

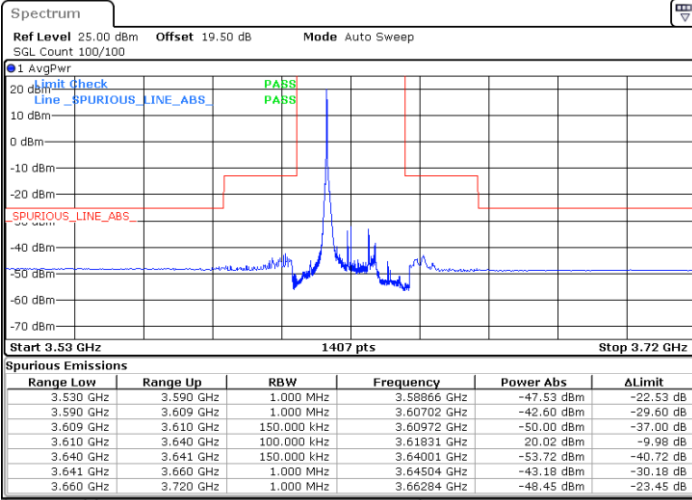


LTE Band 48 / 15MHz

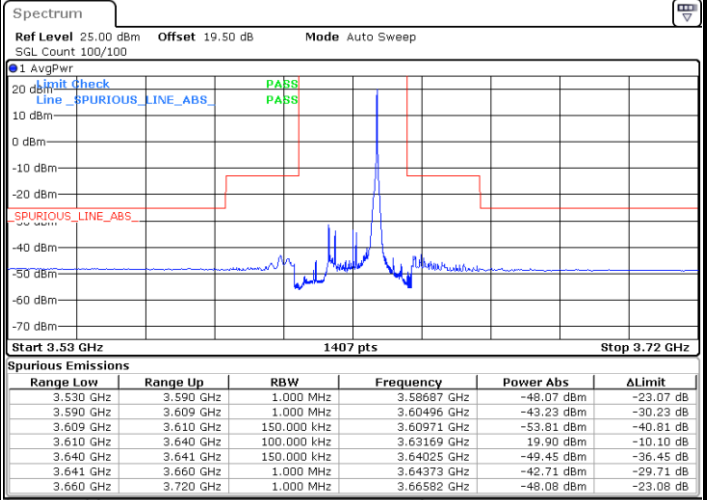
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



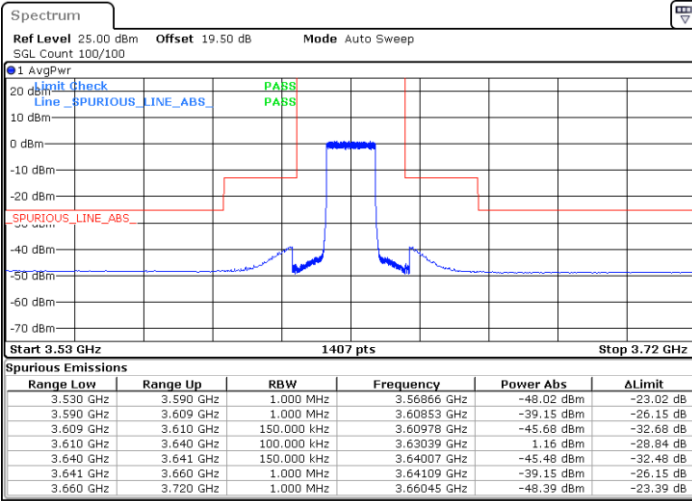
Date: 20.MAR.2024 23:12:45



Date: 20.MAR.2024 23:14:45

Middle Channel / FullRB

N/A



Date: 20.MAR.2024 23:24:48

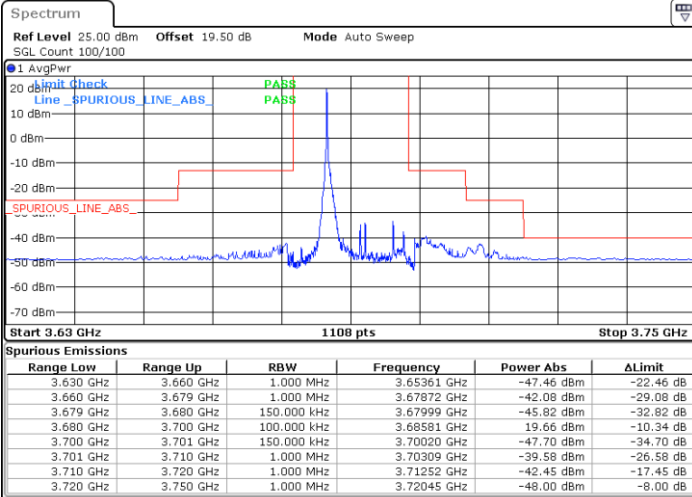


LTE Band 48 / 15MHz

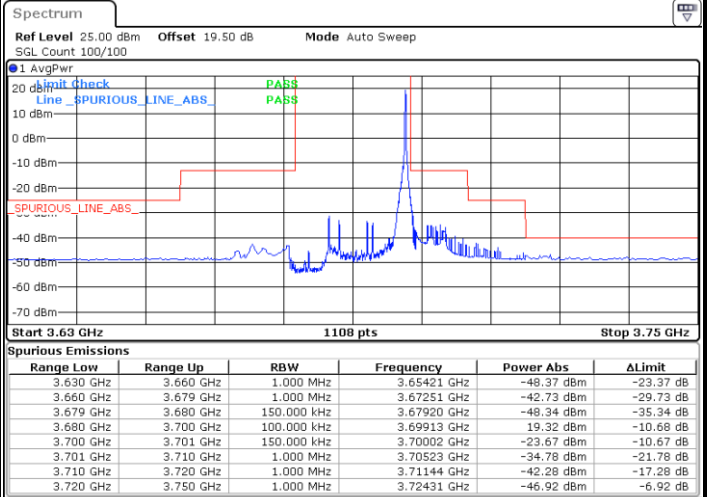
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



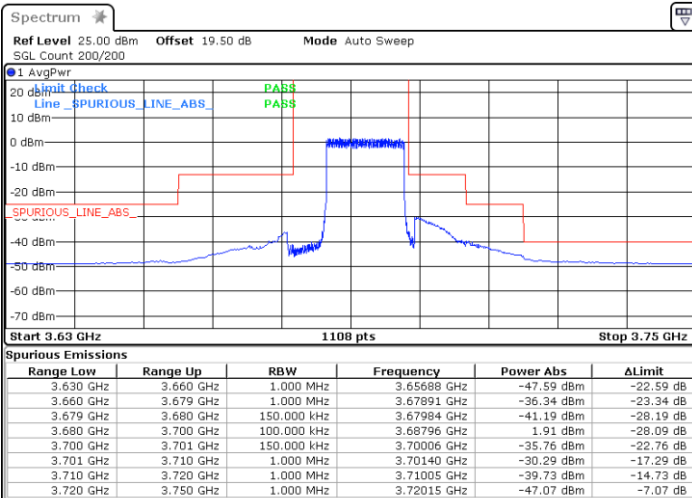
Date: 20.MAR.2024 07:17:09



Date: 20.MAR.2024 22:39:41

Highest Channel / FullRB

N/A



Date: 20.MAR.2024 22:42:44

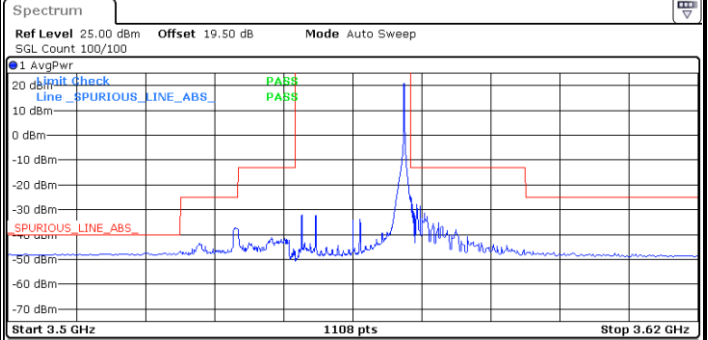
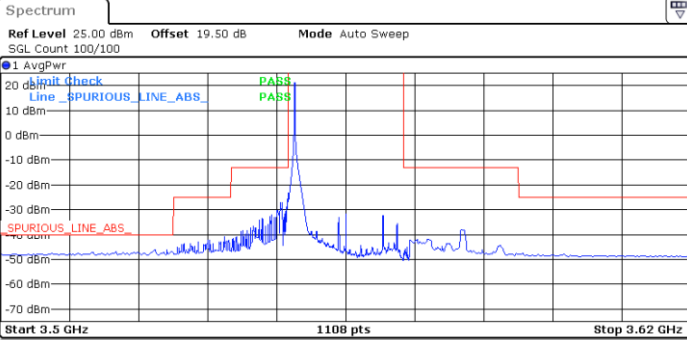


LTE Band 48 / 20MHz

QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.500 GHz | 3.530 GHz | 1.000 MHz   | 3.52688 GHz | -46.16 dBm | -6.16 dB  |
| 3.530 GHz | 3.540 GHz | 1.000 MHz   | 3.53886 GHz | -40.97 dBm | -15.97 dB |
| 3.540 GHz | 3.549 GHz | 1.000 MHz   | 3.54887 GHz | -26.99 dBm | -13.99 dB |
| 3.549 GHz | 3.550 GHz | 200.000 kHz | 3.55000 GHz | -23.34 dBm | -10.34 dB |
| 3.550 GHz | 3.570 GHz | 100.000 kHz | 3.55107 GHz | -21.11 dBm | -8.89 dB  |
| 3.570 GHz | 3.571 GHz | 200.000 kHz | 3.57065 GHz | -44.91 dBm | -31.91 dB |
| 3.571 GHz | 3.590 GHz | 1.000 MHz   | 3.58012 GHz | -37.99 dBm | -24.99 dB |
| 3.590 GHz | 3.620 GHz | 1.000 MHz   | 3.59074 GHz | -47.58 dBm | -22.58 dB |

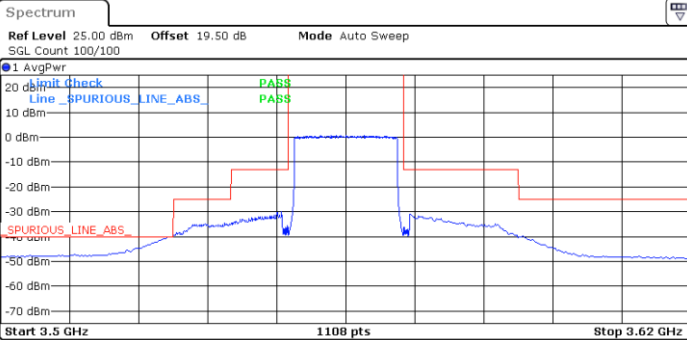
| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.500 GHz | 3.530 GHz | 1.000 MHz   | 3.52985 GHz | -47.32 dBm | -7.32 dB  |
| 3.530 GHz | 3.540 GHz | 1.000 MHz   | 3.53965 GHz | -37.36 dBm | -12.36 dB |
| 3.540 GHz | 3.549 GHz | 1.000 MHz   | 3.54004 GHz | -37.98 dBm | -24.98 dB |
| 3.549 GHz | 3.550 GHz | 200.000 kHz | 3.54971 GHz | -45.85 dBm | -32.85 dB |
| 3.550 GHz | 3.570 GHz | 100.000 kHz | 3.56893 GHz | -20.86 dBm | -9.14 dB  |
| 3.570 GHz | 3.571 GHz | 200.000 kHz | 3.57005 GHz | -24.59 dBm | -11.59 dB |
| 3.571 GHz | 3.590 GHz | 1.000 MHz   | 3.57109 GHz | -27.80 dBm | -14.80 dB |
| 3.590 GHz | 3.620 GHz | 1.000 MHz   | 3.59134 GHz | -46.98 dBm | -21.98 dB |

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Lowest Channel / FullIRB

N/A



| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.500 GHz | 3.530 GHz | 1.000 MHz   | 3.52985 GHz | -40.14 dBm | -0.14 dB  |
| 3.530 GHz | 3.540 GHz | 1.000 MHz   | 3.53896 GHz | -34.51 dBm | -9.51 dB  |
| 3.540 GHz | 3.549 GHz | 1.000 MHz   | 3.54878 GHz | -29.89 dBm | -16.89 dB |
| 3.549 GHz | 3.550 GHz | 200.000 kHz | 3.54988 GHz | -35.42 dBm | -22.42 dB |
| 3.550 GHz | 3.570 GHz | 100.000 kHz | 3.55905 GHz | 0.72 dBm   | -29.28 dB |
| 3.570 GHz | 3.571 GHz | 200.000 kHz | 3.57005 GHz | -36.10 dBm | -23.10 dB |
| 3.571 GHz | 3.590 GHz | 1.000 MHz   | 3.57109 GHz | -31.00 dBm | -18.00 dB |
| 3.590 GHz | 3.620 GHz | 1.000 MHz   | 3.59074 GHz | -39.91 dBm | -14.91 dB |

Date: 20.MAR.2024 07:47:48

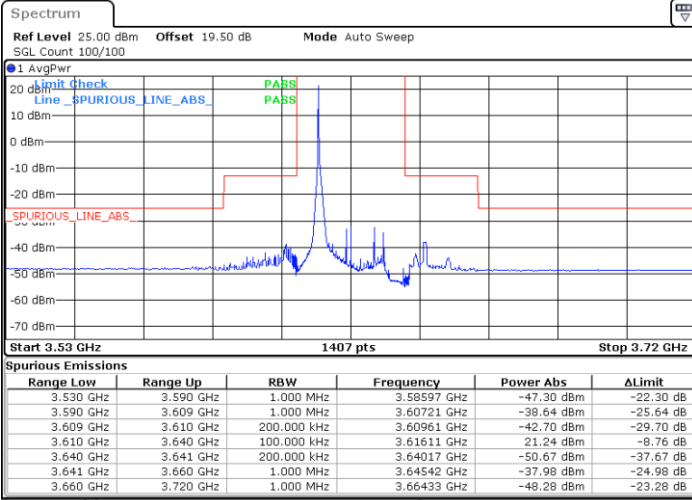


LTE Band 48 / 20MHz

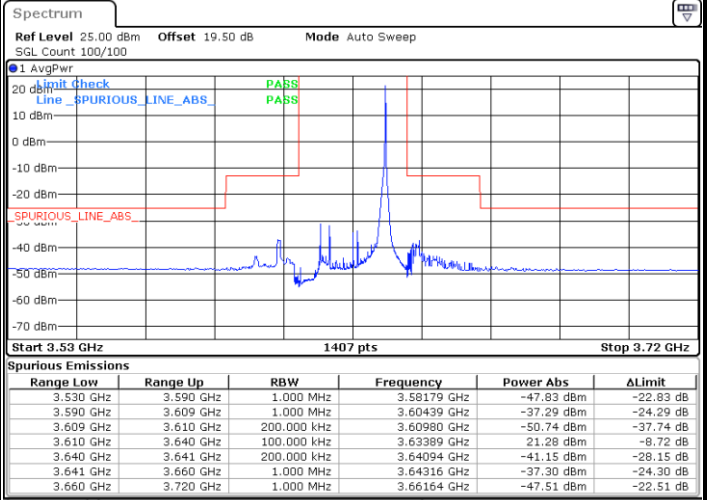
QPSK

Middle Channel / 1RB0

Middle Channel / 1RBmax



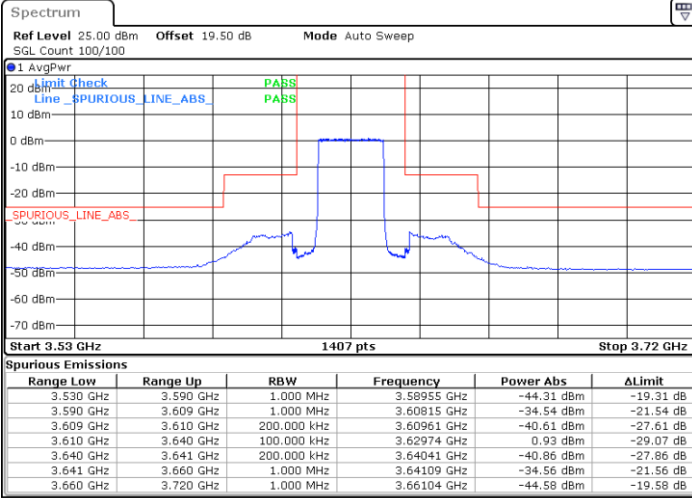
Date: 20.MAR.2024 23:31:07



Date: 20.MAR.2024 23:41:09

Middle Channel / FullRB

N/A



Date: 20.MAR.2024 23:43:10

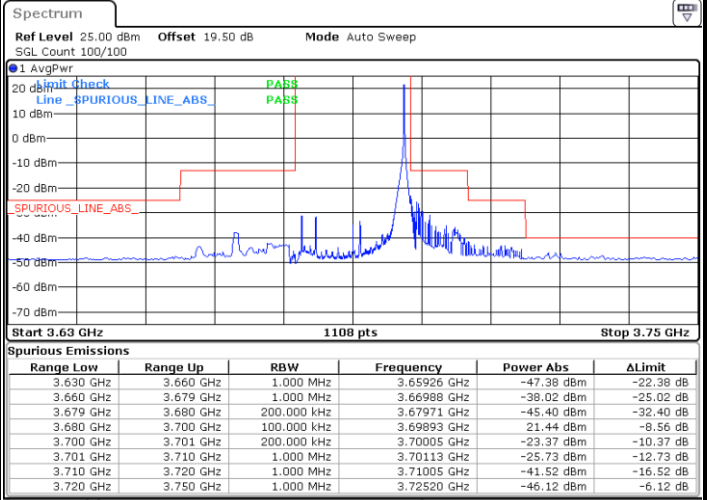
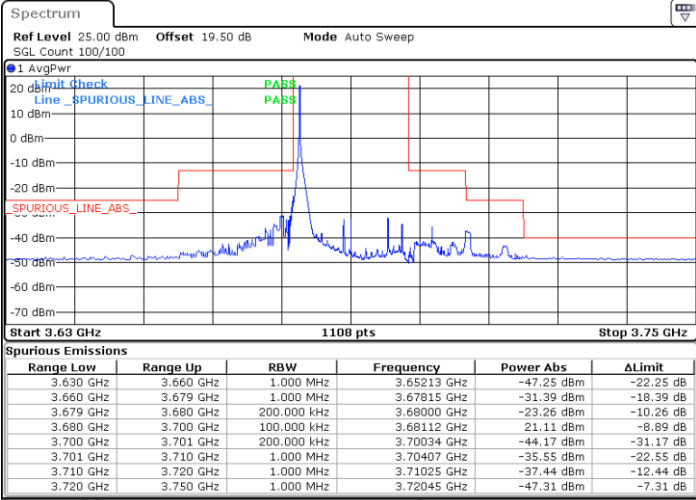


LTE Band 48 / 20MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

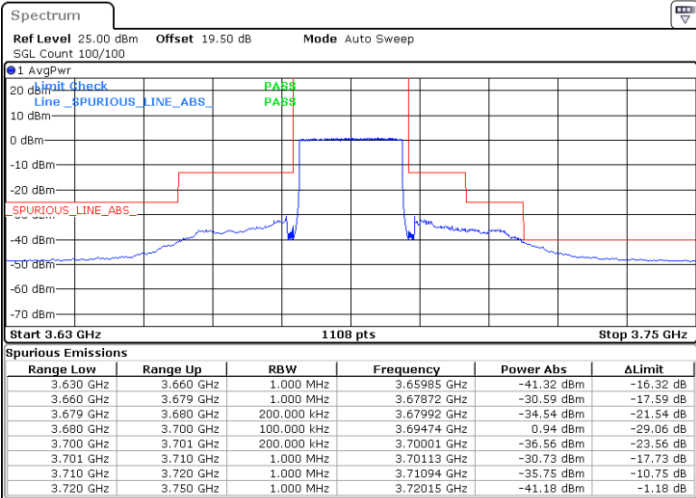


Date: 20.MAR.2024 08:28:20

Date: 20.MAR.2024 08:35:05

Highest Channel / FullRB

N/A



Date: 20.MAR.2024 08:36:26

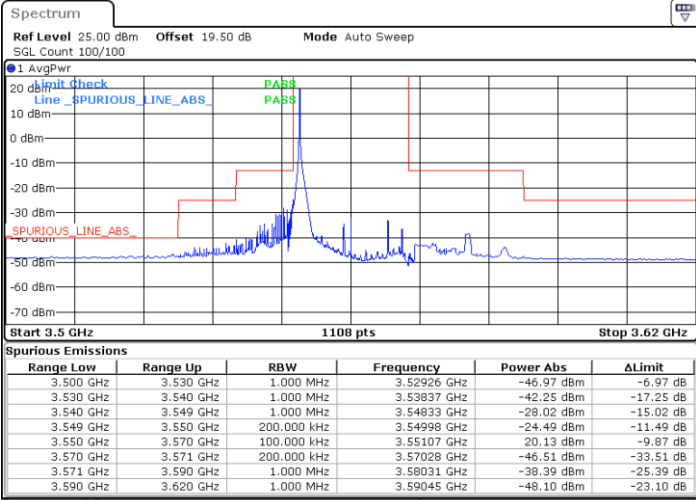


LTE Band 48 / 20MHz

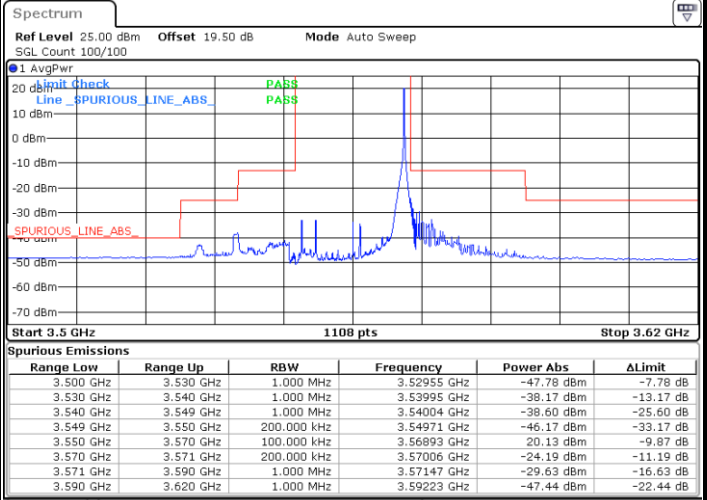
16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



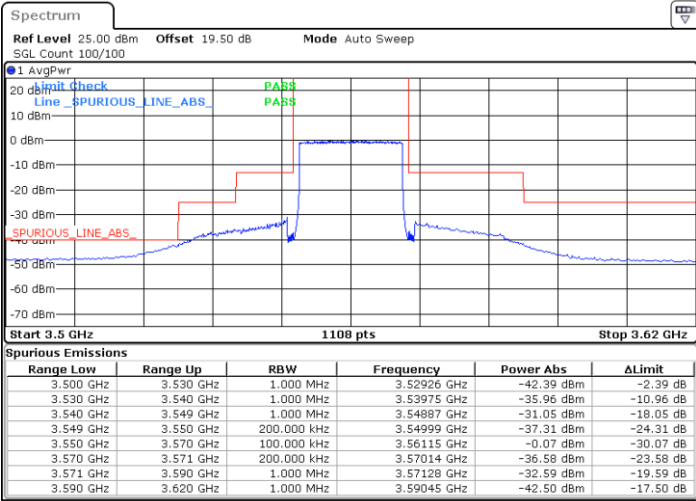
Date: 20.MAR.2024 07:41:00



Date: 20.MAR.2024 07:45:05

Lowest Channel / FullIRB

N/A



Date: 20.MAR.2024 07:49:09

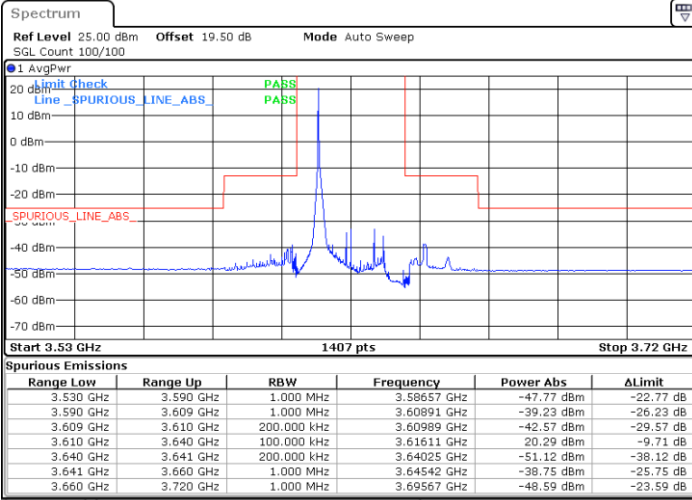


LTE Band 48 / 20MHz

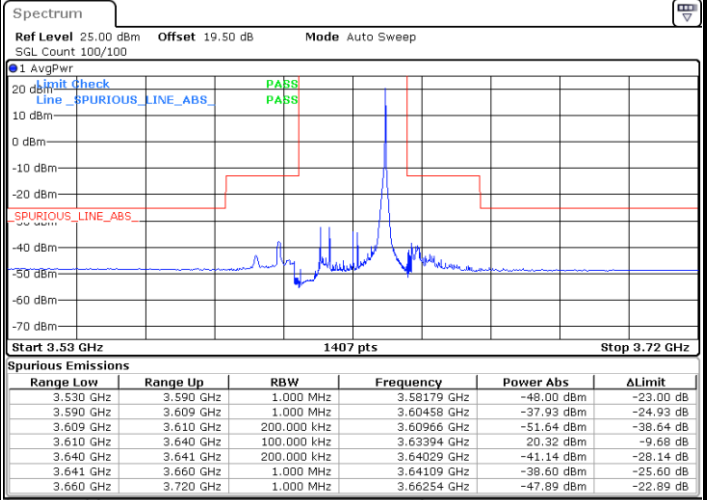
16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



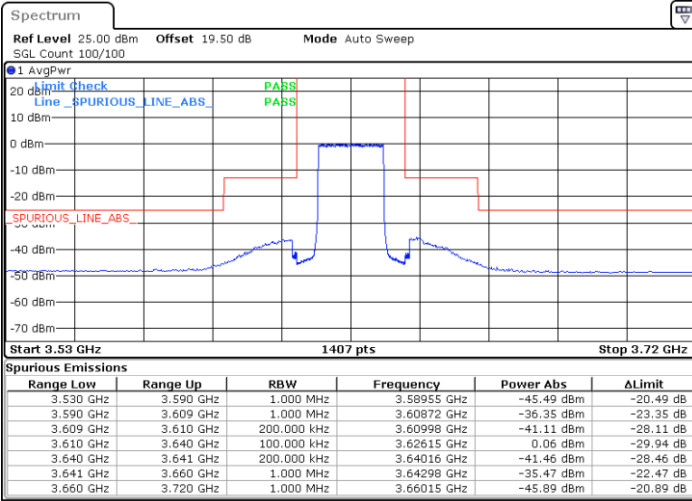
Date: 20.MAR.2024 23:33:08



Date: 20.MAR.2024 23:39:09

Middle Channel / FullIRB

N/A



Date: 20.MAR.2024 23:45:11

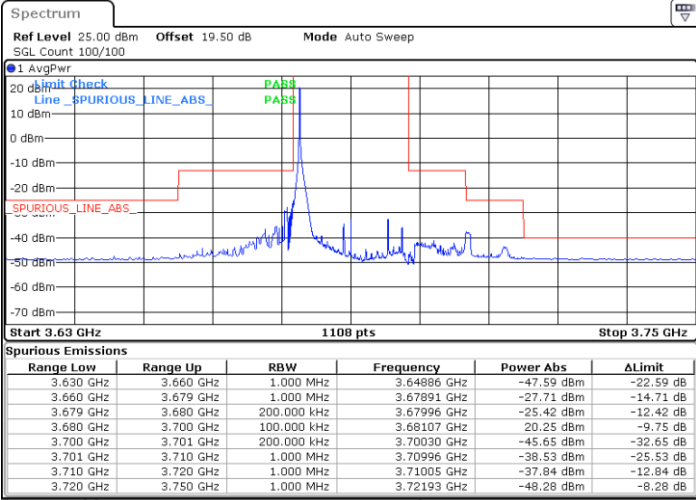


LTE Band 48 / 20MHz

16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



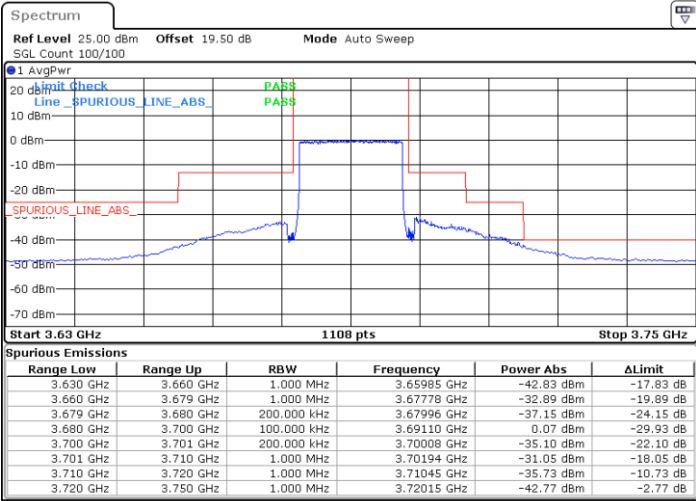
Date: 20.MAR.2024 08:29:41



Date: 20.MAR.2024 08:33:44

Highest Channel / FullRB

N/A



Date: 20.MAR.2024 08:37:47



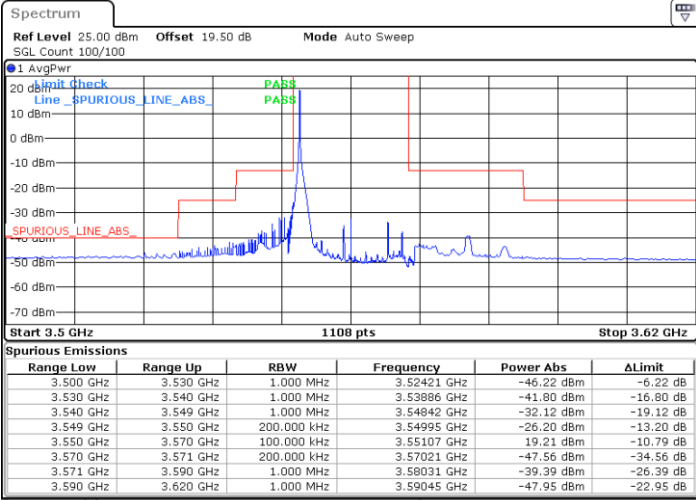


LTE Band 48 / 20MHz

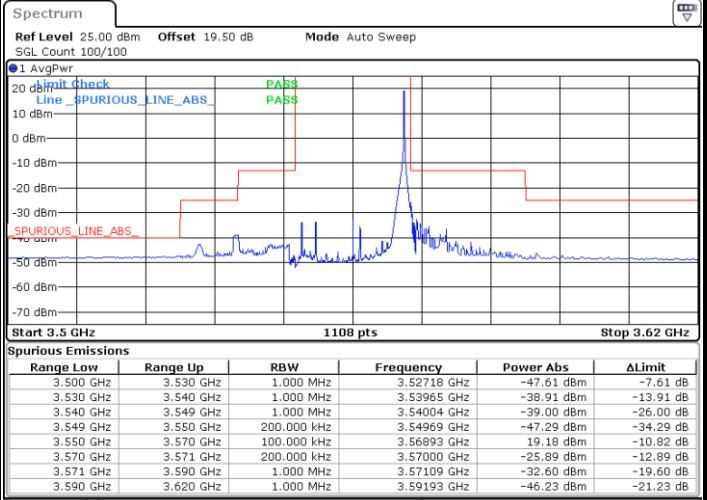
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



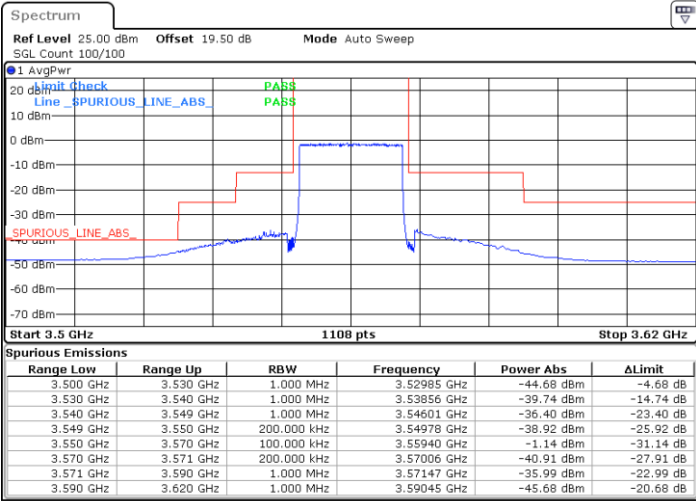
Date: 20.MAR.2024 07:42:22



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

Lowest Channel / FullIRB

N/A



Date: 20.MAR.2024 07:50:31

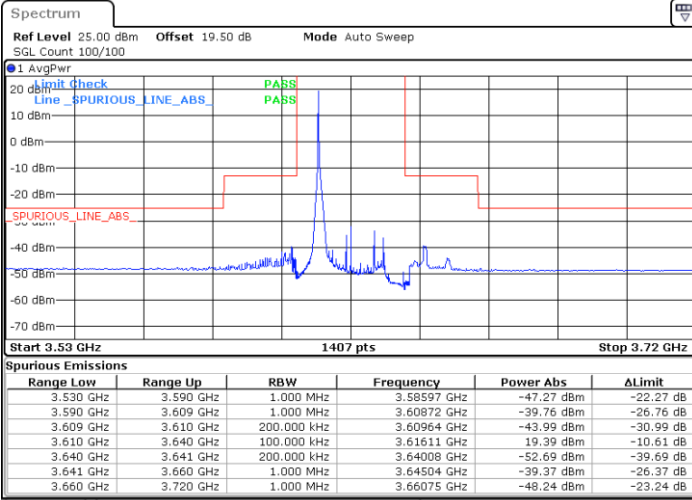


LTE Band 48 / 20MHz

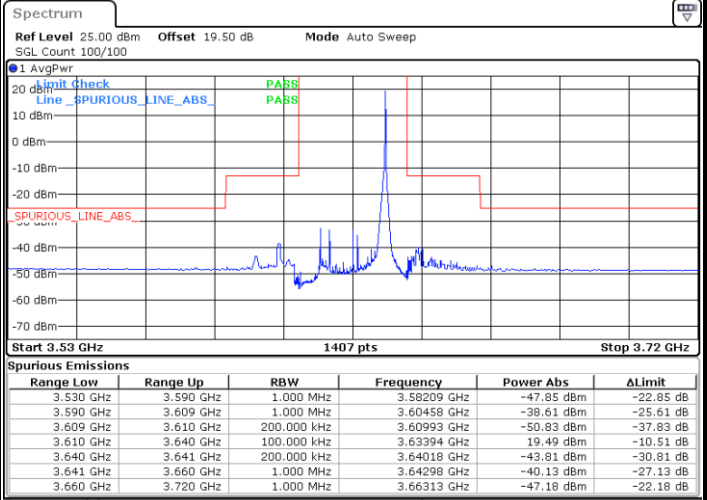
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



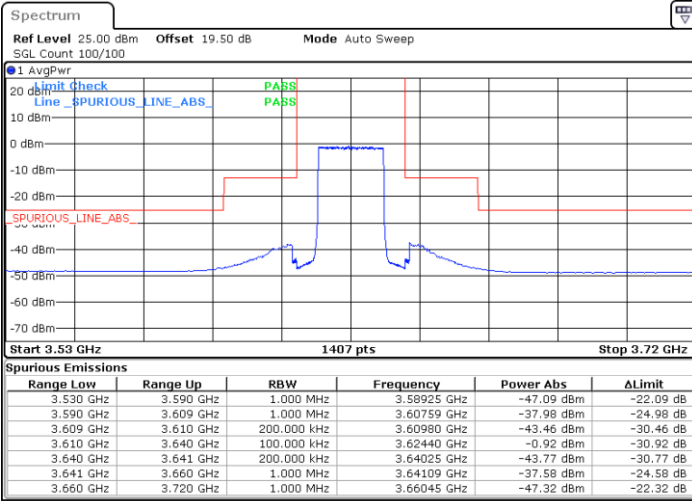
Date: 20.MAR.2024 23:35:08



Date: 20.MAR.2024 23:37:09

Middle Channel / FullIRB

N/A



Date: 20.MAR.2024 23:47:11

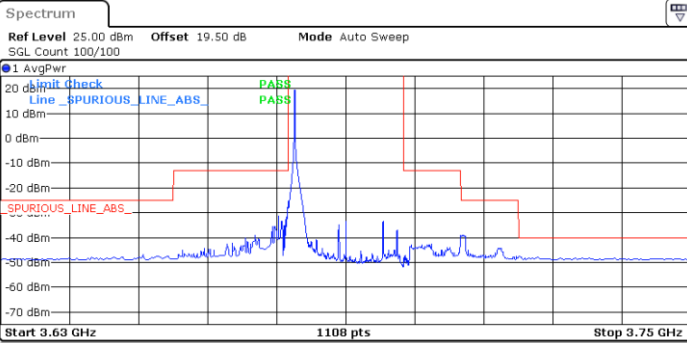


LTE Band 48 / 20MHz

64QAM

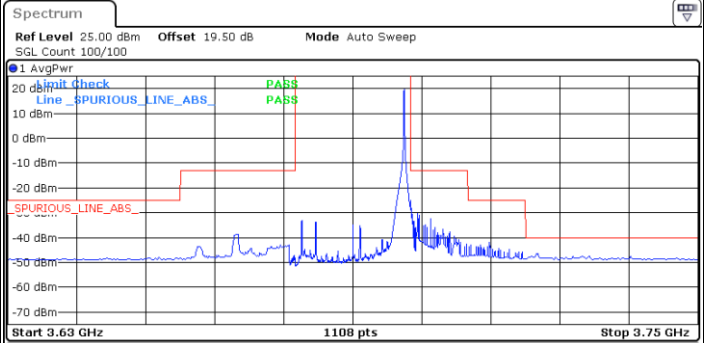
Highest Channel / 1RB0

Highest Channel / 1RBmax



Spurious Emissions

| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.630 GHz | 3.660 GHz | 1.000 MHz   | 3.65480 GHz | -46.96 dBm | -21.96 dB |
| 3.660 GHz | 3.679 GHz | 1.000 MHz   | 3.67834 GHz | -31.32 dBm | -18.32 dB |
| 3.679 GHz | 3.680 GHz | 200.000 kHz | 3.67997 GHz | -25.49 dBm | -12.49 dB |
| 3.680 GHz | 3.700 GHz | 100.000 kHz | 3.68107 GHz | 19.29 dBm  | -10.71 dB |
| 3.700 GHz | 3.701 GHz | 200.000 kHz | 3.70030 GHz | -47.33 dBm | -34.33 dB |
| 3.701 GHz | 3.710 GHz | 1.000 MHz   | 3.70996 GHz | -39.15 dBm | -26.15 dB |
| 3.710 GHz | 3.720 GHz | 1.000 MHz   | 3.71045 GHz | -39.09 dBm | -14.09 dB |
| 3.720 GHz | 3.750 GHz | 1.000 MHz   | 3.72015 GHz | -47.62 dBm | -7.62 dB  |



Spurious Emissions

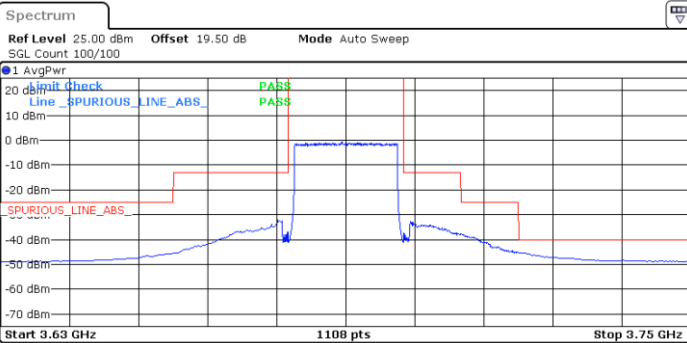
| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.630 GHz | 3.660 GHz | 1.000 MHz   | 3.65629 GHz | -47.73 dBm | -22.73 dB |
| 3.660 GHz | 3.679 GHz | 1.000 MHz   | 3.66969 GHz | -38.63 dBm | -25.63 dB |
| 3.679 GHz | 3.680 GHz | 200.000 kHz | 3.67976 GHz | -47.08 dBm | -34.08 dB |
| 3.680 GHz | 3.700 GHz | 100.000 kHz | 3.69893 GHz | 19.62 dBm  | -10.38 dB |
| 3.700 GHz | 3.701 GHz | 200.000 kHz | 3.70002 GHz | -25.10 dBm | -12.10 dB |
| 3.701 GHz | 3.710 GHz | 1.000 MHz   | 3.70122 GHz | -30.13 dBm | -17.13 dB |
| 3.710 GHz | 3.720 GHz | 1.000 MHz   | 3.71371 GHz | -41.86 dBm | -16.86 dB |
| 3.720 GHz | 3.750 GHz | 1.000 MHz   | 3.72193 GHz | -46.45 dBm | -6.45 dB  |

Date: 20.MAR.2024 08:31:02

Date: 20.MAR.2024 08:32:23

Highest Channel / FullRB

N/A



Spurious Emissions

| Range Low | Range Up  | RBW         | Frequency   | Power Abs  | ΔLimit    |
|-----------|-----------|-------------|-------------|------------|-----------|
| 3.630 GHz | 3.660 GHz | 1.000 MHz   | 3.65955 GHz | -45.73 dBm | -20.73 dB |
| 3.660 GHz | 3.679 GHz | 1.000 MHz   | 3.67815 GHz | -31.97 dBm | -18.97 dB |
| 3.679 GHz | 3.680 GHz | 200.000 kHz | 3.67982 GHz | -36.90 dBm | -23.90 dB |
| 3.680 GHz | 3.700 GHz | 100.000 kHz | 3.68940 GHz | -0.75 dBm  | -30.75 dB |
| 3.700 GHz | 3.701 GHz | 200.000 kHz | 3.70001 GHz | -37.41 dBm | -24.41 dB |
| 3.701 GHz | 3.710 GHz | 1.000 MHz   | 3.70122 GHz | -32.87 dBm | -19.87 dB |
| 3.710 GHz | 3.720 GHz | 1.000 MHz   | 3.71005 GHz | -37.73 dBm | -12.73 dB |
| 3.720 GHz | 3.750 GHz | 1.000 MHz   | 3.72134 GHz | -45.27 dBm | -5.27 dB  |

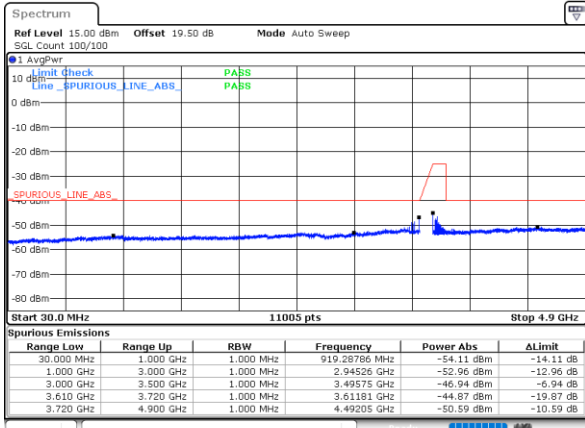
Date: 20.MAR.2024 08:39:09



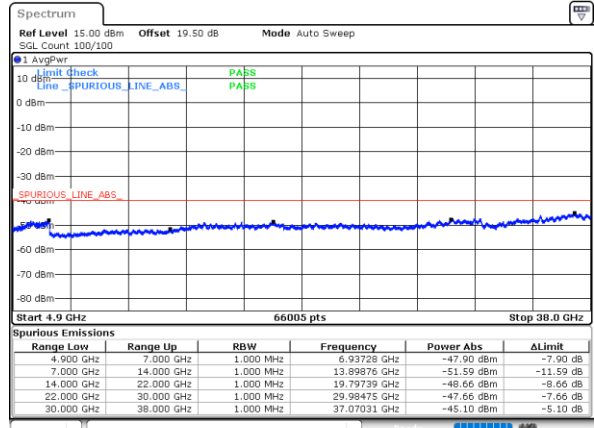
# Conducted Spurious Emission

## LTE Band 48 / 5MHz

### Lowest Channel / QPSK

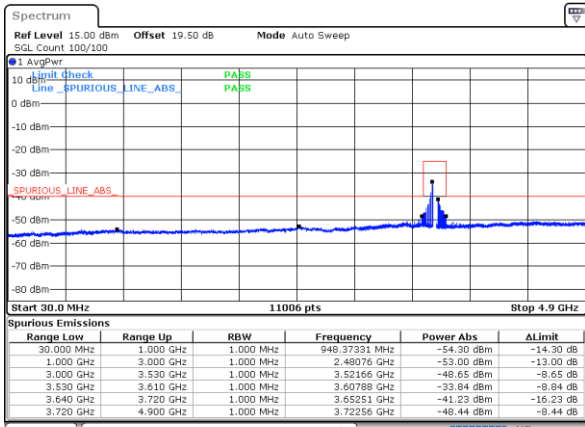


Date: 20\_MAR.2024 22:55:46

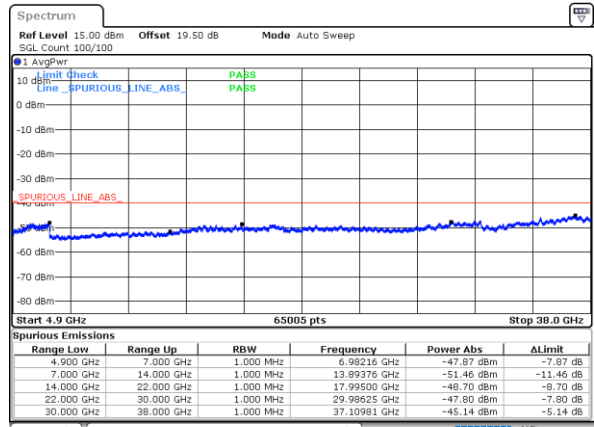


Date: 21\_MAR.2024 00:13:17

### Middle Channel / QPSK

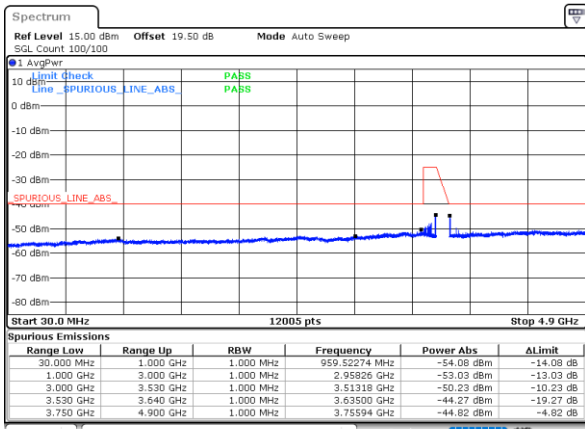


Date: 20\_MAR.2024 22:56:56

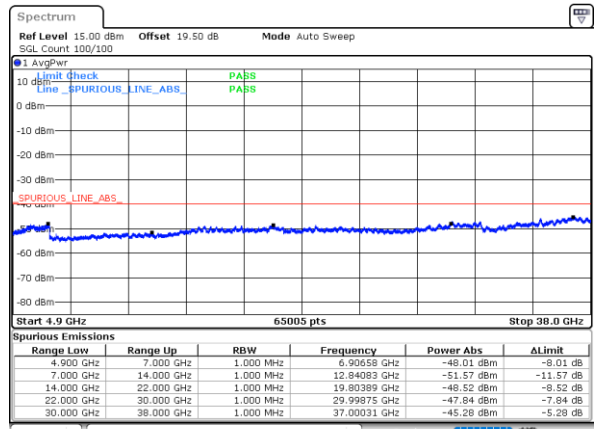


Date: 21\_MAR.2024 00:13:17

### Highest Channel / QPSK



Date: 20\_MAR.2024 22:58:06

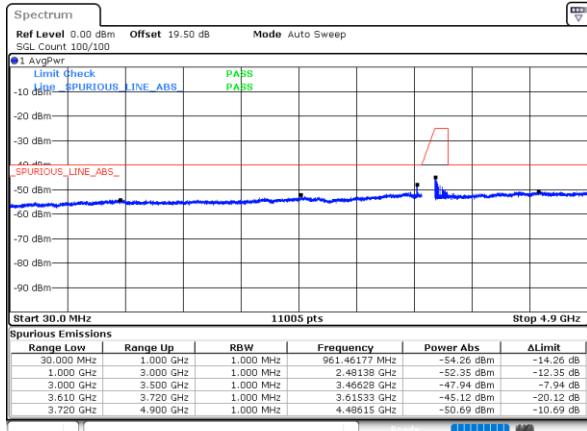


Date: 21\_MAR.2024 00:13:18

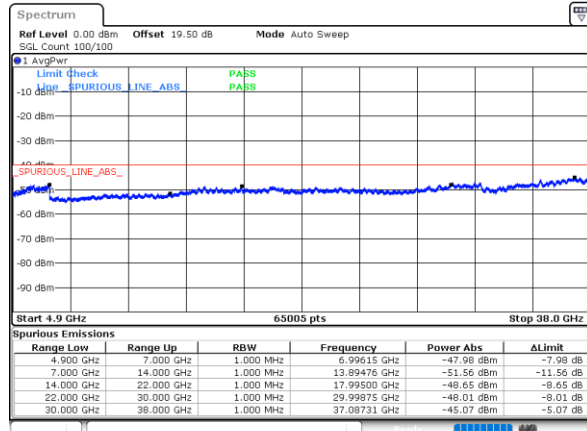


LTE Band 48 / 10MHz

Lowest Channel / QPSK

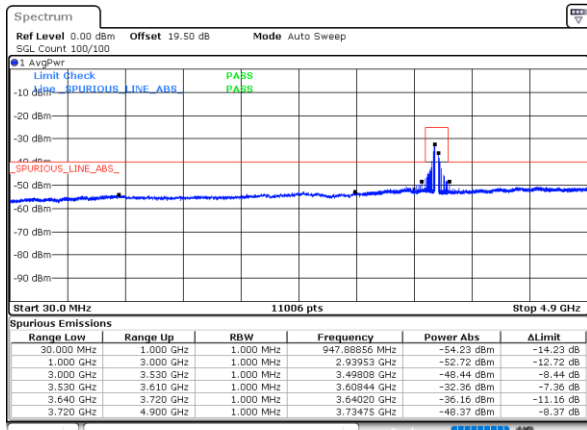


Date: 20\_MAR.2024 23:00:05

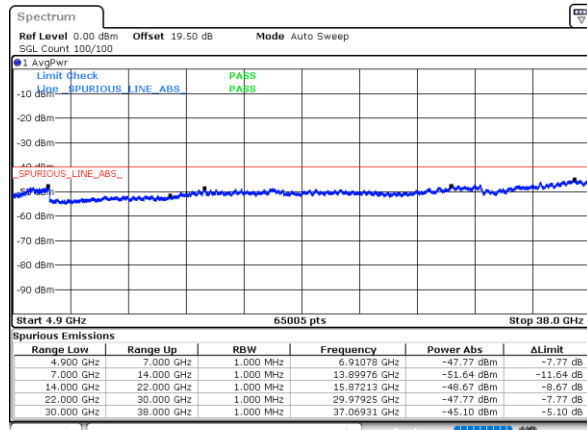


Date: 21\_MAR.2024 00:13:17

Middle Channel / QPSK

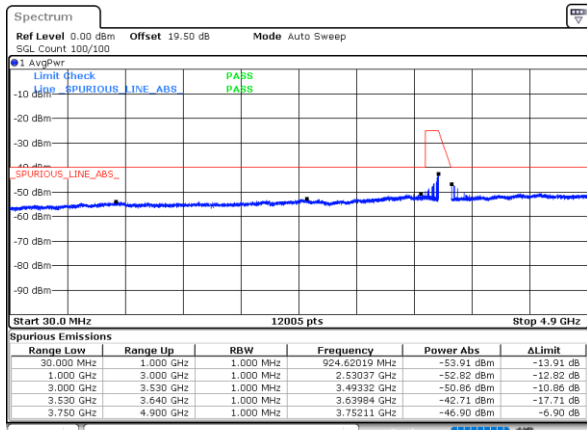


Date: 20\_MAR.2024 23:01:15

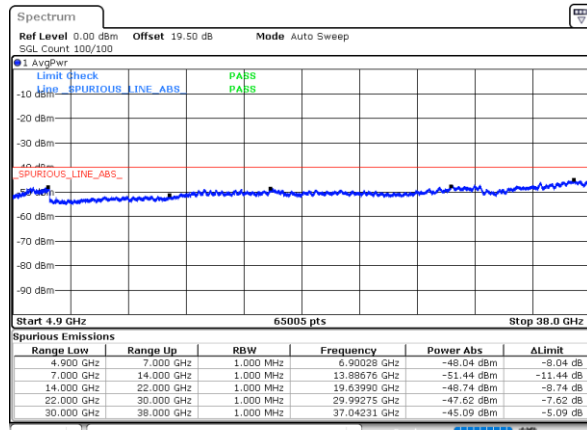


Date: 21\_MAR.2024 00:13:18

Highest Channel / QPSK



Date: 20\_MAR.2024 23:02:25

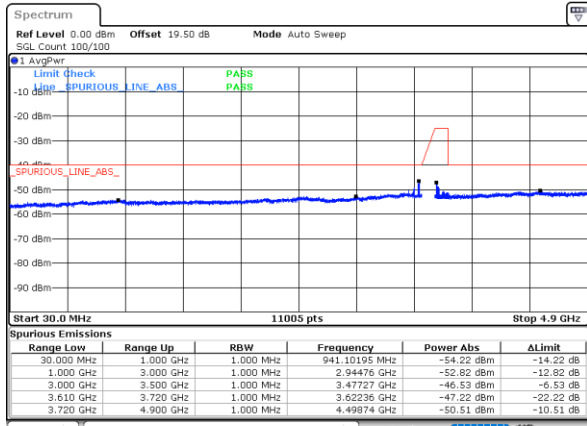


Date: 21\_MAR.2024 00:13:18

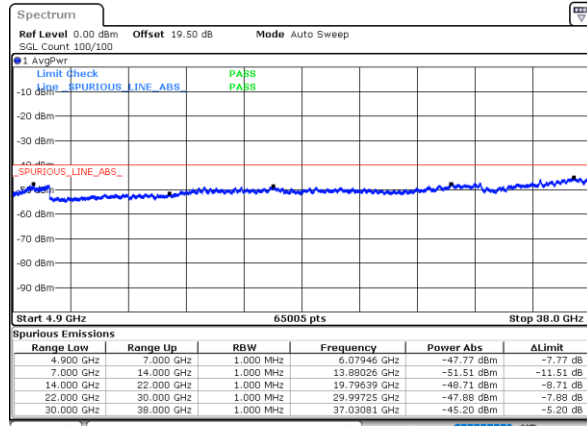


LTE Band 48 / 15MHz

Lowest Channel / QPSK

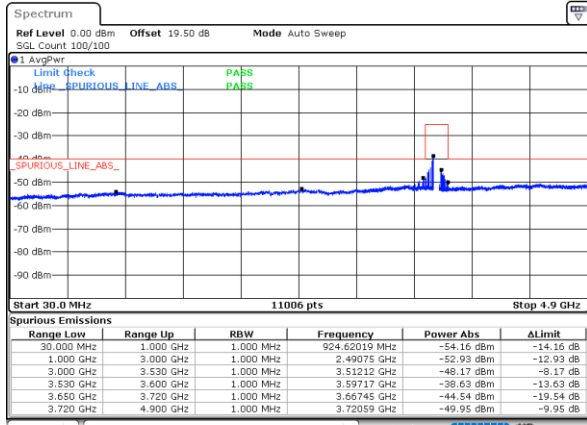


Date: 20\_MAR.2024 23:04:23

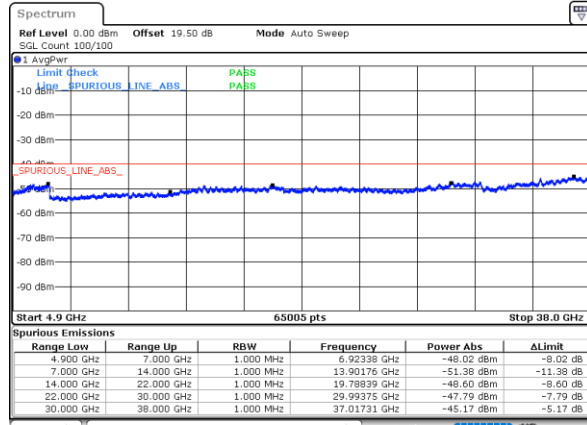


Date: 21\_MAR.2024 00:40:58

Middle Channel / QPSK

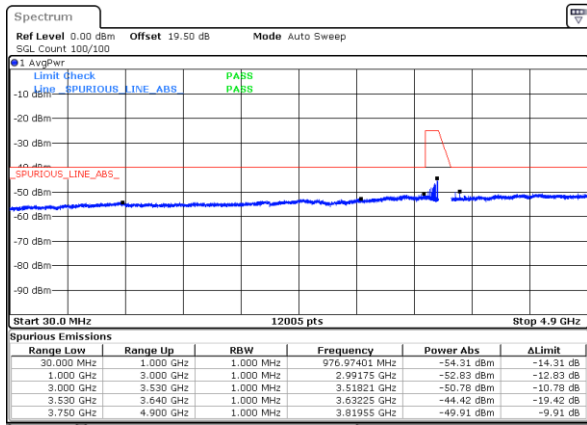


Date: 20\_MAR.2024 23:05:33

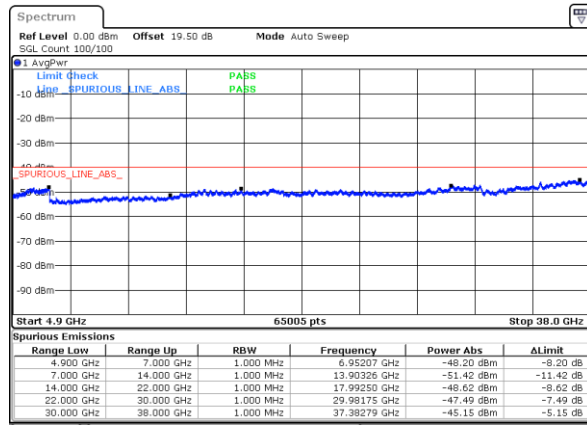


Date: 21\_MAR.2024 00:42:28

Highest Channel / QPSK



Date: 20\_MAR.2024 23:06:44

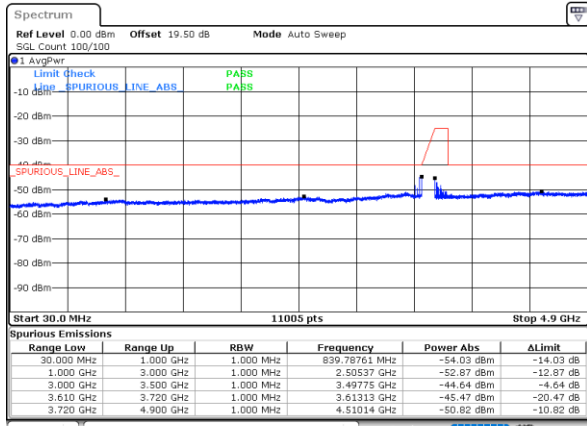


Date: 21\_MAR.2024 00:43:59

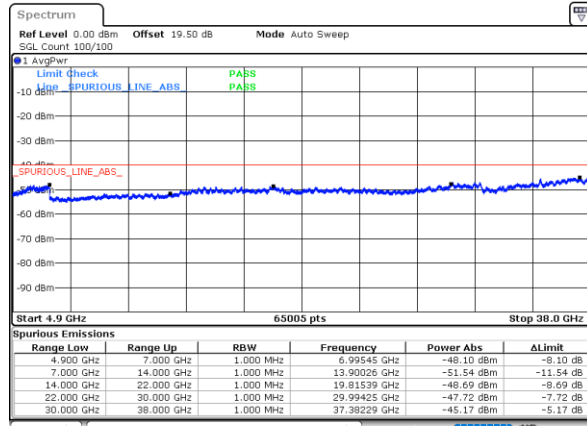


LTE Band 48 / 20MHz

Lowest Channel / QPSK

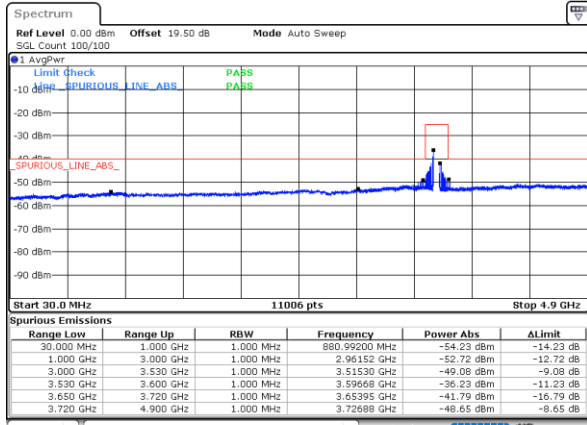


Date: 20\_MAR.2024 23:26:47

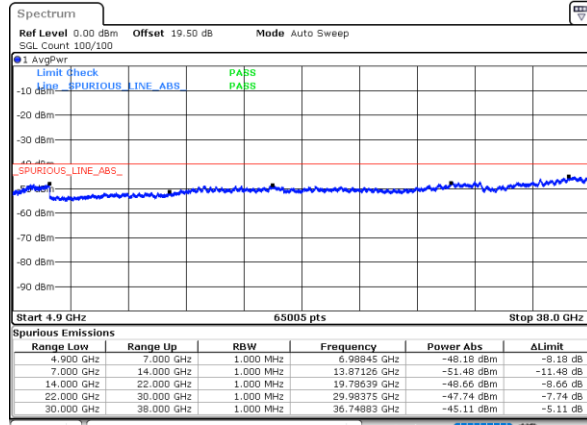


Date: 21\_MAR.2024 00:46:18

Middle Channel / QPSK

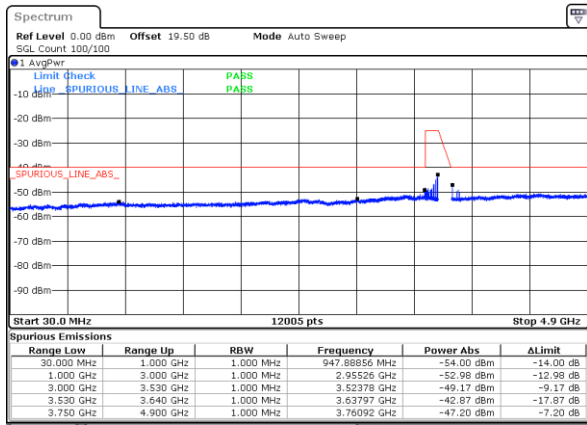


Date: 20\_MAR.2024 23:27:57

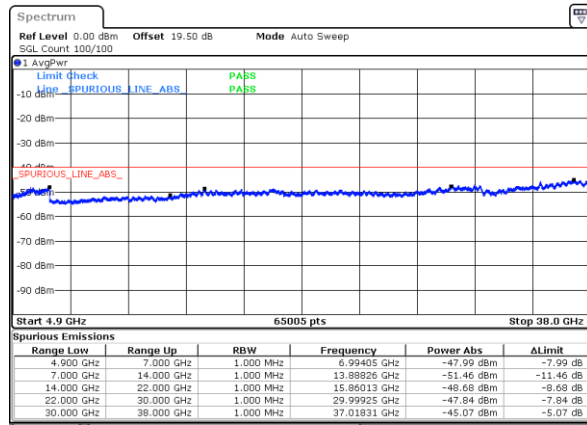


Date: 21\_MAR.2024 00:47:49

Highest Channel / QPSK



Date: 20\_MAR.2024 23:29:07



Date: 21\_MAR.2024 00:49:20



### Frequency Stability

| Test Conditions  |                   | LTE Band 48 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                            | Note 2. |
|                  |                   | Deviation (ppm)                     | Result  |
| 50               | Normal Voltage    | 0.0004                              | PASS    |
| 40               | Normal Voltage    | 0.0003                              |         |
| 30               | Normal Voltage    | 0.0001                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0009                              |         |
| 0                | Normal Voltage    | 0.0007                              |         |
| -10              | Normal Voltage    | 0.0003                              |         |
| -20              | Normal Voltage    | 0.0007                              |         |
| -30              | Normal Voltage    | 0.0010                              |         |
| 20               | Maximum Voltage   | 0.0012                              |         |
| 20               | Normal Voltage    | 0.0000                              |         |
| 20               | Battery End Point | 0.0018                              |         |

**Note:**

- 1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.





## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

|                 |               |                     |         |
|-----------------|---------------|---------------------|---------|
| Test Engineer : | HuaCong Liang | Temperature :       | 22~25°C |
|                 |               | Relative Humidity : | 48~52%  |

| LTE Band 48 / 20MHz / QPSK / Ant.2 |                   |              |               |                   |                   |                    |                      |                       |                    |
|------------------------------------|-------------------|--------------|---------------|-------------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel                            | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle                             | 7232.00           | -56.00       | -40           | -16.00            | -64.68            | -59.30             | 8.30                 | 11.60                 | H                  |
|                                    | 10848.00          | -54.62       | -40           | -14.62            | -68.33            | -56.14             | 10.48                | 12.00                 | H                  |
|                                    | 14464.00          | -53.03       | -40           | -13.03            | -69.25            | -54.73             | 11.80                | 13.50                 | H                  |
|                                    | 7232.00           | -56.60       | -40           | -16.60            | -67.01            | -59.90             | 8.30                 | 11.60                 | V                  |
|                                    | 10848.00          | -52.58       | -40           | -12.58            | -67.91            | -54.10             | 10.48                | 12.00                 | V                  |
|                                    | 14464.00          | -54.17       | -40           | -14.17            | -69.98            | -55.87             | 11.80                | 13.50                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.