

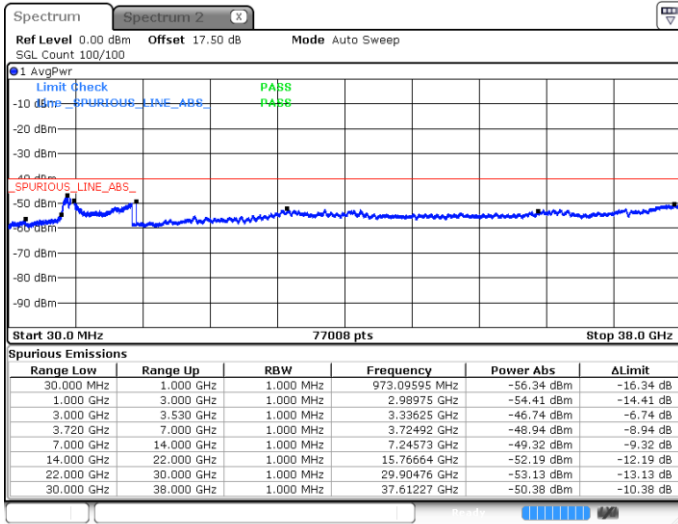


LTE Band 48 / 5MHz

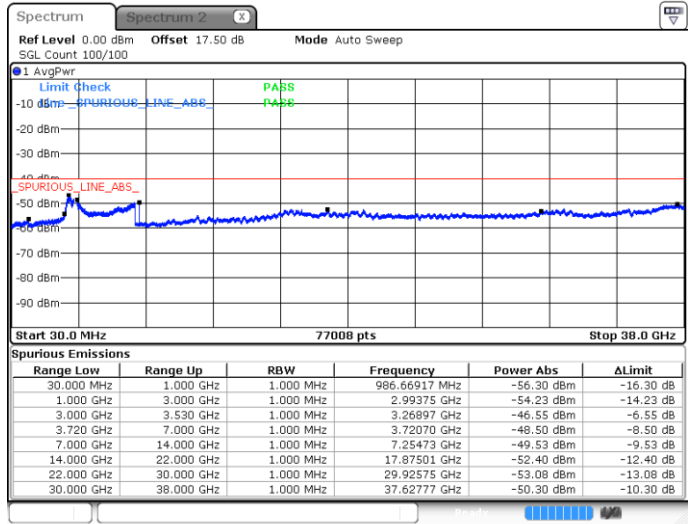
QPSK

Middle Channel / 1RB0

Middle Channel / 1RBmax



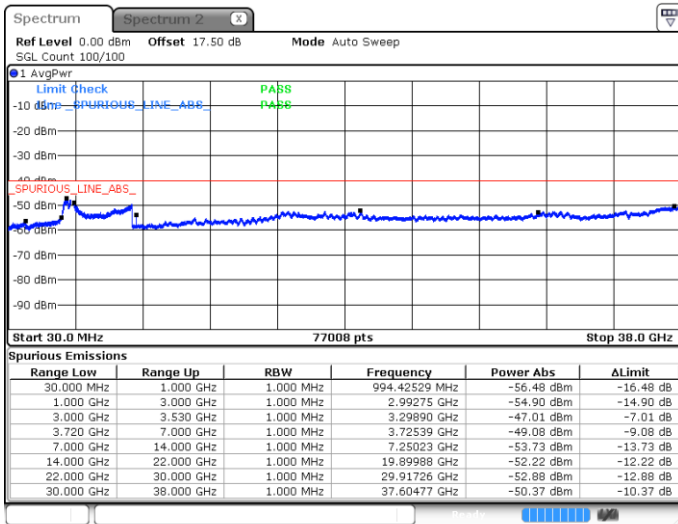
Date: 4 MAY 2020 01:13:31



Date: 4 MAY 2020 01:26:53

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 01:20:12

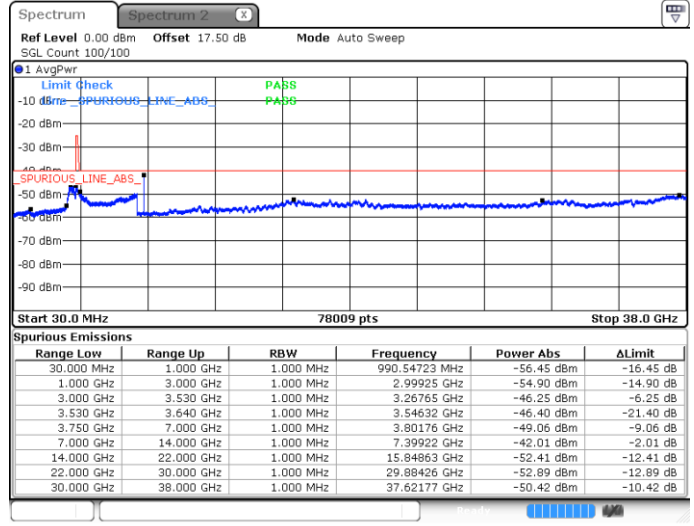
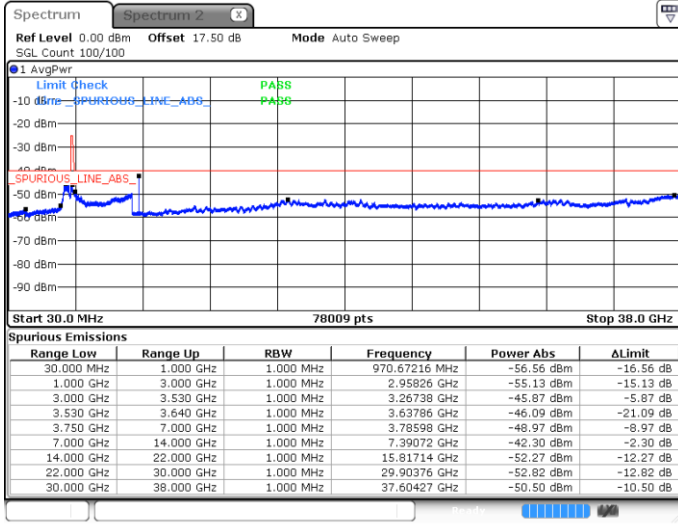


LTE Band 48 / 5MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

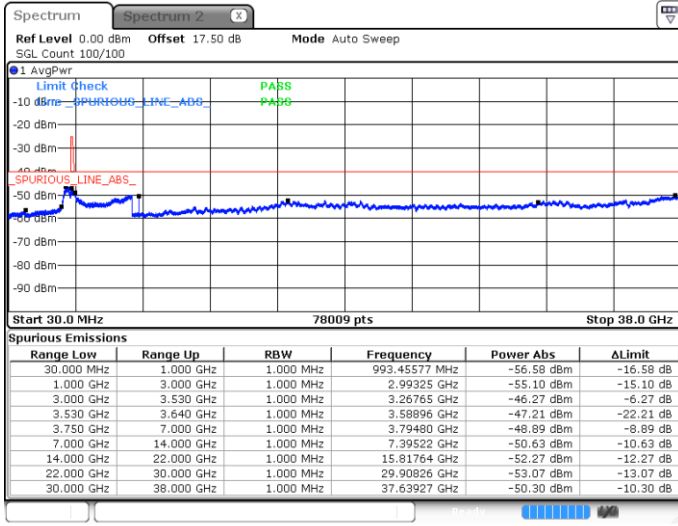


Date: 4 MAY 2020 01:14:38

Date: 4 MAY 2020 01:28:00

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 01:21:19

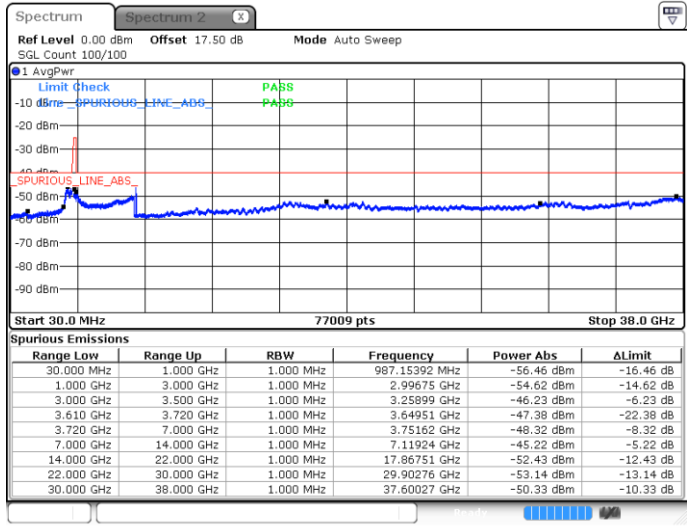
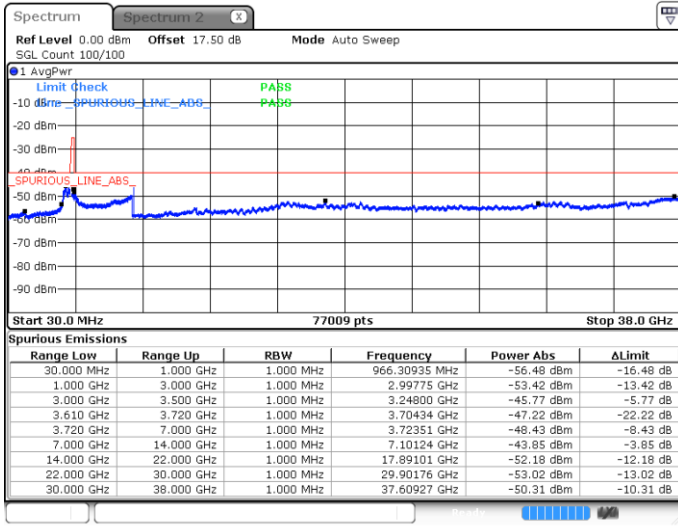


LTE Band 48 / 10MHz

QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

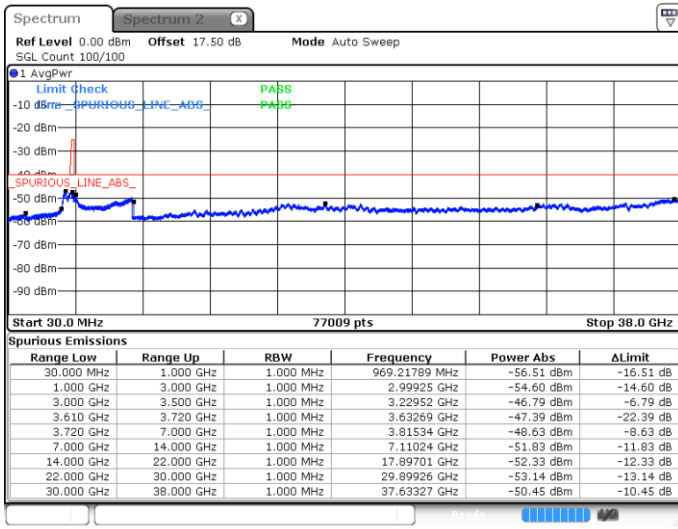


Date: 4 MAY 2020 01:31:24

Date: 4 MAY 2020 01:44:47

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 01:38:05

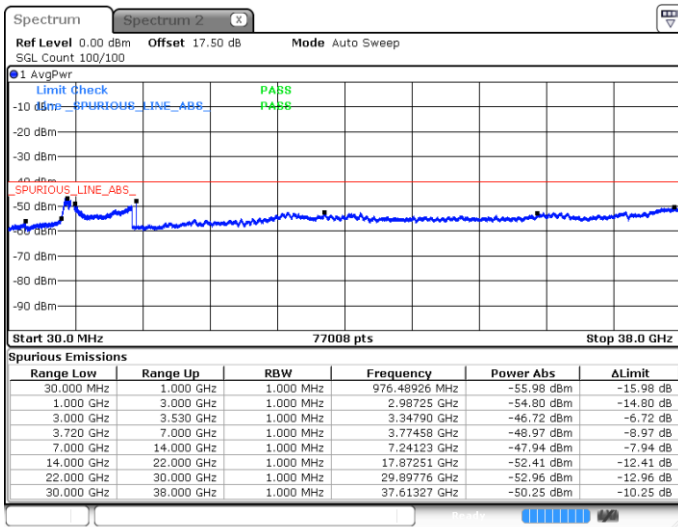


LTE Band 48 / 10MHz

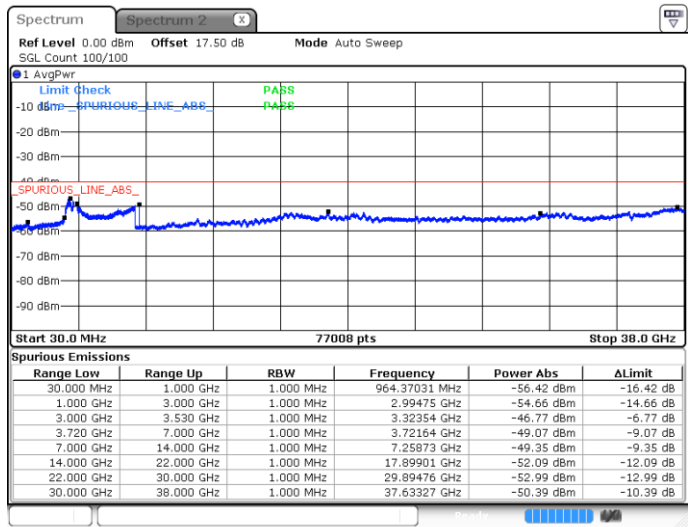
QPSK

MiddleChannel / 1RB0

Middle Channel / 1RBmax



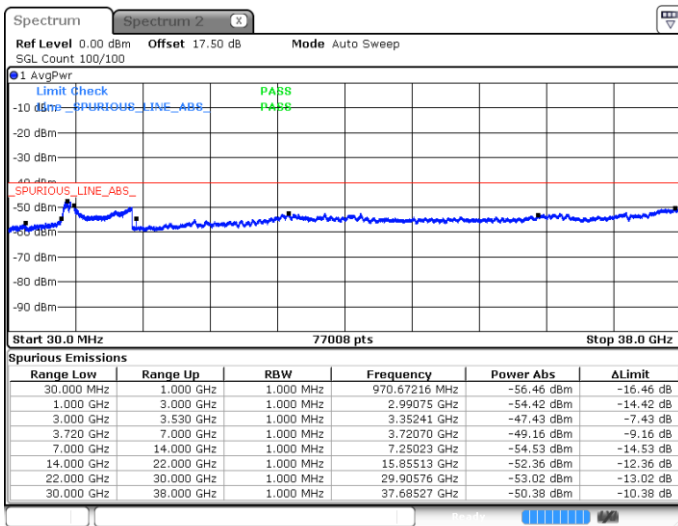
Date: 4 MAY 2020 01:32:30



Date: 4 MAY 2020 01:45:53

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 01:39:12

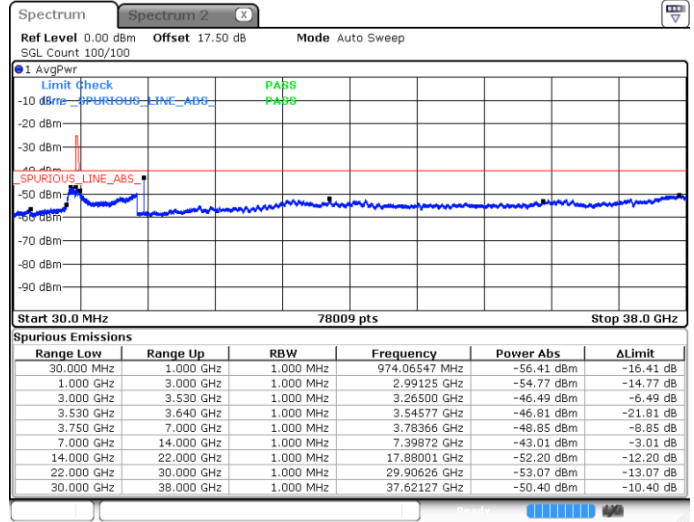
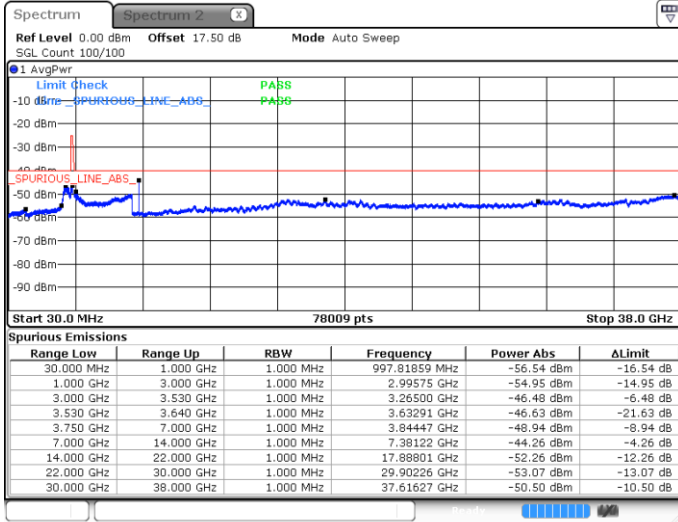


LTE Band 48 / 10MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

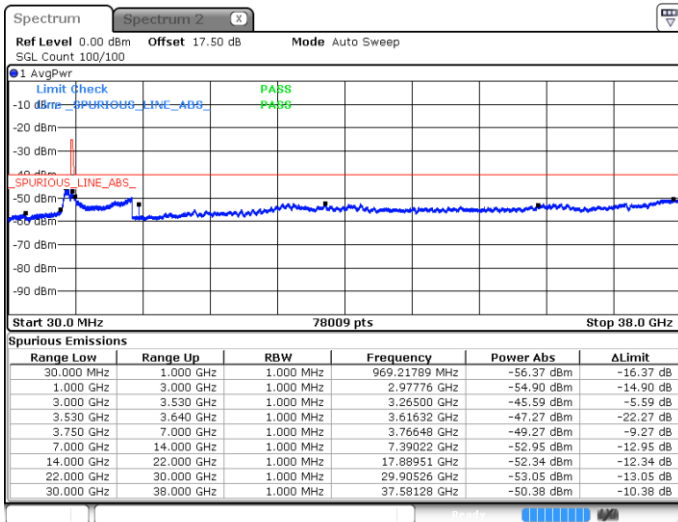


Date: 4 MAY 2020 01:35:51

Date: 4 MAY 2020 01:49:14

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 01:42:33

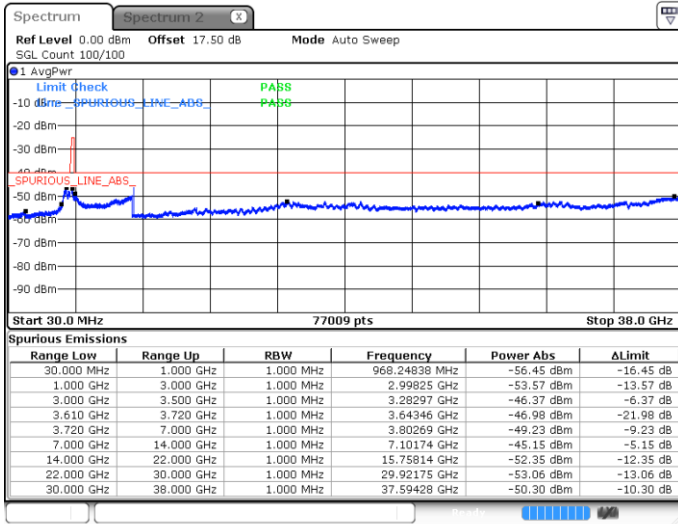


LTE Band 48 / 15MHz

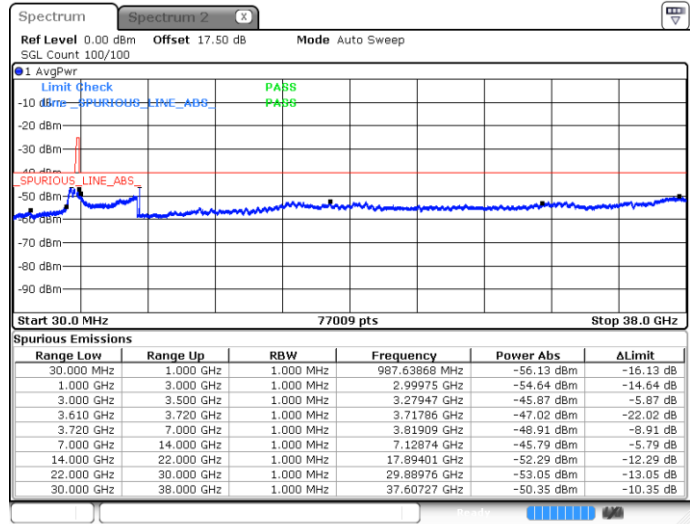
QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



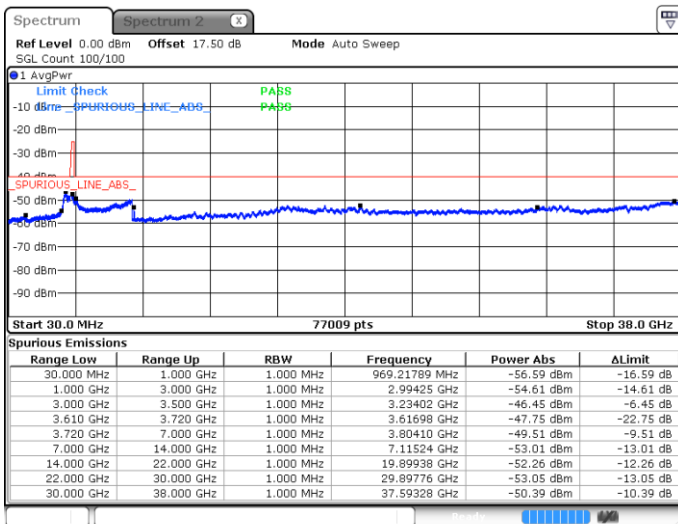
Date: 4 MAY 2020 01:50:23



Date: 4 MAY 2020 02:03:46

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 01:57:04

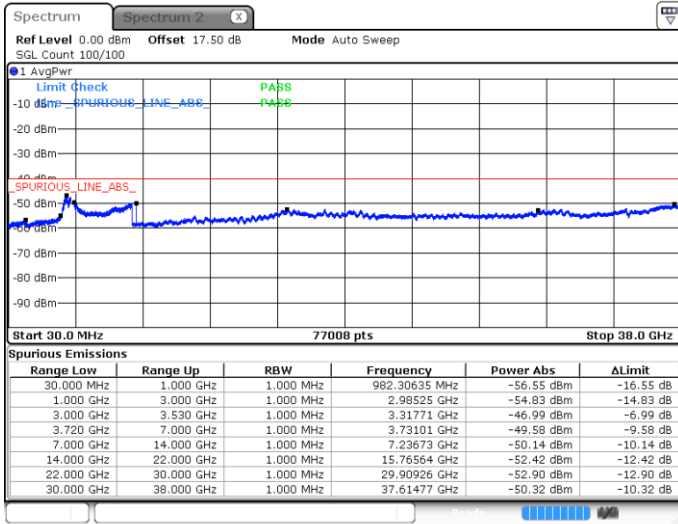


LTE Band 48 / 15MHz

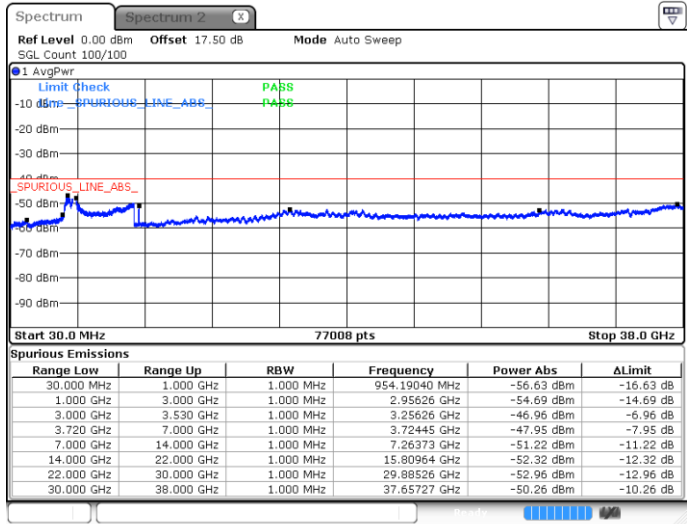
QPSK

Middle Channel / 1RB0

Middle Channel / 1RBmax



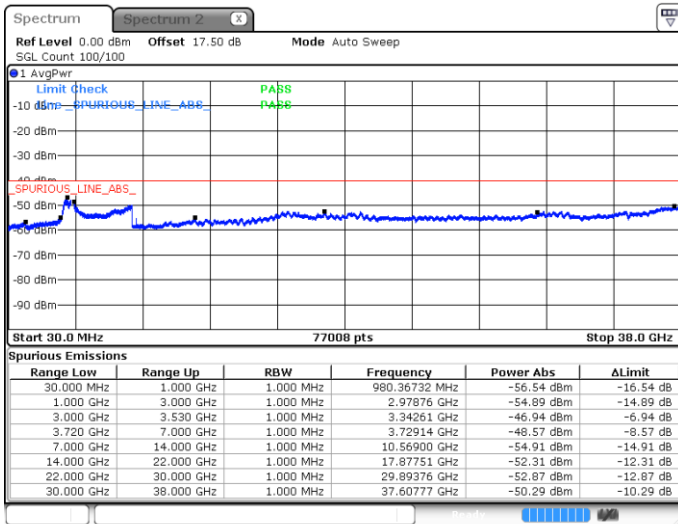
Date: 4 MAY 2020 01:53:43



Date: 4 MAY 2020 02:07:06

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 02:00:24

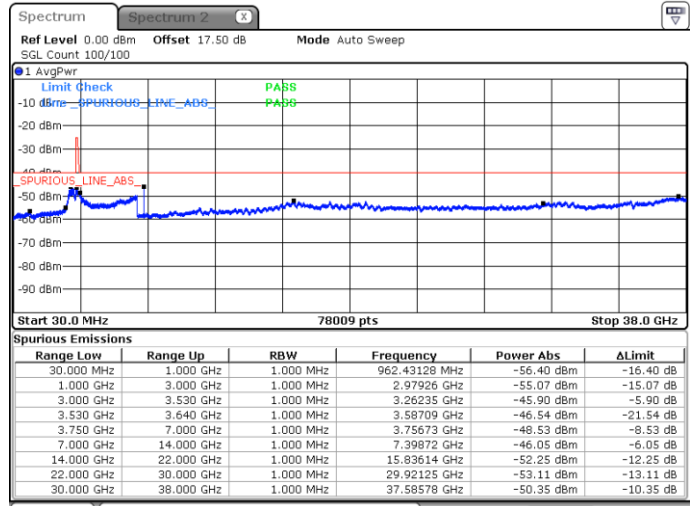
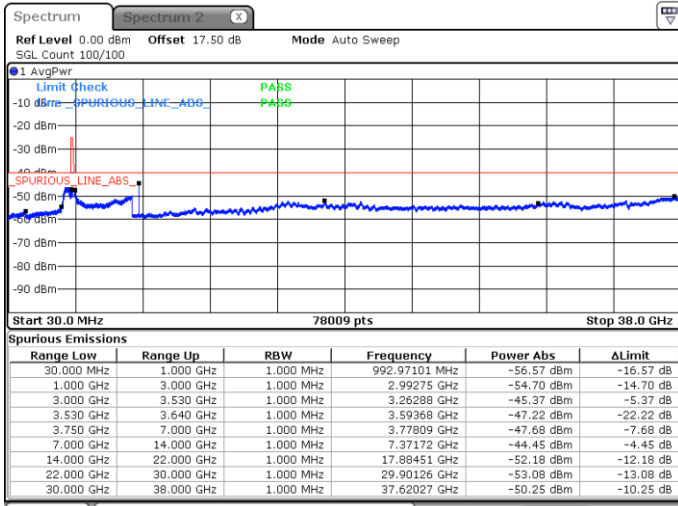


LTE Band 48 / 15MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

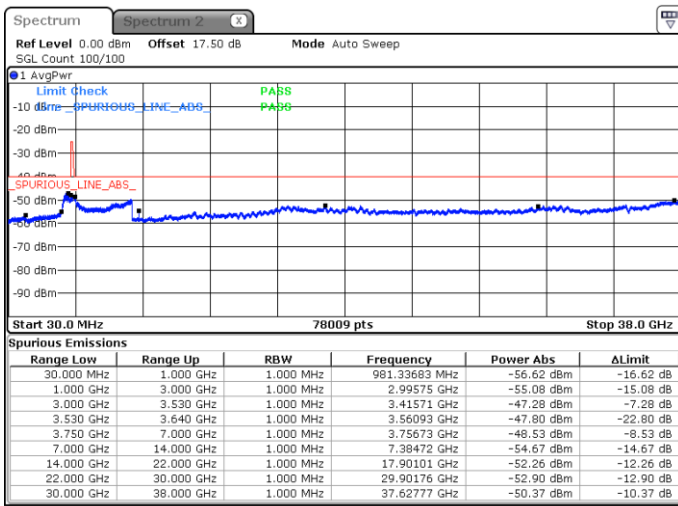


Date: 4 MAY 2020 01:54:50

Date: 4 MAY 2020 02:08:13

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 02:01:31



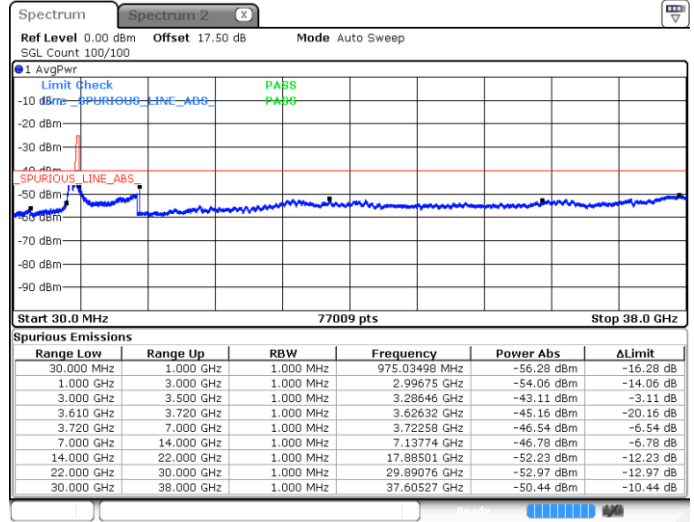
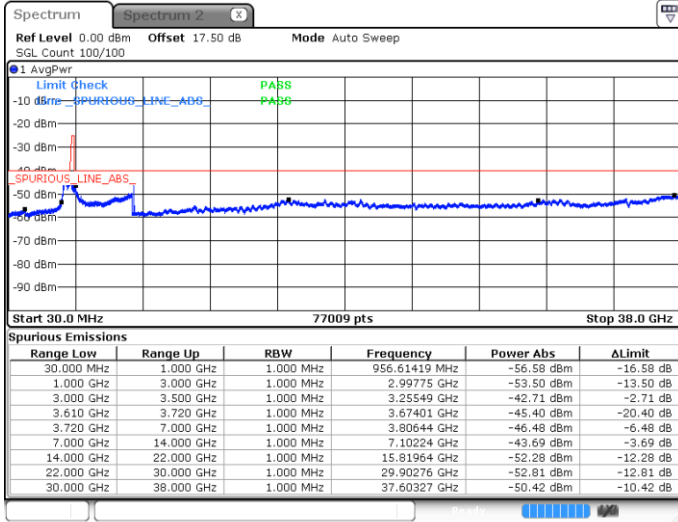


LTE Band 48 / 20MHz

QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

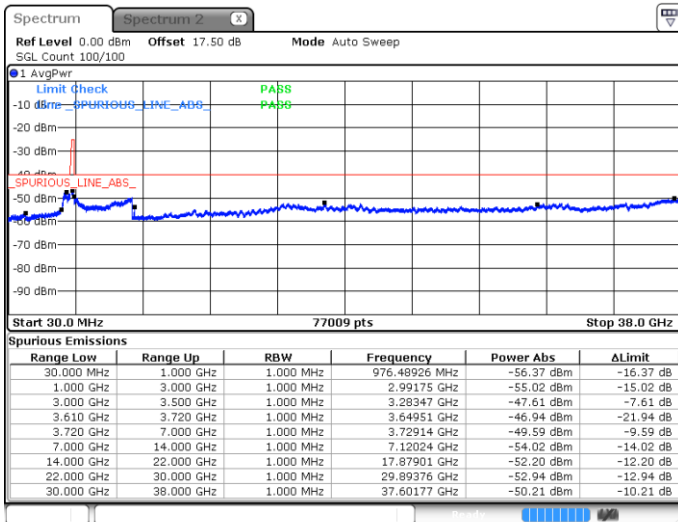


Date: 4 MAY 2020 02:18:17

Date: 4 MAY 2020 02:22:46

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 02:11:36

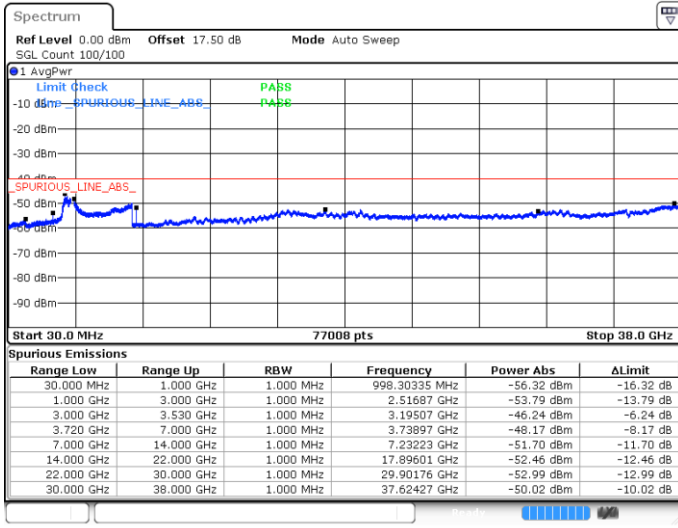


LTE Band 48 / 20MHz

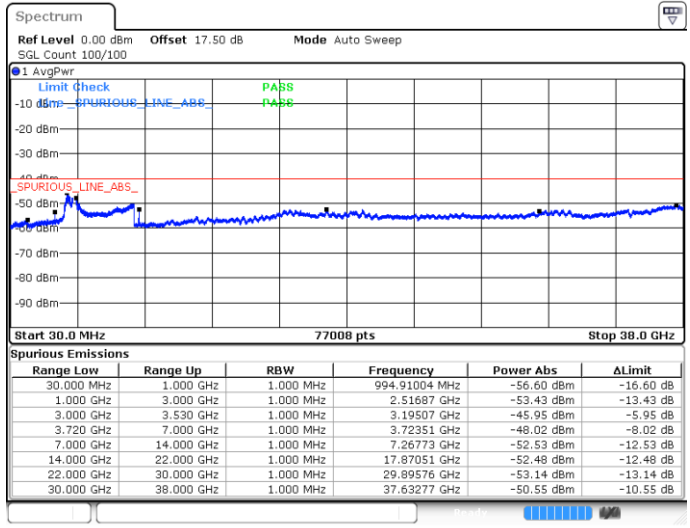
QPSK

Middle Channel / 1RB0

Middle Channel / 1RBmax



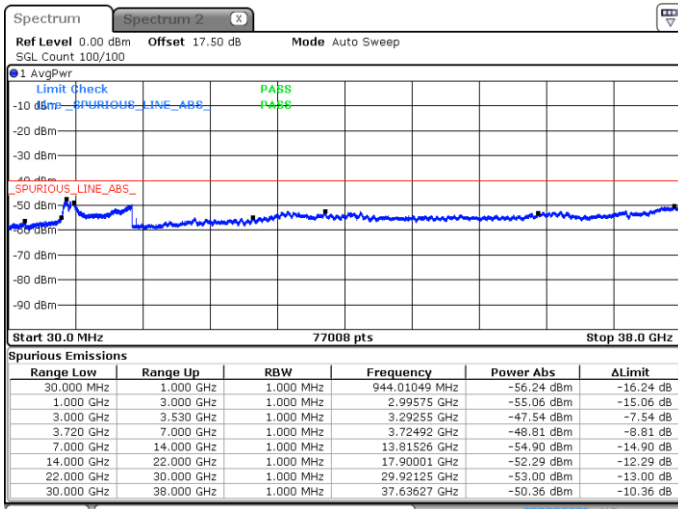
Date: 30 APR 2020 00:56:20



Date: 30 APR 2020 01:00:47

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 02:12:42

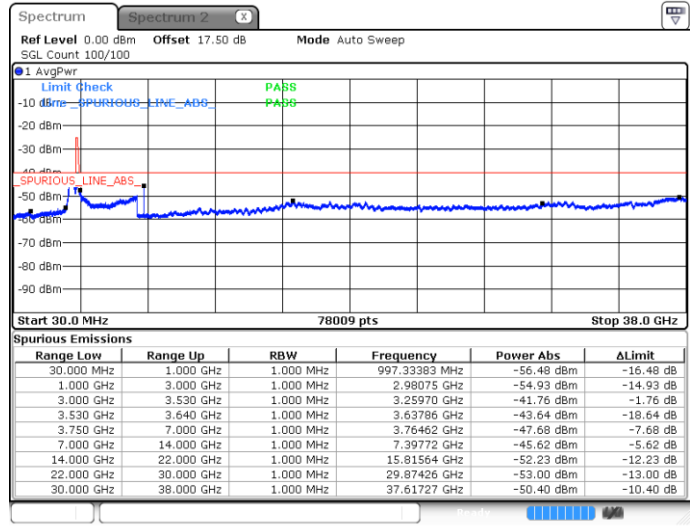
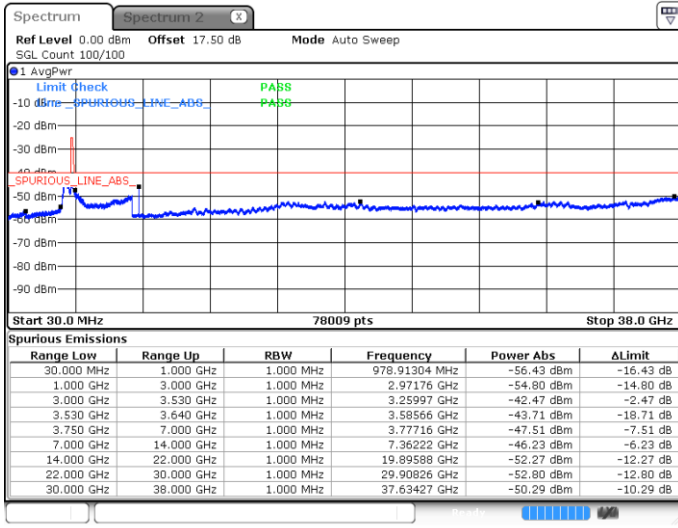


LTE Band 48 / 20MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

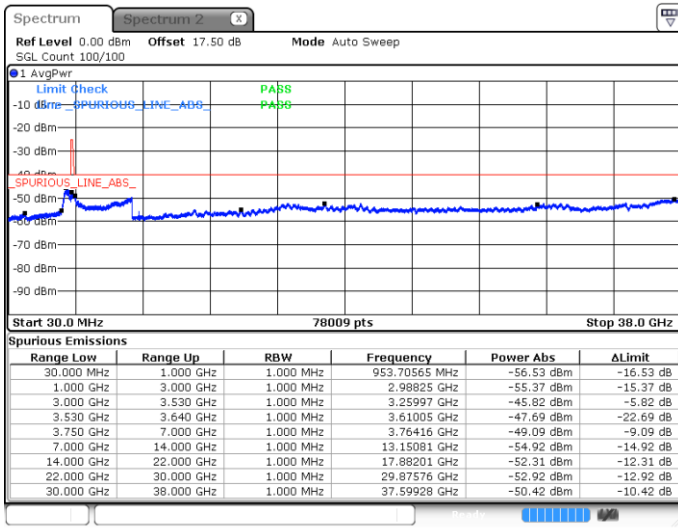


Date: 4 MAY 2020 02:20:32

Date: 4 MAY 2020 02:25:01

Highest Channel / FullIRB

N/A



Date: 4 MAY 2020 02:16:03

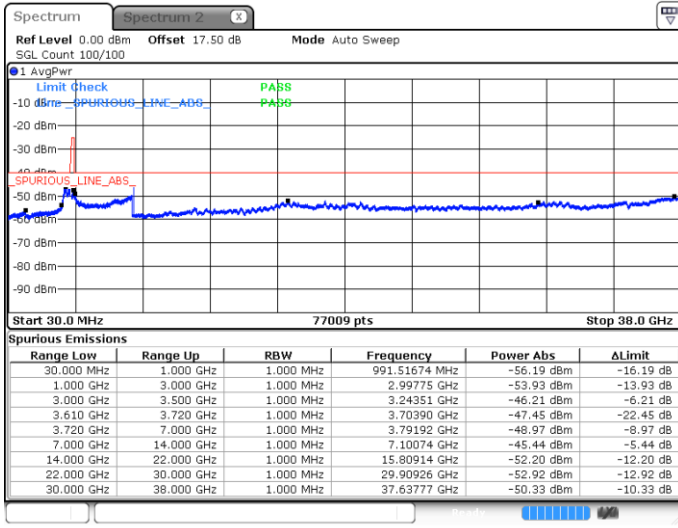


LTE Band 48 / 5MHz

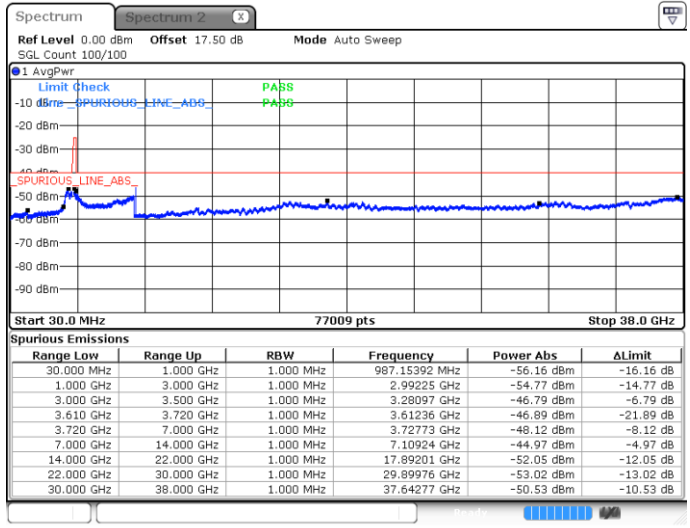
16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



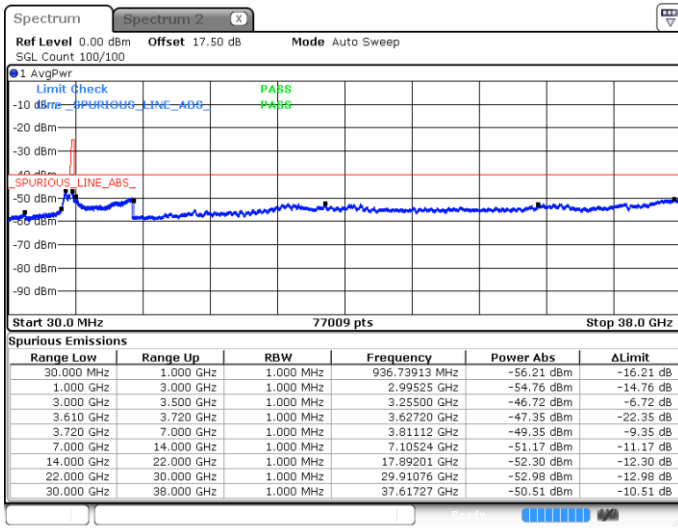
Date: 4 MAY 2020 01:11:18



Date: 4 MAY 2020 01:24:40

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 01:17:59

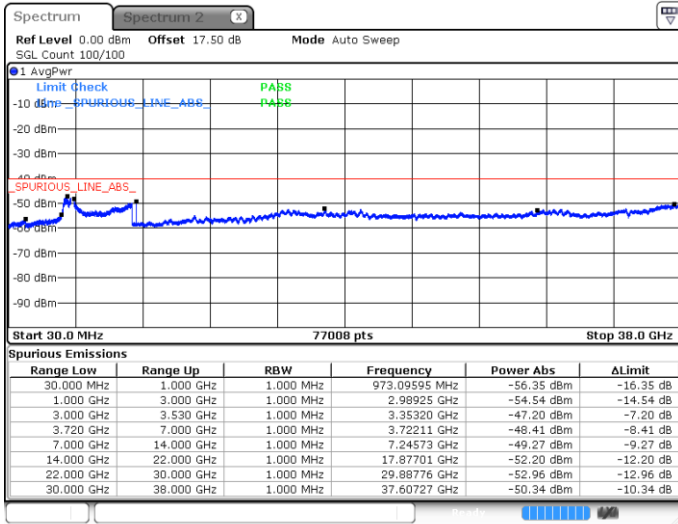


LTE Band 48 / 5MHz

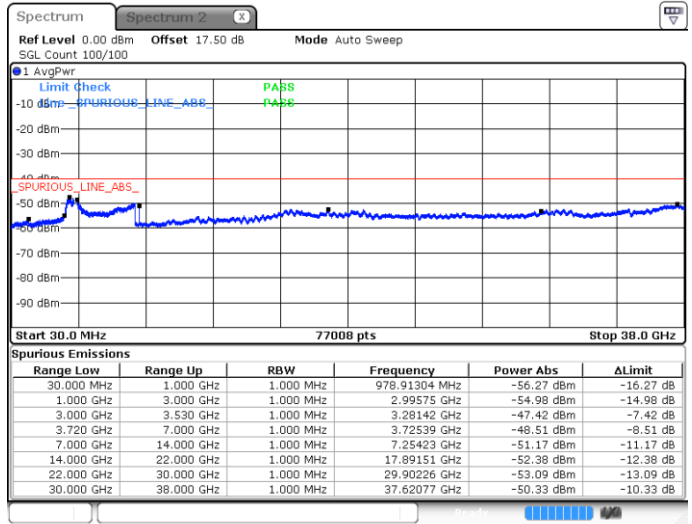
16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



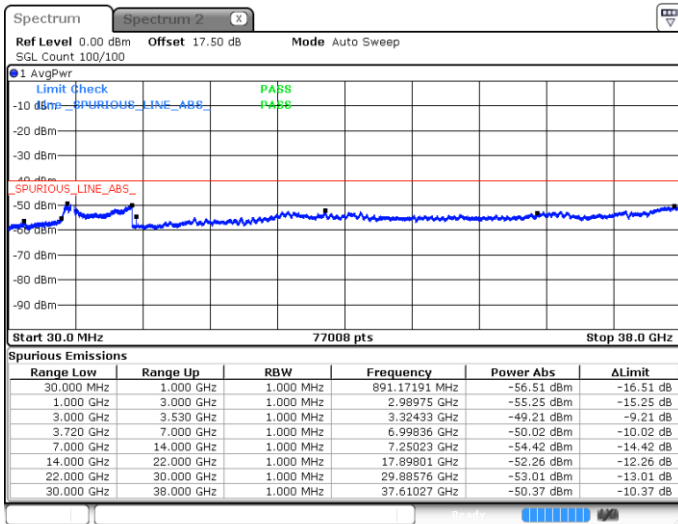
Date: 4 MAY 2020 01:12:24



Date: 4 MAY 2020 01:25:47

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 01:19:06

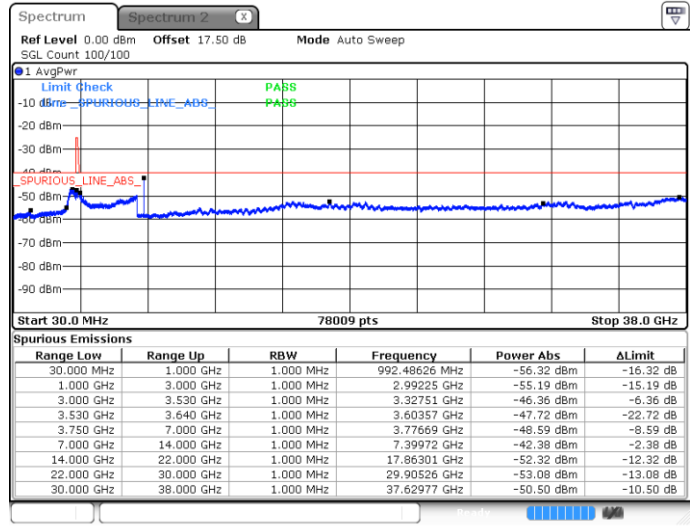
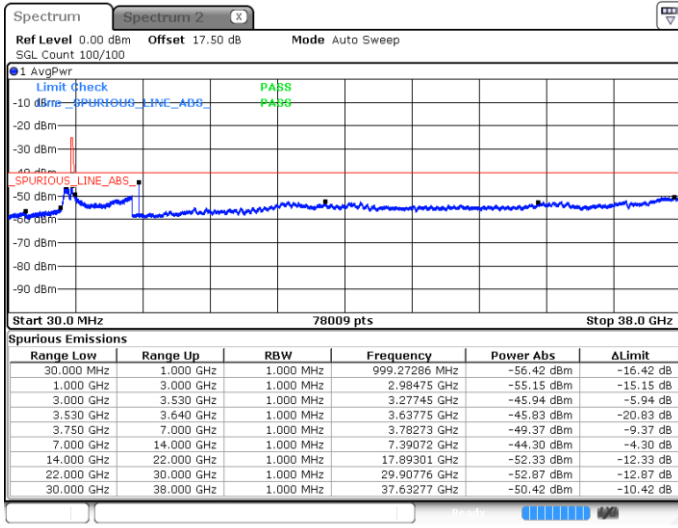


LTE Band 48 / 5MHz

16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

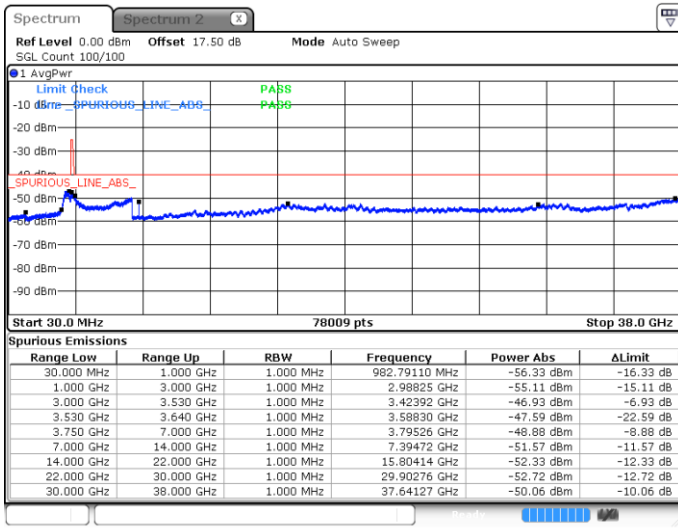


Date: 4 MAY 2020 01:15:45

Date: 4 MAY 2020 01:29:08

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 01:22:26

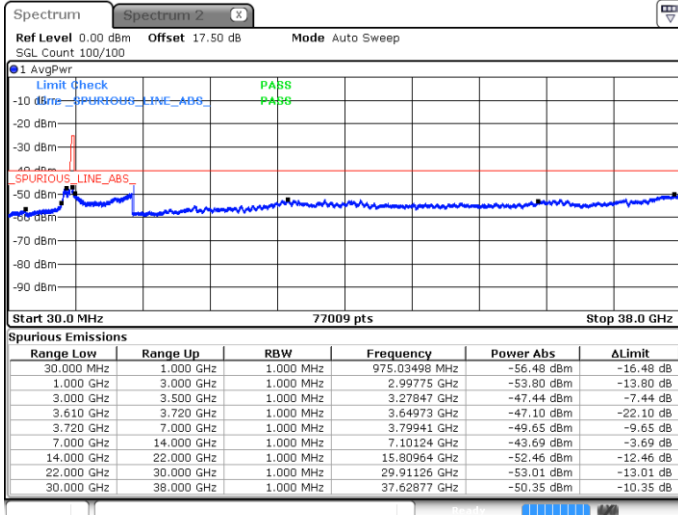


LTE Band 48 / 10MHz

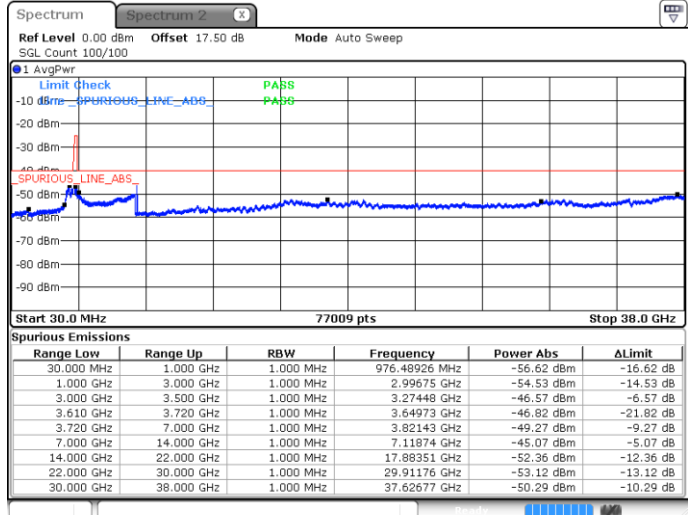
16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



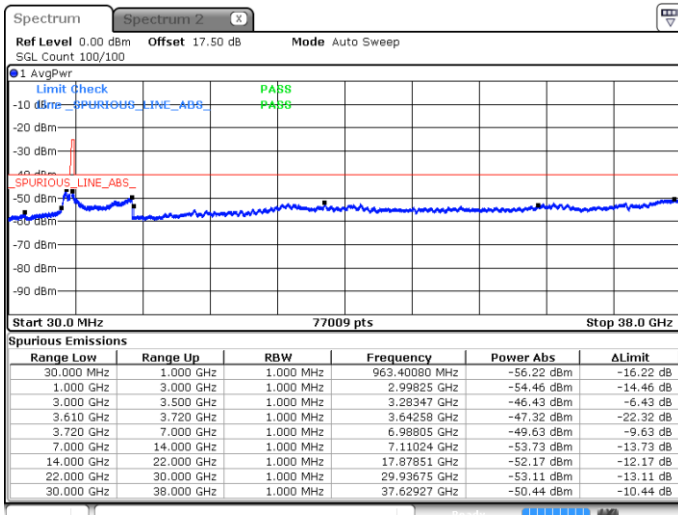
Date: 4 MAY 2020 01:30:17



Date: 4 MAY 2020 01:43:40

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 01:36:58

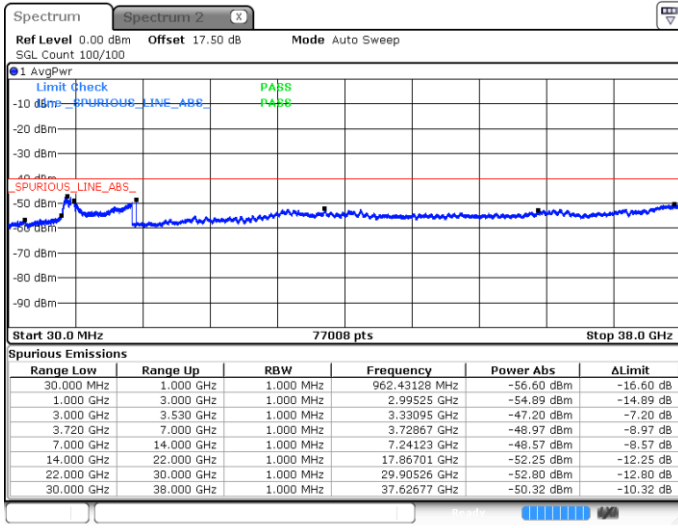


LTE Band 48 / 10MHz

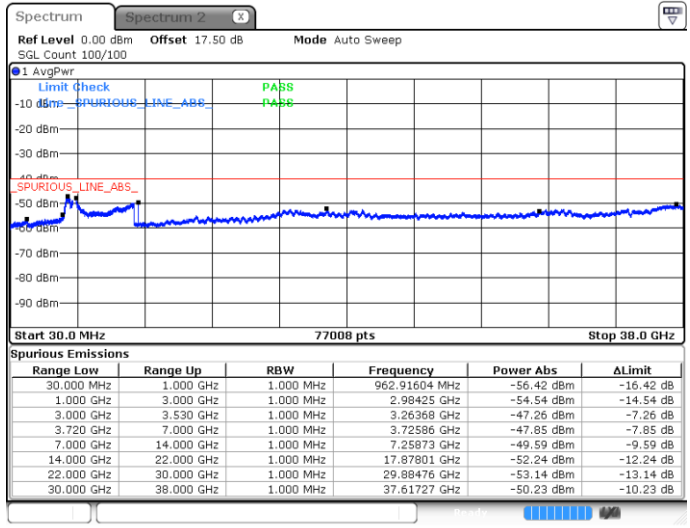
16QAM

MiddleChannel / 1RB0

Middle Channel / 1RBmax



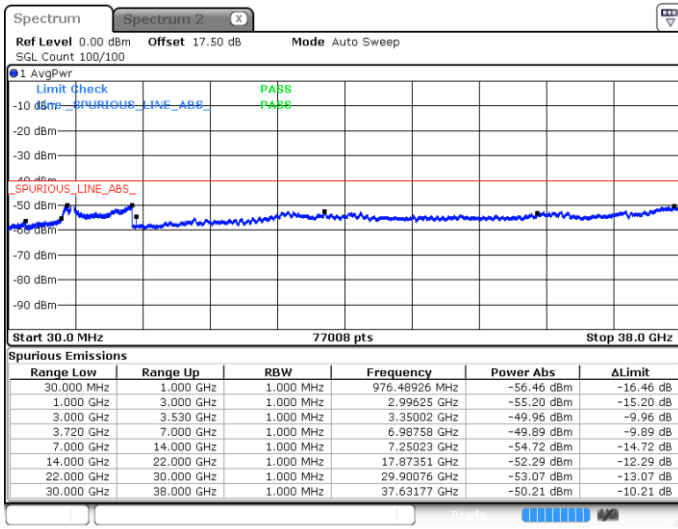
Date: 4 MAY 2020 01:33:37



Date: 4 MAY 2020 01:47:00

Middle Channel / FullIRB

N/A



Date: 4 MAY 2020 01:40:18



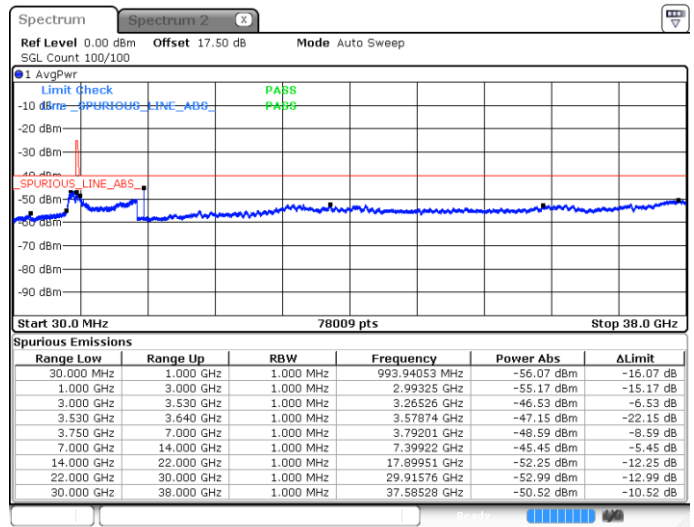
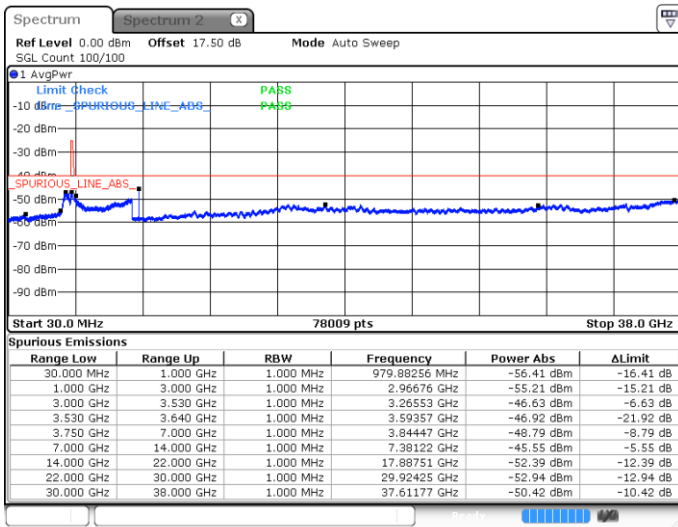


LTE Band 48 / 10MHz

16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

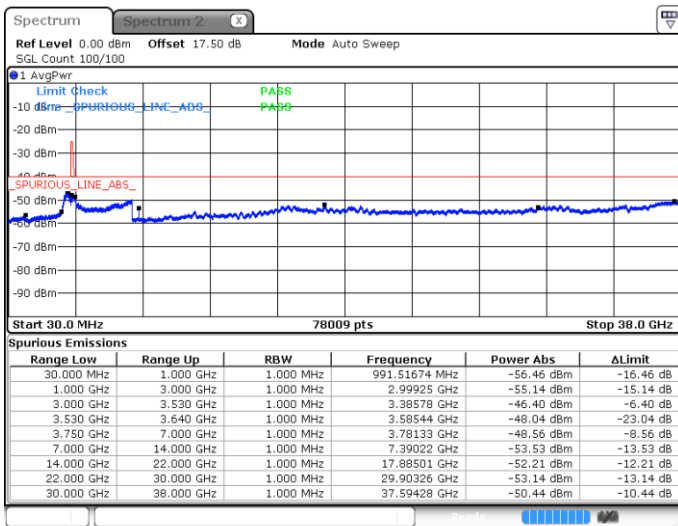


Date: 4 MAY 2020 01:34:44

Date: 4 MAY 2020 01:48:07

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 01:41:25

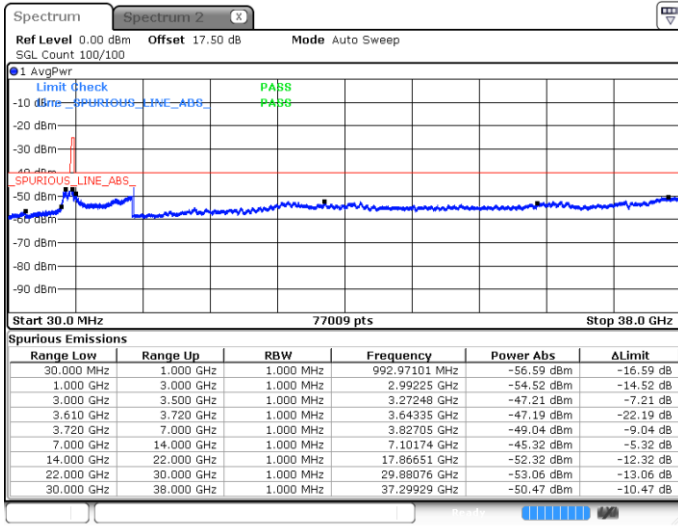


LTE Band 48 / 15MHz

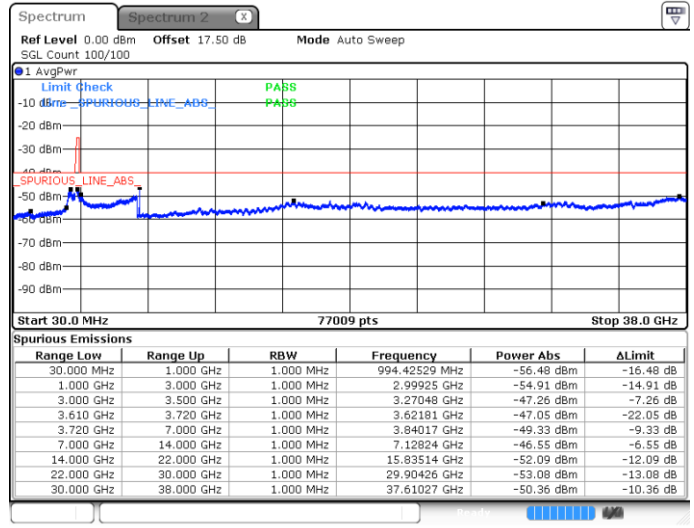
16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



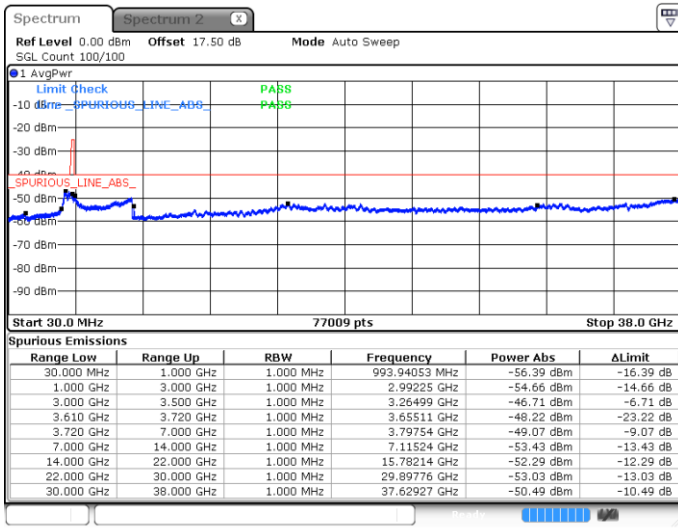
Date: 4 MAY 2020 01:51:30



Date: 4 MAY 2020 02:04:53

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 01:58:11

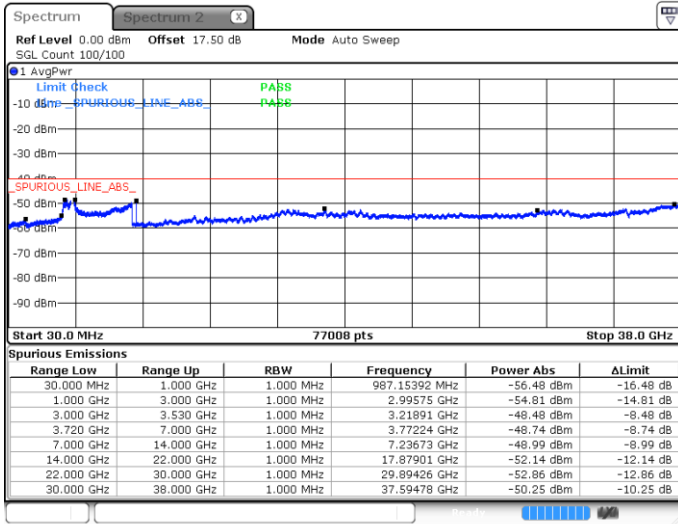


LTE Band 48 / 15MHz

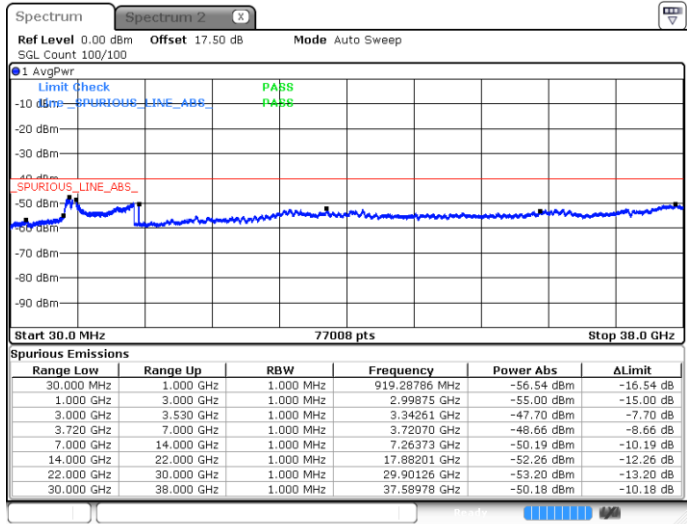
16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



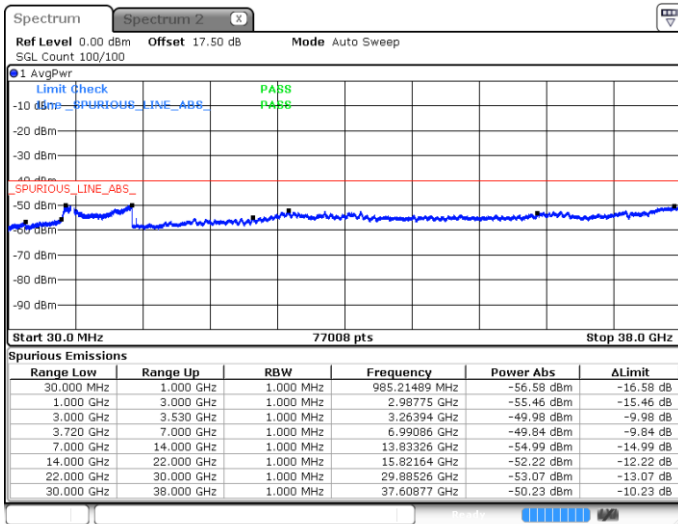
Date: 4 MAY 2020 01:52:36



Date: 4 MAY 2020 02:05:59

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 01:59:18

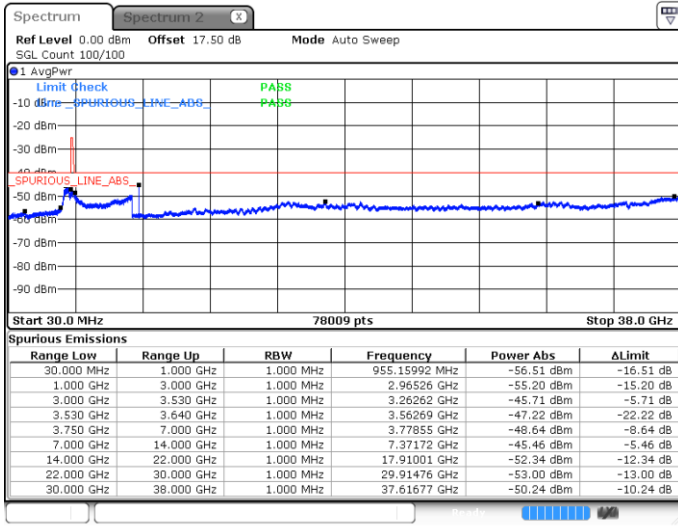


LTE Band 48 / 15MHz

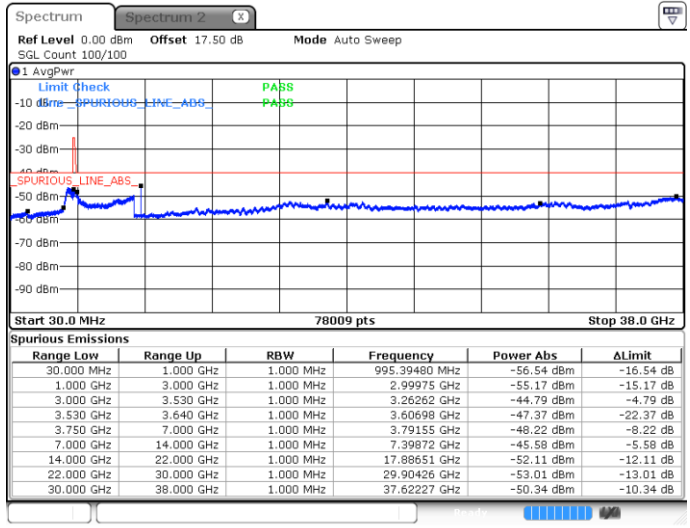
16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



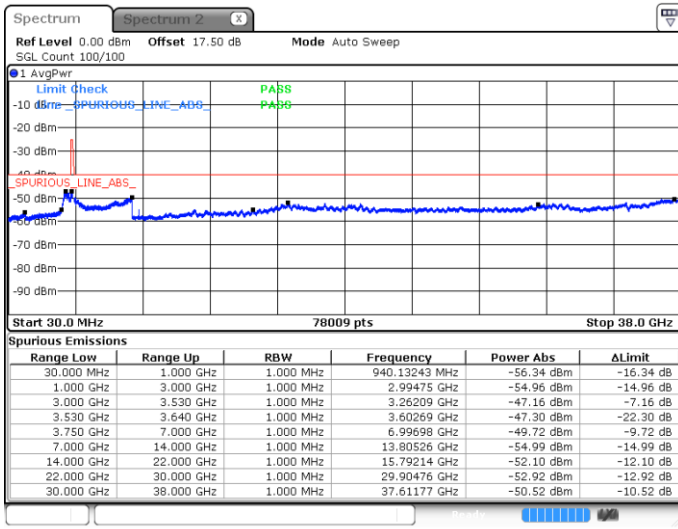
Date: 4 MAY 2020 01:55:57



Date: 4 MAY 2020 02:09:20

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 02:02:39

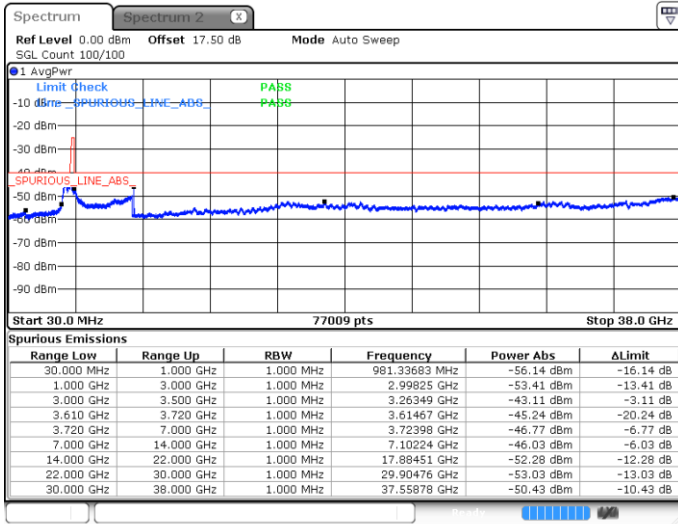


LTE Band 48 / 20MHz

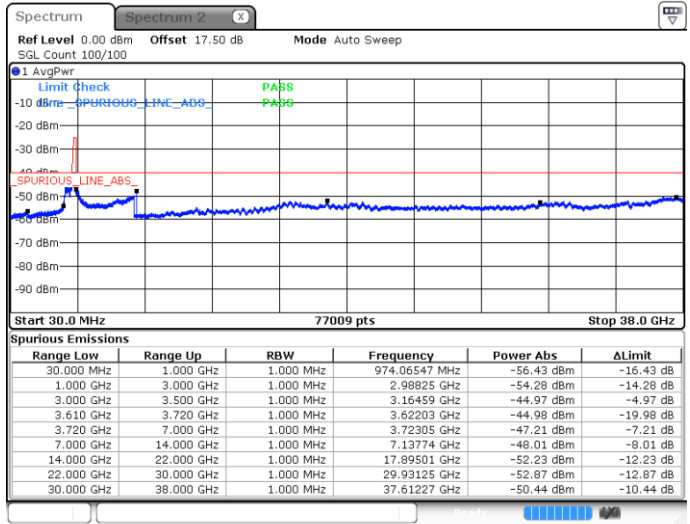
16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



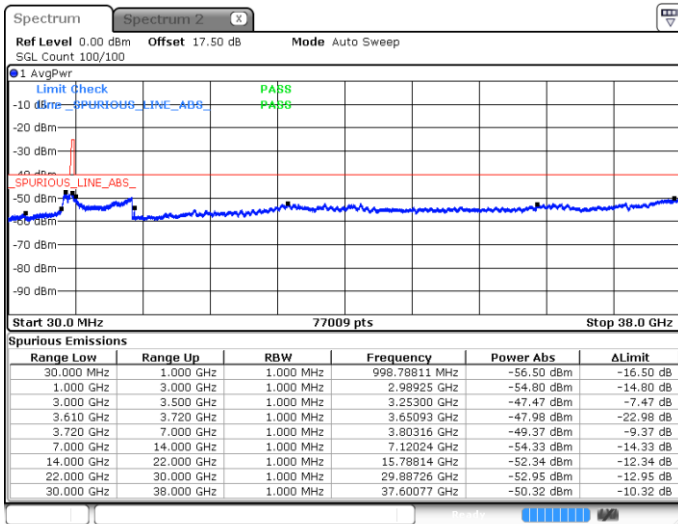
Date: 4 MAY 2020 02:17:10



Date: 4 MAY 2020 02:21:39

Lowest Channel / FullRB

N/A



Date: 4 MAY 2020 02:10:28

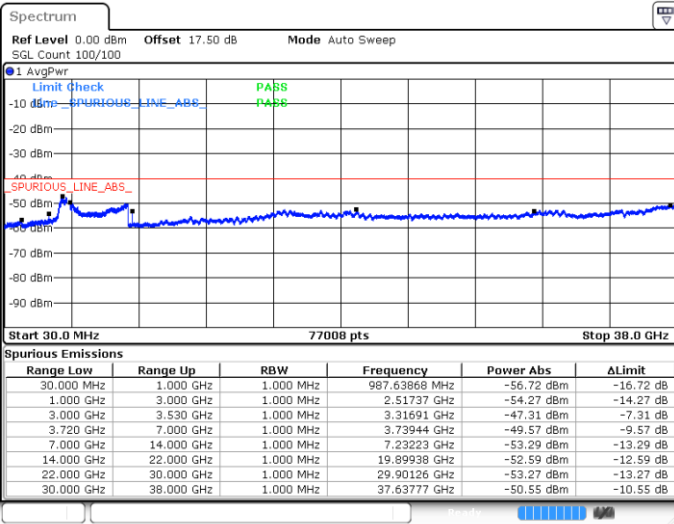


LTE Band 48 / 20MHz

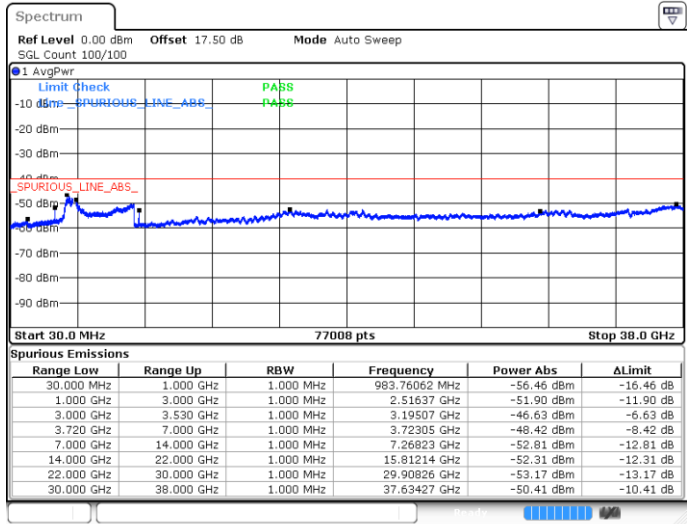
16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



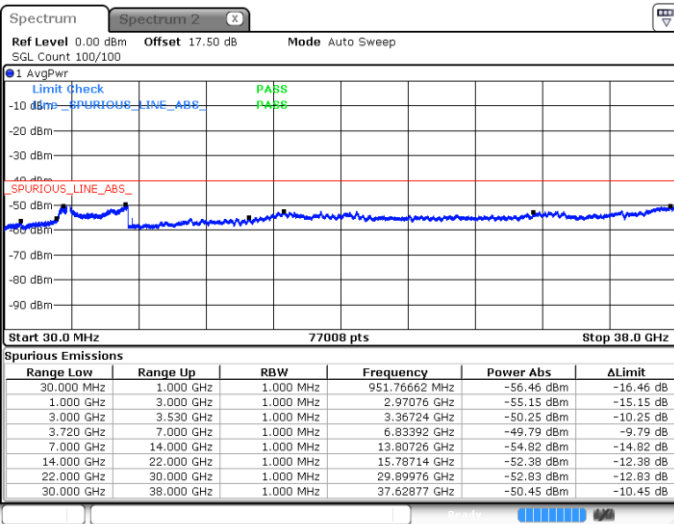
Date: 30 APR 2020 00:57:55



Date: 30 APR 2020 00:59:18

Middle Channel / FullRB

N/A



Date: 4 MAY 2020 02:13:48

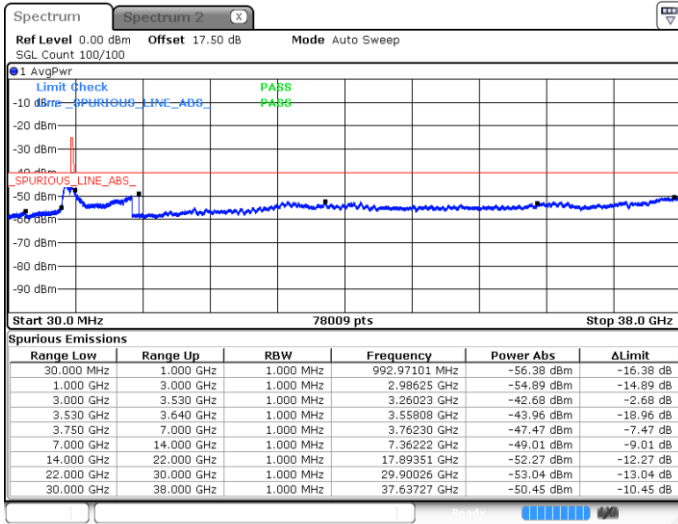


LTE Band 48 / 20MHz

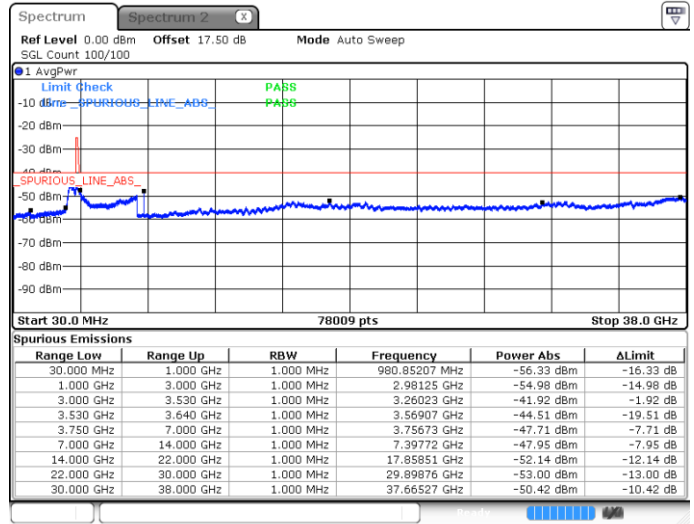
16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



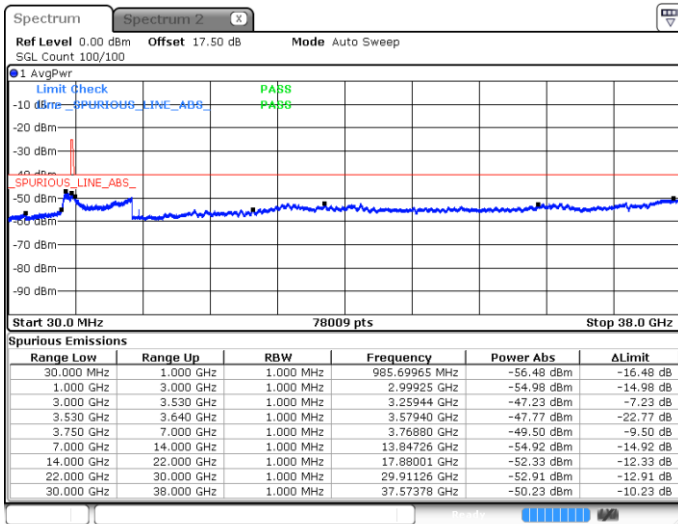
Date: 4 MAY 2020 02:19:24



Date: 4 MAY 2020 02:23:54

Highest Channel / FullRB

N/A



Date: 4 MAY 2020 02:14:55



**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    | 0.0000                              | PASS    |
| 40               | Normal Voltage    | 0.0002                              |         |
| 30               | Normal Voltage    | 0.0003                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0014                              |         |
| 0                | Normal Voltage    | 0.0015                              |         |
| -10              | Normal Voltage    | 0.0008                              |         |
| -20              | Normal Voltage    | 0.0003                              |         |
| -30              | Normal Voltage    | 0.0003                              |         |
| 20               | Maximum Voltage   | 0.0008                              |         |
| 20               | Normal Voltage    | 0.0003                              |         |
| 20               | Battery End Point | 0.0016                              |         |

**Note:**

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.2 V. ; Maximum Voltage =3.6 V.
2. The frequency fundamental emissions stay within the authorized frequency block.





## Appendix B. Test Results of EIRP and Radiated Test

### EIRP

<Reporting Only>

| LTE Band 48 / 5MHz (Average) (GT - LC = 0 dB) |       |      |        |             |               |           |         |
|---|-------|------|--------|-------------|---------------|-----------|---------|
| Channel                                       | Mode  | RB   |        | Conducted   |               | EIRP      |         |
|   |       | Size | Offset | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest  | QPSK  | 1    | 0      | 22.95       | 0.1972        | 22.95     | 0.1972  |
| Middle  |       | 1    | 0      | 21.50       | 0.1413        | 21.50     | 0.1413  |
| Highest                                       |       | 1    | 0      | 22.42       | 0.1746        | 22.42     | 0.1746  |
| Lowest  | 16QAM | 1    | 24     | 22.59       | 0.1816        | 22.59     | 0.1816  |
| Middle  |       | 1    | 24     | 20.70       | 0.1175        | 20.70     | 0.1175  |
| Highest                                       |       | 1    | 24     | 21.89       | 0.1545        | 21.89     | 0.1545  |

| LTE Band 48 / 10MHz (Average) (GT - LC = 0 dB) |       |      |        |             |               |           |         |
|--|-------|------|--------|-------------|---------------|-----------|---------|
| Channel  | Mode  | RB   |        | Conducted   |               | EIRP      |         |
|  |       | Size | Offset | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest   | QPSK  | 1    | 49     | 22.92       | 0.1959        | 22.92     | 0.1959  |
| Middle   |       | 1    | 49     | 21.51       | 0.1416        | 21.51     | 0.1416  |
| Highest  |       | 1    | 49     | 22.65       | 0.1841        | 22.65     | 0.1841  |
| Lowest   | 16QAM | 1    | 25     | 22.38       | 0.1730        | 22.38     | 0.1730  |
| Middle   |       | 1    | 25     | 20.58       | 0.1143        | 20.58     | 0.1143  |
| Highest  |       | 1    | 25     | 21.58       | 0.1439        | 21.58     | 0.1439  |

| LTE Band 48 / 15MHz (Average) (GT - LC = 0 dB) |       |      |        |             |               |           |         |
|--|-------|------|--------|-------------|---------------|-----------|---------|
| Channel  | Mode  | RB   |        | Conducted   |               | EIRP      |         |
|  |       | Size | Offset | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest   | QPSK  | 1    | 37     | 22.62       | 0.1828        | 22.62     | 0.1828  |
| Middle   |       | 1    | 37     | 21.58       | 0.1439        | 21.58     | 0.1439  |
| Highest  |       | 1    | 37     | 22.80       | 0.1905        | 22.80     | 0.1905  |
| Lowest   | 16QAM | 1    | 37     | 22.49       | 0.1774        | 22.49     | 0.1774  |
| Middle   |       | 1    | 37     | 20.74       | 0.1186        | 20.74     | 0.1186  |
| Highest  |       | 1    | 37     | 21.93       | 0.1560        | 21.93     | 0.1560  |



| LTE Band 48 / 20MHz (Average) (GT - LC = 0 dB) |       |      |        |             |               |           |         |
|--|-------|------|--------|-------------|---------------|-----------|---------|
| Channel  | Mode  | RB   |        | Conducted   |               | EIRP      |         |
|  |       | Size | Offset | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest   | QPSK  | 1    | 49     | 22.85       | 0.1928        | 22.85     | 0.1928  |
| Middle   |       | 1    | 49     | 21.53       | 0.1422        | 21.53     | 0.1422  |
| Highest  |       | 1    | 49     | 22.96       | 0.1977        | 22.96     | 0.1977  |
| Lowest   | 16QAM | 1    | 49     | 22.70       | 0.1862        | 22.70     | 0.1862  |
| Middle   |       | 1    | 49     | 20.94       | 0.1242        | 20.94     | 0.1242  |
| Highest  |       | 1    | 49     | 22.12       | 0.1629        | 22.12     | 0.1629  |



**EIRP Power**

| LTE Band 48 / Conducted Power |        |       |       |       |       |       |
|-------------------------------|--------|-------|-------|-------|-------|-------|
| BW                            | 1.4MHz |       | 3MHz  |       | 5MHz  |       |
| Mod.                          | QPSK   | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH                     | -      | -     | -     | -     | 22.95 | 22.59 |
| Middle CH                     | -      | -     | -     | -     | 21.5  | 20.7  |
| Highest CH                    | -      | -     | -     | -     | 22.42 | 21.89 |
| LTE Band 48 / Conducted Power |        |       |       |       |       |       |
| BW                            | 10MHz  |       | 15MHz |       | 20MHz |       |
| Mod.                          | QPSK   | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH                     | 22.92  | 22.38 | 22.62 | 22.49 | 22.85 | 22.70 |
| Middle CH                     | 21.51  | 20.58 | 21.58 | 20.74 | 21.53 | 20.94 |
| Highest CH                    | 22.65  | 21.58 | 22.80 | 21.93 | 22.96 | 22.12 |

| LTE Band 48 / EIRP Power |               |       |       |       |       |       |
|--------------------------|---------------|-------|-------|-------|-------|-------|
| BW                       | 1.4MHz        |       | 3MHz  |       | 5MHz  |       |
| Mod.                     | QPSK          | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH                | -             | -     | -     | -     | 22.95 | 22.59 |
| Middle CH                | -             | -     | -     | -     | 21.5  | 20.7  |
| Highest CH               | -             | -     | -     | -     | 22.42 | 21.89 |
| LTE Band 48 / EIRP Power |               |       |       |       |       |       |
| BW                       | 10MHz         |       | 15MHz |       | 20MHz |       |
| Mod.                     | QPSK          | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH                | 22.92         | 22.38 | 22.62 | 22.49 | 22.85 | 22.70 |
| Middle CH                | 21.51         | 20.58 | 21.58 | 20.74 | 21.53 | 20.94 |
| Highest CH               | 22.65         | 21.58 | 22.80 | 21.93 | 22.96 | 22.12 |
| Antenna Gain             | 0 dBi         |       |       |       |       |       |
| Limit                    | 23dBm / 10MHz |       |       |       |       |       |
| Result                   | Pass          |       |       |       |       |       |



**Radiated Spurious Emission**

**LTE Band 48**

| LTE Band 48 / 20MHz / QPSK |                   |              |               |                   |                   |                    |                      |                       |                    |
|----------------------------|-------------------|--------------|---------------|-------------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| 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) |
| Lowest                     | 7120              | -45.66       | -40           | -5.66             | -47.71            | -55.58             | 1.78                 | 11.71                 | H                  |
|                            | 10680             | -51.97       | -40           | -11.97            | -54.25            | -60.39             | 2.48                 | 10.90                 | H                  |
|                            | 14240             | -54.69       | -40           | -14.69            | -61.77            | -63.45             | 2.87                 | 11.62                 | H                  |
|                            | 21363             | -53.73       | -40           | -13.73            | -75.43            | -70.47             | 1.96                 | 18.70                 | H                  |
|                            | 24915             | -52.39       | -40           | -12.39            | -77.05            | -68.48             | 2.07                 | 18.16                 | H                  |
|                            | 28478             | -50.26       | -40           | -10.26            | -75.78            | -67.55             | 2.30                 | 19.59                 | H                  |
|                            | 7120              | -45.16       | -40           | -5.16             | -46.84            | -55.08             | 1.78                 | 11.71                 | V                  |
|                            | 10680             | -52.58       | -40           | -12.58            | -54.62            | -61.00             | 2.48                 | 10.90                 | V                  |
|                            | 14240             | -53.75       | -40           | -13.75            | -60.48            | -62.51             | 2.87                 | 11.62                 | V                  |
|                            | 21363             | -54.39       | -40           | -14.39            | -76               | -71.13             | 1.96                 | 18.70                 | V                  |
|                            | 24915             | -49.59       | -40           | -9.59             | -75.43            | -65.68             | 2.07                 | 18.16                 | V                  |
|                            | 28478             | -48.60       | -40           | -8.60             | -76               | -65.89             | 2.30                 | 19.59                 | V                  |
| Middle                     | 7250              | -49.81       | -40           | -9.81             | -52.17            | -59.46             | 1.86                 | 11.50                 | H                  |
|                            | 10875             | -53.92       | -40           | -13.92            | -56.25            | -62.24             | 2.59                 | 10.90                 | H                  |
|                            | 14500             | -56.95       | -40           | -16.95            | -64.25            | -65.10             | 2.85                 | 11.00                 | H                  |
|                            | 18122             | -51.04       | -40           | -11.04            | -69.18            | -67.24             | 1.77                 | 17.98                 | H                  |
|                            | 21751             | -54.39       | -40           | -14.39            | -75.96            | -71.18             | 2.01                 | 18.80                 | H                  |
|                            | 25370             | -51.07       | -40           | -11.07            | -76.32            | -67.74             | 2.15                 | 18.82                 | H                  |
|                            | 7250              | -46.12       | -40           | -6.12             | -48.23            | -55.77             | 1.86                 | 11.50                 | V                  |
|                            | 10875             | -55.23       | -40           | -15.23            | -57.36            | -63.55             | 2.59                 | 10.90                 | V                  |
|                            | 14500             | -56.08       | -40           | -16.08            | -62.48            | -64.23             | 2.85                 | 11.00                 | V                  |
|                            | 18122             | -50.92       | -40           | -10.92            | -68.14            | -67.12             | 1.77                 | 17.98                 | V                  |
|                            | 21751             | -54.83       | -40           | -14.83            | -76.39            | -71.62             | 2.01                 | 18.80                 | V                  |
|                            | 25370             | -50.32       | -40           | -10.32            | -76.86            | -66.99             | 2.15                 | 18.82                 | V                  |



| LTE Band 48 / 20MHz / QPSK |                   |              |               |                   |                   |                    |                      |                       |                    |
|----------------------------|-------------------|--------------|---------------|-------------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| 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) |
| Highest                    | 7380              | -42.81       | -40           | -2.81             | -45.13            | -52.18             | 1.93                 | 11.29                 | H                  |
|                            | 11070             | -57.32       | -40           | -17.32            | -59.86            | -65.68             | 2.62                 | 10.98                 | H                  |
|                            | 14760             | -55.46       | -40           | -15.46            | -64.55            | -64.37             | 2.92                 | 11.83                 | H                  |
|                            | 18444             | -55.14       | -40           | -15.14            | -73.48            | -71.17             | 1.88                 | 17.91                 | H                  |
|                            | 22140             | -52.57       | -40           | -12.57            | -74.96            | -69.35             | 2.06                 | 18.84                 | H                  |
|                            | 25825             | -50.00       | -40           | -10.00            | -76.1             | -67.06             | 2.00                 | 19.07                 | H                  |
|                            | 7380              | -43.09       | -40           | -3.09             | -45.24            | -52.46             | 1.93                 | 11.29                 | V                  |
|                            | 11070             | -58.10       | -40           | -18.10            | -60.47            | -66.46             | 2.62                 | 10.98                 | V                  |
|                            | 14760             | -55.44       | -40           | -15.44            | -62.74            | -64.35             | 2.92                 | 11.83                 | V                  |
|                            | 18444             | -50.54       | -40           | -10.54            | -68.01            | -66.57             | 1.88                 | 17.91                 | V                  |
|                            | 22140             | -52.68       | -40           | -12.68            | -75.08            | -69.46             | 2.06                 | 18.84                 | V                  |
|                            | 25825             | -49.26       | -40           | -9.26             | -76.52            | -66.32             | 2.00                 | 19.07                 | V                  |

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