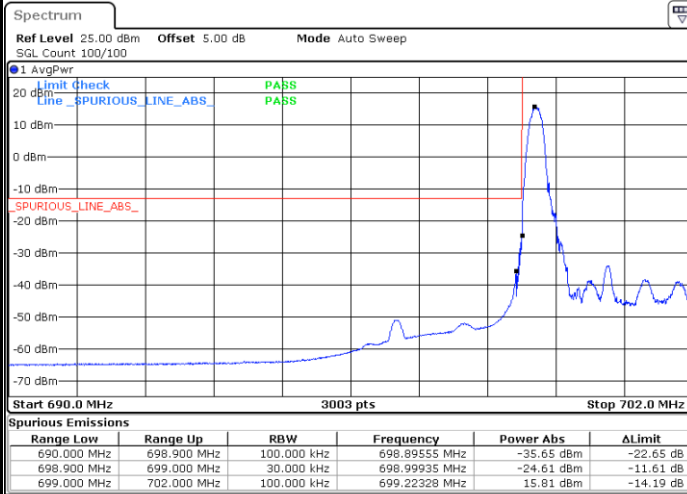


Date: 11.MAR.2024 06:56:29



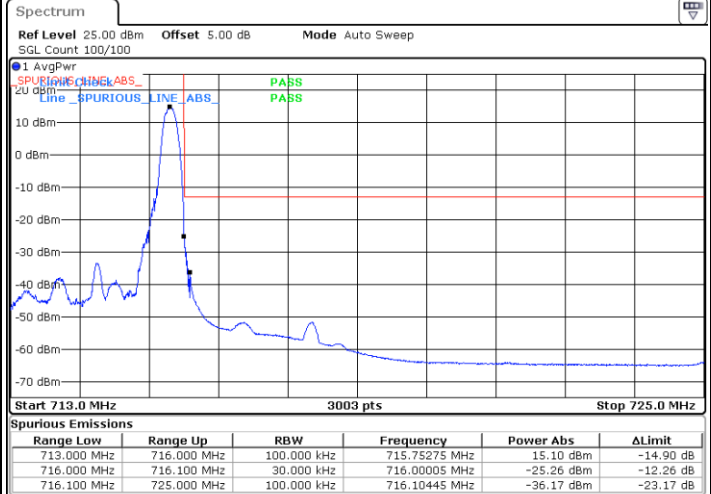
LTE Band 12 / 3MHz / 256QAM

Lowest Band Edge / 1 RB



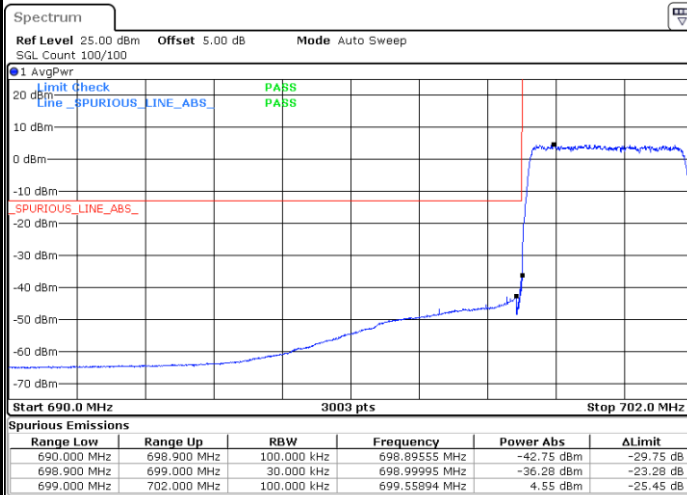
Date: 11.MAR.2024 06:40:42

Highest Band Edge / 1 RB



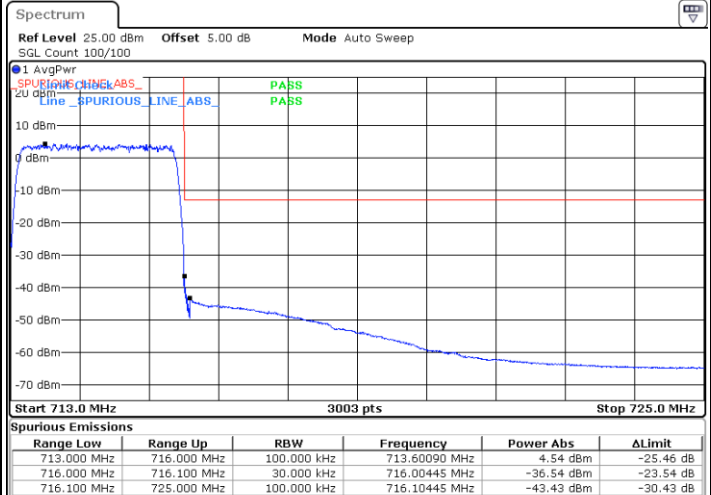
Date: 11.MAR.2024 06:54:05

Lowest Band Edge / Full RB



Date: 11.MAR.2024 06:43:11

Highest Band Edge / Full RB

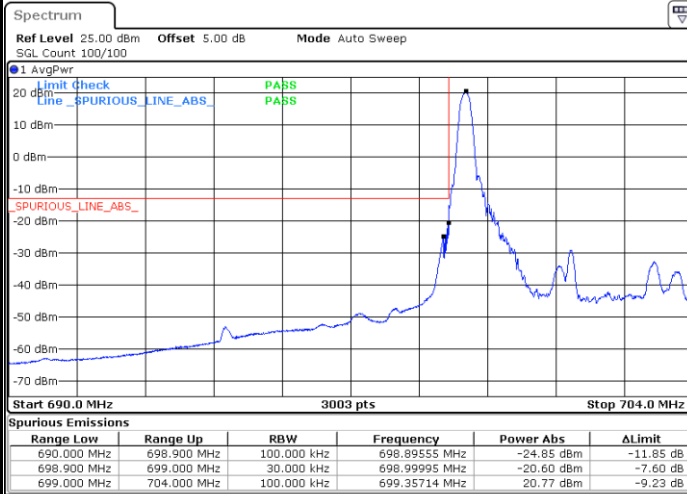


Date: 11.MAR.2024 06:55:17



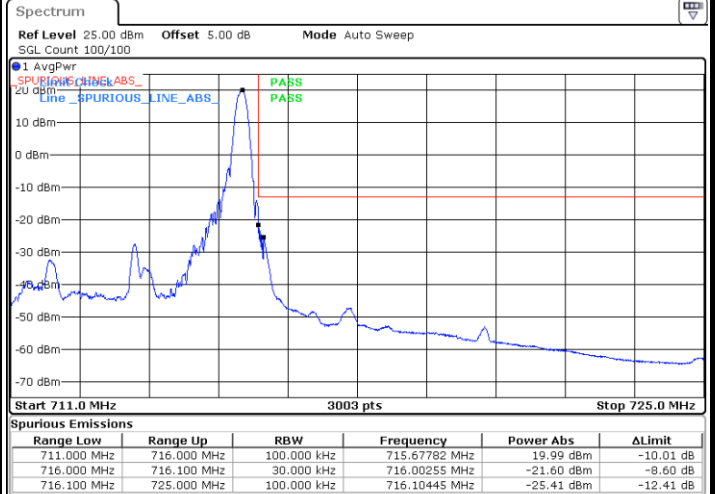
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



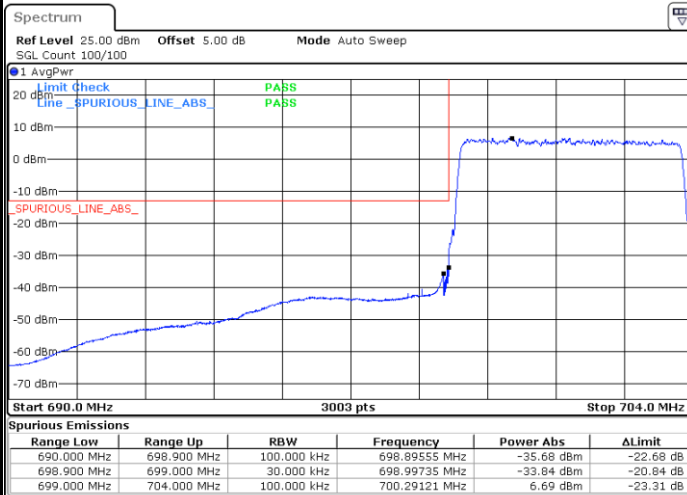
Date: 11.MAR.2024 07:01:47

Highest Band Edge / 1 RB



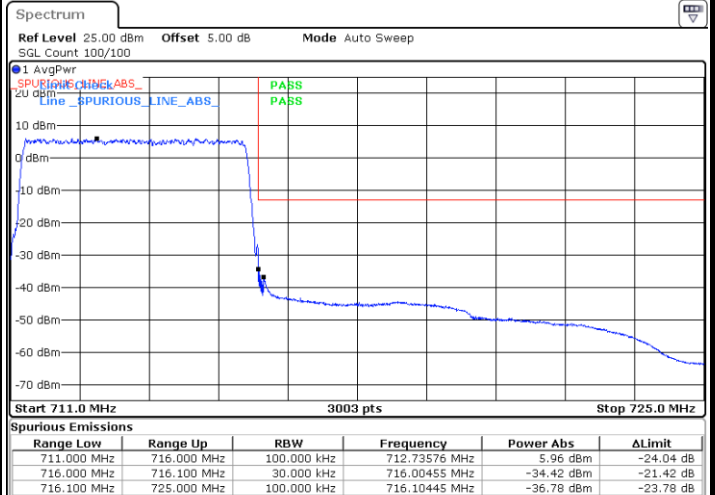
Date: 11.MAR.2024 07:14:39

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:11:01

Highest Band Edge / Full RB

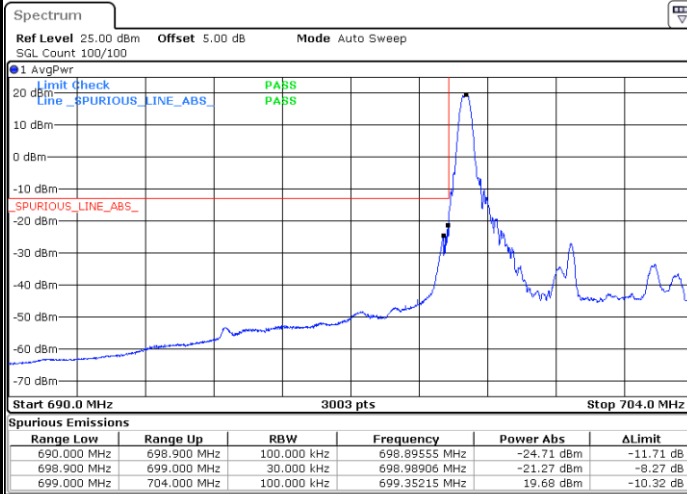


Date: 11.MAR.2024 07:23:07



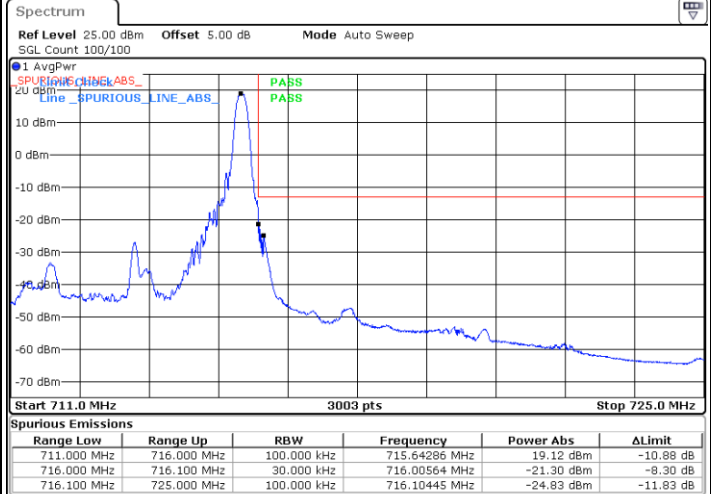
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



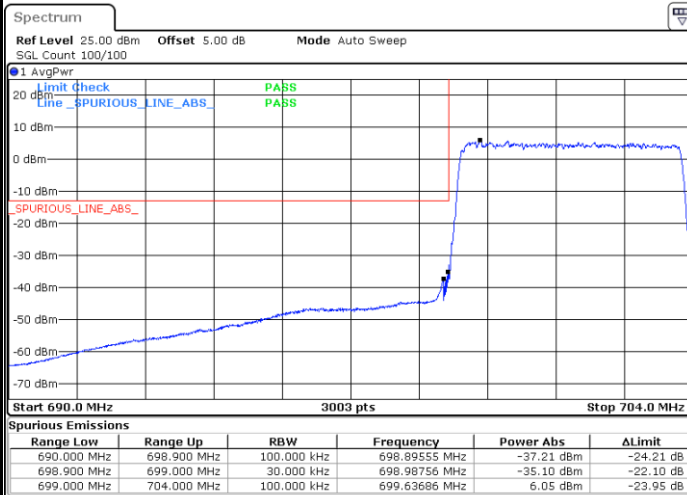
Date: 11.MAR.2024 07:03:02

Highest Band Edge / 1 RB



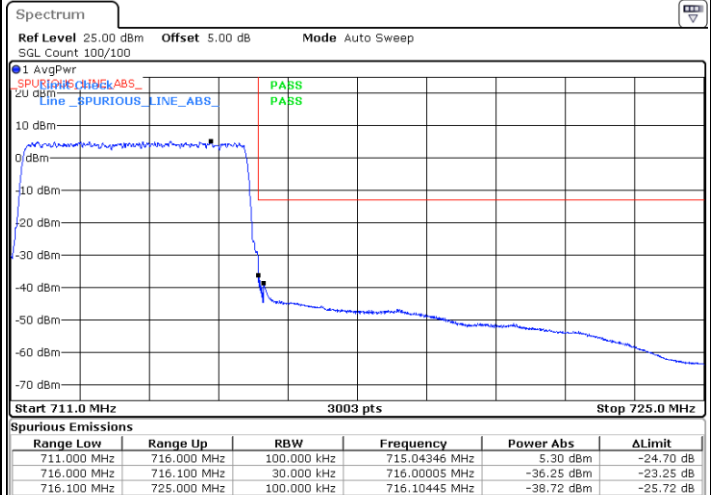
Date: 11.MAR.2024 07:15:54

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:09:49

Highest Band Edge / Full RB

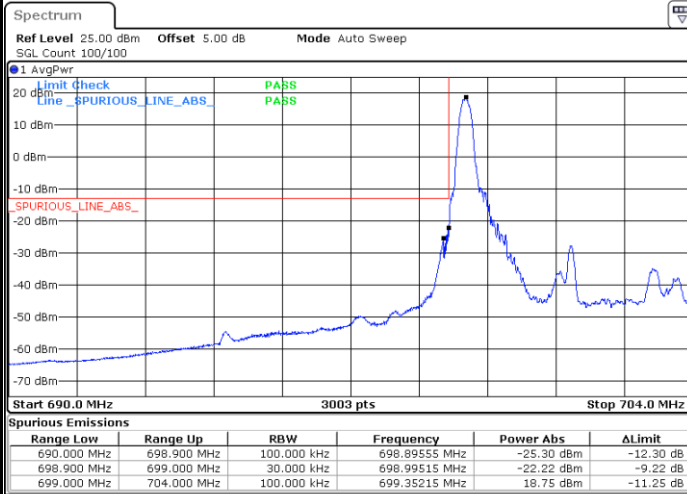


Date: 11.MAR.2024 07:21:55



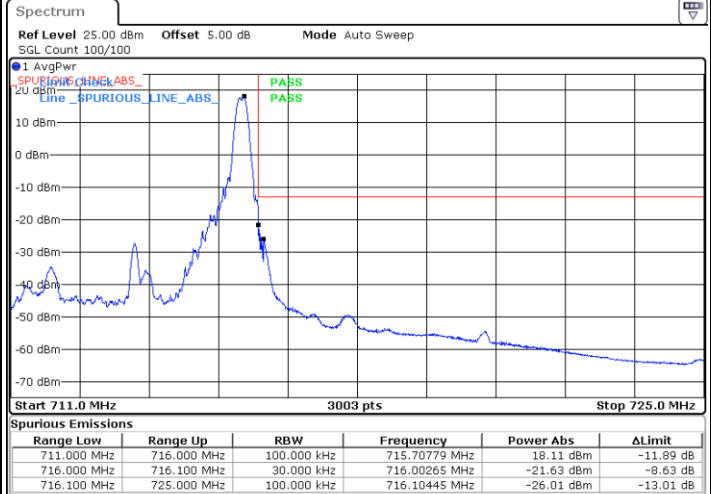
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



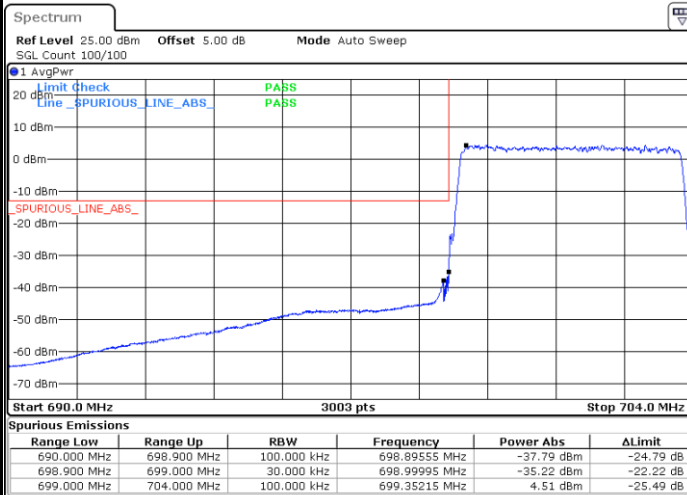
Date: 11.MAR.2024 07:04:14

Highest Band Edge / 1 RB



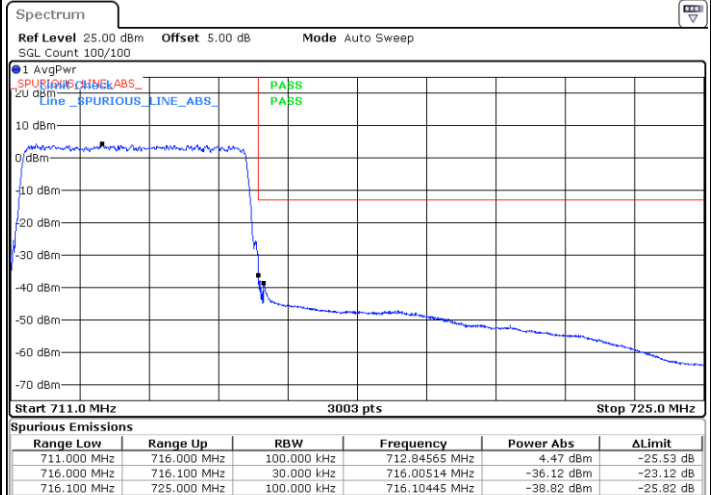
Date: 11.MAR.2024 07:17:06

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:08:37

Highest Band Edge / Full RB

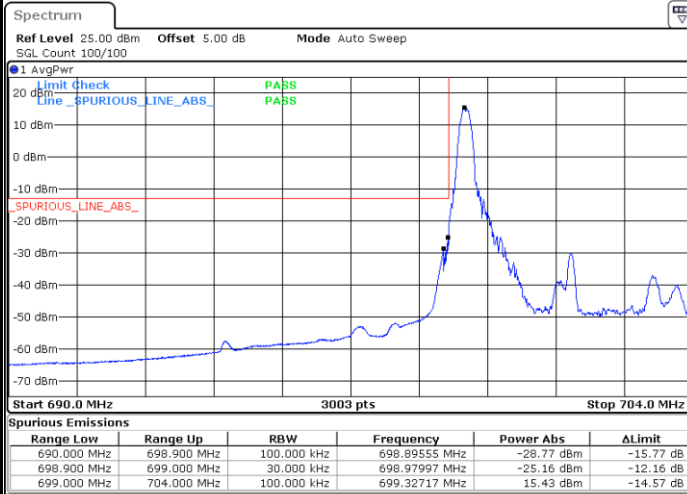


Date: 11.MAR.2024 07:20:43



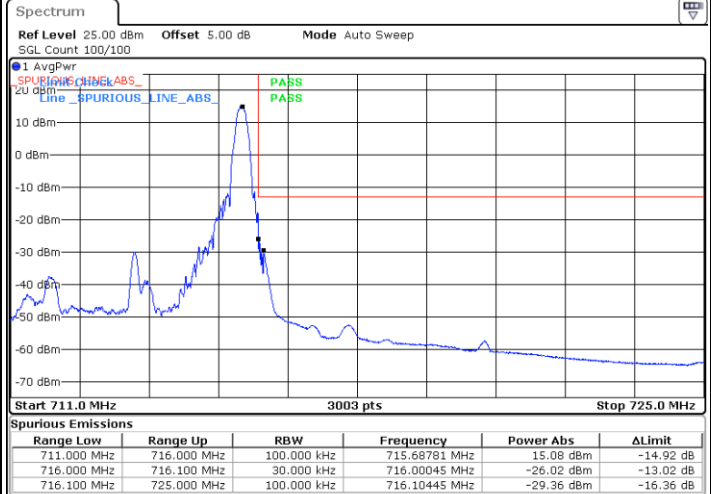
LTE Band 12 / 5MHz / 256QAM

Lowest Band Edge / 1RB



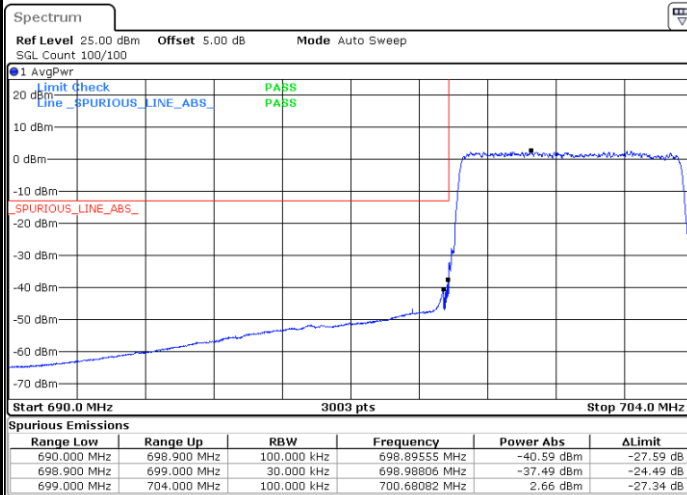
Date: 11.MAR.2024 07:05:26

Highest Band Edge / 1 RB



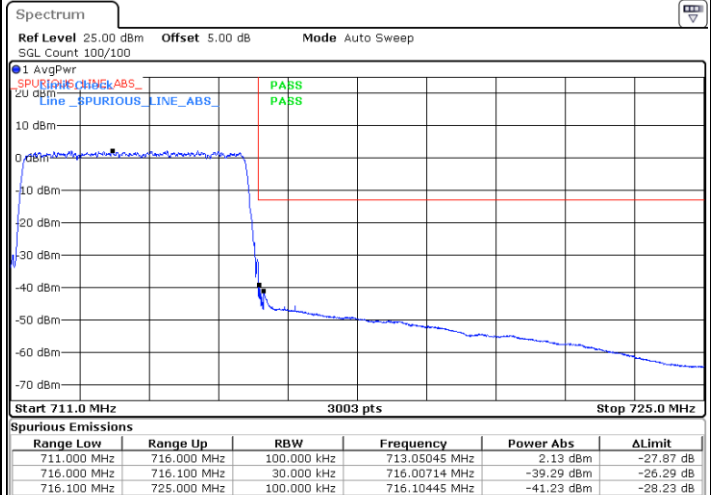
Date: 11.MAR.2024 07:18:18

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:07:25

Highest Band Edge / Full RB

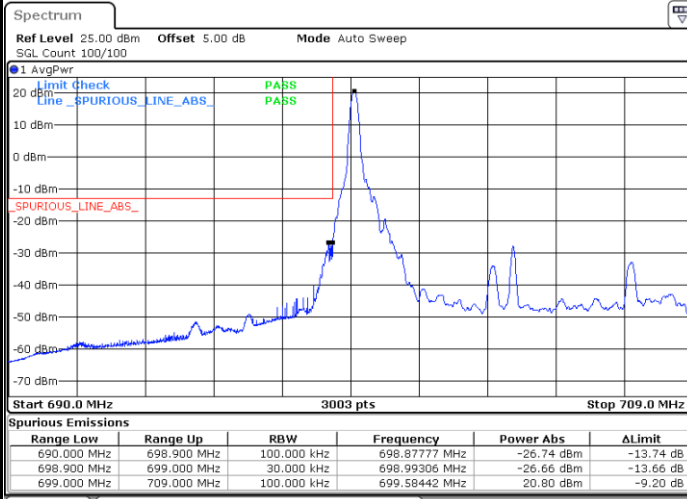


Date: 11.MAR.2024 07:19:31



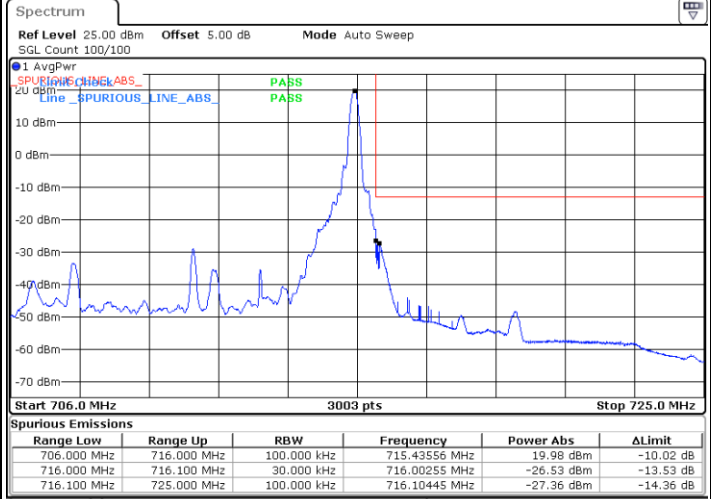
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



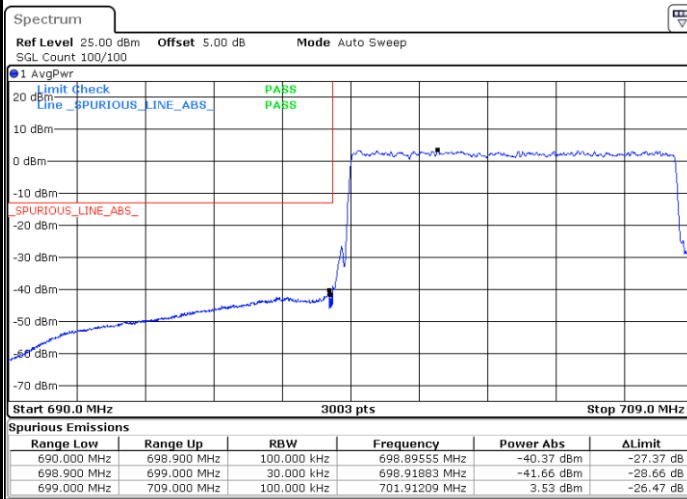
Date: 11.MAR.2024 07:26:01

Highest Band Edge / 1 RB



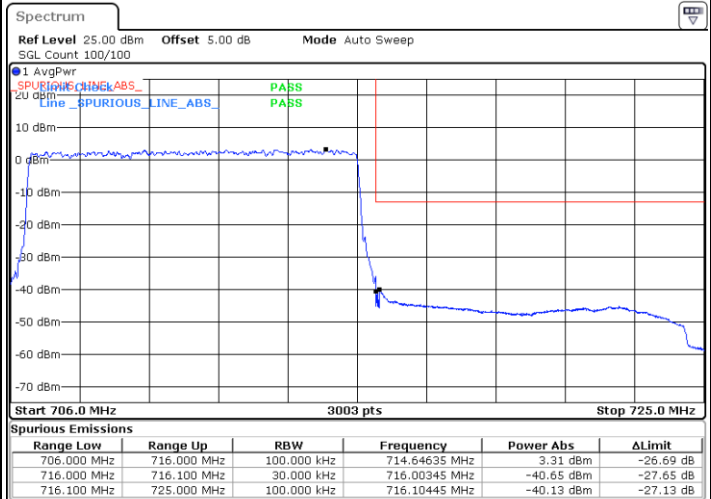
Date: 11.MAR.2024 07:38:52

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:35:15

Highest Band Edge / Full RB

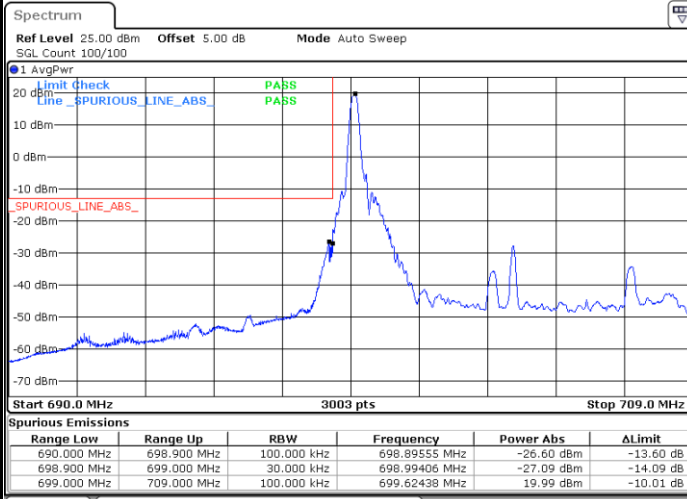


Date: 11.MAR.2024 07:48:56



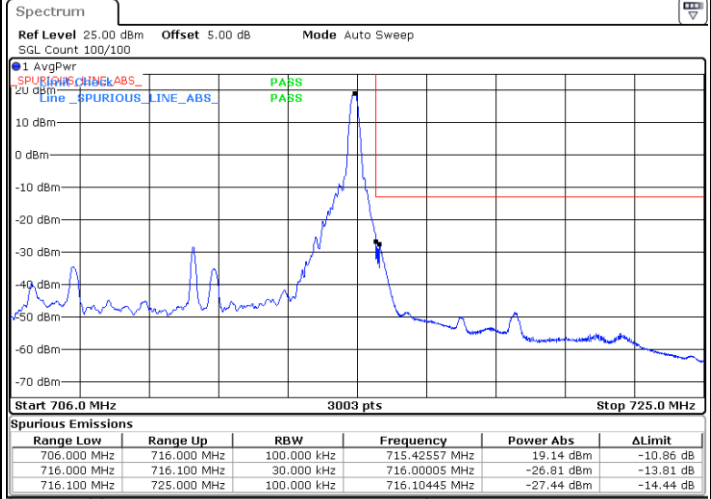
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



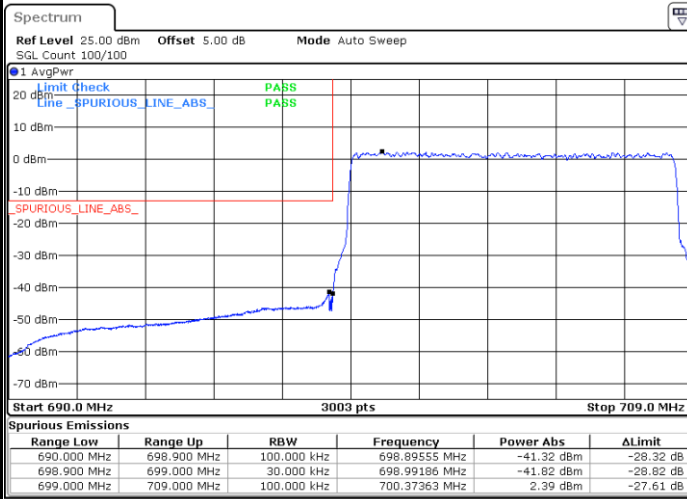
Date: 11.MAR.2024 07:27:16

Highest Band Edge / 1 RB



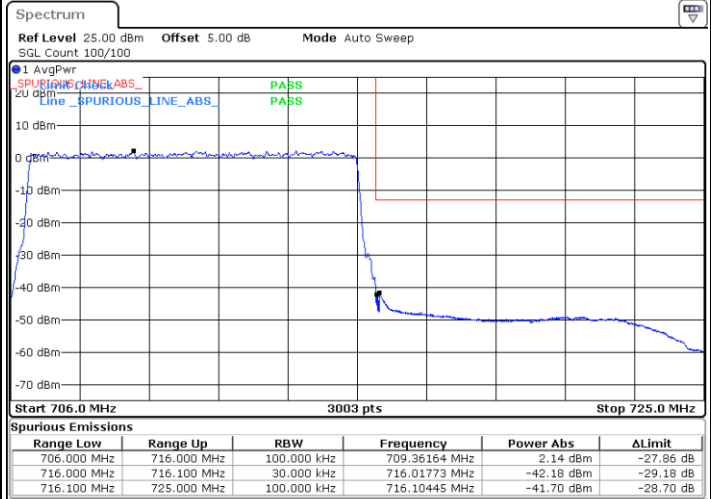
Date: 11.MAR.2024 07:40:07

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:34:03

Highest Band Edge / Full RB



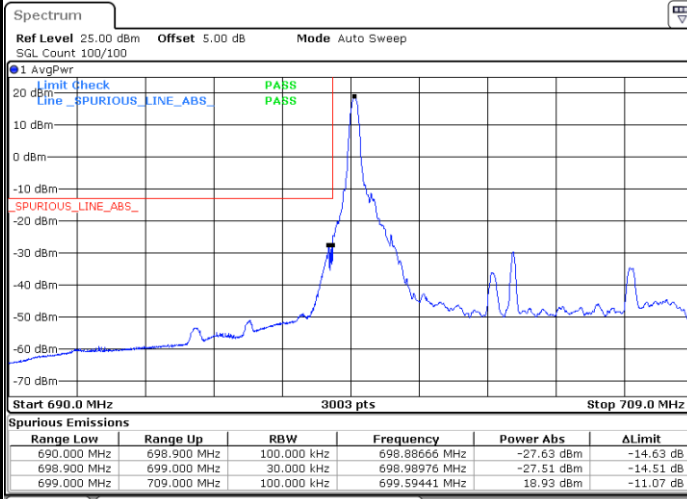
Date: 11.MAR.2024 07:47:44





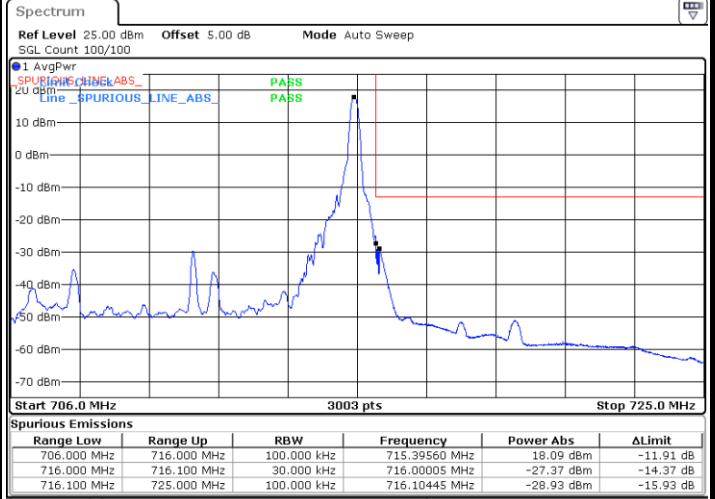
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



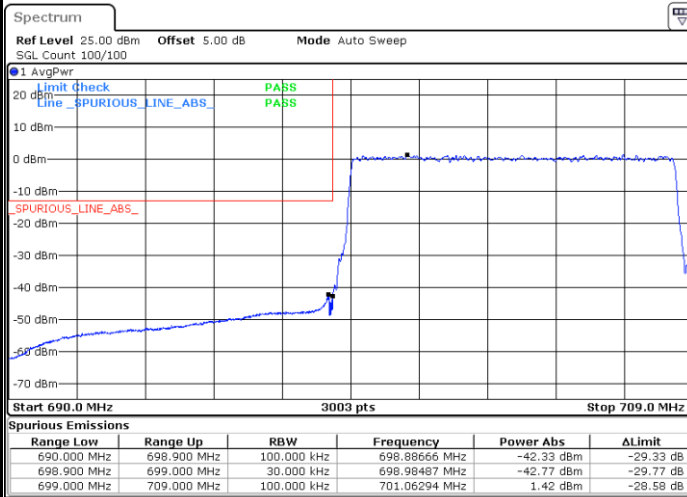
Date: 11.MAR.2024 07:28:28

Highest Band Edge / 1 RB



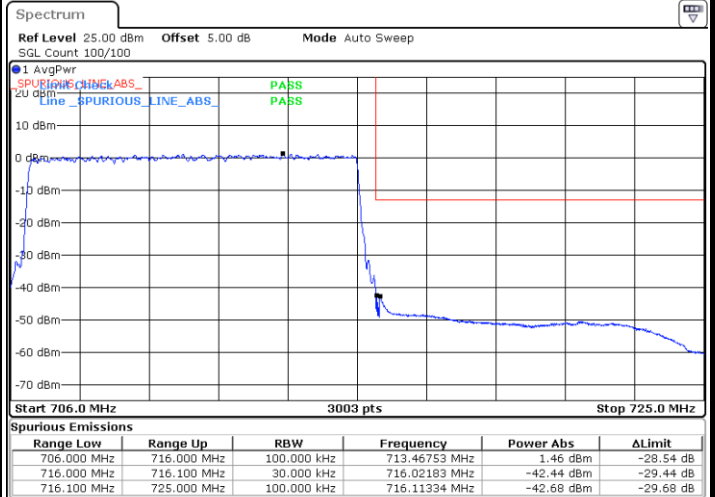
Date: 11.MAR.2024 07:42:56

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:32:51

Highest Band Edge / Full RB

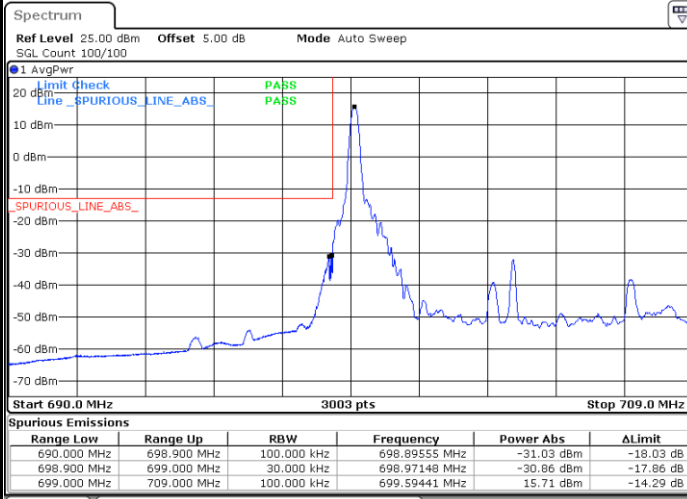


Date: 11.MAR.2024 07:46:33



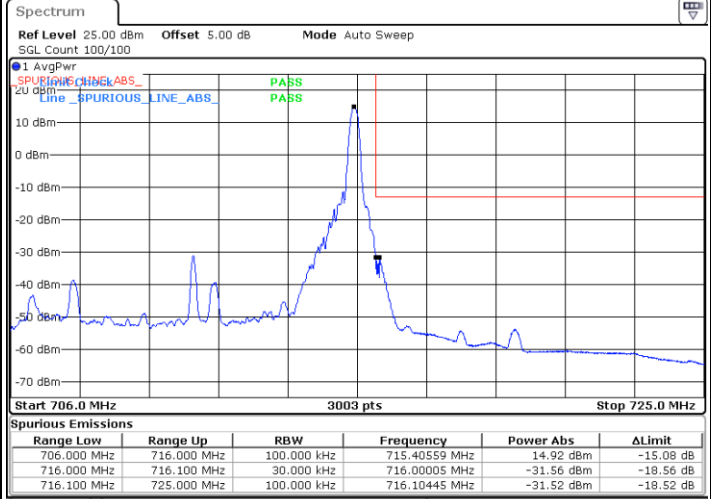
LTE Band 12 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



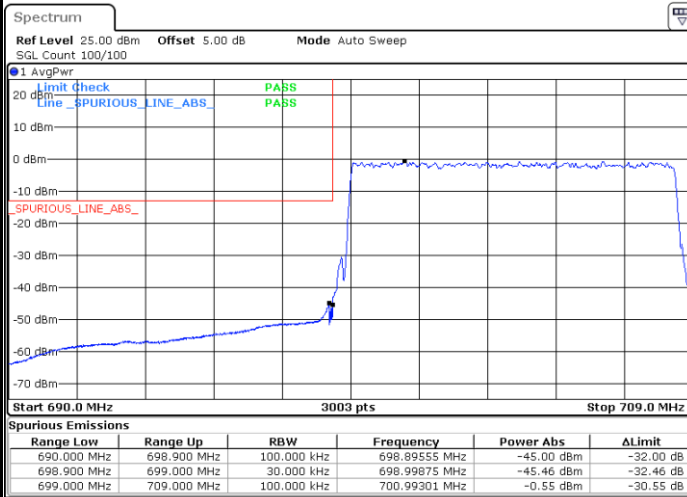
Date: 11.MAR.2024 07:29:40

Highest Band Edge / 1 RB



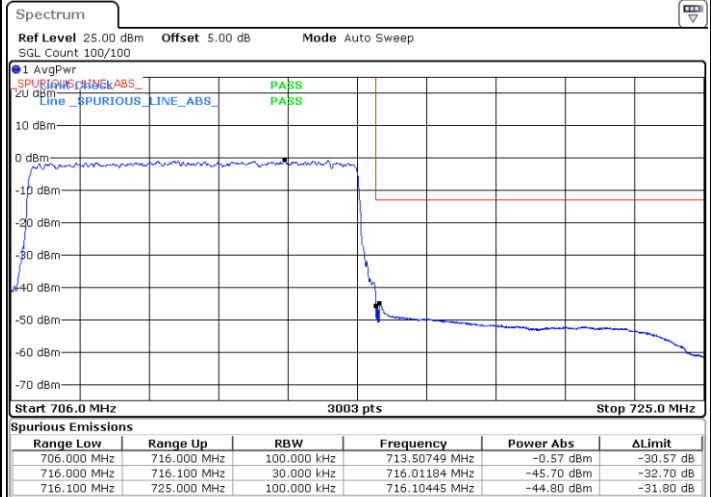
Date: 11.MAR.2024 07:44:09

Lowest Band Edge / Full RB



Date: 11.MAR.2024 07:31:39

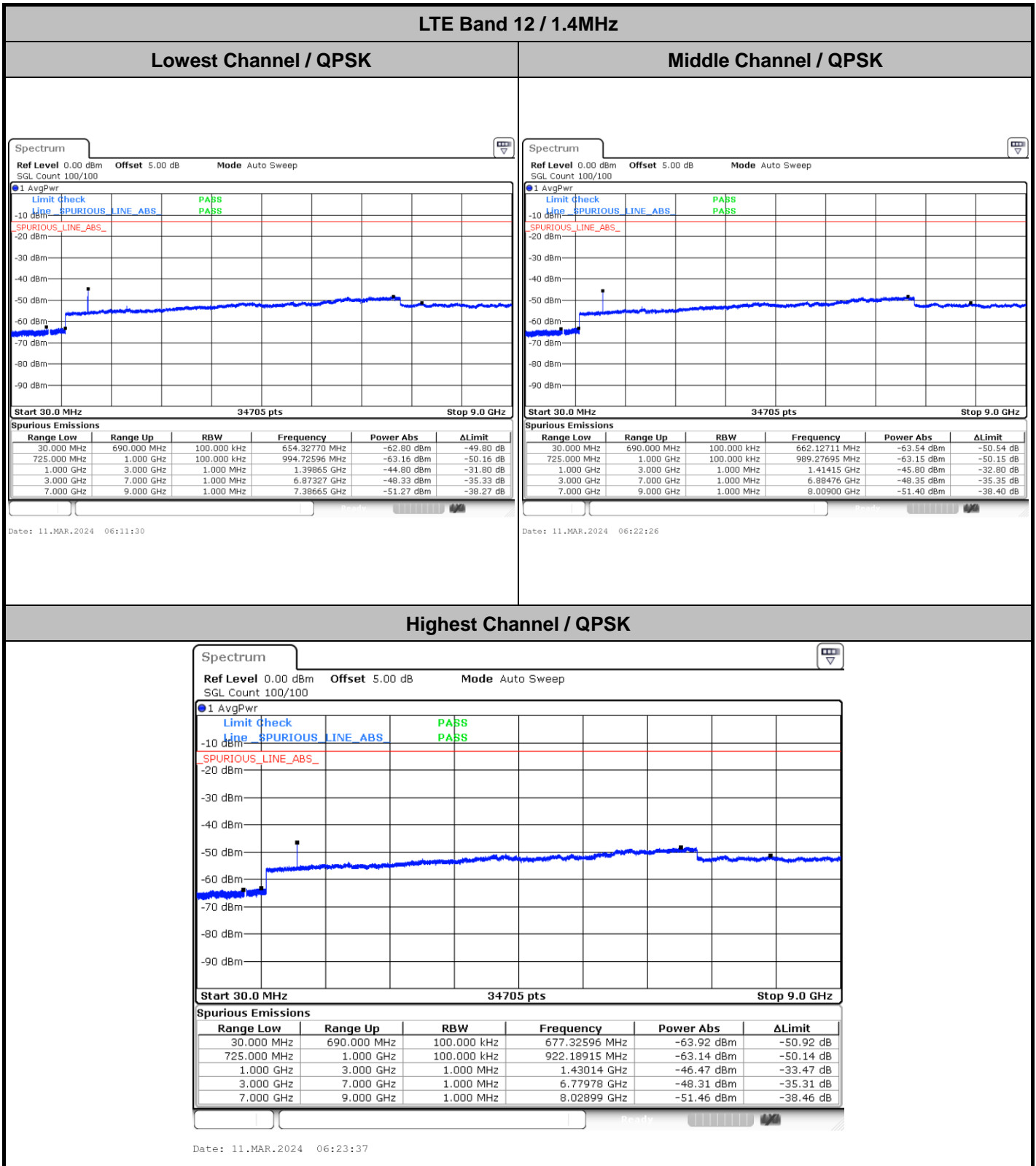
Highest Band Edge / Full RB



Date: 11.MAR.2024 07:45:21



# Conducted Spurious Emission

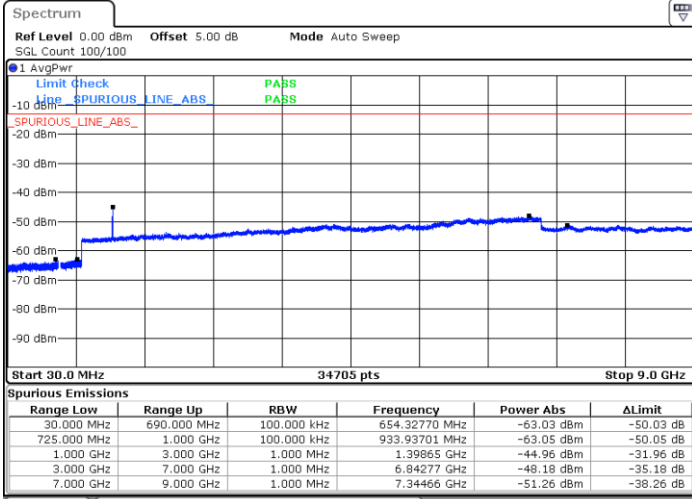




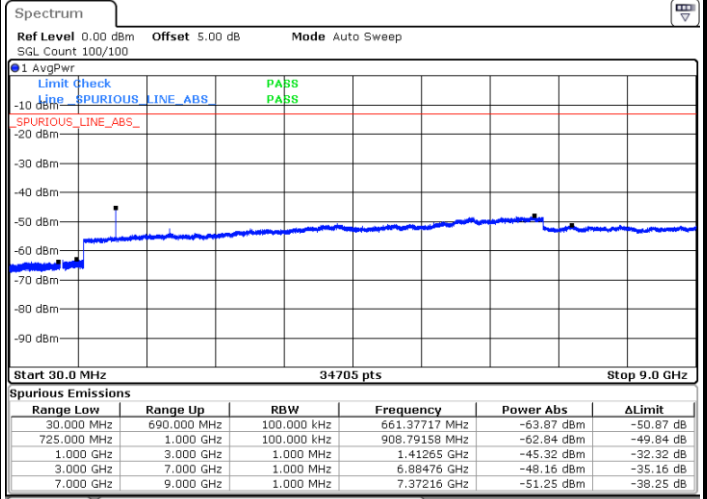
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

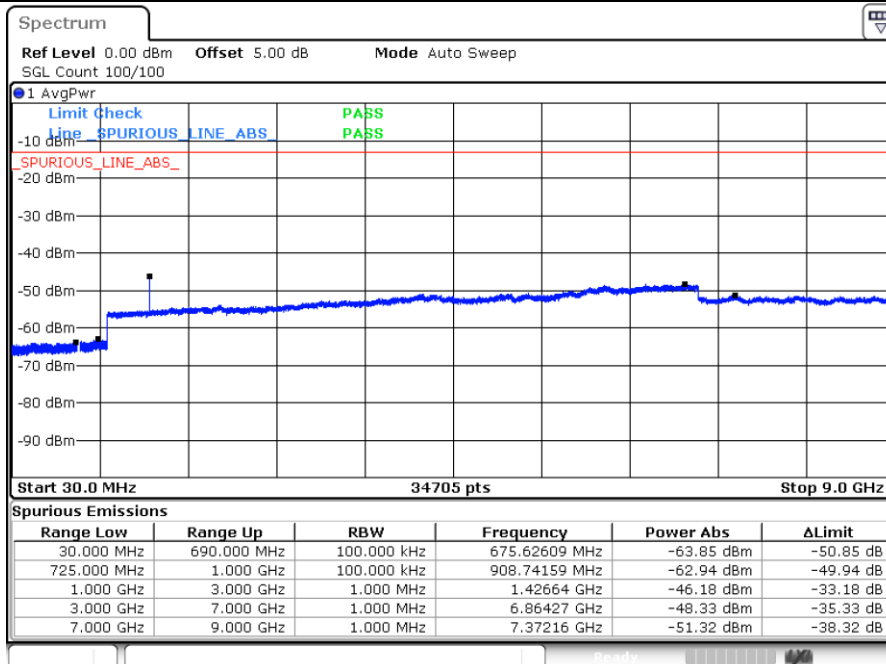


Date: 11.MAR.2024 06:36:01



Date: 11.MAR.2024 06:47:59

Highest Channel / QPSK



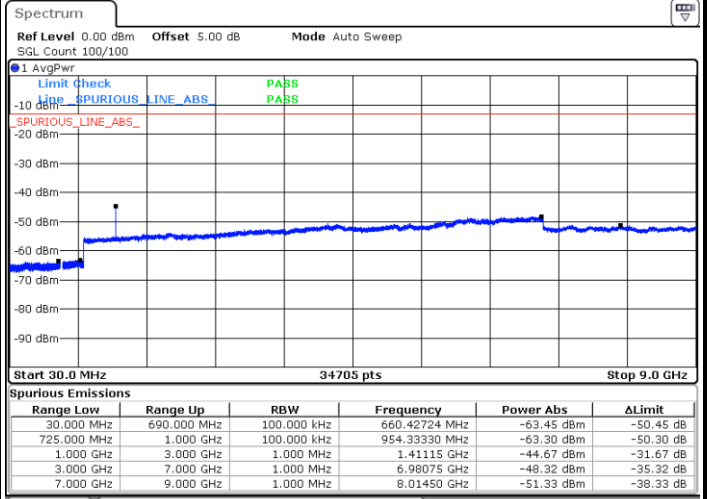
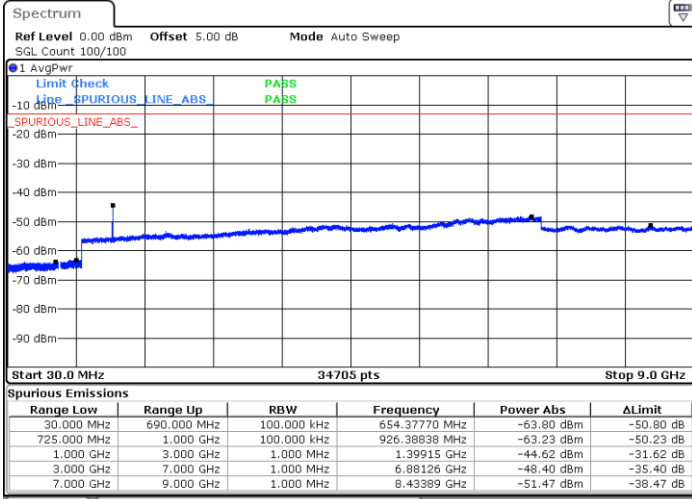
Date: 11.MAR.2024 06:49:10



LTE Band 12 / 5MHz

Lowest Channel / QPSK

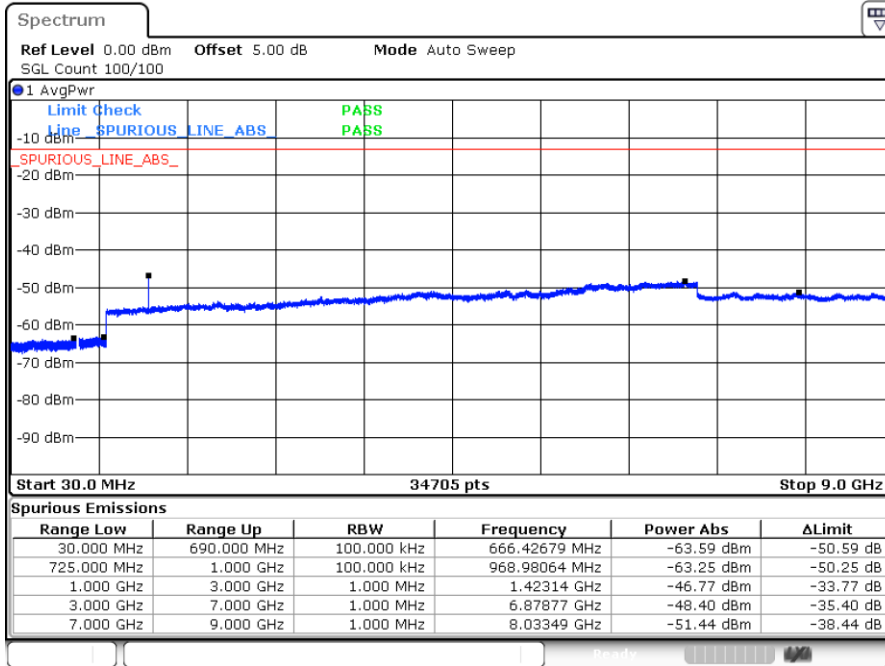
Middle Channel / QPSK



Date: 11.MAR.2024 07:00:47

Date: 11.MAR.2024 07:12:12

Highest Channel / QPSK



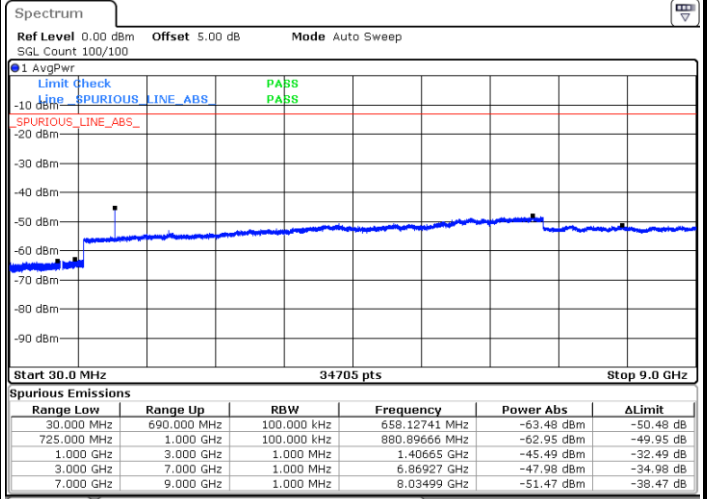
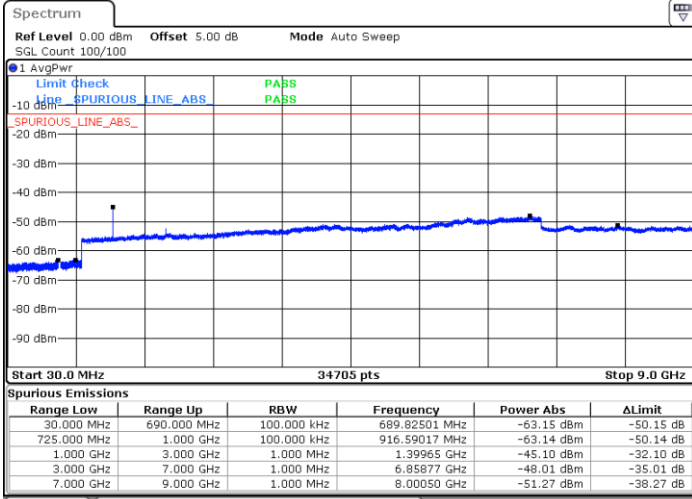
Date: 11.MAR.2024 07:13:23



LTE Band 12 / 10MHz

Lowest Channel / QPSK

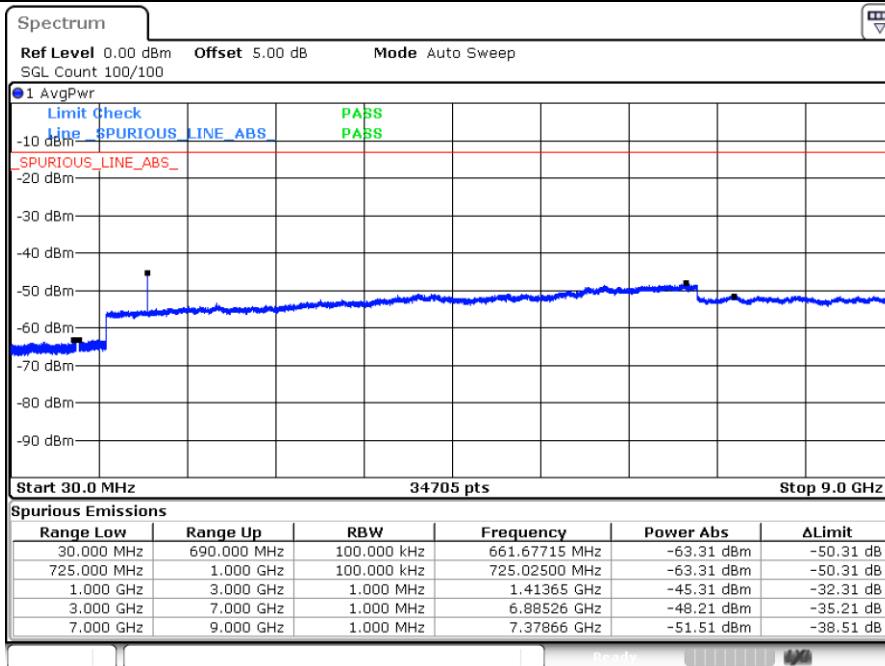
Middle Channel / QPSK



Date: 11.MAR.2024 07:25:00

Date: 11.MAR.2024 07:36:25

Highest Channel / QPSK



Date: 11.MAR.2024 07:37:37



### 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    | 0.0023                              | PAS<br>S |
| 40               | Normal Voltage    | 0.0019                              |          |
| 30               | Normal Voltage    | 0.0011                              |          |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |          |
| 10               | Normal Voltage    | 0.0013                              |          |
| 0                | Normal Voltage    | 0.0018                              |          |
| -10              | Normal Voltage    | 0.0023                              |          |
| -20              | Normal Voltage    | 0.0025                              |          |
| -30              | Normal Voltage    | 0.0029                              |          |
| 20               | Maximum Voltage   | 0.0014                              |          |
| 20               | Normal Voltage    | 0.0007                              |          |
| 20               | Battery End Point | 0.0013                              |          |

**Note:**

1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.