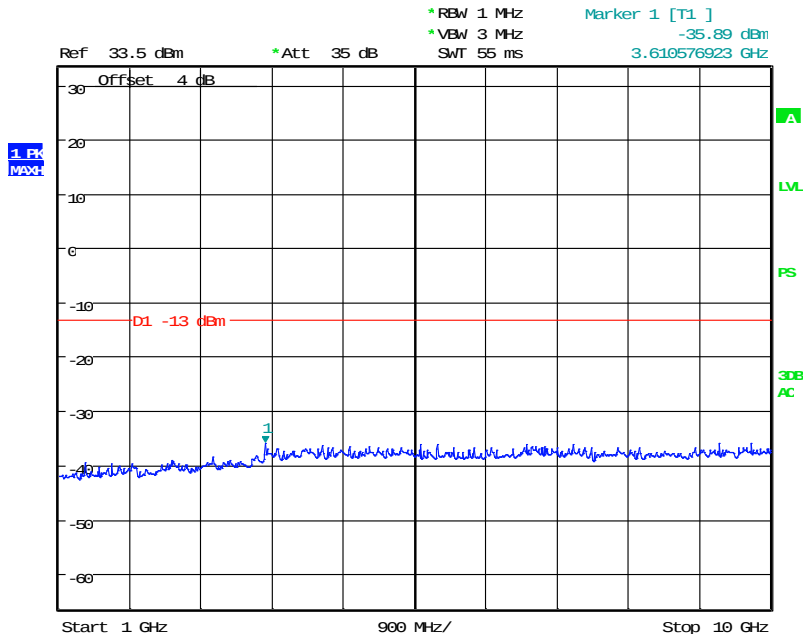
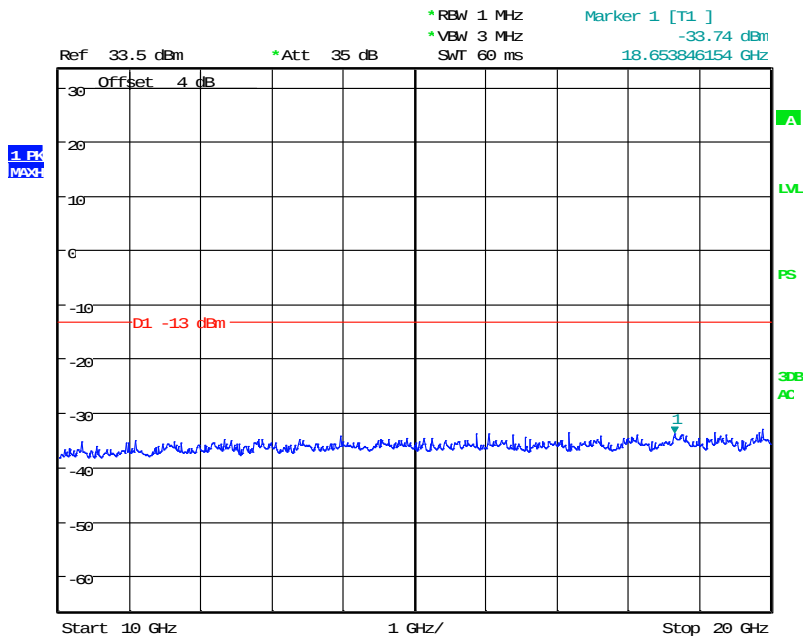


## Middle Channel, 782 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:32:36

## Middle Channel, 782 MHz, 10GHz to 20GHz



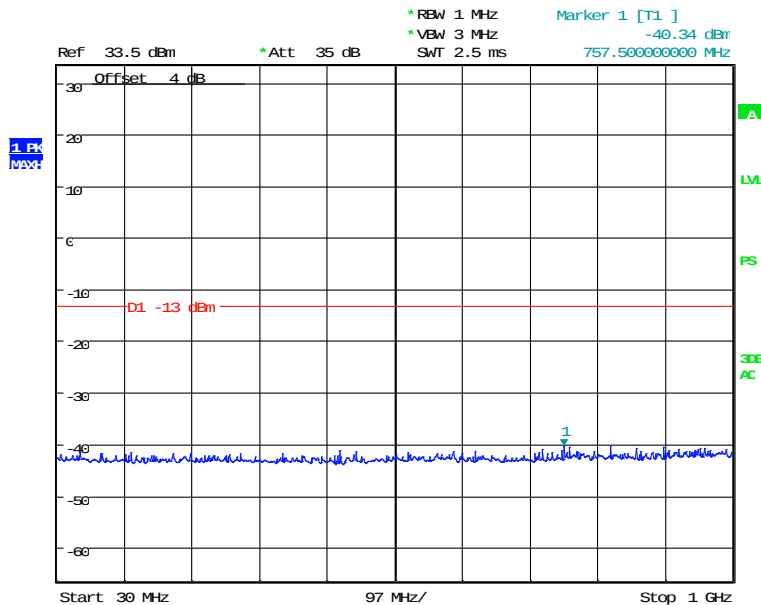
Date: 25.JUN.2015 17:32:59

#### 4.3.5 LTE B25 Conducted Spurious Emission Results

Graphical results:

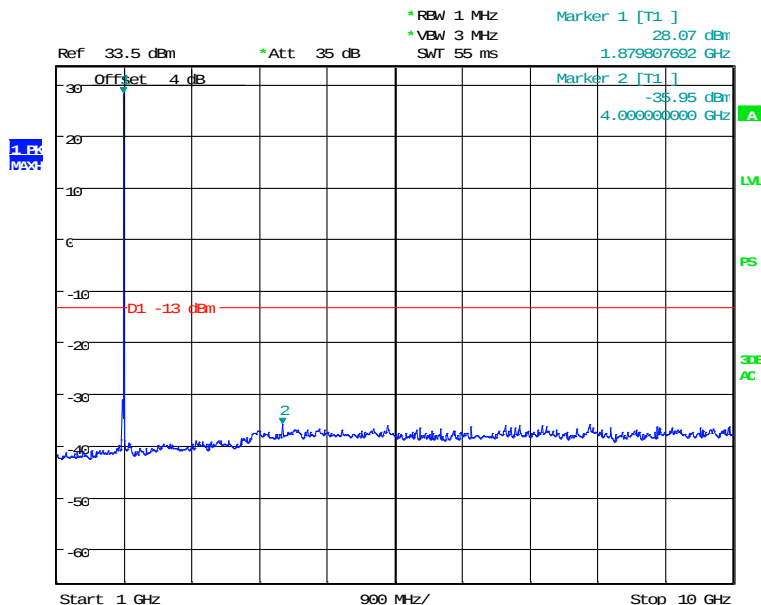
1.4MHz bandwidth QPSK Mode

Middle channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:37:09

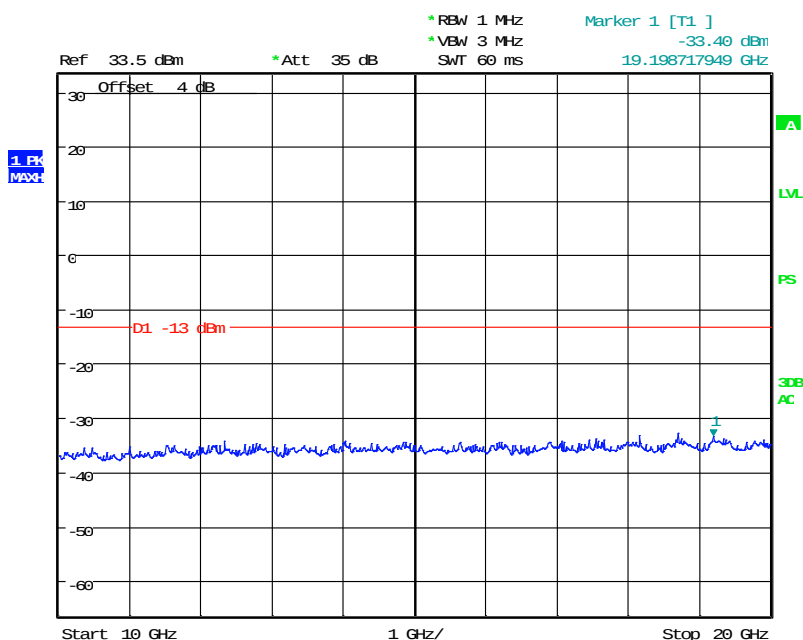
Middle channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:37:55

**Note: The strong emission shown in each case is the carrier signal.**

## Middle channel, 1882.5 MHz, 10GHz to 20GHz

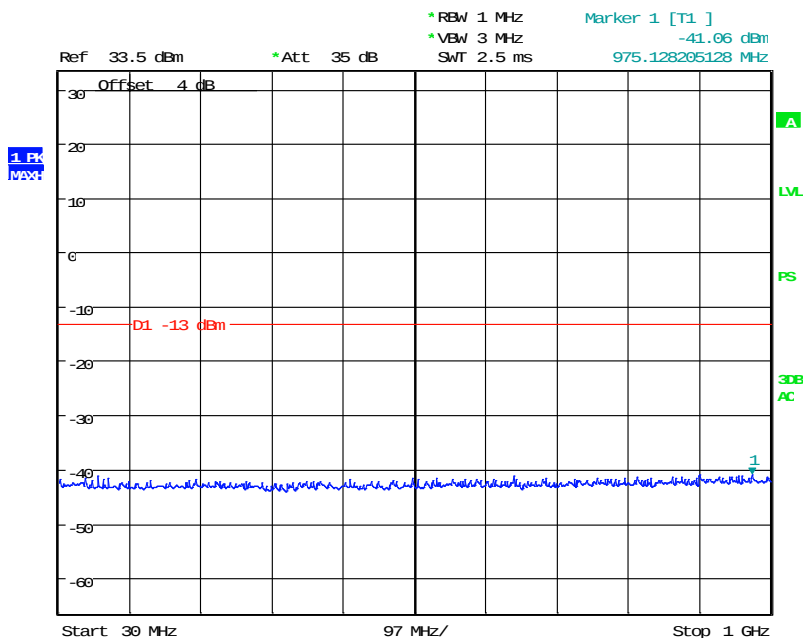


Date: 25.JUN.2015 17:38:36

## Graphical results:

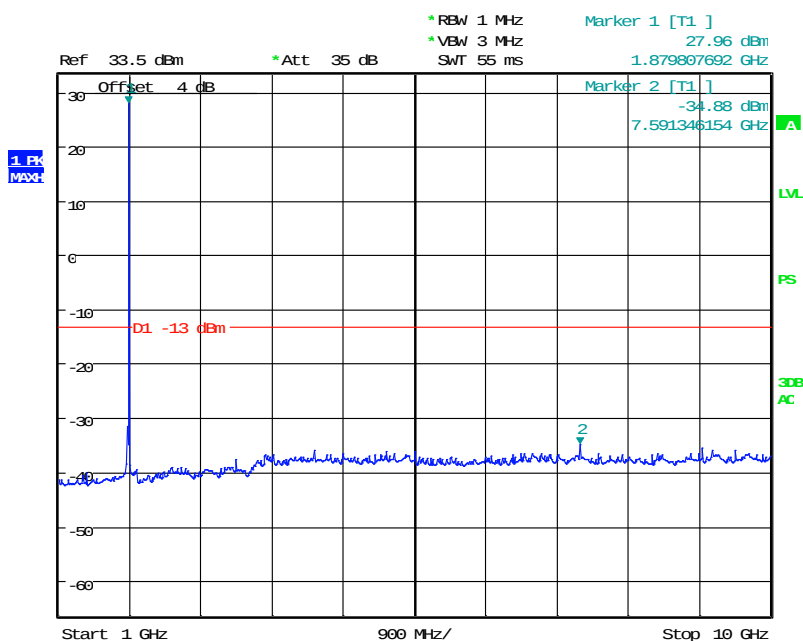
3MHz bandwidth QPSK Mode

Middle Channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:40:44

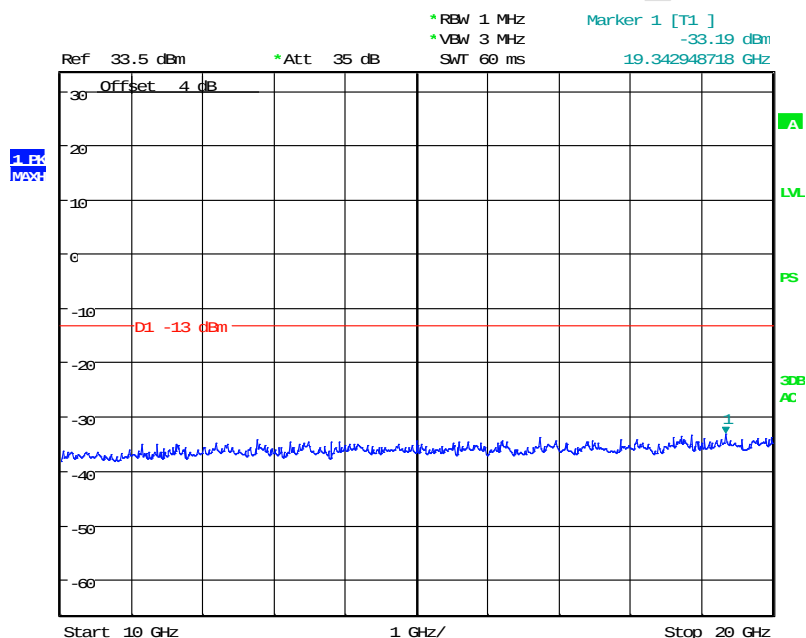
## Middle Channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:40:08

Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 1882.5 MHz, 10GHz to 20GHz

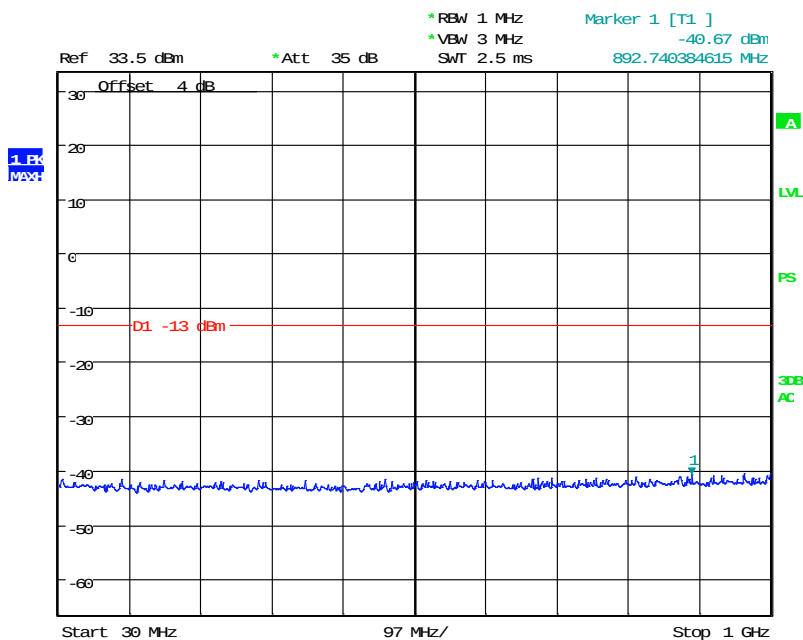


Date: 25.JUN.2015 17:39:09

## Graphical results:

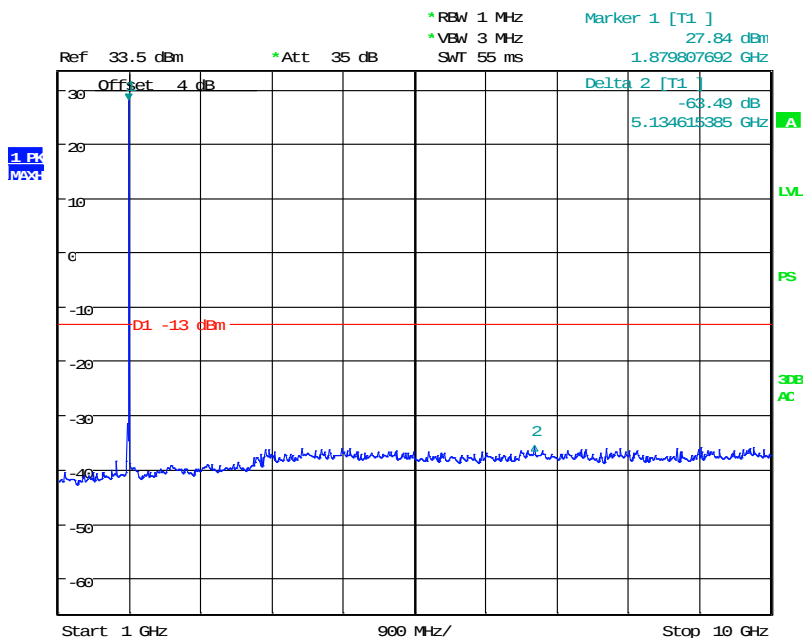
5MHz bandwidth QPSK Mode

Middle Channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:41:23

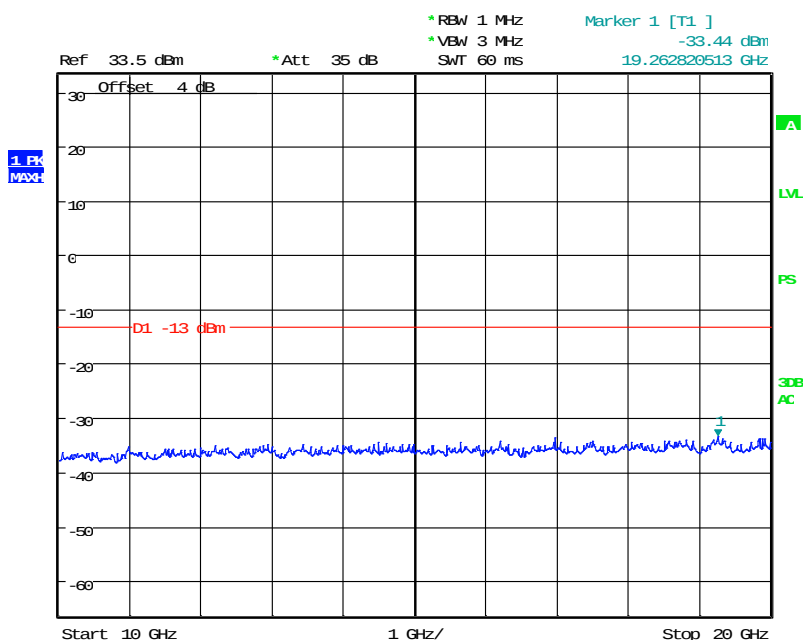
Middle Channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:42:29

**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 1882.5 MHz, 10GHz to 20GHz

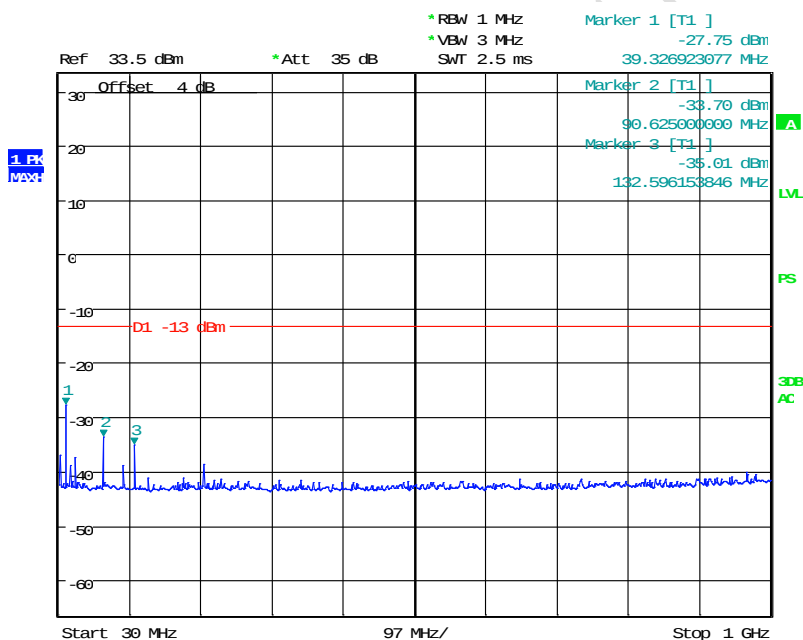


Date: 25.JUN.2015 17:44:24

## Graphical results:

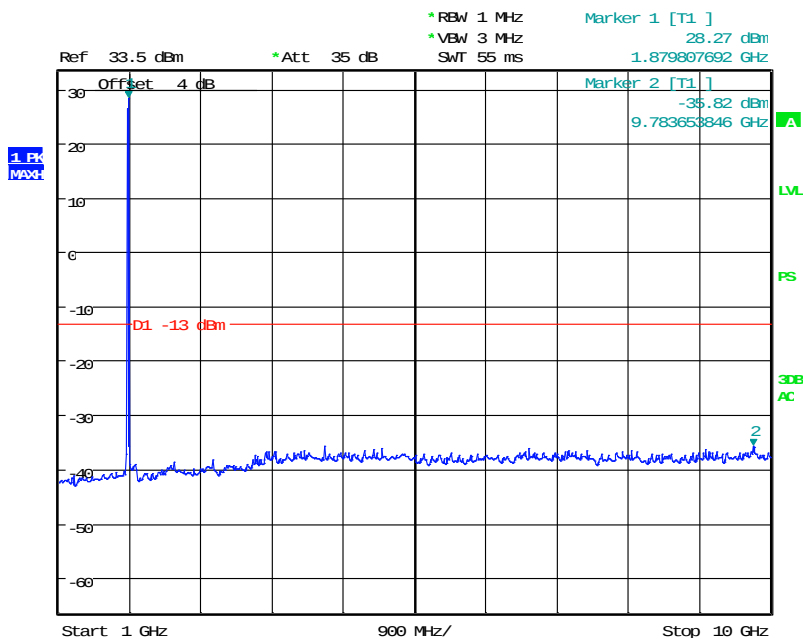
## 10MHz bandwidth QPSK Mode

## Middle Channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:45:59

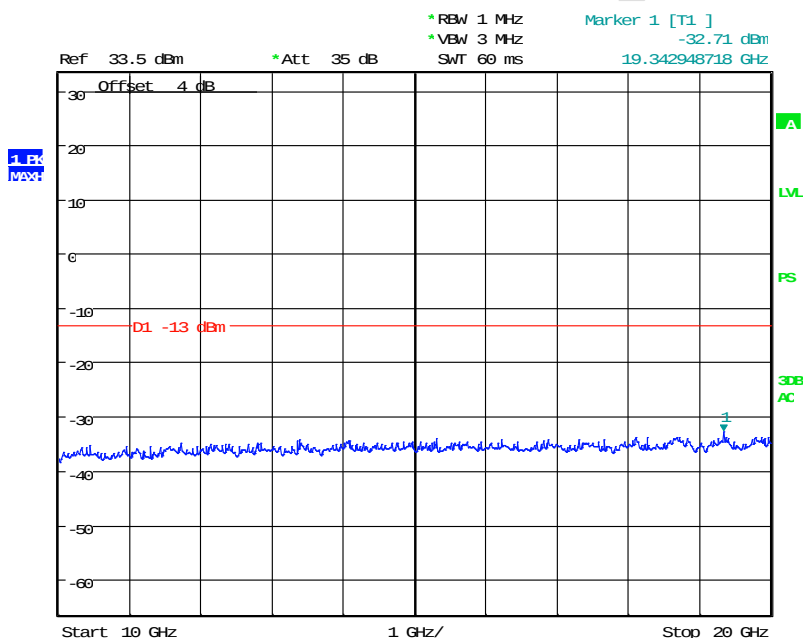
## Middle Channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:45:07

Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 1882.5 MHz, 10GHz to 20GHz

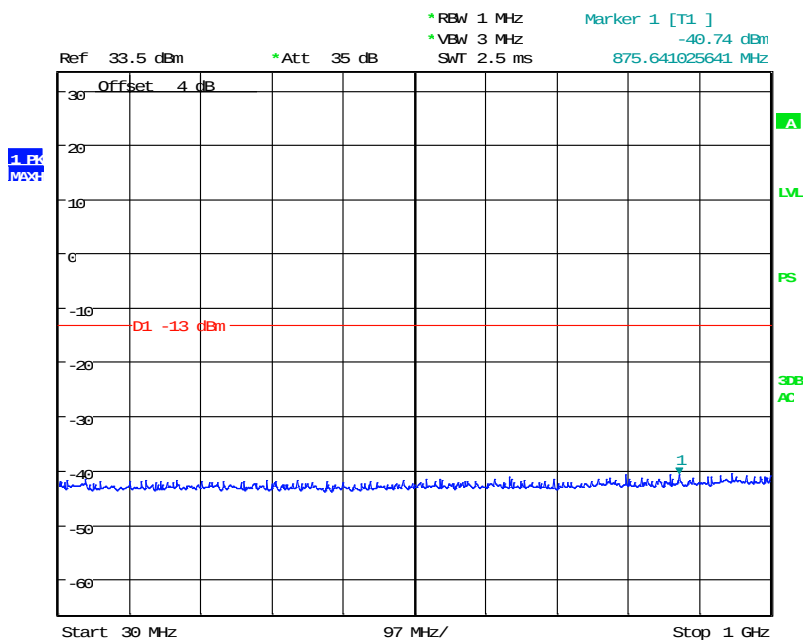


Date: 25.JUN.2015 17:43:43

## Graphical results:

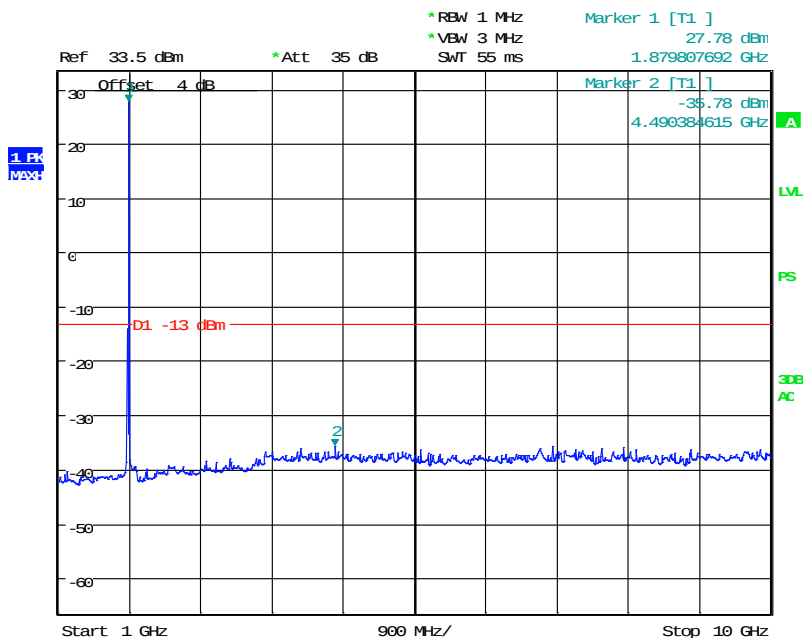
## 15MHz bandwidth QPSK Mode

## Middle Channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:46:53

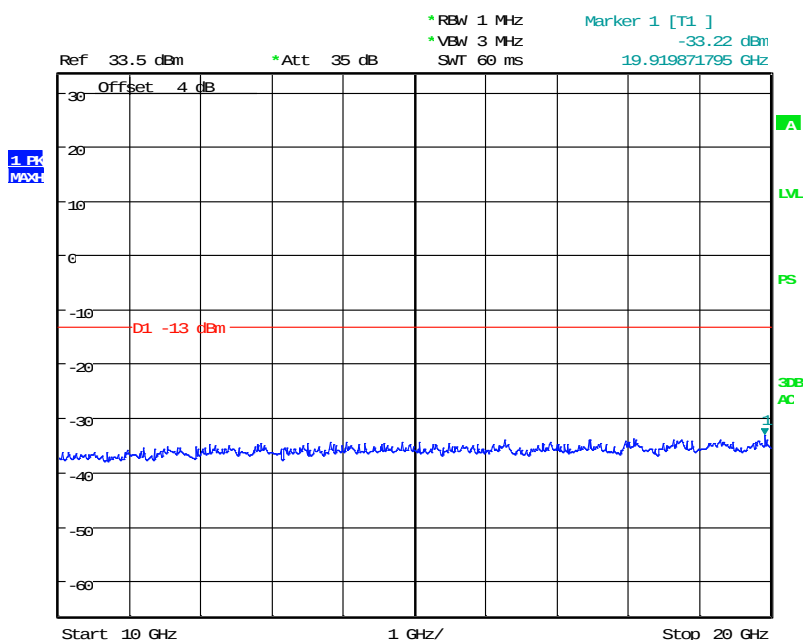
## Middle Channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:47:29

**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 1882.5 MHz, 10GHz to 20GHz

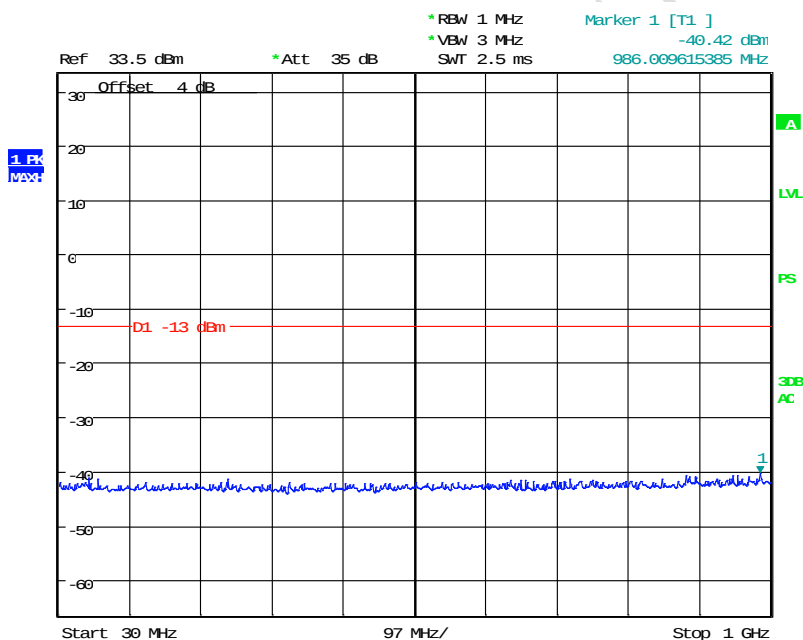


Date: 25.JUN.2015 17:48:01

## Graphical results:

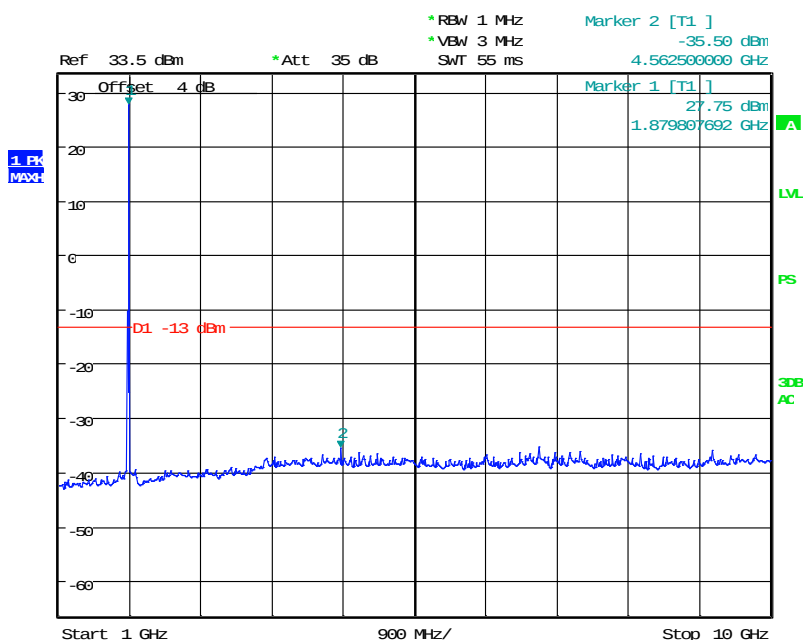
20MHz bandwidth QPSK Mode

Middle Channel, 1882.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:49:30

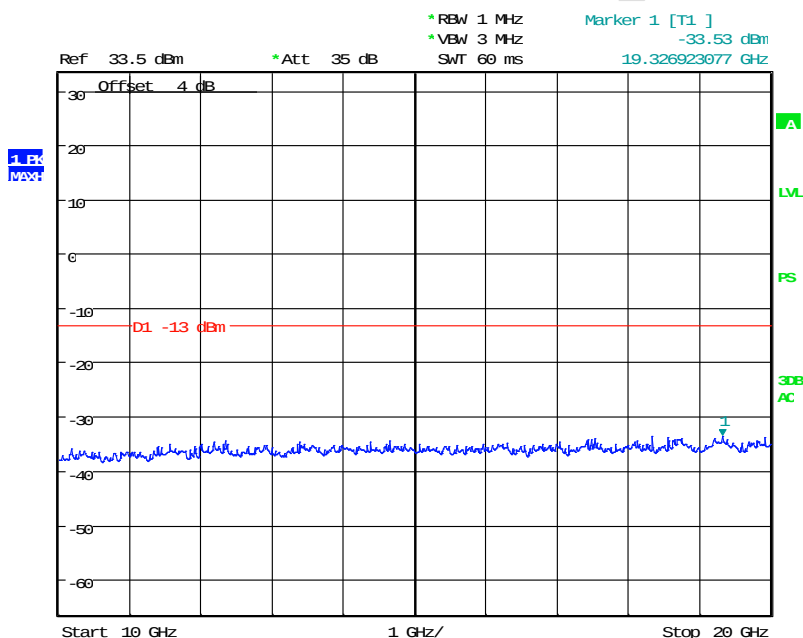
## Middle Channel, 1882.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:49:00

Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 1882.5 MHz, 10GHz to 20GHz



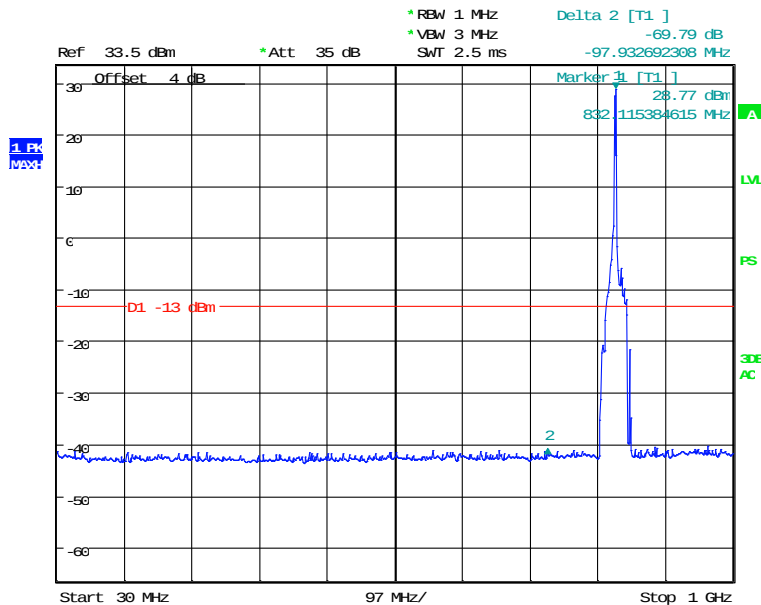
Date: 25.JUN.2015 17:48:33

#### 4.3.6 LTE B26 Conducted Spurious Emission Results

Graphical results:

1.4MHz bandwidth QPSK Mode

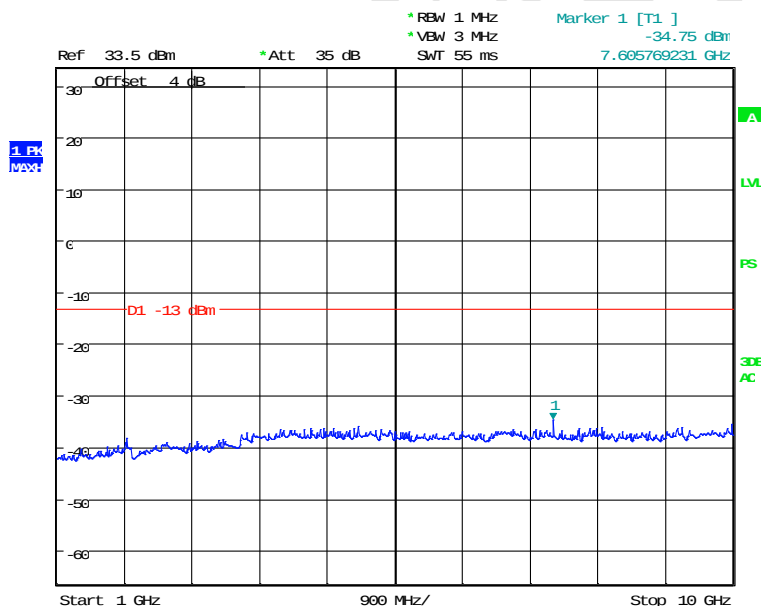
Middle channel, 831.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:52:54

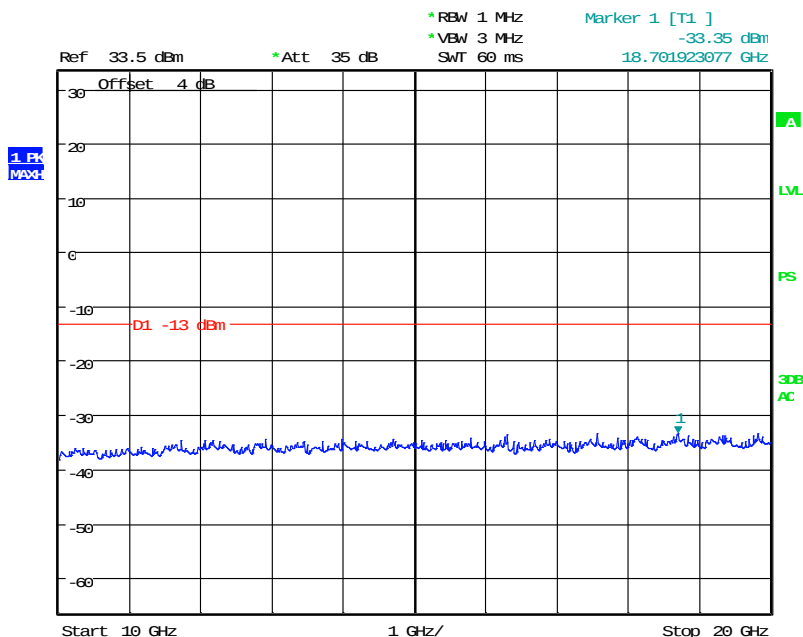
Note: The strong emission shown in each case is the carrier signal.

Middle channel, 831.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:53:39

### Middle channel, 831.5 MHz, 10GHz to 20GHz

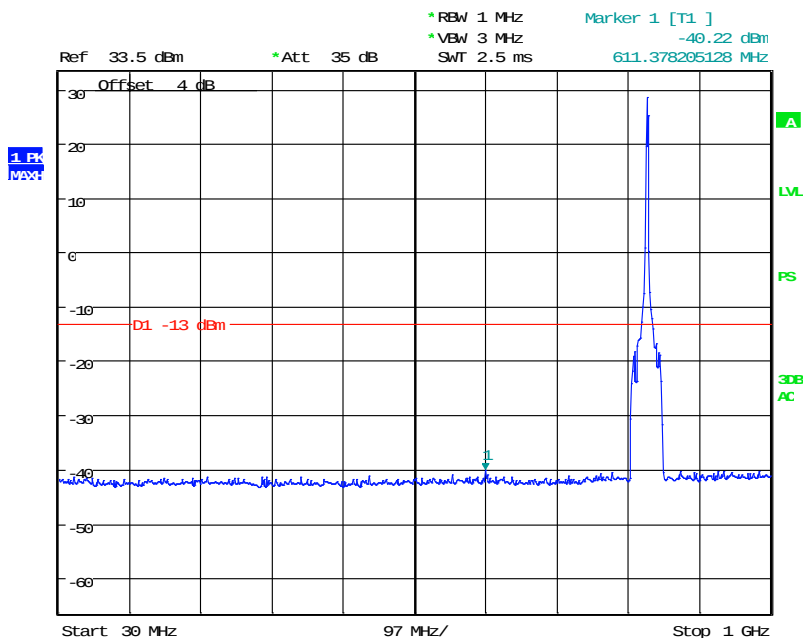


Date: 25.JUN.2015 17:54:13

### Graphical results:

#### 3MHz bandwidth QPSK Mode

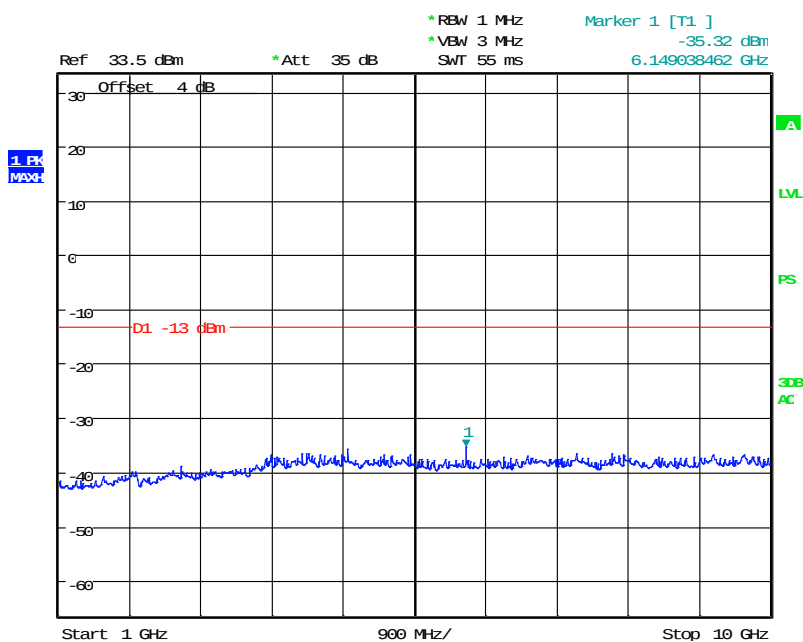
#### Middle Channel, 831.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 17:58:28

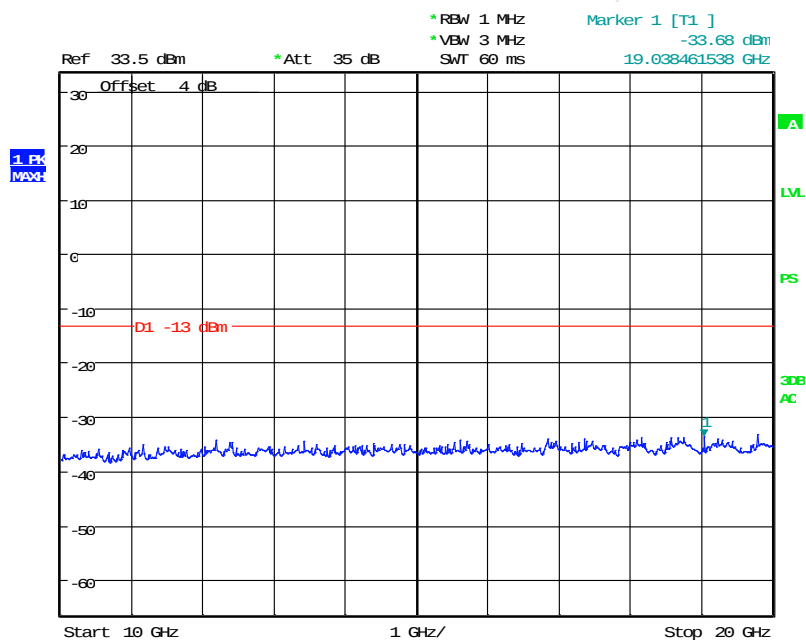
**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 831.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 17:55:19

## Middle Channel, 831.5 MHz, 10GHz to 20GHz

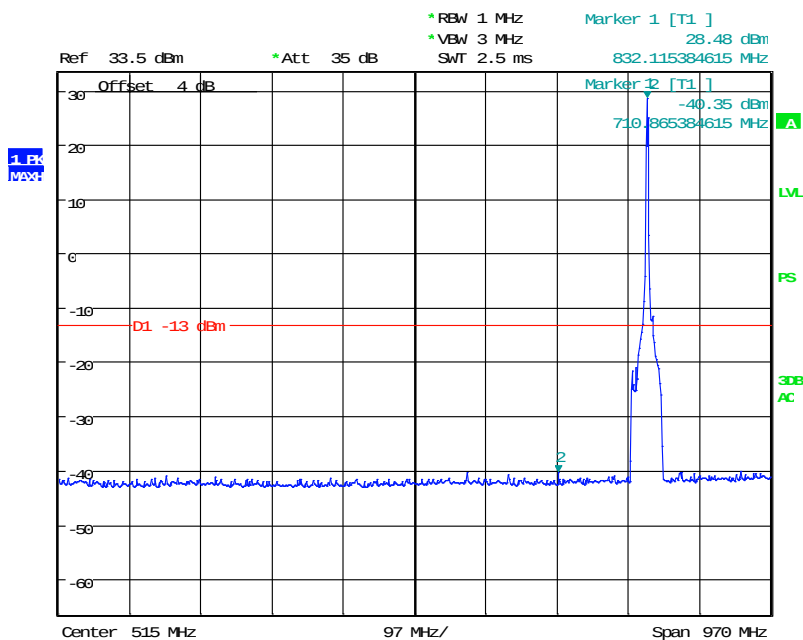


Date: 25.JUN.2015 17:54:47

## Graphical results:

5MHz bandwidth QPSK Mode

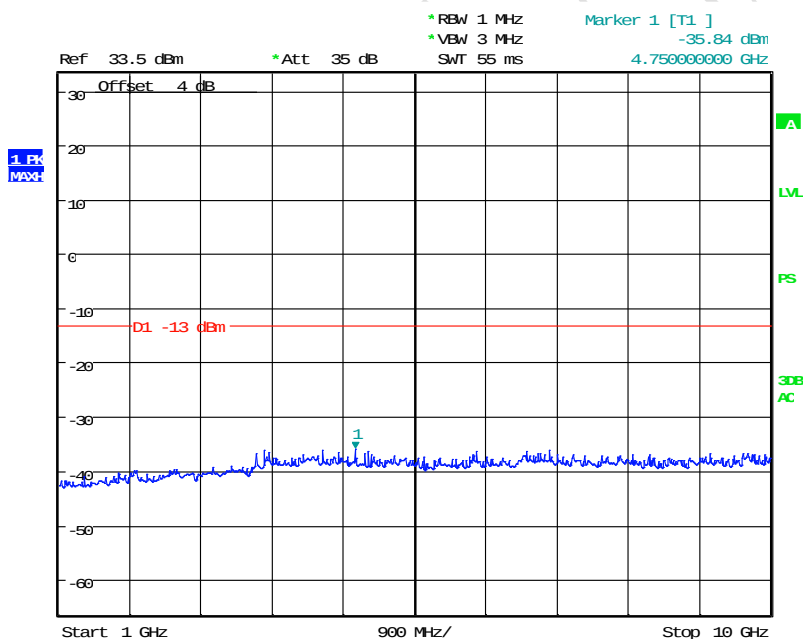
Middle Channel, 831.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:01:17

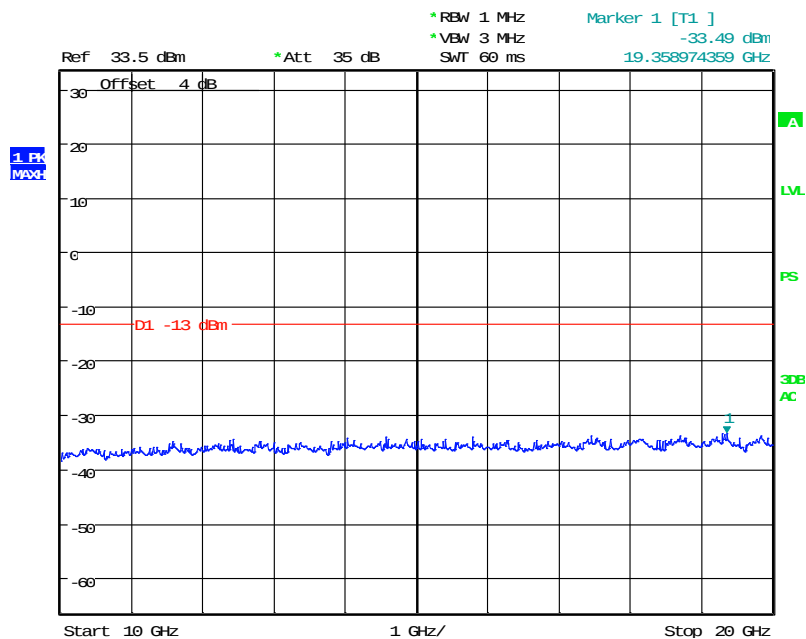
Note: The strong emission shown in each case is the carrier signal.

Middle Channel, 831.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:01:40

## Middle Channel, 831.5 MHz, 10GHz to 20GHz

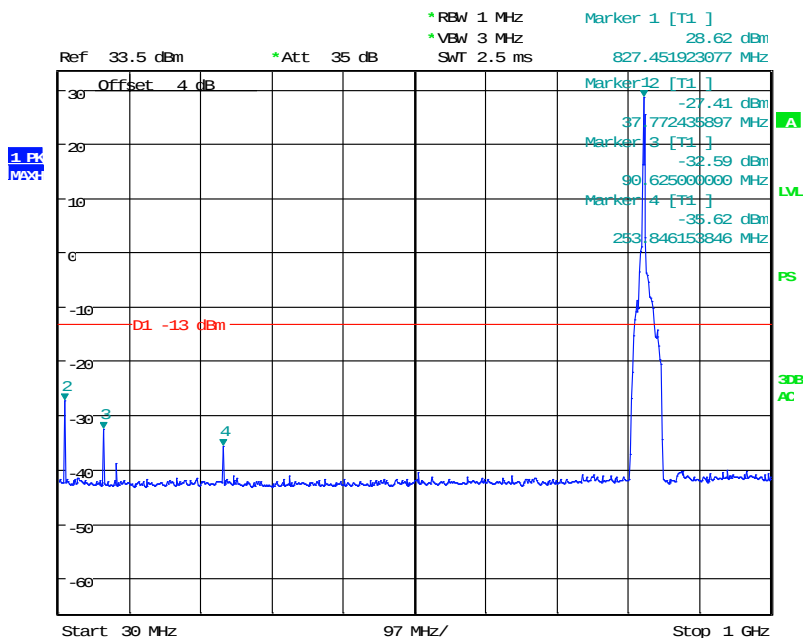


Date: 25.JUN.2015 18:02:17

## Graphical results:

10MHz bandwidth QPSK Mode

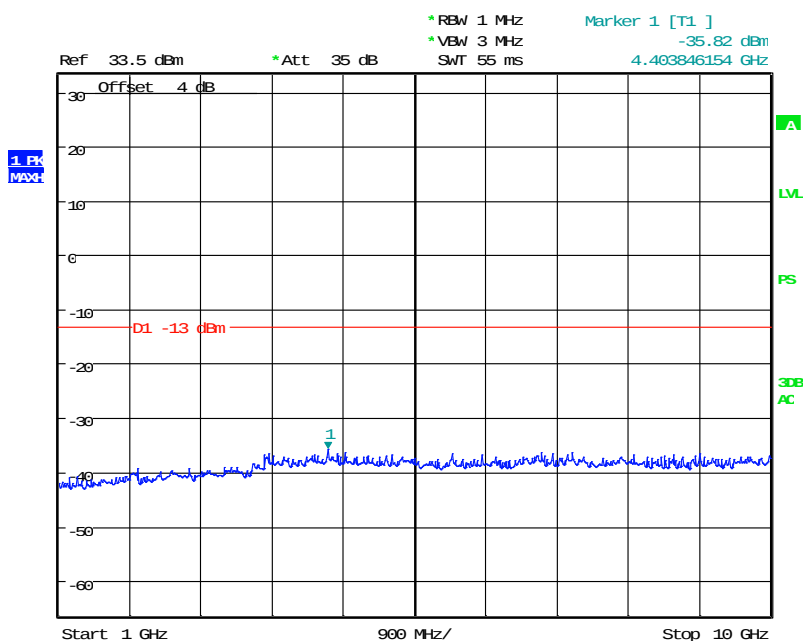
Middle Channel, 831.5 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:04:56

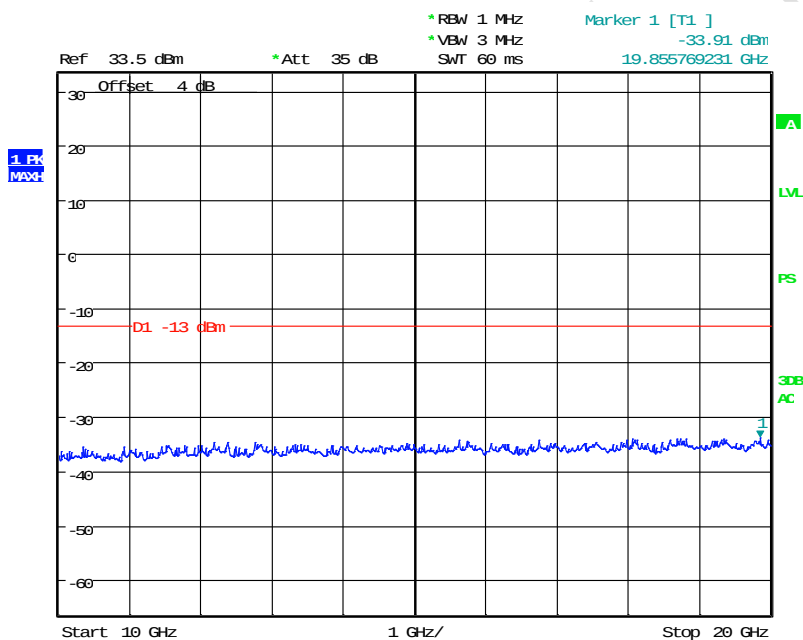
**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 831.5 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:03:14

## Middle Channel, 831.5 MHz, 10GHz to 20GHz

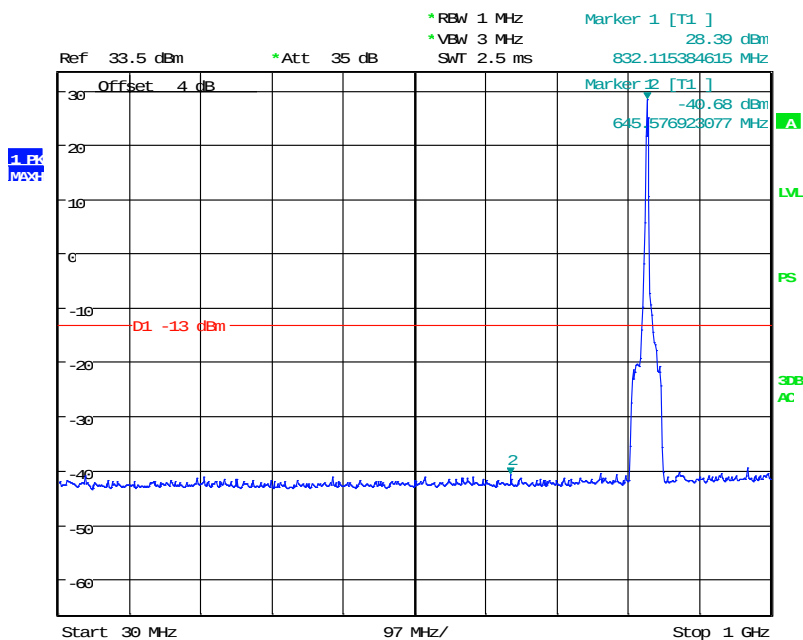


Date: 25.JUN.2015 18:02:51

## Graphical results:

## 15MHz bandwidth QPSK Mode

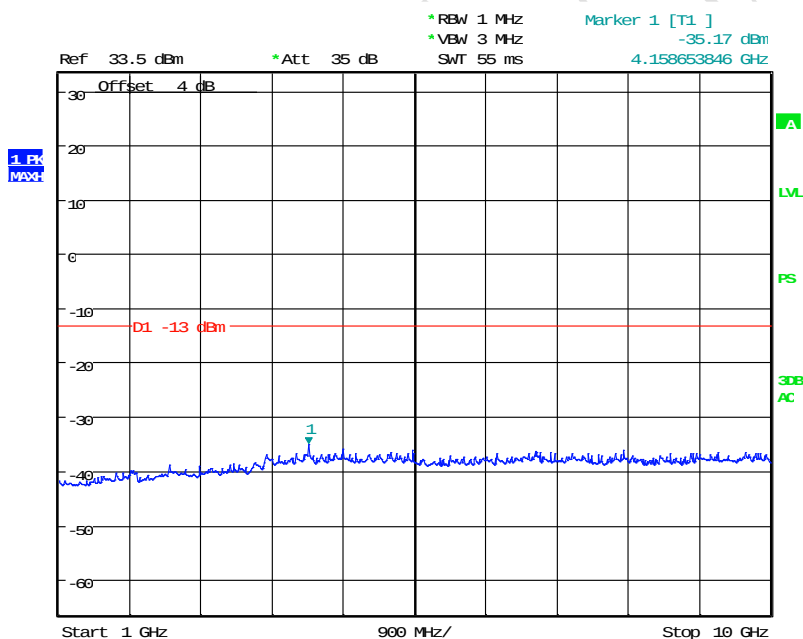
## Middle Channel, 831.5MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:06:57

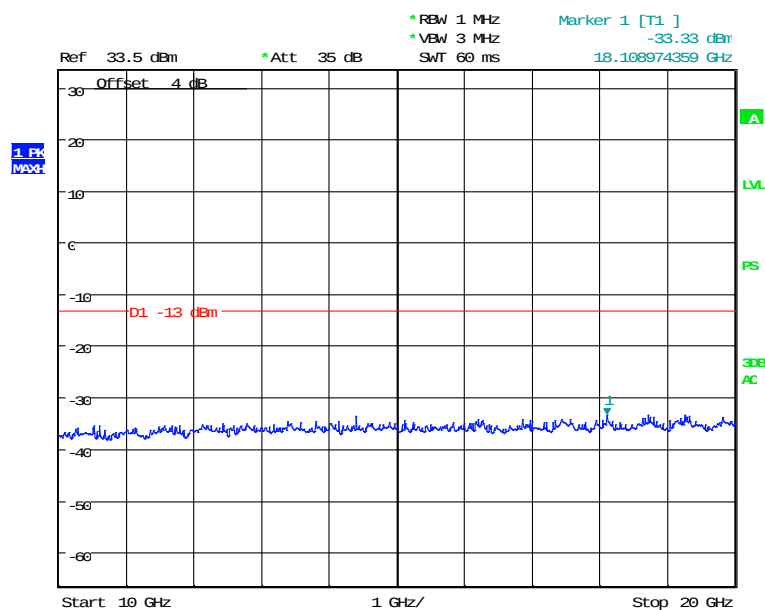
Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 831.5MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:07:32

## Middle Channel, 831.5 MHz, 10GHz to 20GHz



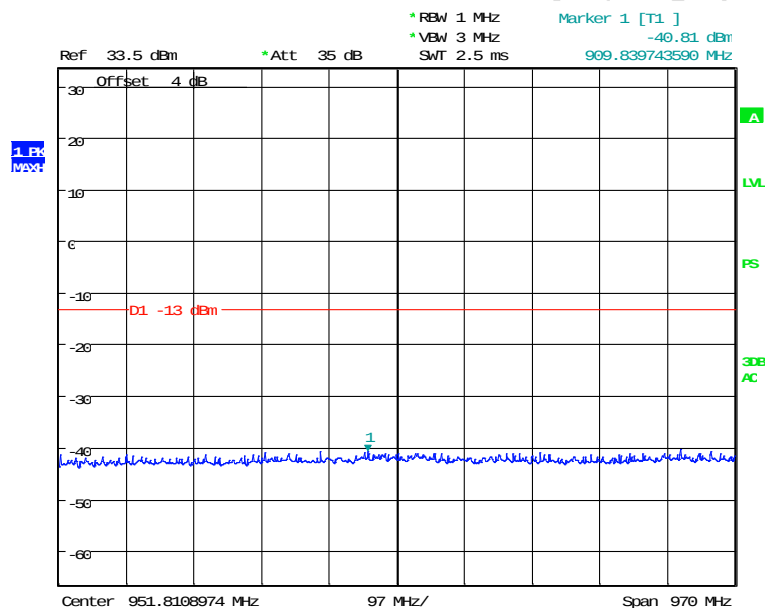
Date: 25.JUN.2015 18:07:58

## 4.3.7 LTE B30 Conducted Spurious Emission Results

Graphical results:

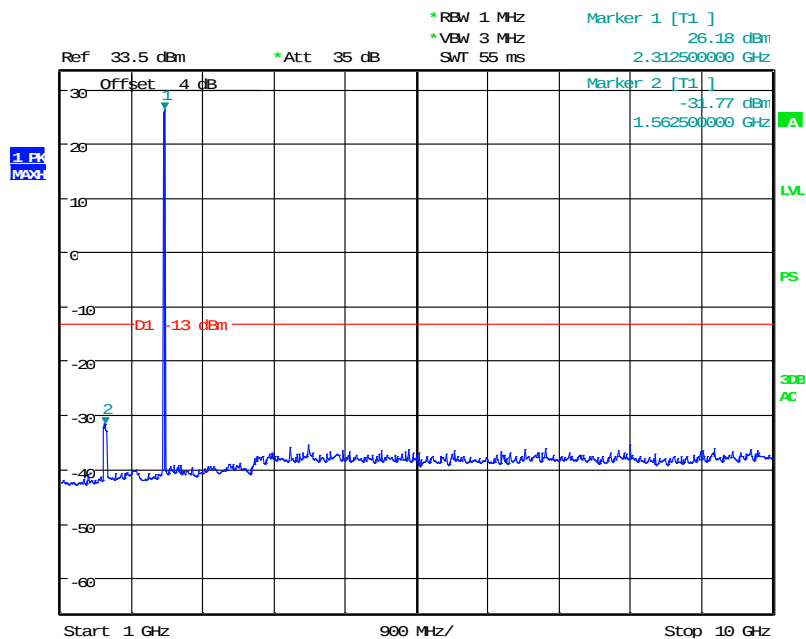
5MHz bandwidth QPSK Mode

Middle channel, 2310MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:10:21

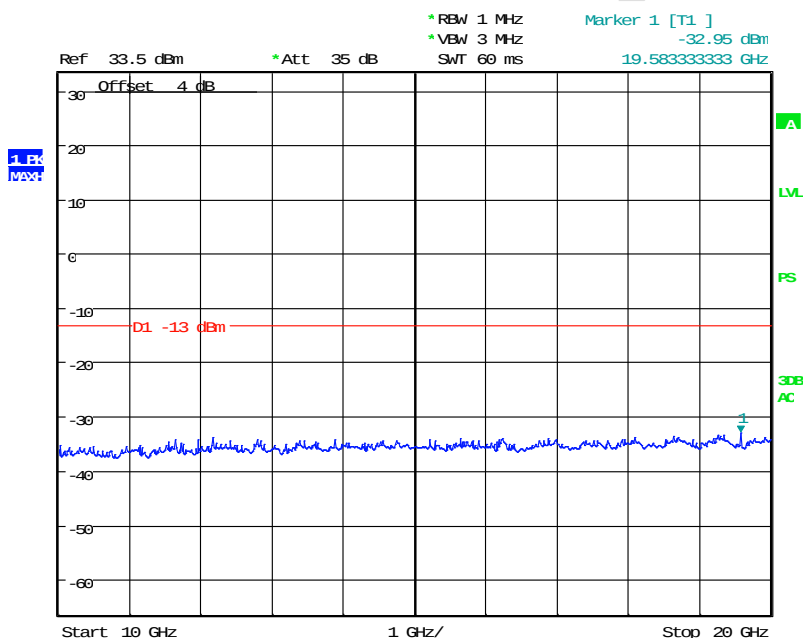
## Middle channel, 2310MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:09:51

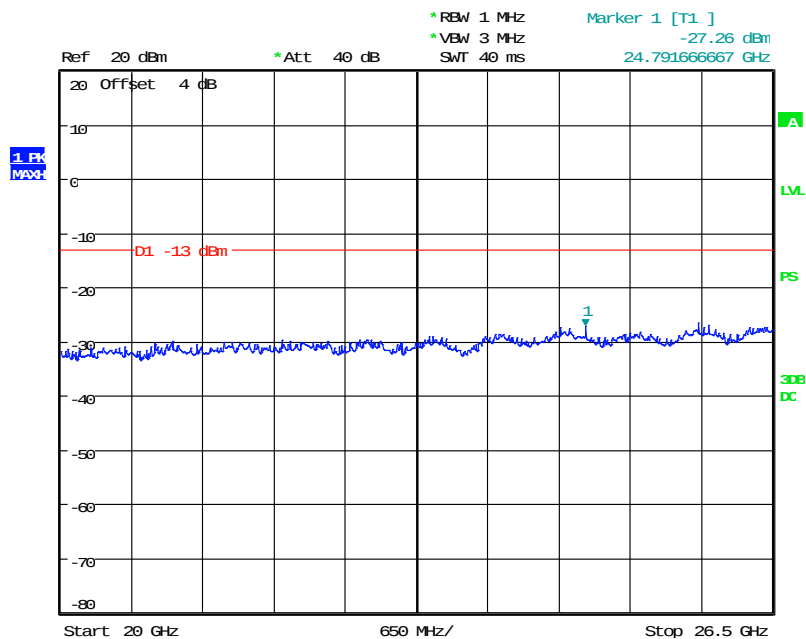
Note: The strong emission shown in each case is the carrier signal.

## Middle channel, 2310MHz, 10GHz to 20GHz



Date: 25.JUN.2015 18:09:25

## Middle channel, 2310MHz, 20GHz to 26.5GHz

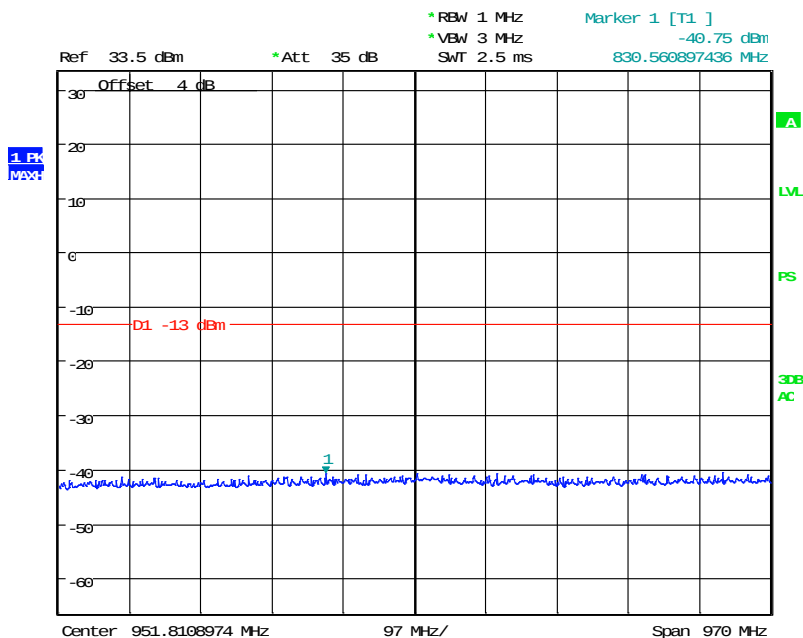


Date: 1.JUL.2015 14:40:38

## Graphical results:

10MHz bandwidth QPSK Mode

Middle channel, 2310MHz, 30MHz to 1GHz

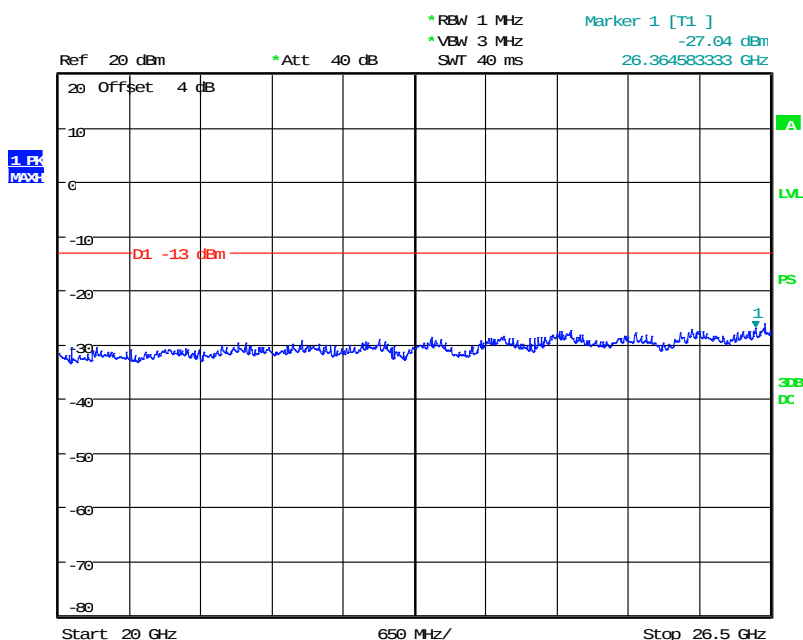


Date: 25.JUN.2015 18:10:56

**Note:** The strong emission shown in each case is the carrier signal.

Date: 25.JUN.2015 18:11:46

## Middle channel, 2310MHz, 10GHz to 20GHz



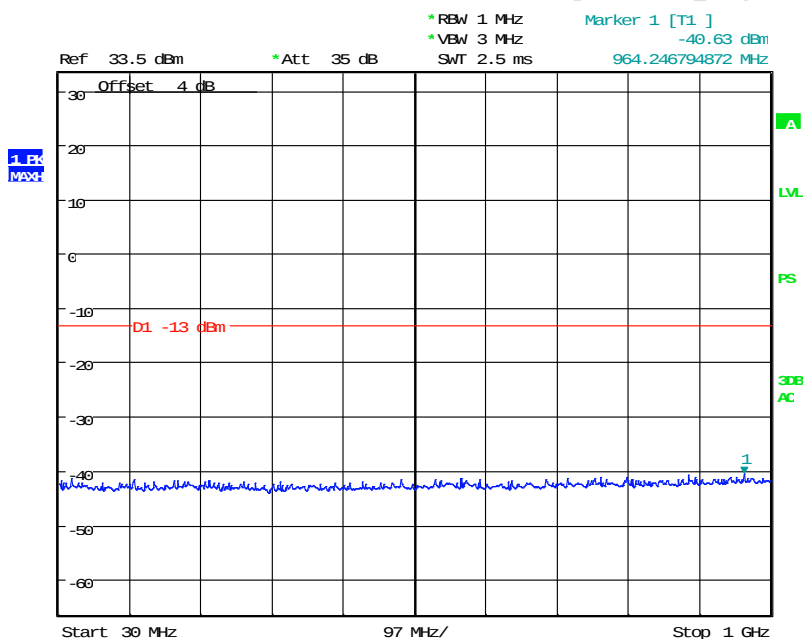
Date: 1.JUL.2015 14:41:22

## 4.3.8 LTE B41 Conducted Spurious Emission Results

## Graphical results:

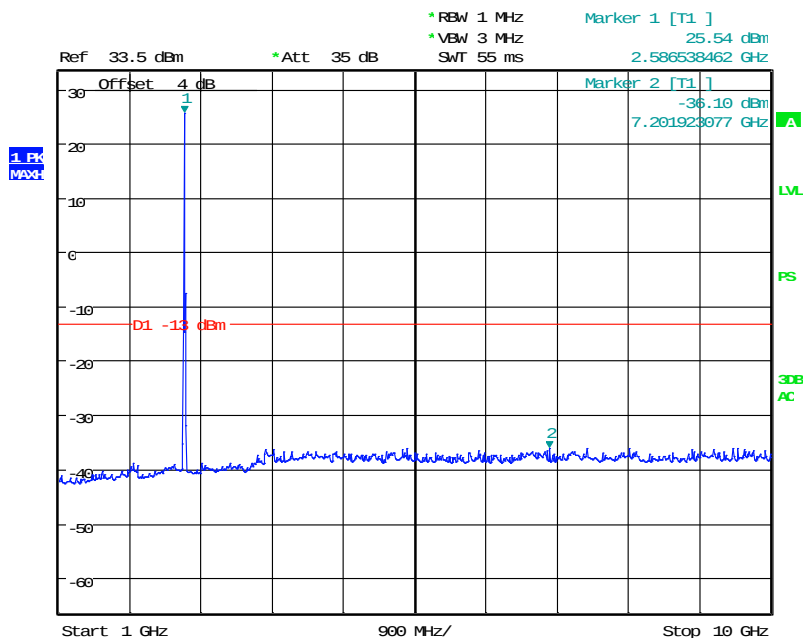
5MHz bandwidth QPSK Mode

Middle Channel, 2593 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:17:54

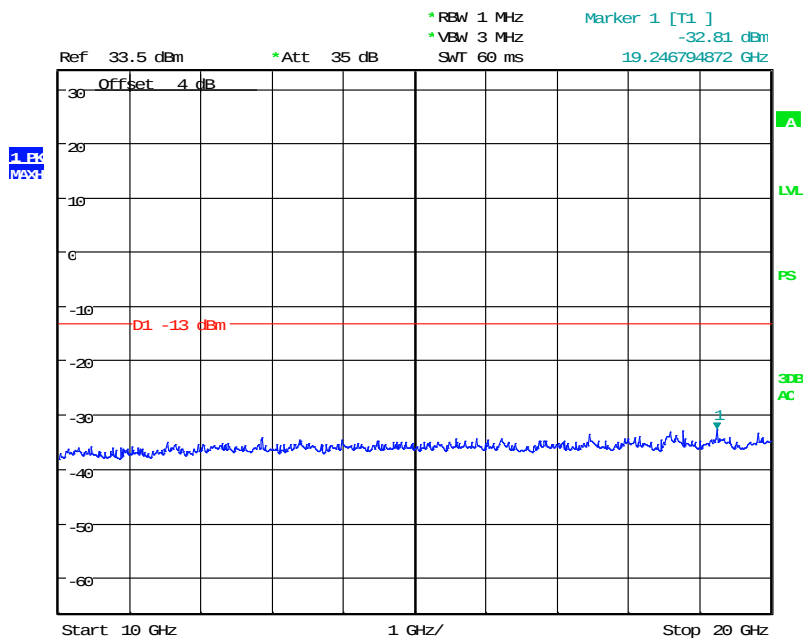
## Middle Channel, 2593 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:18:35

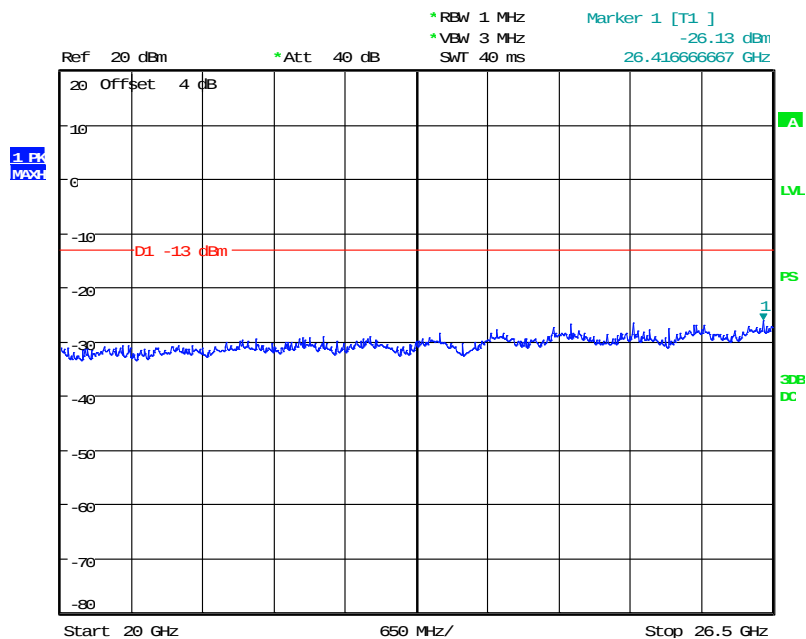
Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 2593 MHz, 10GHz to 20GHz



Date: 25.JUN.2015 18:19:02

## Middle Channel, 2593 MHz, 20GHz to 26.5GHz

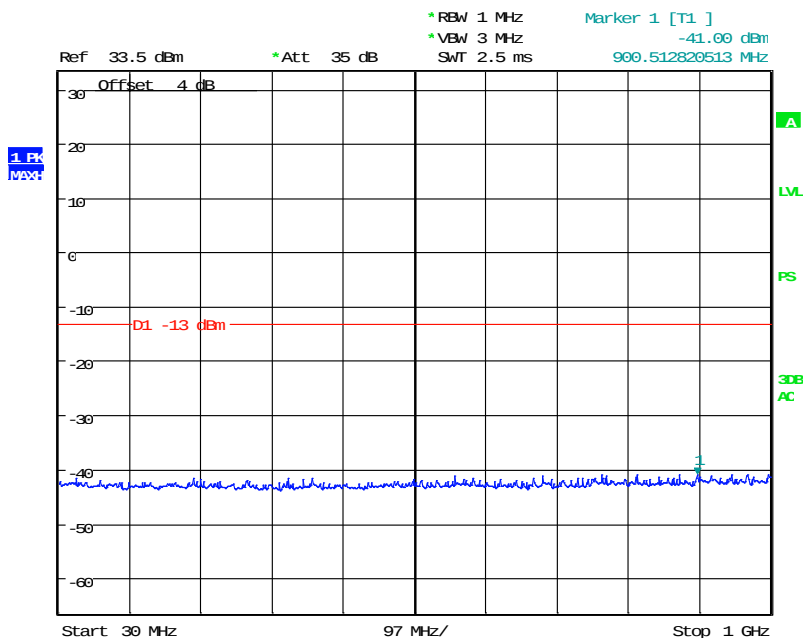


Date: 1.JUL.2015 14:43:26

## Graphical results:

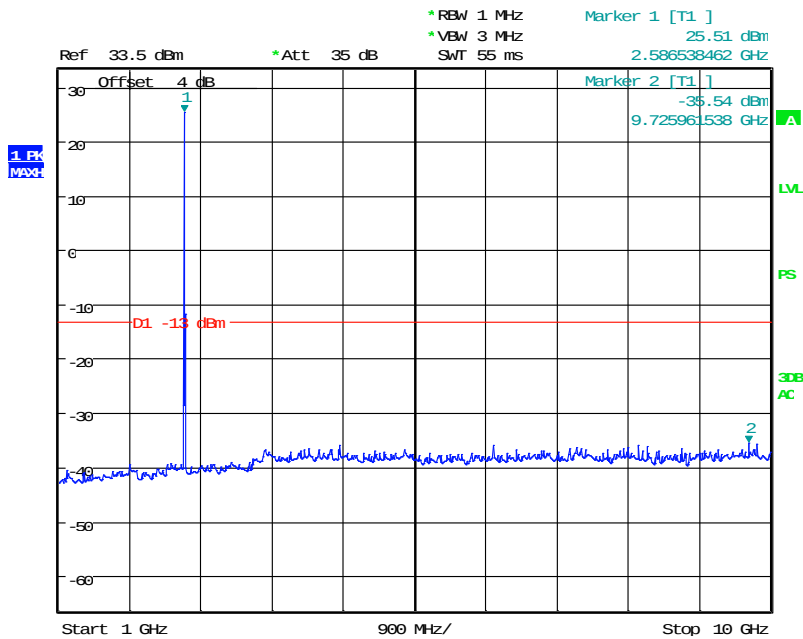
### 10MHz bandwidth QPSK Mode

### Middle Channel, 2593 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:20:31

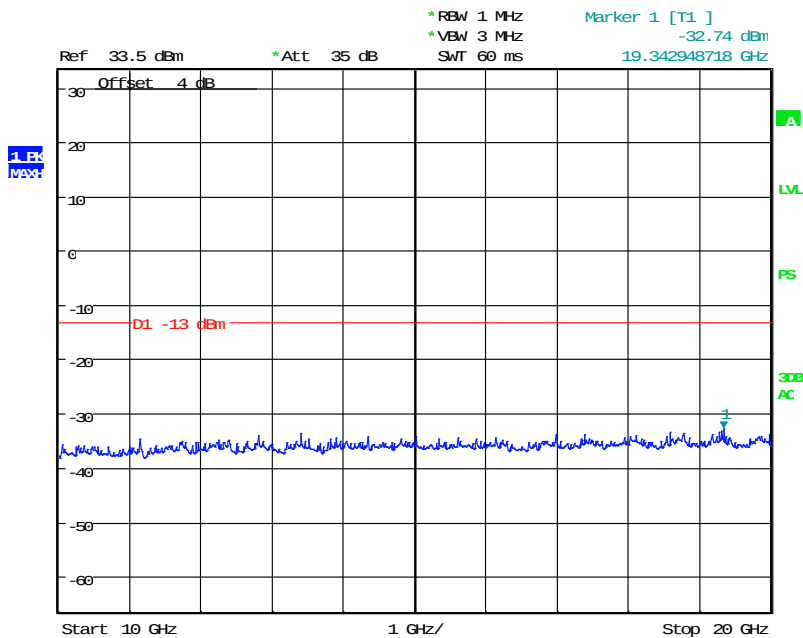
## Middle Channel, 2593 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:20:00

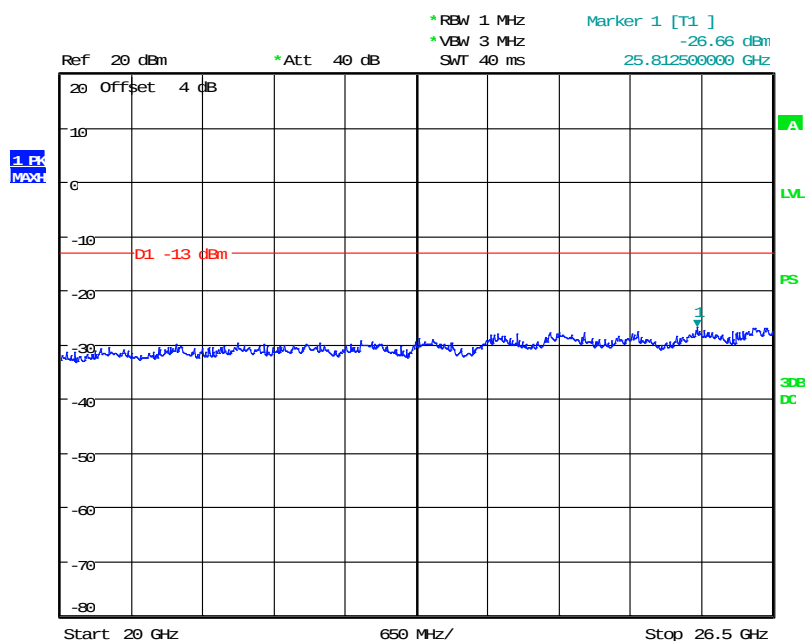
Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 2593 MHz, 10GHz to 20GHz



Date: 25.JUN.2015 18:19:35

## Middle Channel, 2593 MHz, 20GHz to 26.5GHz

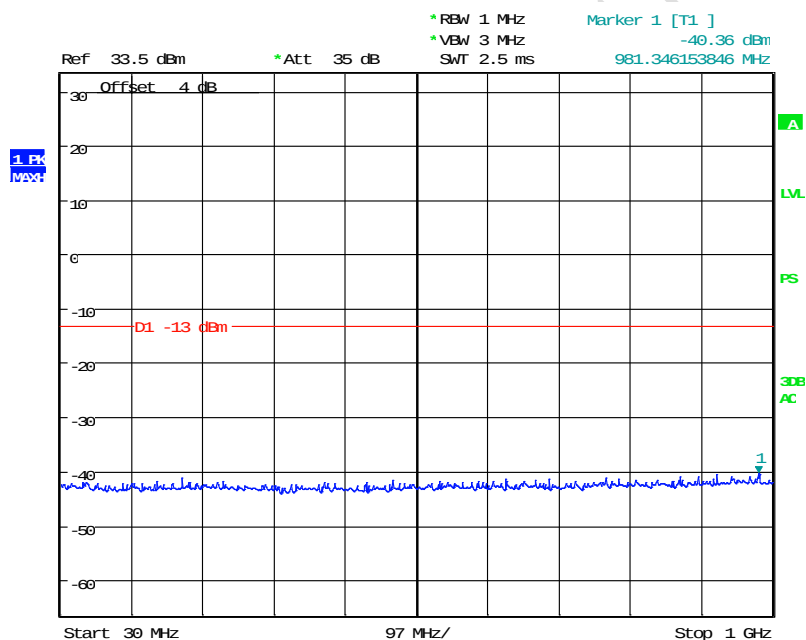


Date: 1.JUL.2015 14:44:08

## Graphical results:

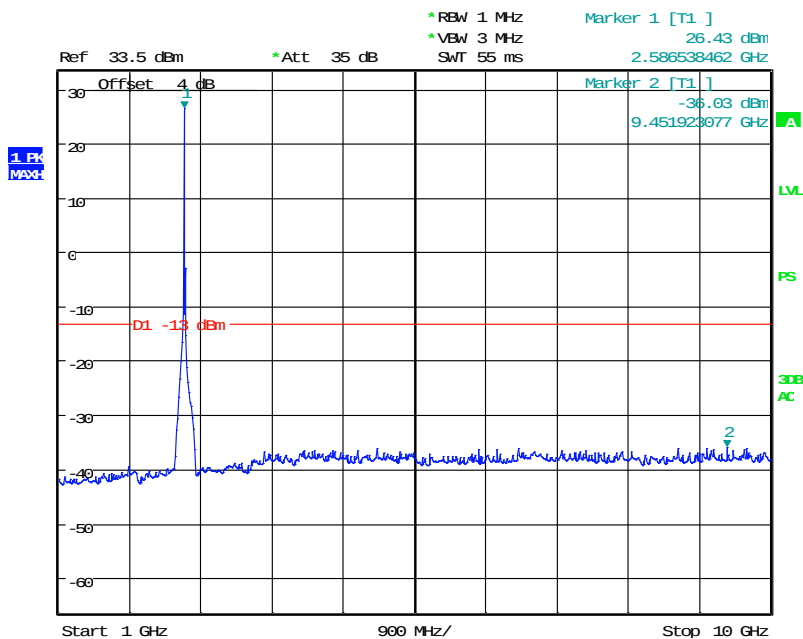
15MHz bandwidth QPSK Mode

Middle Channel, 2593MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:21:05

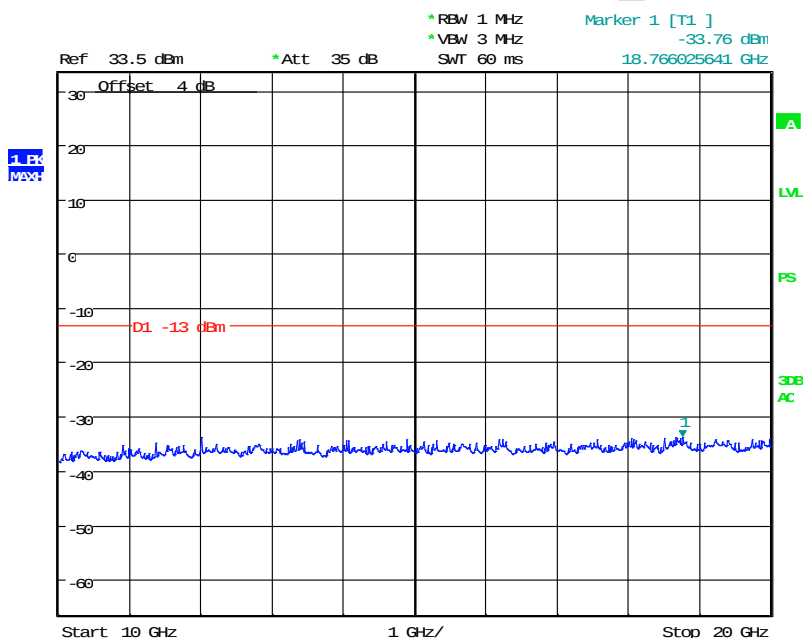
## Middle Channel, 2593MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:21:32

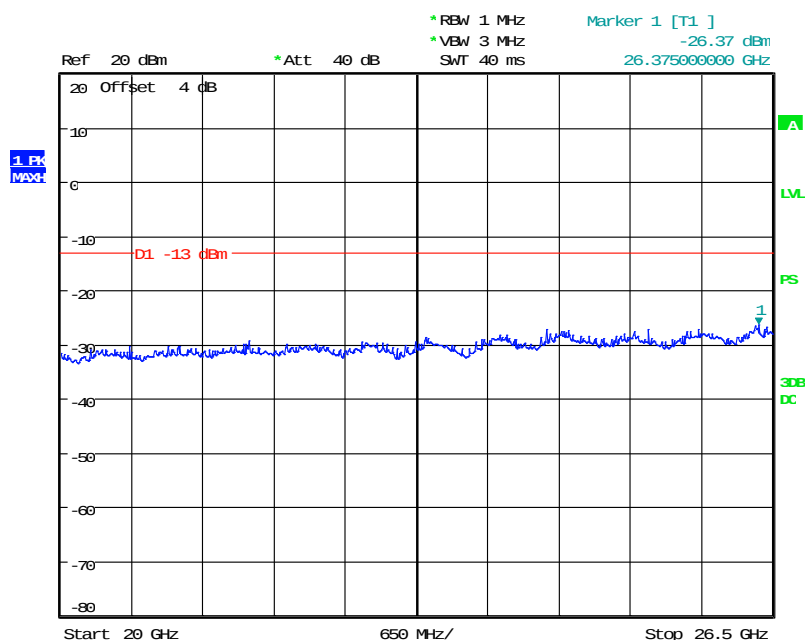
Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 2593 MHz, 10GHz to 20GHz



Date: 25.JUN.2015 18:22:05

## Middle Channel, 2593 MHz, 20GHz to 26.5GHz

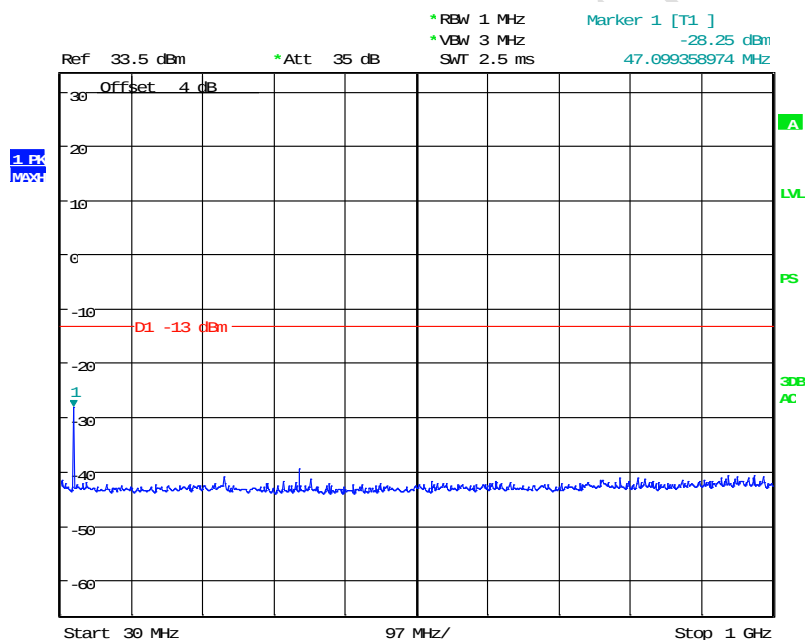


Date: 1.JUL.2015 14:44:46

## Graphical results:

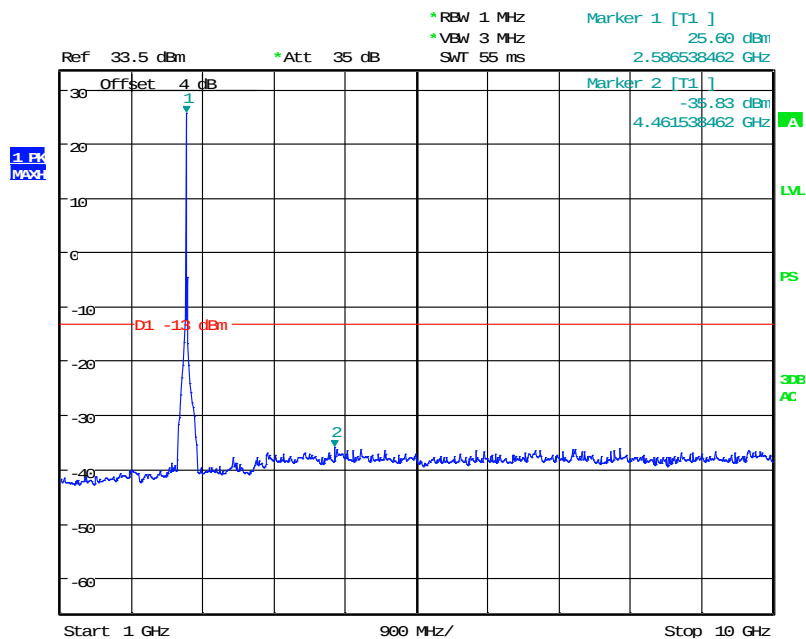
20MHz bandwidth QPSK Mode

Middle Channel, 2593 MHz, 30MHz to 1GHz



Date: 25.JUN.2015 18:23:29

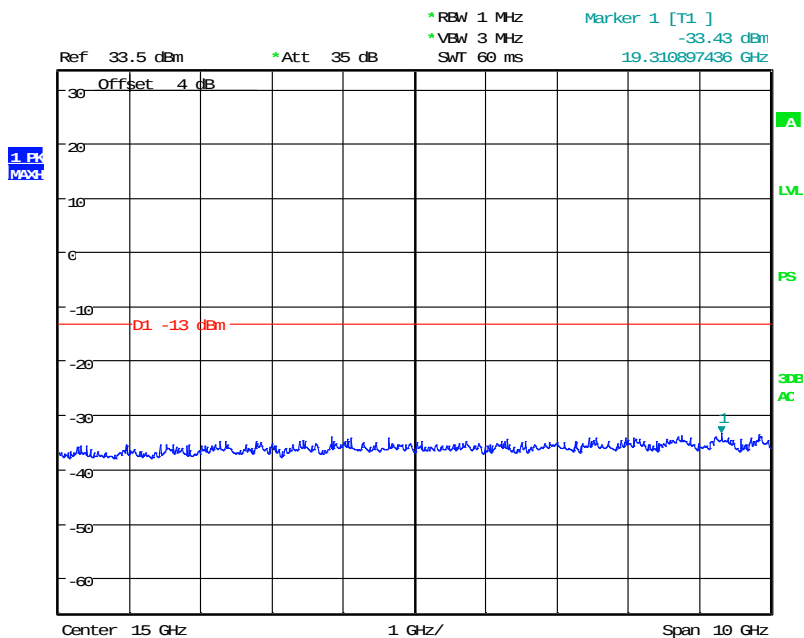
## Middle Channel, 2593 MHz, 1GHz to 10GHz



Date: 25.JUN.2015 18:23:05

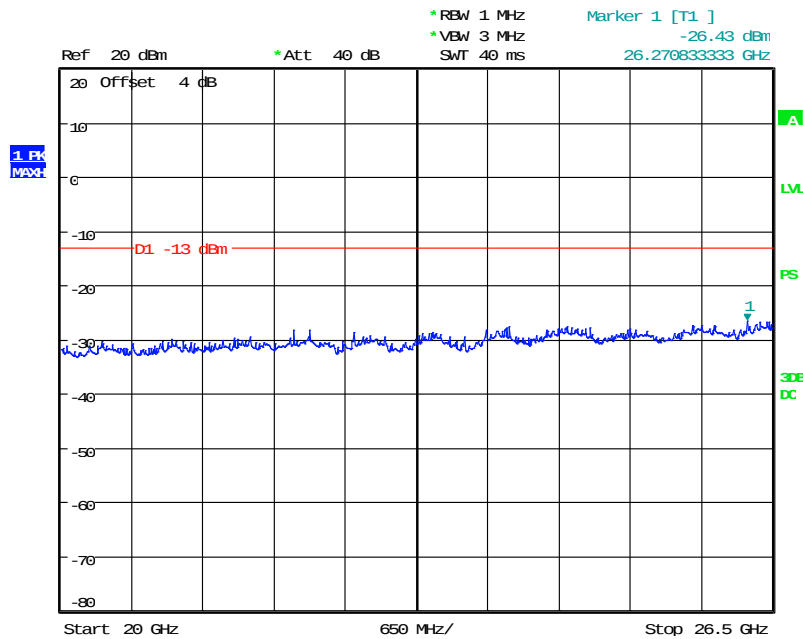
Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 2593 MHz, 10GHz to 20GHz



Date: 25.JUN.2015 18:22:39

## Middle Channel, 2593 MHz, 20GHz to 26.5GHz

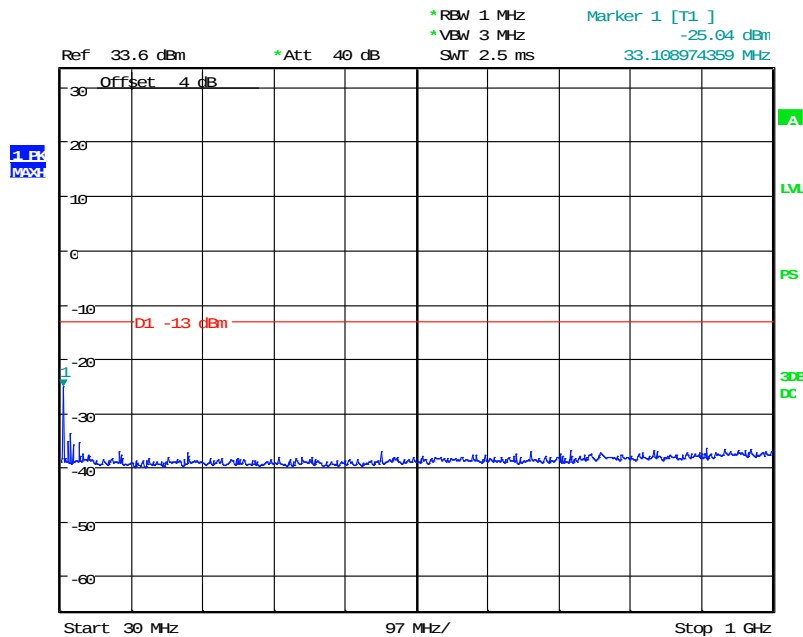


Date: 1.JUL.2015 14:45:24

## 4.3.9 WCDMA B2 Conducted Spurious Emission Results

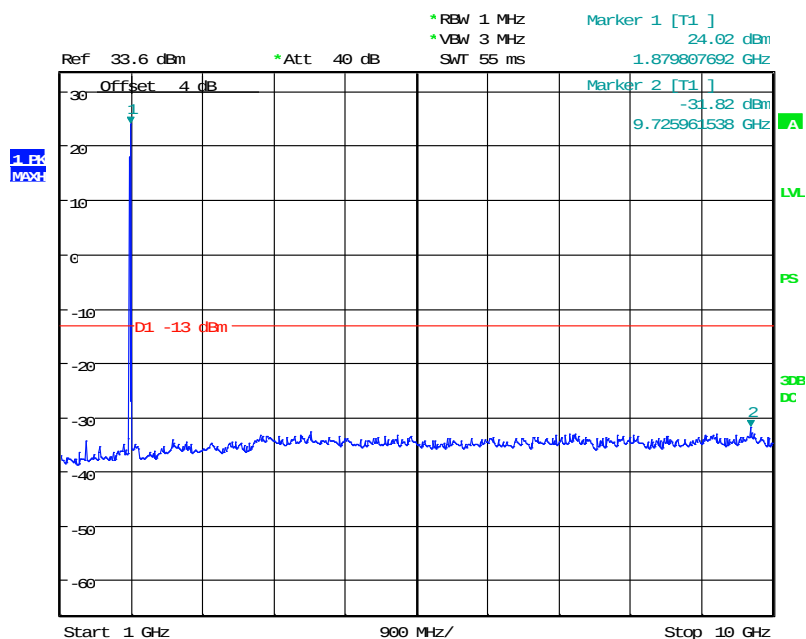
## Graphical results:

## Middle Channel, 1880 MHz, 30MHz to 1GHz



Date: 3.JUL.2015 13:04:36

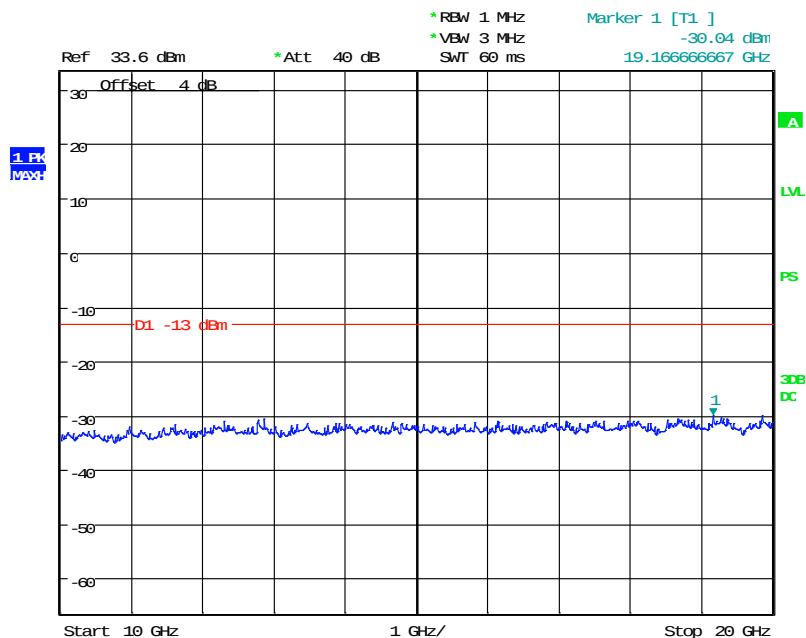
## Middle Channel, 1880 MHz, 1GHz to 10GHz



Date: 3.JUL.2015 13:03:43

Note: The strong emission shown in each case is the carrier signal.

## Middle Channel, 1880 MHz, 10GHz to 20GHz

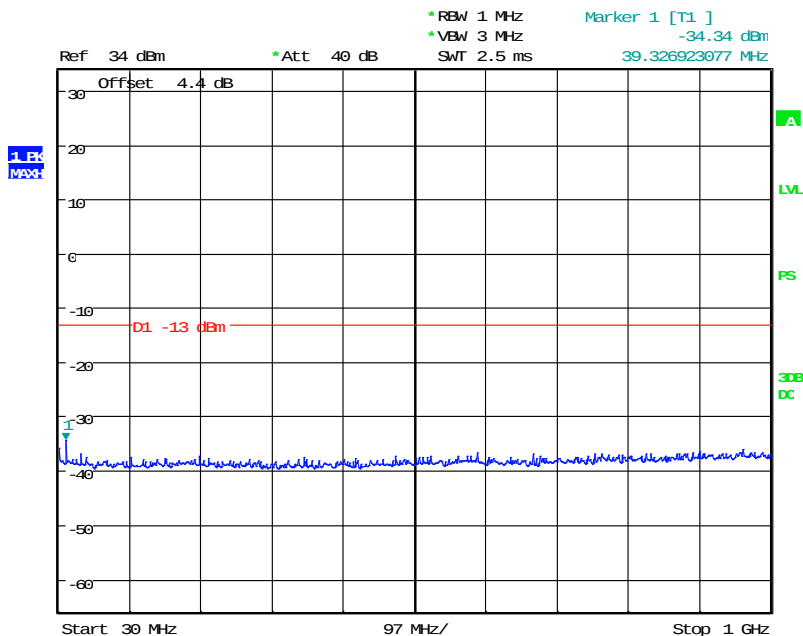


Date: 3.JUL.2015 13:03:09

#### 4.6.10 WCDMA B4 Conducted Spurious Emission Results

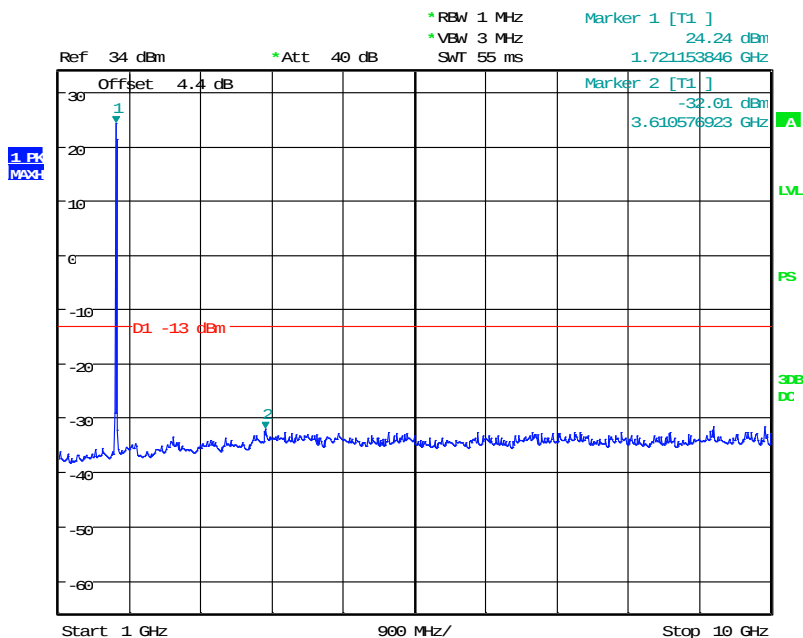
Graphical results:

Middle Channel, 1732.4 MHz, 30MHz to 1GHz



Date: 3.JUL.2015 12:58:44

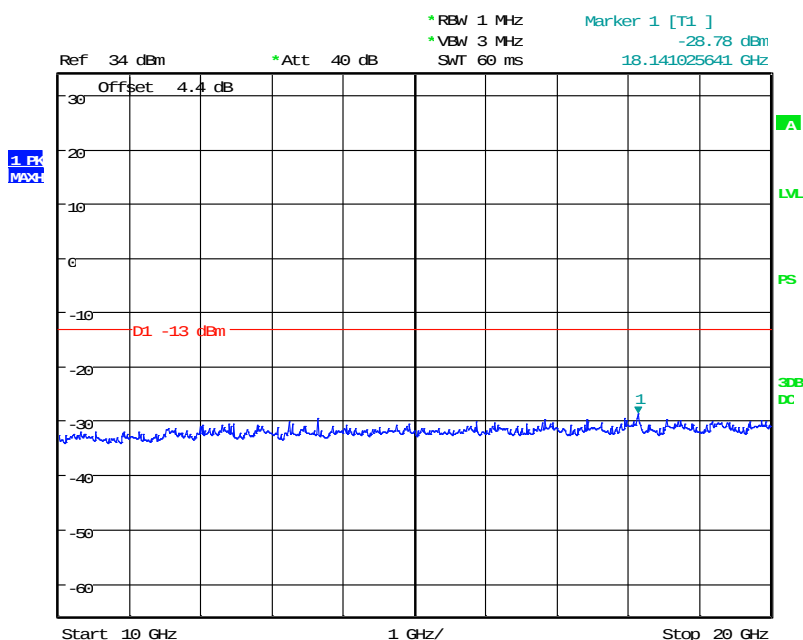
Middle Channel, 1732.4 MHz, 1GHz to 10GHz



Date: 3.JUL.2015 12:57:01

**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 1732.4 MHz, 10GHz to 20GHz

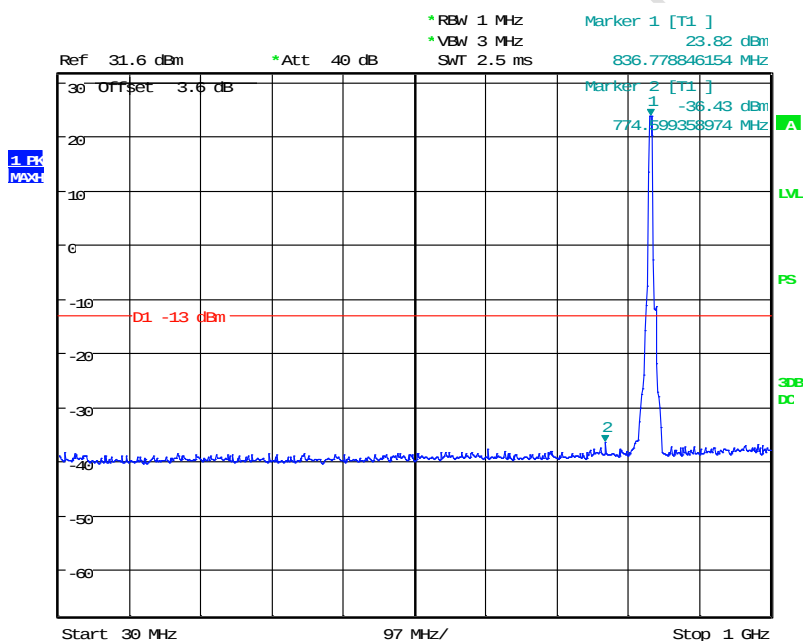


Date: 3.JUL.2015 12:59:50

## 4.6.11 WCDMA B5 Conducted Spurious Emission Results

Graphical results:

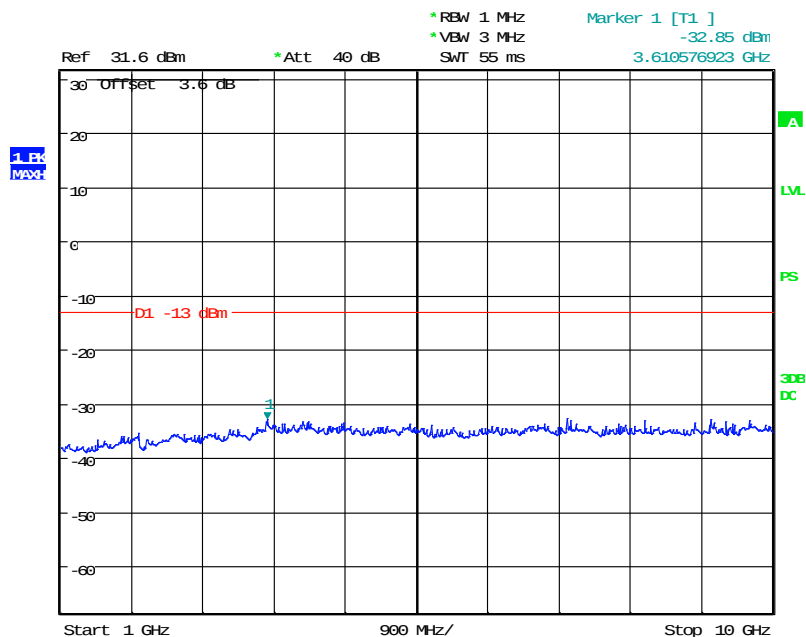
Middle Channel, 836.4 MHz, 30MHz to 1GHz



Date: 3.JUL.2015 12:53:41

**Note: The strong emission shown in each case is the carrier signal.**

## Middle Channel, 836.4 MHz, 1GHz to 10GHz



Date: 3.JUL.2015 12:54:42

#### 4.4 Radiated Spurious Emission

|                         |                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Specifications:</b>  | FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53, 90.691<br>RSS-130 4.6, RSS-132 4.5, RSS-133 6.5, RSS-199 4.6 |
| <b>Date of Tests</b>    | 2015-06-29-2015-06-30                                                                                        |
| <b>Test conditions:</b> | Ambient Temperature: 15°C-35°C<br>Relative Humidity: 30%-60%<br>Air pressure: 86-106kPa                      |
| <b>Test Results:</b>    | Pass                                                                                                         |

##### Limit Level Construction:

Out of band emissions, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB, so the limit level is:  
 $P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13 \text{ dBm}$

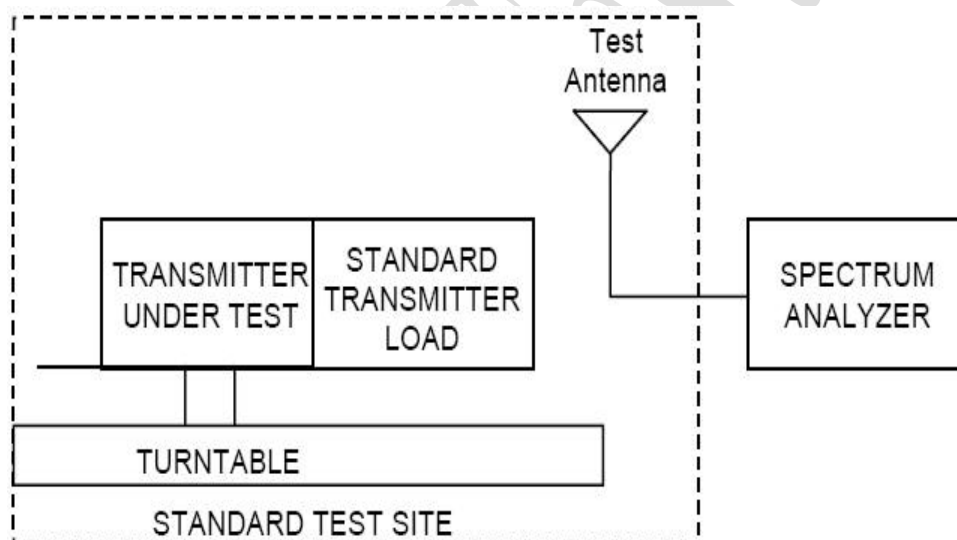
##### Test Setup:

The EUT was placed in an anechoic chamber. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

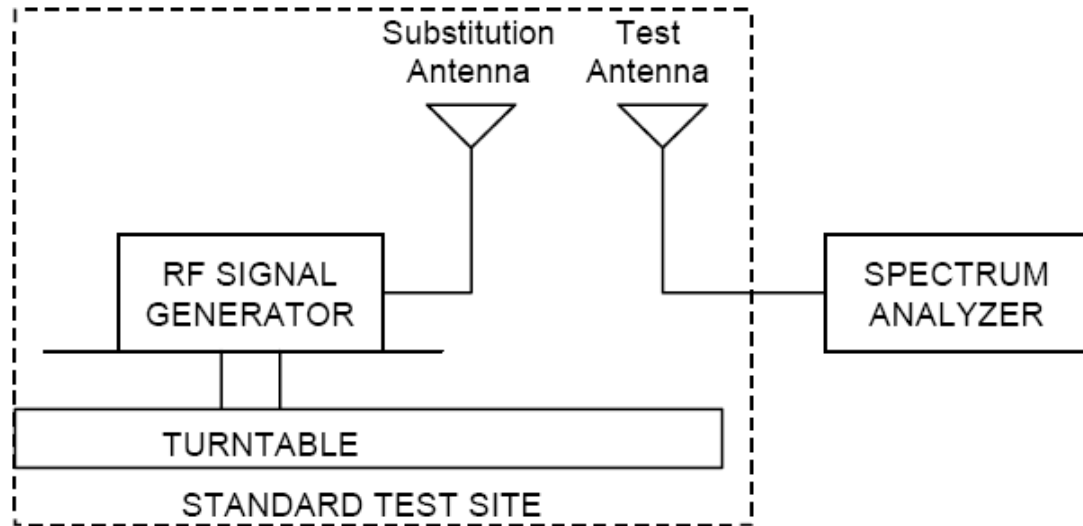
##### Test Method:

The measurement method is substitution method accordance with section 2.2.12 of ANSI/TIA-603-C: *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards*.

(a) Connect the equipment as illustrated and measure the spurious emissions as the method as above.



(b) Reconnect the equipment as illustrated.



(c) Remove the transmitter and replace it with a substitution antenna. The center of the substitution antenna should be approximately at the same location as the center of the transmitter.

(d) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.

(e) Repeat step d) with both antennas vertically polarized for each spurious frequency.

(f) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps d) and e) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

$$P_d(\text{dBm}) = P_g(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

where:

$P_d$  is the dipole equivalent power and

$P_g$  is the generator output power into the substitution antenna.

**4.4.1 LTE B4 Radiated Spurious Emission Results****Test Data (1.4MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.30                                | 6.90            | 12.60             | -38.00                                  | V                          |
| 5197.50         | -37.64                                | 5.80            | 12.70             | -44.54                                  | V                          |
| 6930.00         | -41.47                                | 0.90            | 11.70             | -52.27                                  | V                          |
| 8662.50         | -40.89                                | 1.10            | 11.90             | -51.69                                  | V                          |
| 10395.00        | -41.11                                | 0.80            | 12.10             | -52.41                                  | V                          |
| 3465.00         | -32.53                                | 6.90            | 12.60             | -38.23                                  | H                          |
| 5197.50         | -37.36                                | 5.80            | 12.70             | -44.26                                  | H                          |
| 6930.00         | -40.19                                | 0.90            | 11.70             | -50.99                                  | H                          |
| 8662.50         | -40.99                                | 1.10            | 11.90             | -51.79                                  | H                          |
| 10395.00        | -41.23                                | 0.80            | 12.10             | -52.53                                  | H                          |

**Test Data (1.4MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.32                                | 6.90            | 12.60             | -38.02                                  | V                          |
| 5197.50         | -37.78                                | 5.80            | 12.70             | -44.68                                  | V                          |
| 6930.00         | -41.23                                | 0.90            | 11.70             | -52.03                                  | V                          |
| 8662.50         | -40.97                                | 1.10            | 11.90             | -51.77                                  | V                          |
| 10395.00        | -41.46                                | 0.80            | 12.10             | -52.76                                  | V                          |
| 3465.00         | -32.21                                | 6.90            | 12.60             | -37.91                                  | H                          |
| 5197.50         | -37.43                                | 5.80            | 12.70             | -44.33                                  | H                          |
| 6930.00         | -40.23                                | 0.90            | 11.70             | -51.03                                  | H                          |
| 8662.50         | -40.67                                | 1.10            | 11.90             | -51.47                                  | H                          |
| 10395.00        | -41.56                                | 0.80            | 12.10             | -52.86                                  | H                          |

**Test Data (3MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.47                                | 6.90            | 12.60             | -38.17                                  | V                          |
| 5197.50         | -37.88                                | 5.80            | 12.70             | -44.78                                  | V                          |
| 6930.00         | -40.38                                | 0.90            | 11.70             | -51.18                                  | V                          |
| 8662.50         | -40.45                                | 1.10            | 11.90             | -51.25                                  | V                          |
| 10395.00        | -40.76                                | 0.80            | 12.10             | -52.06                                  | V                          |
| 3465.00         | -32.47                                | 6.90            | 12.60             | -38.17                                  | H                          |
| 5197.50         | -37.84                                | 5.80            | 12.70             | -44.74                                  | H                          |
| 6930.00         | -40.16                                | 0.90            | 11.70             | -50.96                                  | H                          |
| 8662.50         | -39.76                                | 1.10            | 11.90             | -50.56                                  | H                          |
| 10395.00        | -41.47                                | 0.80            | 12.10             | -52.77                                  | H                          |

**Test Data (3MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.03                                | 6.90            | 12.60             | -37.73                                  | V                          |
| 5197.50         | -37.91                                | 5.80            | 12.70             | -44.81                                  | V                          |
| 6930.00         | -40.24                                | 0.90            | 11.70             | -51.04                                  | V                          |
| 8662.50         | -39.76                                | 1.10            | 11.90             | -50.56                                  | V                          |
| 10395.00        | -40.73                                | 0.80            | 12.10             | -52.03                                  | V                          |
| 3465.00         | -32.98                                | 6.90            | 12.60             | -38.68                                  | H                          |
| 5197.50         | -37.77                                | 5.80            | 12.70             | -44.67                                  | H                          |
| 6930.00         | -40.33                                | 0.90            | 11.70             | -51.13                                  | H                          |
| 8662.50         | -41.02                                | 1.10            | 11.90             | -51.82                                  | H                          |
| 10395.00        | -40.53                                | 0.80            | 12.10             | -51.83                                  | H                          |

**Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.97                                | 6.90            | 12.60             | -38.67                                  | V                          |
| 5197.50         | -37.78                                | 5.80            | 12.70             | -44.68                                  | V                          |
| 6930.00         | -40.91                                | 0.90            | 11.70             | -51.71                                  | V                          |
| 8662.50         | -39.54                                | 1.10            | 11.90             | -50.34                                  | V                          |
| 10395.00        | -39.67                                | 0.80            | 12.10             | -50.97                                  | V                          |
| 3465.00         | -32.74                                | 6.90            | 12.60             | -38.44                                  | H                          |
| 5197.50         | -37.01                                | 5.80            | 12.70             | -43.91                                  | H                          |
| 6930.00         | -40.70                                | 0.90            | 11.70             | -51.50                                  | H                          |
| 8662.50         | -40.04                                | 1.10            | 11.90             | -50.84                                  | H                          |
| 10395.00        | -41.12                                | 0.80            | 12.10             | -52.42                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.98                                | 6.90            | 12.60             | -38.68                                  | V                          |
| 5197.50         | -37.55                                | 5.80            | 12.70             | -44.45                                  | V                          |
| 6930.00         | -40.33                                | 0.90            | 11.70             | -51.13                                  | V                          |
| 8662.50         | -39.74                                | 1.10            | 11.90             | -50.54                                  | V                          |
| 10395.00        | -41.03                                | 0.80            | 12.10             | -52.33                                  | V                          |
| 3465.00         | -32.25                                | 6.90            | 12.60             | -37.95                                  | H                          |
| 5197.50         | -37.11                                | 5.80            | 12.70             | -44.01                                  | H                          |
| 6930.00         | -40.39                                | 0.90            | 11.70             | -51.19                                  | H                          |
| 8662.50         | -40.45                                | 1.10            | 11.90             | -51.25                                  | H                          |
| 10395.00        | -40.43                                | 0.80            | 12.10             | -51.73                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.02                                | 6.90            | 12.60             | -37.72                                  | V                          |
| 5197.50         | -37.68                                | 5.80            | 12.70             | -44.58                                  | V                          |
| 6930.00         | -40.67                                | 0.90            | 11.70             | -51.47                                  | V                          |
| 8662.50         | -41.26                                | 1.10            | 11.90             | -52.06                                  | V                          |
| 10395.00        | -40.03                                | 0.80            | 12.10             | -51.33                                  | V                          |
| 3465.00         | -32.90                                | 6.90            | 12.60             | -38.60                                  | H                          |
| 5197.50         | -37.20                                | 5.80            | 12.70             | -44.10                                  | H                          |
| 6930.00         | -40.16                                | 0.90            | 11.70             | -50.96                                  | H                          |
| 8662.50         | -41.16                                | 1.10            | 11.90             | -51.96                                  | H                          |
| 10395.00        | -40.75                                | 0.80            | 12.10             | -52.05                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.55                                | 6.90            | 12.60             | -38.25                                  | V                          |
| 5197.50         | -37.27                                | 5.80            | 12.70             | -44.17                                  | V                          |
| 6930.00         | -40.39                                | 0.90            | 11.70             | -51.19                                  | V                          |
| 8662.50         | -40.41                                | 1.10            | 11.90             | -51.21                                  | V                          |
| 10395.00        | -41.15                                | 0.80            | 12.10             | -52.45                                  | V                          |
| 3465.00         | -32.99                                | 6.90            | 12.60             | -38.69                                  | H                          |
| 5197.50         | -37.03                                | 5.80            | 12.70             | -43.93                                  | H                          |
| 6930.00         | -40.44                                | 0.90            | 11.70             | -51.24                                  | H                          |
| 8662.50         | -40.18                                | 1.10            | 11.90             | -50.98                                  | H                          |
| 10395.00        | -40.97                                | 0.80            | 12.10             | -52.27                                  | H                          |

**Test Data (15MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.95                                | 6.90            | 12.60             | -38.65                                  | V                          |
| 5197.50         | -37.39                                | 5.80            | 12.70             | -44.29                                  | V                          |
| 6930.00         | -40.90                                | 0.90            | 11.70             | -51.70                                  | V                          |
| 8662.50         | -41.28                                | 1.10            | 11.90             | -52.08                                  | V                          |
| 10395.00        | -41.48                                | 0.80            | 12.10             | -52.78                                  | V                          |
| 3465.00         | -32.64                                | 6.90            | 12.60             | -38.34                                  | H                          |
| 5197.50         | -37.23                                | 5.80            | 12.70             | -44.13                                  | H                          |
| 6930.00         | -41.10                                | 0.90            | 11.70             | -51.90                                  | H                          |
| 8662.50         | -41.08                                | 1.10            | 11.90             | -51.88                                  | H                          |
| 10395.00        | -40.23                                | 0.80            | 12.10             | -51.53                                  | H                          |

**Test Data (15MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.71                                | 6.90            | 12.60             | -38.41                                  | V                          |
| 5197.50         | -37.16                                | 5.80            | 12.70             | -44.06                                  | V                          |
| 6930.00         | -39.94                                | 0.90            | 11.70             | -50.74                                  | V                          |
| 8662.50         | -40.39                                | 1.10            | 11.90             | -51.19                                  | V                          |
| 10395.00        | -40.53                                | 0.80            | 12.10             | -51.83                                  | V                          |
| 3465.00         | -32.93                                | 6.90            | 12.60             | -38.63                                  | H                          |
| 5197.50         | -37.90                                | 5.80            | 12.70             | -44.80                                  | H                          |
| 6930.00         | -39.66                                | 0.90            | 11.70             | -50.46                                  | H                          |
| 8662.50         | -40.57                                | 1.10            | 11.90             | -51.37                                  | H                          |
| 10395.00        | -40.91                                | 0.80            | 12.10             | -52.21                                  | H                          |

**Test Data (20MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.60                                | 6.90            | 12.60             | -38.30                                  | V                          |
| 5197.50         | -45.63                                | 5.80            | 12.70             | -52.53                                  | V                          |
| 6930.00         | -39.71                                | 0.90            | 11.70             | -50.51                                  | V                          |
| 8662.50         | -40.03                                | 1.10            | 11.90             | -50.83                                  | V                          |
| 10395.00        | -40.99                                | 0.80            | 12.10             | -52.29                                  | V                          |
| 3465.00         | -32.09                                | 6.90            | 12.60             | -37.79                                  | H                          |
| 5197.50         | -37.58                                | 5.80            | 12.70             | -44.48                                  | H                          |
| 6930.00         | -40.17                                | 0.90            | 11.70             | -50.97                                  | H                          |
| 8662.50         | -40.90                                | 1.10            | 11.90             | -51.70                                  | H                          |
| 10395.00        | -40.49                                | 0.80            | 12.10             | -51.79                                  | H                          |

**Test Data (20MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -32.29                                | 6.90            | 12.60             | -37.99                                  | V                          |
| 5197.50         | -37.64                                | 5.80            | 12.70             | -44.54                                  | V                          |
| 6930.00         | -40.10                                | 0.90            | 11.70             | -50.90                                  | V                          |
| 8662.50         | -39.73                                | 1.10            | 11.90             | -50.53                                  | V                          |
| 10395.00        | -40.93                                | 0.80            | 12.10             | -52.23                                  | V                          |
| 3465.00         | -32.99                                | 6.90            | 12.60             | -38.69                                  | H                          |
| 5197.50         | -37.69                                | 5.80            | 12.70             | -44.59                                  | H                          |
| 6930.00         | -38.64                                | 0.90            | 11.70             | -49.44                                  | H                          |
| 8662.50         | -39.94                                | 1.10            | 11.90             | -50.74                                  | H                          |
| 10395.00        | -39.67                                | 0.80            | 12.10             | -50.97                                  | H                          |

**4.4.2 LTE B7 Radiated Spurious Emission Results****Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -39.82                                | 6.80            | 12.70             | -45.72                                  | V                          |
| 7605.00         | -39.99                                | 0.80            | 11.70             | -50.89                                  | V                          |
| 10140.00        | -38.54                                | 0.70            | 12.10             | -49.94                                  | V                          |
| 12675.00        | -36.29                                | 0.30            | 13.60             | -49.59                                  | V                          |
| 15210.00        | -35.12                                | 0.40            | 13.60             | -48.32                                  | V                          |
| 5070.00         | -41.31                                | 6.80            | 12.70             | -47.21                                  | H                          |
| 7605.00         | -39.63                                | 0.80            | 11.70             | -50.53                                  | H                          |
| 10140.00        | -38.72                                | 0.70            | 12.10             | -50.12                                  | H                          |
| 12675.00        | -36.23                                | 0.30            | 13.60             | -49.53                                  | H                          |
| 15210.00        | -35.38                                | 0.40            | 13.60             | -48.58                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -40.86                                | 6.80            | 12.70             | -46.76                                  | V                          |
| 7605.00         | -39.48                                | 0.80            | 11.70             | -50.38                                  | V                          |
| 10140.00        | -39.36                                | 0.70            | 12.10             | -50.76                                  | V                          |
| 12675.00        | -36.69                                | 0.30            | 13.60             | -49.99                                  | V                          |
| 15210.00        | -35.01                                | 0.40            | 13.60             | -48.21                                  | V                          |
| 5070.00         | -40.49                                | 6.80            | 12.70             | -46.39                                  | H                          |
| 7605.00         | -40.34                                | 0.80            | 11.70             | -51.24                                  | H                          |
| 10140.00        | -38.04                                | 0.70            | 12.10             | -49.44                                  | H                          |
| 12675.00        | -35.59                                | 0.30            | 13.60             | -48.89                                  | H                          |
| 15210.00        | -34.99                                | 0.40            | 13.60             | -48.19                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -40.80                                | 6.80            | 12.70             | -46.70                                  | V                          |
| 7605.00         | -40.33                                | 0.80            | 11.70             | -51.23                                  | V                          |
| 10140.00        | -38.55                                | 0.70            | 12.10             | -49.95                                  | V                          |
| 12675.00        | -35.66                                | 0.30            | 13.60             | -48.96                                  | V                          |
| 15210.00        | -35.07                                | 0.40            | 13.60             | -48.27                                  | V                          |
| 5070.00         | -41.50                                | 6.80            | 12.70             | -47.40                                  | H                          |
| 7605.00         | -40.27                                | 0.80            | 11.70             | -51.17                                  | H                          |
| 10140.00        | -38.38                                | 0.70            | 12.10             | -49.78                                  | H                          |
| 12675.00        | -37.07                                | 0.30            | 13.60             | -50.37                                  | H                          |
| 15210.00        | -34.78                                | 0.40            | 13.60             | -47.98                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -40.48                                | 6.80            | 12.70             | -46.38                                  | V                          |
| 7605.00         | -39.98                                | 0.80            | 11.70             | -50.88                                  | V                          |
| 10140.00        | -37.46                                | 0.70            | 12.10             | -48.86                                  | V                          |
| 12675.00        | -37.00                                | 0.30            | 13.60             | -50.30                                  | V                          |
| 15210.00        | -34.76                                | 0.40            | 13.60             | -47.96                                  | V                          |
| 5070.00         | -40.48                                | 6.80            | 12.70             | -46.38                                  | H                          |
| 7605.00         | -40.58                                | 0.80            | 11.70             | -51.48                                  | H                          |
| 10140.00        | -38.57                                | 0.70            | 12.10             | -49.97                                  | H                          |
| 12675.00        | -35.32                                | 0.30            | 13.60             | -48.62                                  | H                          |
| 15210.00        | -35.07                                | 0.40            | 13.60             | -48.27                                  | H                          |

**Test Data (15MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -40.17                                | 6.80            | 12.70             | -46.07                                  | V                          |
| 7605.00         | -40.70                                | 0.80            | 11.70             | -51.60                                  | V                          |
| 10140.00        | -38.31                                | 0.70            | 12.10             | -49.71                                  | V                          |
| 12675.00        | -36.39                                | 0.30            | 13.60             | -49.69                                  | V                          |
| 15210.00        | -33.81                                | 0.40            | 13.60             | -47.01                                  | V                          |
| 5070.00         | -40.44                                | 6.80            | 12.70             | -46.34                                  | H                          |
| 7605.00         | -39.51                                | 0.80            | 11.70             | -50.41                                  | H                          |
| 10140.00        | -38.57                                | 0.70            | 12.10             | -49.97                                  | H                          |
| 12675.00        | -35.66                                | 0.30            | 13.60             | -48.96                                  | H                          |
| 15210.00        | -34.98                                | 0.40            | 13.60             | -48.18                                  | H                          |

**Test Data (15MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -39.85                                | 6.80            | 12.70             | -45.75                                  | V                          |
| 7605.00         | -38.83                                | 0.80            | 11.70             | -49.73                                  | V                          |
| 10140.00        | -37.84                                | 0.70            | 12.10             | -49.24                                  | V                          |
| 12675.00        | -35.31                                | 0.30            | 13.60             | -48.61                                  | V                          |
| 15210.00        | -35.16                                | 0.40            | 13.60             | -48.36                                  | V                          |
| 5070.00         | -40.81                                | 6.80            | 12.70             | -46.71                                  | H                          |
| 7605.00         | -41.11                                | 0.80            | 11.70             | -52.01                                  | H                          |
| 10140.00        | -36.20                                | 0.70            | 12.10             | -47.60                                  | H                          |
| 12675.00        | -36.70                                | 0.30            | 13.60             | -50.00                                  | H                          |
| 15210.00        | -35.44                                | 0.40            | 13.60             | -48.64                                  | H                          |

**Test Data (20MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -41.03                                | 6.80            | 12.70             | -46.93                                  | V                          |
| 7605.00         | -40.08                                | 0.80            | 11.70             | -50.98                                  | V                          |
| 10140.00        | -38.31                                | 0.70            | 12.10             | -49.71                                  | V                          |
| 12675.00        | -35.87                                | 0.30            | 13.60             | -49.17                                  | V                          |
| 15210.00        | -35.20                                | 0.40            | 13.60             | -48.40                                  | V                          |
| 5070.00         | -40.53                                | 6.80            | 12.70             | -46.43                                  | H                          |
| 7605.00         | -40.05                                | 0.80            | 11.70             | -50.95                                  | H                          |
| 10140.00        | -38.77                                | 0.70            | 12.10             | -50.17                                  | H                          |
| 12675.00        | -36.28                                | 0.30            | 13.60             | -49.58                                  | H                          |
| 15210.00        | -35.48                                | 0.40            | 13.60             | -48.68                                  | H                          |

**Test Data (20MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5070.00         | -40.43                                | 6.80            | 12.70             | -46.33                                  | V                          |
| 7605.00         | -49.31                                | 0.80            | 11.70             | -60.21                                  | V                          |
| 10140.00        | -39.11                                | 0.70            | 12.10             | -50.51                                  | V                          |
| 12675.00        | -37.35                                | 0.30            | 13.60             | -50.65                                  | V                          |
| 15210.00        | -35.59                                | 0.40            | 13.60             | -48.79                                  | V                          |
| 5070.00         | -40.39                                | 6.80            | 12.70             | -46.29                                  | H                          |
| 7605.00         | -40.51                                | 0.80            | 11.70             | -51.41                                  | H                          |
| 10140.00        | -38.99                                | 0.70            | 12.10             | -50.39                                  | H                          |
| 12675.00        | -35.18                                | 0.30            | 13.60             | -48.48                                  | H                          |
| 15210.00        | -34.04                                | 0.40            | 13.60             | -47.24                                  | H                          |

**4.4.3 LTE B12 Radiated Spurious Emission Results****Test Data (1.4MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -40.50                                | 4.40            | 8.00              | -44.1                                   | V                          |
| 2122.50         | -37.94                                | 5.40            | 10.40             | -42.94                                  | V                          |
| 2830.00         | -29.50                                | 6.30            | 11.50             | -34.7                                   | V                          |
| 3537.50         | -36.89                                | 7.00            | 12.60             | -42.49                                  | V                          |
| 4245.00         | -41.25                                | 7.80            | 12.60             | -46.05                                  | V                          |
| 1415.00         | -40.13                                | 4.40            | 8.00              | -43.73                                  | H                          |
| 2122.50         | -37.54                                | 5.40            | 10.40             | -42.54                                  | H                          |
| 2830.00         | -30.94                                | 6.30            | 11.50             | -36.14                                  | H                          |
| 3537.50         | -37.41                                | 7.00            | 12.60             | -43.01                                  | H                          |
| 4245.00         | -40.45                                | 7.80            | 12.60             | -45.25                                  | H                          |

**Test Data (1.4MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -40.34                                | 4.40            | 8.00              | -43.94                                  | V                          |
| 2122.50         | -37.95                                | 5.40            | 10.40             | -42.95                                  | V                          |
| 2830.00         | -29.79                                | 6.30            | 11.50             | -34.99                                  | V                          |
| 3537.50         | -36.87                                | 7.00            | 12.60             | -42.47                                  | V                          |
| 4245.00         | -41.03                                | 7.80            | 12.60             | -45.83                                  | V                          |
| 1415.00         | -40.42                                | 4.40            | 8.00              | -44.02                                  | H                          |
| 2122.50         | -38.28                                | 5.40            | 10.40             | -43.28                                  | H                          |
| 2830.00         | -31.93                                | 6.30            | 11.50             | -37.13                                  | H                          |
| 3537.50         | -38.12                                | 7.00            | 12.60             | -43.72                                  | H                          |
| 4245.00         | -38.98                                | 7.80            | 12.60             | -43.78                                  | H                          |

**Test Data (3MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -40.95                                | 4.40            | 8.00              | -44.55                                  | V                          |
| 2122.50         | -37.34                                | 5.40            | 10.40             | -42.34                                  | V                          |
| 2830.00         | -30.73                                | 6.30            | 11.50             | -35.93                                  | V                          |
| 3537.50         | -36.01                                | 7.00            | 12.60             | -41.61                                  | V                          |
| 4245.00         | -41.41                                | 7.80            | 12.60             | -46.21                                  | V                          |
| 1415.00         | -40.91                                | 4.40            | 8.00              | -44.51                                  | H                          |
| 2122.50         | -37.30                                | 5.40            | 10.40             | -42.30                                  | H                          |
| 2830.00         | -32.08                                | 6.30            | 11.50             | -37.28                                  | H                          |
| 3537.50         | -38.06                                | 7.00            | 12.60             | -43.66                                  | H                          |
| 4245.00         | -40.11                                | 7.80            | 12.60             | -44.91                                  | H                          |

**Test Data (3MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -37.36                                | 4.40            | 8.00              | -40.96                                  | V                          |
| 2122.50         | -37.36                                | 5.40            | 10.40             | -42.36                                  | V                          |
| 2830.00         | -28.83                                | 6.30            | 11.50             | -34.03                                  | V                          |
| 3537.50         | -37.84                                | 7.00            | 12.60             | -43.44                                  | V                          |
| 4245.00         | -41.57                                | 7.80            | 12.60             | -46.37                                  | V                          |
| 1415.00         | -40.62                                | 4.40            | 8.00              | -44.22                                  | H                          |
| 2122.50         | -37.31                                | 5.40            | 10.40             | -42.31                                  | H                          |
| 2830.00         | -32.23                                | 6.30            | 11.50             | -37.43                                  | H                          |
| 3537.50         | -38.36                                | 7.00            | 12.60             | -43.96                                  | H                          |
| 4245.00         | -39.86                                | 7.80            | 12.60             | -44.66                                  | H                          |

**Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -39.97                                | 4.40            | 8.00              | -43.57                                  | V                          |
| 2122.50         | -37.25                                | 5.40            | 10.40             | -42.25                                  | V                          |
| 2830.00         | -31.46                                | 6.30            | 11.50             | -36.66                                  | V                          |
| 3537.50         | -42.16                                | 7.00            | 12.60             | -47.76                                  | V                          |
| 4245.00         | -41.36                                | 7.80            | 12.60             | -46.16                                  | V                          |
| 1415.00         | -40.32                                | 4.40            | 8.00              | -43.92                                  | H                          |
| 2122.50         | -35.52                                | 5.40            | 10.40             | -40.52                                  | H                          |
| 2830.00         | -29.38                                | 6.30            | 11.50             | -34.58                                  | H                          |
| 3537.50         | -41.48                                | 7.00            | 12.60             | -47.08                                  | H                          |
| 4245.00         | -39.95                                | 7.80            | 12.60             | -44.75                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -40.23                                | 4.40            | 8.00              | -43.83                                  | V                          |
| 2122.50         | -37.99                                | 5.40            | 10.40             | -42.99                                  | V                          |
| 2830.00         | -31.76                                | 6.30            | 11.50             | -36.96                                  | V                          |
| 3537.50         | -42.13                                | 7.00            | 12.60             | -47.73                                  | V                          |
| 4245.00         | -41.29                                | 7.80            | 12.60             | -46.09                                  | V                          |
| 1415.00         | -40.76                                | 4.40            | 8.00              | -44.36                                  | H                          |
| 2122.50         | -36.67                                | 5.40            | 10.40             | -41.67                                  | H                          |
| 2830.00         | -30.71                                | 6.30            | 11.50             | -35.91                                  | H                          |
| 3537.50         | -41.97                                | 7.00            | 12.60             | -47.57                                  | H                          |
| 4245.00         | -39.89                                | 7.80            | 12.60             | -44.69                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -42.68                                | 4.40            | 8.00              | -46.28                                  | V                          |
| 2122.50         | -35.52                                | 5.40            | 10.40             | -40.52                                  | V                          |
| 2830.00         | -33.14                                | 6.30            | 11.50             | -38.34                                  | V                          |
| 3537.50         | -42.28                                | 7.00            | 12.60             | -47.88                                  | V                          |
| 4245.00         | -41.27                                | 7.80            | 12.60             | -46.07                                  | V                          |
| 1415.00         | -40.92                                | 4.40            | 8.00              | -44.52                                  | H                          |
| 2122.50         | -35.01                                | 5.40            | 10.40             | -40.01                                  | H                          |
| 2830.00         | -28.23                                | 6.30            | 11.50             | -33.43                                  | H                          |
| 3537.50         | -41.56                                | 7.00            | 12.60             | -47.16                                  | H                          |
| 4245.00         | -39.72                                | 7.80            | 12.60             | -44.52                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1415.00         | -40.01                                | 4.40            | 8.00              | -43.61                                  | V                          |
| 2122.50         | -36.87                                | 5.40            | 10.40             | -41.87                                  | V                          |
| 2830.00         | -32.46                                | 6.30            | 11.50             | -37.66                                  | V                          |
| 3537.50         | -42.74                                | 7.00            | 12.60             | -48.34                                  | V                          |
| 4245.00         | -41.98                                | 7.80            | 12.60             | -46.78                                  | V                          |
| 1415.00         | -40.76                                | 4.40            | 8.00              | -44.36                                  | H                          |
| 2122.50         | -36.67                                | 5.40            | 10.40             | -41.67                                  | H                          |
| 2830.00         | -38.71                                | 6.30            | 11.50             | -43.91                                  | H                          |
| 3537.50         | -41.97                                | 7.00            | 12.60             | -47.57                                  | H                          |
| 4245.00         | -39.89                                | 7.80            | 12.60             | -44.69                                  | H                          |

**4.4.4 LTE B13 Radiated Spurious Emission Results****Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1564.00         | -36.79                                | 4.60            | 9.40              | -41.59                                  | V                          |
| 2346.00         | -36.57                                | 5.60            | 10.60             | -41.57                                  | V                          |
| 3128.00         | -36.87                                | 6.60            | 11.50             | -41.77                                  | V                          |
| 3910.00         | -33.09                                | 7.40            | 12.60             | -38.29                                  | V                          |
| 4692.00         | -39.41                                | 8.10            | 12.70             | -44.01                                  | V                          |
| 1564.00         | -40.83                                | 4.60            | 9.40              | -45.63                                  | H                          |
| 2346.00         | -35.09                                | 5.60            | 10.60             | -40.09                                  | H                          |
| 3128.00         | -36.34                                | 6.60            | 11.50             | -41.24                                  | H                          |
| 3910.00         | -33.12                                | 7.40            | 12.60             | -38.32                                  | H                          |
| 4692.00         | -38.21                                | 8.10            | 12.70             | -42.81                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1564.00         | -39.99                                | 4.60            | 9.40              | -44.79                                  | V                          |
| 2346.00         | -35.18                                | 5.60            | 10.60             | -40.18                                  | V                          |
| 3128.00         | -36.97                                | 6.60            | 11.50             | -41.87                                  | V                          |
| 3910.00         | -33.21                                | 7.40            | 12.60             | -38.41                                  | V                          |
| 4692.00         | -40.16                                | 8.10            | 12.70             | -44.76                                  | V                          |
| 1564.00         | -40.10                                | 4.60            | 9.40              | -44.90                                  | H                          |
| 2346.00         | -36.91                                | 5.60            | 10.60             | -41.91                                  | H                          |
| 3128.00         | -36.83                                | 6.60            | 11.50             | -41.73                                  | H                          |
| 3910.00         | -34.89                                | 7.40            | 12.60             | -40.09                                  | H                          |
| 4692.00         | -39.77                                | 8.10            | 12.70             | -44.37                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1564.00         | -40.39                                | 4.60            | 9.40              | -45.19                                  | V                          |
| 2346.00         | -37.68                                | 5.60            | 10.60             | -42.68                                  | V                          |
| 3128.00         | -37.35                                | 6.60            | 11.50             | -42.25                                  | V                          |
| 3910.00         | -34.54                                | 7.40            | 12.60             | -39.74                                  | V                          |
| 4692.00         | -39.14                                | 8.10            | 12.70             | -43.74                                  | V                          |
| 1564.00         | -40.35                                | 4.60            | 9.40              | -45.15                                  | H                          |
| 2346.00         | -35.01                                | 5.60            | 10.60             | -40.01                                  | H                          |
| 3128.00         | -37.26                                | 6.60            | 11.50             | -42.16                                  | H                          |
| 3910.00         | -32.67                                | 7.40            | 12.60             | -37.87                                  | H                          |
| 4692.00         | -40.46                                | 8.10            | 12.70             | -45.06                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1564.00         | -40.74                                | 4.60            | 9.40              | -45.54                                  | V                          |
| 2346.00         | -36.71                                | 5.60            | 10.60             | -41.71                                  | V                          |
| 3128.00         | -37.30                                | 6.60            | 11.50             | -42.20                                  | V                          |
| 3910.00         | -34.36                                | 7.40            | 12.60             | -39.56                                  | V                          |
| 4692.00         | -39.26                                | 8.10            | 12.70             | -43.86                                  | V                          |
| 1564.00         | -40.01                                | 4.60            | 9.40              | -44.81                                  | H                          |
| 2346.00         | -36.13                                | 5.60            | 10.60             | -41.13                                  | H                          |
| 3128.00         | -37.87                                | 6.60            | 11.50             | -42.77                                  | H                          |
| 3910.00         | -32.16                                | 7.40            | 12.60             | -37.36                                  | H                          |
| 4692.00         | -39.98                                | 8.10            | 12.70             | -44.58                                  | H                          |

**4.4.5 LTE B25 Radiated Spurious Emission Results****Test Data (1.4MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.31                                | 7.40            | 12.60             | -40.51                                  | V                          |
| 5647.50         | -40.71                                | 1.80            | 13.10             | -52.01                                  | V                          |
| 7530.00         | -38.95                                | 0.90            | 11.70             | -49.75                                  | V                          |
| 9412.50         | -38.34                                | 0.80            | 11.90             | -49.44                                  | V                          |
| 11295.00        | -34.54                                | 0.30            | 11.50             | -45.74                                  | V                          |
| 3765.00         | -35.74                                | 7.40            | 12.60             | -40.94                                  | H                          |
| 5647.50         | -40.17                                | 1.80            | 13.10             | -51.47                                  | H                          |
| 7530.00         | -40.09                                | 0.90            | 11.70             | -50.89                                  | H                          |
| 9412.50         | -37.97                                | 0.80            | 11.90             | -49.07                                  | H                          |
| 11295.00        | -35.61                                | 0.30            | 11.50             | -46.81                                  | H                          |

**Test Data (1.4MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.06                                | 7.40            | 12.60             | -40.26                                  | V                          |
| 5647.50         | -41.44                                | 1.80            | 13.10             | -52.74                                  | V                          |
| 7530.00         | -41.29                                | 0.90            | 11.70             | -52.09                                  | V                          |
| 9412.50         | -39.11                                | 0.80            | 11.90             | -50.21                                  | V                          |
| 11295.00        | -34.25                                | 0.30            | 11.50             | -45.45                                  | V                          |
| 3765.00         | -35.48                                | 7.40            | 12.60             | -40.68                                  | H                          |
| 5647.50         | -40.31                                | 1.80            | 13.10             | -51.61                                  | H                          |
| 7530.00         | -39.50                                | 0.90            | 11.70             | -50.30                                  | H                          |
| 9412.50         | -36.94                                | 0.80            | 11.90             | -48.04                                  | H                          |
| 11295.00        | -35.50                                | 0.30            | 11.50             | -46.70                                  | H                          |

**Test Data (3MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.41                                | 7.40            | 12.60             | -40.61                                  | V                          |
| 5647.50         | -40.58                                | 1.80            | 13.10             | -51.88                                  | V                          |
| 7530.00         | -39.87                                | 0.90            | 11.70             | -50.67                                  | V                          |
| 9412.50         | -38.64                                | 0.80            | 11.90             | -49.74                                  | V                          |
| 11295.00        | -34.72                                | 0.30            | 11.50             | -45.92                                  | V                          |
| 3765.00         | -35.50                                | 7.40            | 12.60             | -40.70                                  | H                          |
| 5647.50         | -40.70                                | 1.80            | 13.10             | -52.00                                  | H                          |
| 7530.00         | -40.26                                | 0.90            | 11.70             | -51.06                                  | H                          |
| 9412.50         | -38.30                                | 0.80            | 11.90             | -49.40                                  | H                          |
| 11295.00        | -35.25                                | 0.30            | 11.50             | -46.45                                  | H                          |

**Test Data (3MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.21                                | 7.40            | 12.60             | -40.41                                  | V                          |
| 5647.50         | -39.84                                | 1.80            | 13.10             | -51.14                                  | V                          |
| 7530.00         | -40.26                                | 0.90            | 11.70             | -51.06                                  | V                          |
| 9412.50         | -38.21                                | 0.80            | 11.90             | -49.31                                  | V                          |
| 11295.00        | -35.68                                | 0.30            | 11.50             | -46.88                                  | V                          |
| 3765.00         | -35.23                                | 7.40            | 12.60             | -40.43                                  | H                          |
| 5647.50         | -40.98                                | 1.80            | 13.10             | -52.28                                  | H                          |
| 7530.00         | -39.96                                | 0.90            | 11.70             | -50.76                                  | H                          |
| 9412.50         | -38.58                                | 0.80            | 11.90             | -49.68                                  | H                          |
| 11295.00        | -35.30                                | 0.30            | 11.50             | -46.50                                  | H                          |

**Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.78                                | 7.40            | 12.60             | -40.98                                  | V                          |
| 5647.50         | -40.53                                | 1.80            | 13.10             | -51.83                                  | V                          |
| 7530.00         | -39.92                                | 0.90            | 11.70             | -50.72                                  | V                          |
| 9412.50         | -37.64                                | 0.80            | 11.90             | -48.74                                  | V                          |
| 11295.00        | -35.54                                | 0.30            | 11.50             | -46.74                                  | V                          |
| 3765.00         | -35.38                                | 7.40            | 12.60             | -40.58                                  | H                          |
| 5647.50         | -40.84                                | 1.80            | 13.10             | -52.14                                  | H                          |
| 7530.00         | -39.62                                | 0.90            | 11.70             | -50.42                                  | H                          |
| 9412.50         | -38.61                                | 0.80            | 11.90             | -49.71                                  | H                          |
| 11295.00        | -34.62                                | 0.30            | 11.50             | -45.82                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.75                                | 7.40            | 12.60             | -40.95                                  | V                          |
| 5647.50         | -39.66                                | 1.80            | 13.10             | -50.96                                  | V                          |
| 7530.00         | -39.94                                | 0.90            | 11.70             | -50.74                                  | V                          |
| 9412.50         | -38.62                                | 0.80            | 11.90             | -49.72                                  | V                          |
| 11295.00        | -35.90                                | 0.30            | 11.50             | -47.10                                  | V                          |
| 3765.00         | -35.78                                | 7.40            | 12.60             | -40.98                                  | H                          |
| 5647.50         | -40.53                                | 1.80            | 13.10             | -51.83                                  | H                          |
| 7530.00         | -39.92                                | 0.90            | 11.70             | -50.72                                  | H                          |
| 9412.50         | -37.64                                | 0.80            | 11.90             | -48.74                                  | H                          |
| 11295.00        | -35.54                                | 0.30            | 11.50             | -46.74                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.87                                | 7.40            | 12.60             | -41.07                                  | V                          |
| 5647.50         | -40.36                                | 1.80            | 13.10             | -51.66                                  | V                          |
| 7530.00         | -38.69                                | 0.90            | 11.70             | -49.49                                  | V                          |
| 9412.50         | -38.45                                | 0.80            | 11.90             | -49.55                                  | V                          |
| 11295.00        | -35.30                                | 0.30            | 11.50             | -46.50                                  | V                          |
| 3765.00         | -35.45                                | 7.40            | 12.60             | -40.65                                  | H                          |
| 5647.50         | -40.34                                | 1.80            | 13.10             | -51.64                                  | H                          |
| 7530.00         | -38.56                                | 0.90            | 11.70             | -49.36                                  | H                          |
| 9412.50         | -38.31                                | 0.80            | 11.90             | -49.41                                  | H                          |
| 11295.00        | -36.54                                | 0.30            | 11.50             | -47.74                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -34.58                                | 7.40            | 12.60             | -39.78                                  | V                          |
| 5647.50         | -40.13                                | 1.80            | 13.10             | -51.43                                  | V                          |
| 7530.00         | -37.63                                | 0.90            | 11.70             | -48.43                                  | V                          |
| 9412.50         | -40.95                                | 0.80            | 11.90             | -52.05                                  | V                          |
| 11295.00        | -34.58                                | 0.30            | 11.50             | -45.78                                  | V                          |
| 3765.00         | -36.48                                | 7.40            | 12.60             | -41.68                                  | H                          |
| 5647.50         | -39.48                                | 1.80            | 13.10             | -50.78                                  | H                          |
| 7530.00         | -37.68                                | 0.90            | 11.70             | -48.48                                  | H                          |
| 9412.50         | -40.23                                | 0.80            | 11.90             | -51.33                                  | H                          |
| 11295.00        | -39.56                                | 0.30            | 11.50             | -50.76                                  | H                          |

**Test Data (15MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -34.12                                | 7.40            | 12.60             | -39.32                                  | V                          |
| 5647.50         | -39.75                                | 1.80            | 13.10             | -51.05                                  | V                          |
| 7530.00         | -36.31                                | 0.90            | 11.70             | -47.11                                  | V                          |
| 9412.50         | -40.12                                | 0.80            | 11.90             | -51.22                                  | V                          |
| 11295.00        | -41.23                                | 0.30            | 11.50             | -52.43                                  | V                          |
| 3765.00         | -36.12                                | 7.40            | 12.60             | -41.32                                  | H                          |
| 5647.50         | -41.23                                | 1.80            | 13.10             | -52.53                                  | H                          |
| 7530.00         | -37.98                                | 0.90            | 11.70             | -48.78                                  | H                          |
| 9412.50         | -36.31                                | 0.80            | 11.90             | -47.41                                  | H                          |
| 11295.00        | -33.21                                | 0.30            | 11.50             | -44.41                                  | H                          |

**Test Data (15MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -36.25                                | 7.40            | 12.60             | -41.45                                  | V                          |
| 5647.50         | -40.12                                | 1.80            | 13.10             | -51.42                                  | V                          |
| 7530.00         | -40.36                                | 0.90            | 11.70             | -51.16                                  | V                          |
| 9412.50         | -39.31                                | 0.80            | 11.90             | -50.41                                  | V                          |
| 11295.00        | -35.15                                | 0.30            | 11.50             | -46.35                                  | V                          |
| 3765.00         | -35.15                                | 7.40            | 12.60             | -40.35                                  | H                          |
| 5647.50         | -38.99                                | 1.80            | 13.10             | -50.29                                  | H                          |
| 7530.00         | -38.31                                | 0.90            | 11.70             | -49.11                                  | H                          |
| 9412.50         | -40.59                                | 0.80            | 11.90             | -51.69                                  | H                          |
| 11295.00        | -33.13                                | 0.30            | 11.50             | -44.33                                  | H                          |

**Test Data (20MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.69                                | 7.40            | 12.60             | -40.89                                  | V                          |
| 5647.50         | -37.93                                | 1.80            | 13.10             | -49.23                                  | V                          |
| 7530.00         | -40.13                                | 0.90            | 11.70             | -50.93                                  | V                          |
| 9412.50         | -36.22                                | 0.80            | 11.90             | -47.32                                  | V                          |
| 11295.00        | -35.89                                | 0.30            | 11.50             | -47.09                                  | V                          |
| 3765.00         | -35.69                                | 7.40            | 12.60             | -40.89                                  | H                          |
| 5647.50         | -42.31                                | 1.80            | 13.10             | -53.61                                  | H                          |
| 7530.00         | -38.97                                | 0.90            | 11.70             | -49.77                                  | H                          |
| 9412.50         | -38.31                                | 0.80            | 11.90             | -49.41                                  | H                          |
| 11295.00        | -35.63                                | 0.30            | 11.50             | -46.83                                  | H                          |

**Test Data (20MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3765.00         | -35.43                                | 7.40            | 12.60             | -40.63                                  | V                          |
| 5647.50         | -40.21                                | 1.80            | 13.10             | -51.51                                  | V                          |
| 7530.00         | -40.89                                | 0.90            | 11.70             | -51.69                                  | V                          |
| 9412.50         | -38.79                                | 0.80            | 11.90             | -49.89                                  | V                          |
| 11295.00        | -35.17                                | 0.30            | 11.50             | -46.37                                  | V                          |
| 3765.00         | -35.72                                | 7.40            | 12.60             | -40.92                                  | H                          |
| 5647.50         | -40.36                                | 1.80            | 13.10             | -51.66                                  | H                          |
| 7530.00         | -40.87                                | 0.90            | 11.70             | -51.67                                  | H                          |
| 9412.50         | -38.54                                | 0.80            | 11.90             | -49.64                                  | H                          |
| 11295.00        | -36.89                                | 0.30            | 11.50             | -48.09                                  | H                          |

**4.4.6 LTE B26 Radiated Spurious Emission Results****Test Data (1.4MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -38.36                                | 4.70            | 9.40              | -43.06                                  | V                          |
| 2494.50         | -37.53                                | 5.90            | 10.60             | -42.23                                  | V                          |
| 3326.00         | -36.73                                | 6.80            | 11.50             | -41.43                                  | V                          |
| 4157.50         | -32.21                                | 7.60            | 12.60             | -37.21                                  | V                          |
| 4989.00         | -40.12                                | 7.50            | 12.70             | -45.32                                  | V                          |
| 1663.00         | -38.36                                | 4.70            | 9.40              | -43.06                                  | H                          |
| 2494.50         | -39.87                                | 5.90            | 10.60             | -44.57                                  | H                          |
| 3326.00         | -36.54                                | 6.80            | 11.50             | -41.24                                  | H                          |
| 4157.50         | -32.98                                | 7.60            | 12.60             | -37.98                                  | H                          |
| 4989.00         | -40.35                                | 7.50            | 12.70             | -45.55                                  | H                          |

**Test Data (1.4MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -38.87                                | 4.70            | 9.40              | -43.57                                  | V                          |
| 2494.50         | -37.01                                | 5.90            | 10.60             | -41.71                                  | V                          |
| 3326.00         | -36.23                                | 6.80            | 11.50             | -40.93                                  | V                          |
| 4157.50         | -31.98                                | 7.60            | 12.60             | -36.98                                  | V                          |
| 4989.00         | -40.61                                | 7.50            | 12.70             | -45.81                                  | V                          |
| 1663.00         | -38.38                                | 4.70            | 9.40              | -43.08                                  | H                          |
| 2494.50         | -40.23                                | 5.90            | 10.60             | -44.93                                  | H                          |
| 3326.00         | -36.74                                | 6.80            | 11.50             | -41.44                                  | H                          |
| 4157.50         | -32.48                                | 7.60            | 12.60             | -37.48                                  | H                          |
| 4989.00         | -39.41                                | 7.50            | 12.70             | -44.61                                  | H                          |

**Test Data (3MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -35.85                                | 4.70            | 9.40              | -40.55                                  | V                          |
| 2494.50         | -39.99                                | 5.90            | 10.60             | -44.69                                  | V                          |
| 3326.00         | -36.98                                | 6.80            | 11.50             | -41.68                                  | V                          |
| 4157.50         | -32.89                                | 7.60            | 12.60             | -37.89                                  | V                          |
| 4989.00         | -40.32                                | 7.50            | 12.70             | -45.52                                  | V                          |
| 1663.00         | -38.54                                | 4.70            | 9.40              | -43.24                                  | H                          |
| 2494.50         | -38.15                                | 5.90            | 10.60             | -42.85                                  | H                          |
| 3326.00         | -36.99                                | 6.80            | 11.50             | -41.69                                  | H                          |
| 4157.50         | -32.82                                | 7.60            | 12.60             | -37.82                                  | H                          |
| 4989.00         | -40.23                                | 7.50            | 12.70             | -45.43                                  | H                          |

**Test Data (3MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -36.31                                | 4.70            | 9.40              | -41.01                                  | V                          |
| 2494.50         | -40.46                                | 5.90            | 10.60             | -45.16                                  | V                          |
| 3326.00         | -37.56                                | 6.80            | 11.50             | -42.26                                  | V                          |
| 4157.50         | -33.69                                | 7.60            | 12.60             | -38.69                                  | V                          |
| 4989.00         | -41.23                                | 7.50            | 12.70             | -46.43                                  | V                          |
| 1663.00         | -36.92                                | 4.70            | 9.40              | -41.62                                  | H                          |
| 2494.50         | -38.20                                | 5.90            | 10.60             | -42.90                                  | H                          |
| 3326.00         | -36.93                                | 6.80            | 11.50             | -41.63                                  | H                          |
| 4157.50         | -32.13                                | 7.60            | 12.60             | -37.13                                  | H                          |
| 4989.00         | -40.70                                | 7.50            | 12.70             | -45.90                                  | H                          |

**Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -38.03                                | 4.70            | 9.40              | -42.73                                  | V                          |
| 2494.50         | -38.58                                | 5.90            | 10.60             | -43.28                                  | V                          |
| 3326.00         | -36.62                                | 6.80            | 11.50             | -41.32                                  | V                          |
| 4157.50         | -32.96                                | 7.60            | 12.60             | -37.96                                  | V                          |
| 4989.00         | -41.32                                | 7.50            | 12.70             | -46.52                                  | V                          |
| 1663.00         | -37.14                                | 4.70            | 9.40              | -41.84                                  | H                          |
| 2494.50         | -37.43                                | 5.90            | 10.60             | -42.13                                  | H                          |
| 3326.00         | -36.12                                | 6.80            | 11.50             | -40.82                                  | H                          |
| 4157.50         | -32.08                                | 7.60            | 12.60             | -37.08                                  | H                          |
| 4989.00         | -40.26                                | 7.50            | 12.70             | -45.46                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -37.64                                | 4.70            | 9.40              | -42.34                                  | V                          |
| 2494.50         | -38.85                                | 5.90            | 10.60             | -43.55                                  | V                          |
| 3326.00         | -36.12                                | 6.80            | 11.50             | -40.82                                  | V                          |
| 4157.50         | -32.68                                | 7.60            | 12.60             | -37.68                                  | V                          |
| 4989.00         | -42.01                                | 7.50            | 12.70             | -47.21                                  | V                          |
| 1663.00         | -37.85                                | 4.70            | 9.40              | -42.55                                  | H                          |
| 2494.50         | -37.38                                | 5.90            | 10.60             | -42.08                                  | H                          |
| 3326.00         | -36.99                                | 6.80            | 11.50             | -41.69                                  | H                          |
| 4157.50         | -32.39                                | 7.60            | 12.60             | -37.39                                  | H                          |
| 4989.00         | -41.84                                | 7.50            | 12.70             | -47.04                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -38.87                                | 4.70            | 9.40              | -43.57                                  | V                          |
| 2494.50         | -35.24                                | 5.90            | 10.60             | -39.94                                  | V                          |
| 3326.00         | -36.12                                | 6.80            | 11.50             | -40.82                                  | V                          |
| 4157.50         | -32.32                                | 7.60            | 12.60             | -37.32                                  | V                          |
| 4989.00         | -41.56                                | 7.50            | 12.70             | -46.76                                  | V                          |
| 1663.00         | -37.90                                | 4.70            | 9.40              | -42.60                                  | H                          |
| 2494.50         | -37.37                                | 5.90            | 10.60             | -42.07                                  | H                          |
| 3326.00         | -36.12                                | 6.80            | 11.50             | -40.82                                  | H                          |
| 4157.50         | -32.01                                | 7.60            | 12.60             | -37.01                                  | H                          |
| 4989.00         | -40.27                                | 7.50            | 12.70             | -45.47                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -39.02                                | 4.70            | 9.40              | -43.72                                  | V                          |
| 2494.50         | -37.77                                | 5.90            | 10.60             | -42.47                                  | V                          |
| 3326.00         | -36.73                                | 6.80            | 11.50             | -41.43                                  | V                          |
| 4157.50         | -32.23                                | 7.60            | 12.60             | -37.23                                  | V                          |
| 4989.00         | -41.02                                | 7.50            | 12.70             | -46.22                                  | V                          |
| 1663.00         | -36.77                                | 4.70            | 9.40              | -41.47                                  | H                          |
| 2494.50         | -36.58                                | 5.90            | 10.60             | -41.28                                  | H                          |
| 3326.00         | -36.22                                | 6.80            | 11.50             | -40.92                                  | H                          |
| 4157.50         | -32.80                                | 7.60            | 12.60             | -37.80                                  | H                          |
| 4989.00         | -40.46                                | 7.50            | 12.70             | -45.66                                  | H                          |

**Test Data (15MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -39.14                                | 4.70            | 9.40              | -43.84                                  | V                          |
| 2494.50         | -36.01                                | 5.90            | 10.60             | -40.71                                  | V                          |
| 3326.00         | -36.87                                | 6.80            | 11.50             | -41.57                                  | V                          |
| 4157.50         | -32.97                                | 7.60            | 12.60             | -37.97                                  | V                          |
| 4989.00         | -41.10                                | 7.50            | 12.70             | -46.30                                  | V                          |
| 1663.00         | -37.62                                | 4.70            | 9.40              | -42.32                                  | H                          |
| 2494.50         | -36.53                                | 5.90            | 10.60             | -41.23                                  | H                          |
| 3326.00         | -36.12                                | 6.80            | 11.50             | -40.82                                  | H                          |
| 4157.50         | -32.17                                | 7.60            | 12.60             | -37.17                                  | H                          |
| 4989.00         | -40.57                                | 7.50            | 12.70             | -45.77                                  | H                          |

**Test Data (15MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 1663.00         | -39.75                                | 4.70            | 9.40              | -44.45                                  | V                          |
| 2494.50         | -41.19                                | 5.90            | 10.60             | -45.89                                  | V                          |
| 3326.00         | -36.03                                | 6.80            | 11.50             | -40.73                                  | V                          |
| 4157.50         | -32.24                                | 7.60            | 12.60             | -37.24                                  | V                          |
| 4989.00         | -41.25                                | 7.50            | 12.70             | -46.45                                  | V                          |
| 1663.00         | -37.80                                | 4.70            | 9.40              | -42.50                                  | H                          |
| 2494.50         | -37.52                                | 5.90            | 10.60             | -42.22                                  | H                          |
| 3326.00         | -36.25                                | 6.80            | 11.50             | -40.95                                  | H                          |
| 4157.50         | -32.32                                | 7.60            | 12.60             | -37.32                                  | H                          |
| 4989.00         | -40.75                                | 7.50            | 12.70             | -45.95                                  | H                          |

**4.4.7 LTE B30 Radiated Spurious Emission Results****Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 4620.00         | -39.16                                | 8.00            | 12.70             | -43.86                                  | V                          |
| 6930.00         | -39.32                                | 0.90            | 11.70             | -50.12                                  | V                          |
| 9240.00         | -40.98                                | 1.00            | 11.90             | -51.88                                  | V                          |
| 11550.00        | -38.58                                | 0.40            | 11.50             | -49.68                                  | V                          |
| 13860.00        | -41.85                                | 0.40            | 13.60             | -55.05                                  | V                          |
| 4620.00         | -39.90                                | 8.00            | 12.70             | -44.60                                  | H                          |
| 6930.00         | -39.36                                | 0.90            | 11.70             | -50.16                                  | H                          |
| 9240.00         | -39.78                                | 1.00            | 11.90             | -50.68                                  | H                          |
| 11550.00        | -38.19                                | 0.40            | 11.50             | -49.29                                  | H                          |
| 13860.00        | -40.89                                | 0.40            | 13.60             | -54.09                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 4620.00         | -39.26                                | 8.00            | 12.70             | -43.96                                  | V                          |
| 6930.00         | -41.14                                | 0.90            | 11.70             | -51.94                                  | V                          |
| 9240.00         | -40.90                                | 1.00            | 11.90             | -51.80                                  | V                          |
| 11550.00        | -37.74                                | 0.40            | 11.50             | -48.84                                  | V                          |
| 13860.00        | -40.89                                | 0.40            | 13.60             | -54.09                                  | V                          |
| 4620.00         | -39.66                                | 8.00            | 12.70             | -44.36                                  | H                          |
| 6930.00         | -40.69                                | 0.90            | 11.70             | -51.49                                  | H                          |
| 9240.00         | -41.29                                | 1.00            | 11.90             | -52.19                                  | H                          |
| 11550.00        | -38.62                                | 0.40            | 11.50             | -49.72                                  | H                          |
| 13860.00        | -40.57                                | 0.40            | 13.60             | -53.77                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 4620.00         | -39.21                                | 8.00            | 12.70             | -43.91                                  | V                          |
| 6930.00         | -40.20                                | 0.90            | 11.70             | -51.00                                  | V                          |
| 9240.00         | -39.96                                | 1.00            | 11.90             | -50.86                                  | V                          |
| 11550.00        | -39.00                                | 0.40            | 11.50             | -50.10                                  | V                          |
| 13860.00        | -41.94                                | 0.40            | 13.60             | -55.14                                  | V                          |
| 4620.00         | -39.66                                | 8.00            | 12.70             | -44.36                                  | H                          |
| 6930.00         | -40.82                                | 0.90            | 11.70             | -51.62                                  | H                          |
| 9240.00         | -40.36                                | 1.00            | 11.90             | -51.26                                  | H                          |
| 11550.00        | -36.42                                | 0.40            | 11.50             | -47.52                                  | H                          |
| 13860.00        | -40.73                                | 0.40            | 13.60             | -53.93                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 4620.00         | -39.56                                | 8.00            | 12.70             | -44.26                                  | V                          |
| 6930.00         | -39.00                                | 0.90            | 11.70             | -49.80                                  | V                          |
| 9240.00         | -39.78                                | 1.00            | 11.90             | -50.68                                  | V                          |
| 11550.00        | -37.34                                | 0.40            | 11.50             | -48.44                                  | V                          |
| 13860.00        | -40.84                                | 0.40            | 13.60             | -54.04                                  | V                          |
| 4620.00         | -39.13                                | 8.00            | 12.70             | -43.83                                  | H                          |
| 6930.00         | -39.36                                | 0.90            | 11.70             | -50.16                                  | H                          |
| 9240.00         | -40.91                                | 1.00            | 11.90             | -51.81                                  | H                          |
| 11550.00        | -38.41                                | 0.40            | 11.50             | -49.51                                  | H                          |
| 13860.00        | -40.83                                | 0.40            | 13.60             | -54.03                                  | H                          |

**4.4.8 LTE B41 Radiated Spurious Emission Results****Test Data (5MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -39.82                                | 5.80            | 12.70             | -46.72                                  | V                          |
| 7779.00         | -40.38                                | 1.00            | 11.30             | -50.68                                  | V                          |
| 10372.00        | -38.65                                | 0.70            | 12.10             | -50.05                                  | V                          |
| 12965.00        | -36.08                                | 0.40            | 13.60             | -49.28                                  | V                          |
| 15558.00        | -34.93                                | 0.40            | 13.60             | -48.13                                  | V                          |
| 5186.00         | -41.31                                | 5.80            | 12.70             | -48.21                                  | H                          |
| 7779.00         | -39.63                                | 1.00            | 11.30             | -49.93                                  | H                          |
| 10372.00        | -38.72                                | 0.70            | 12.10             | -50.12                                  | H                          |
| 12965.00        | -37.23                                | 0.40            | 13.60             | -50.43                                  | H                          |
| 15558.00        | -35.38                                | 0.40            | 13.60             | -48.58                                  | H                          |

**Test Data (5MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -38.63                                | 5.80            | 12.70             | -45.53                                  | V                          |
| 7779.00         | -39.20                                | 1.00            | 11.30             | -49.50                                  | V                          |
| 10372.00        | -37.58                                | 0.70            | 12.10             | -48.98                                  | V                          |
| 12965.00        | -35.62                                | 0.40            | 13.60             | -48.82                                  | V                          |
| 15558.00        | -34.01                                | 0.40            | 13.60             | -47.21                                  | V                          |
| 5186.00         | -40.74                                | 5.80            | 12.70             | -47.64                                  | H                          |
| 7779.00         | -40.65                                | 1.00            | 11.30             | -50.95                                  | H                          |
| 10372.00        | -38.12                                | 0.70            | 12.10             | -49.52                                  | H                          |
| 12965.00        | -35.72                                | 0.40            | 13.60             | -48.92                                  | H                          |
| 15558.00        | -35.15                                | 0.40            | 13.60             | -48.35                                  | H                          |

**Test Data (10MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -38.27                                | 5.80            | 12.70             | -45.17                                  | V                          |
| 7779.00         | -39.18                                | 1.00            | 11.30             | -49.48                                  | V                          |
| 10372.00        | -39.33                                | 0.70            | 12.10             | -50.73                                  | V                          |
| 12965.00        | -36.24                                | 0.40            | 13.60             | -49.44                                  | V                          |
| 15558.00        | -35.97                                | 0.40            | 13.60             | -49.17                                  | V                          |
| 5186.00         | -39.60                                | 5.80            | 12.70             | -46.50                                  | H                          |
| 7779.00         | -40.67                                | 1.00            | 11.30             | -50.97                                  | H                          |
| 10372.00        | -38.56                                | 0.70            | 12.10             | -49.96                                  | H                          |
| 12965.00        | -35.42                                | 0.40            | 13.60             | -48.62                                  | H                          |
| 15558.00        | -35.24                                | 0.40            | 13.60             | -48.44                                  | H                          |

**Test Data (10MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -41.36                                | 5.80            | 12.70             | -48.26                                  | V                          |
| 7779.00         | -41.15                                | 1.00            | 11.30             | -51.45                                  | V                          |
| 10372.00        | -37.08                                | 0.70            | 12.10             | -48.48                                  | V                          |
| 12965.00        | -36.91                                | 0.40            | 13.60             | -50.11                                  | V                          |
| 15558.00        | -34.87                                | 0.40            | 13.60             | -48.07                                  | V                          |
| 5186.00         | -40.20                                | 5.80            | 12.70             | -47.10                                  | H                          |
| 7779.00         | -39.27                                | 1.00            | 11.30             | -49.57                                  | H                          |
| 10372.00        | -38.74                                | 0.70            | 12.10             | -50.14                                  | H                          |
| 12965.00        | -35.19                                | 0.40            | 13.60             | -48.39                                  | H                          |
| 15558.00        | -34.45                                | 0.40            | 13.60             | -47.65                                  | H                          |

**Test Data (15MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -40.72                                | 5.80            | 12.70             | -47.62                                  | V                          |
| 7779.00         | -40.29                                | 1.00            | 11.30             | -50.59                                  | V                          |
| 10372.00        | -38.64                                | 0.70            | 12.10             | -50.04                                  | V                          |
| 12965.00        | -36.85                                | 0.40            | 13.60             | -50.05                                  | V                          |
| 15558.00        | -36.10                                | 0.40            | 13.60             | -49.30                                  | V                          |
| 5186.00         | -40.11                                | 5.80            | 12.70             | -47.01                                  | H                          |
| 7779.00         | -39.54                                | 1.00            | 11.30             | -49.84                                  | H                          |
| 10372.00        | -37.60                                | 0.70            | 12.10             | -49.00                                  | H                          |
| 12965.00        | -36.49                                | 0.40            | 13.60             | -49.69                                  | H                          |
| 15558.00        | -35.30                                | 0.40            | 13.60             | -48.50                                  | H                          |

**Test Data (15MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -41.36                                | 5.80            | 12.70             | -48.26                                  | V                          |
| 7779.00         | -41.15                                | 1.00            | 11.30             | -51.45                                  | V                          |
| 10372.00        | -37.08                                | 0.70            | 12.10             | -48.48                                  | V                          |
| 12965.00        | -36.91                                | 0.40            | 13.60             | -50.11                                  | V                          |
| 15558.00        | -34.87                                | 0.40            | 13.60             | -48.07                                  | V                          |
| 5186.00         | -40.32                                | 5.80            | 12.70             | -47.22                                  | H                          |
| 7779.00         | -40.12                                | 1.00            | 11.30             | -50.42                                  | H                          |
| 10372.00        | -38.98                                | 0.70            | 12.10             | -50.38                                  | H                          |
| 12965.00        | -37.32                                | 0.40            | 13.60             | -50.52                                  | H                          |
| 15558.00        | -37.16                                | 0.40            | 13.60             | -50.36                                  | H                          |

**Test Data (20MHz bandwidth QPSK Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -41.00                                | 5.80            | 12.70             | -47.90                                  | V                          |
| 7779.00         | -40.58                                | 1.00            | 11.30             | -50.88                                  | V                          |
| 10372.00        | -38.56                                | 0.70            | 12.10             | -49.96                                  | V                          |
| 12965.00        | -35.90                                | 0.40            | 13.60             | -49.10                                  | V                          |
| 15558.00        | -34.99                                | 0.40            | 13.60             | -48.19                                  | V                          |
| 5186.00         | -39.45                                | 5.80            | 12.70             | -46.35                                  | H                          |
| 7779.00         | -40.58                                | 1.00            | 11.30             | -50.88                                  | H                          |
| 10372.00        | -38.42                                | 0.70            | 12.10             | -49.82                                  | H                          |
| 12965.00        | -37.02                                | 0.40            | 13.60             | -50.22                                  | H                          |
| 15558.00        | -35.50                                | 0.40            | 13.60             | -48.70                                  | H                          |

**Test Data (20MHz bandwidth 16QAM Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 5186.00         | -39.97                                | 5.80            | 12.70             | -46.87                                  | V                          |
| 7779.00         | -40.44                                | 1.00            | 11.30             | -50.74                                  | V                          |
| 10372.00        | -37.99                                | 0.70            | 12.10             | -49.39                                  | V                          |
| 12965.00        | -37.23                                | 0.40            | 13.60             | -50.43                                  | V                          |
| 15558.00        | -35.30                                | 0.40            | 13.60             | -48.50                                  | V                          |
| 5186.00         | -40.84                                | 5.80            | 12.70             | -47.74                                  | H                          |
| 7779.00         | -40.90                                | 1.00            | 11.30             | -51.20                                  | H                          |
| 10372.00        | -38.79                                | 0.70            | 12.10             | -50.19                                  | H                          |
| 12965.00        | -36.95                                | 0.40            | 13.60             | -50.15                                  | H                          |
| 15558.00        | -35.47                                | 0.40            | 13.60             | -48.67                                  | H                          |

**4.4.9 WCDMA B2 Radiated Spurious Emission Results****Test Data (RMC Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3760.00         | -35.44                                | 7.30            | 12.60             | -40.74                                  | V                          |
| 5640.00         | -40.63                                | 1.80            | 13.10             | -51.93                                  | V                          |
| 7520.00         | -40.68                                | 0.80            | 11.70             | -51.58                                  | V                          |
| 9400.00         | -38.04                                | 0.80            | 11.90             | -49.14                                  | V                          |
| 11280.00        | -34.87                                | 0.30            | 11.50             | -46.07                                  | V                          |
| 3760.00         | -35.46                                | 7.30            | 12.60             | -40.76                                  | H                          |
| 5640.00         | -41.23                                | 1.80            | 13.10             | -52.53                                  | H                          |
| 7520.00         | -40.89                                | 0.80            | 11.70             | -51.79                                  | H                          |
| 9400.00         | -38.36                                | 0.80            | 11.90             | -49.46                                  | H                          |
| 11280.00        | -35.11                                | 0.30            | 11.50             | -46.31                                  | H                          |

**4.4.10 WCDMA B4 Radiated Spurious Emission Results****Test Data (RMC Mode)**

| Frequency [MHz] | Generator output power( $P_g$ ) [dBm] | Cable loss [dB] | Antenna Gain [dB] | Spurious Emission Power ( $P_d$ ) [dBm] | Antenna Polarization [H/V] |
|-----------------|---------------------------------------|-----------------|-------------------|-----------------------------------------|----------------------------|
| 3465.00         | -35.48                                | 6.90            | 12.60             | -41.18                                  | V                          |
| 5197.50         | -40.36                                | 5.80            | 12.70             | -47.26                                  | V                          |
| 6930.00         | -39.67                                | 0.90            | 11.70             | -50.47                                  | V                          |
| 8662.50         | -38.39                                | 0.90            | 11.90             | -49.39                                  | V                          |
| 10395.00        | -35.01                                | 0.70            | 12.10             | -46.41                                  | V                          |
| 3465.00         | -35.12                                | 6.90            | 12.60             | -40.82                                  | H                          |
| 5197.50         | -40.36                                | 5.80            | 12.70             | -47.26                                  | H                          |
| 6930.00         | -39.67                                | 0.90            | 11.70             | -50.47                                  | H                          |
| 8662.50         | -38.39                                | 0.90            | 11.90             | -49.39                                  | H                          |
| 10395.00        | -35.01                                | 0.70            | 12.10             | -46.41                                  | H                          |

**4.4.11 WCDMA B5 Radiated Spurious Emission Results****Test Data (RMC Mode)**

| Frequency<br>[MHz] | Generator<br>output<br>power( $P_g$ )<br>[dBm] | Cable<br>loss [dB] | Antenna<br>Gain [dB] | Spurious<br>Emission<br>Power ( $P_d$ )<br>[dBm] | Antenna<br>Polarization<br>[H/V] |
|--------------------|------------------------------------------------|--------------------|----------------------|--------------------------------------------------|----------------------------------|
| 1672.80            | -40.58                                         | 6.90               | 12.60                | -46.28                                           | V                                |
| 2509.20            | -38.23                                         | 5.80               | 13.10                | -45.53                                           | V                                |
| 3345.60            | -27.50                                         | 0.90               | 11.70                | -38.30                                           | V                                |
| 4182.00            | -30.14                                         | 0.90               | 11.90                | -41.14                                           | V                                |
| 5018.40            | -40.62                                         | 0.70               | 11.50                | -51.42                                           | V                                |
| 1672.80            | -40.10                                         | 4.70               | 9.40                 | -44.80                                           | H                                |
| 2509.20            | -37.21                                         | 5.90               | 10.60                | -41.91                                           | H                                |
| 3345.60            | -27.05                                         | 6.80               | 12.60                | -32.85                                           | H                                |
| 4182.00            | -30.98                                         | 7.80               | 12.60                | -35.78                                           | H                                |
| 5018.40            | -40.54                                         | 7.50               | 12.70                | -45.74                                           | H                                |

#### 4.5 Band Edge

|                         |                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Specifications:</b>  | FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53, 90.691<br>RSS-130 4.6, RSS-132 4.5, RSS-133 6.5, RSS-199 4.6 |
| <b>Date of Tests</b>    | 2015-06-24 to 2015-07-08                                                                                     |
| <b>Test conditions:</b> | Ambient Temperature: 15°C-35°C<br>Relative Humidity: 30%-60%<br>Air pressure: 86-106kPa                      |
| <b>Test Results:</b>    | Pass                                                                                                         |

#### Limit Level Construction:

For Cellular and PCS systems band, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB, so the limit level is:  $P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13 \text{ dBm}$

For mobile and portable stations operating in the 2305-2315 MHz bands:

By a factor of not less than:  $43 + 10 \log(P)$  dB on all frequencies between 2305 and 2320 MHz that are outside the licensed band(s) of operation, not less than  $55 + 10 \log(P)$  dB on all frequencies between 2320 and 2324 MHz, not less than  $61 + 10 \log(P)$  dB on all frequencies between 2324 and 2328 MHz, and not less than  $67 + 10 \log(P)$  dB on all frequencies between 2328 and 2337 MHz; By a factor of not less than  $43 + 10 \log(P)$  dB on all frequencies between 2300 and 2305 MHz,  $55 + 10 \log(P)$  dB on all frequencies between 2296 and 2300 MHz,  $61 + 10 \log(P)$  dB on all frequencies between 2292 and 2296 MHz,  $67 + 10 \log(P)$  dB on all frequencies between 2288 and 2292 MHz, and  $70 + 10 \log(P)$  dB below 2288 MHz.

For operations in the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;

On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations.

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

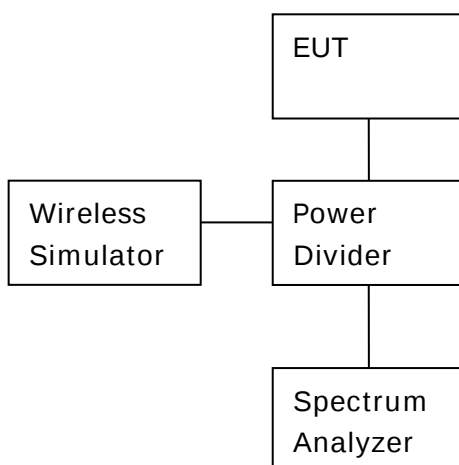
Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \log_{10}(f/6.1)$  decibels or  $50 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

## Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



## Test Method

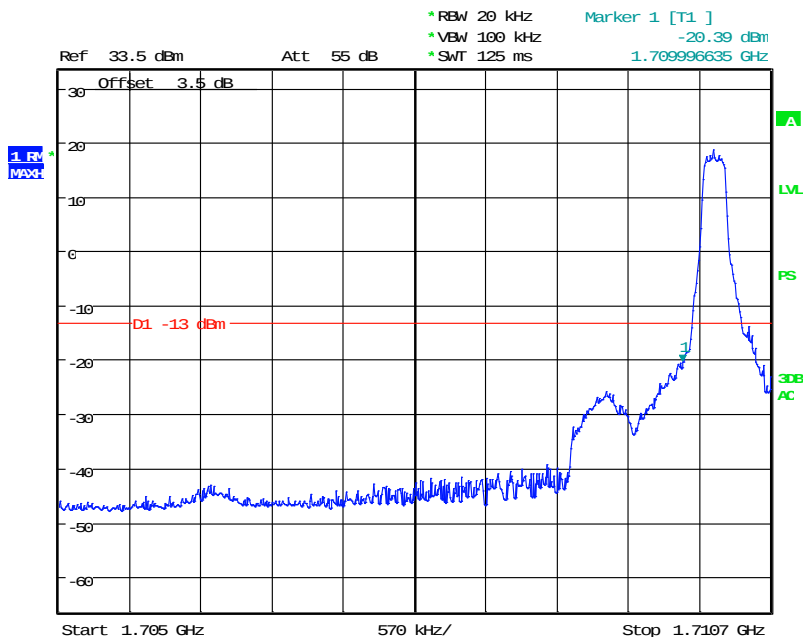
- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The loss of the cables the test system is calibrated to correct the readings.
- 2) The spectrum analyzer was set to Average Detector function and Maximum hold mode.
- 3) The resolution bandwidth of the spectrum analyzer was a little greater than 1% of the 26dB emission bandwidth.

Note: --

#### 4.5.1 LTE B4 Band Edge Results

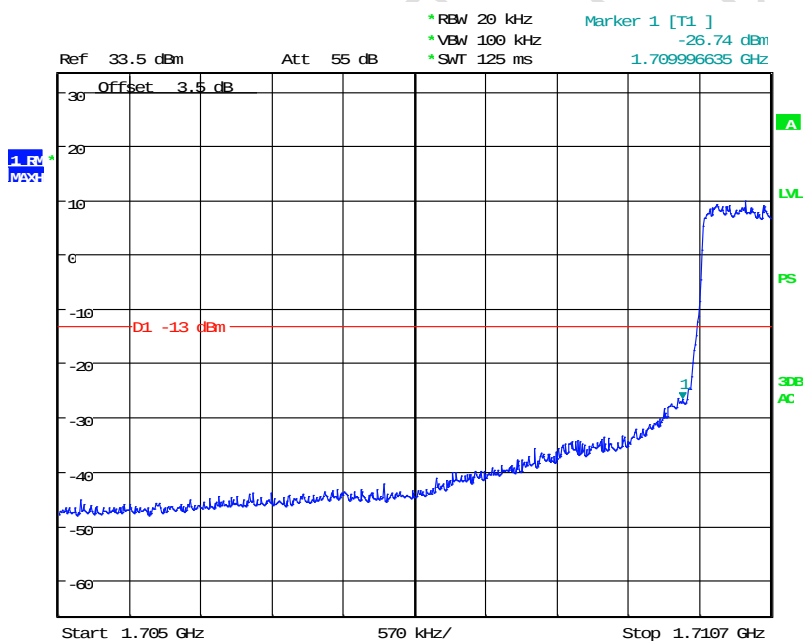
##### Graphical results:

1.4MHz bandwidth,QPSK,(1,0) Mode , below 1710MHz

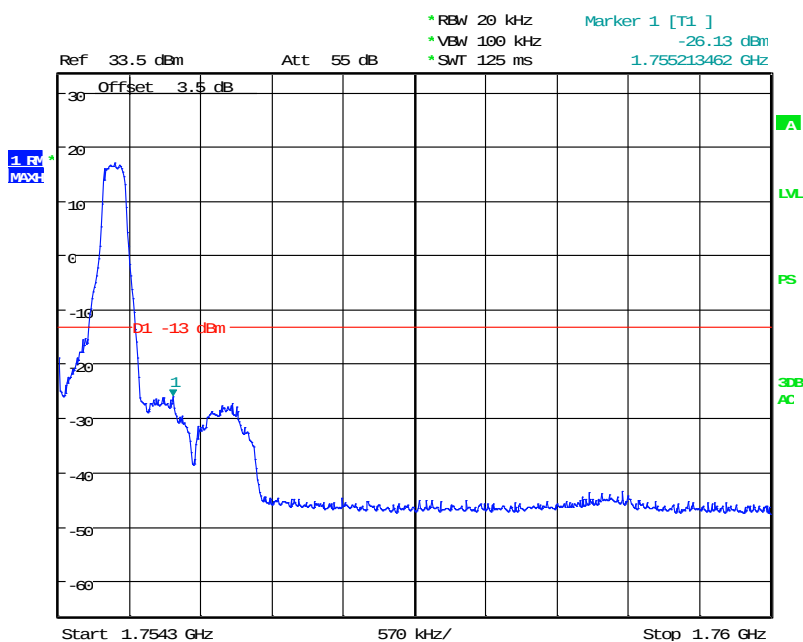


Date: 12.JUN.2015 13:19:49

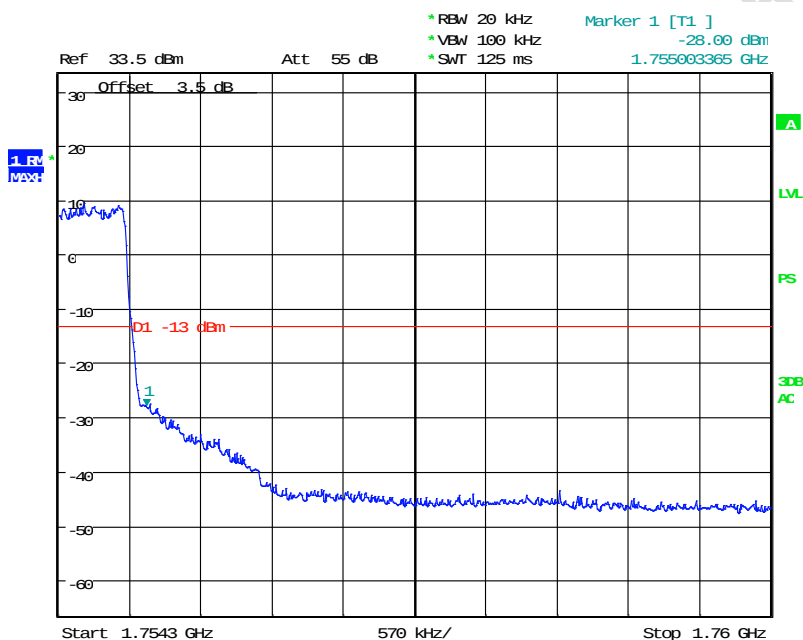
1.4MHz bandwidth,QPSK,(6,0) Mode , below 1710MHz



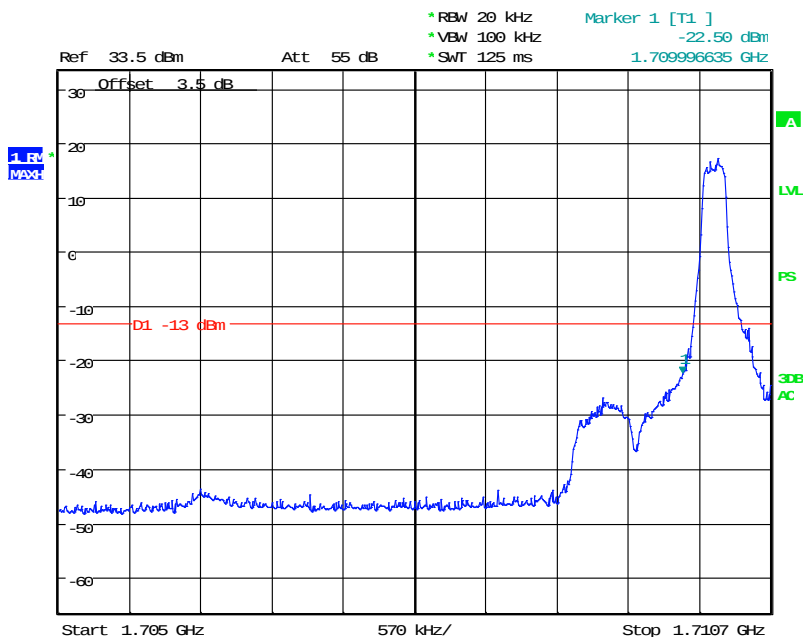
Date: 12.JUN.2015 13:22:54

**1.4MHz bandwidth, QPSK,(1,6) Mode, Above 1755MHz**

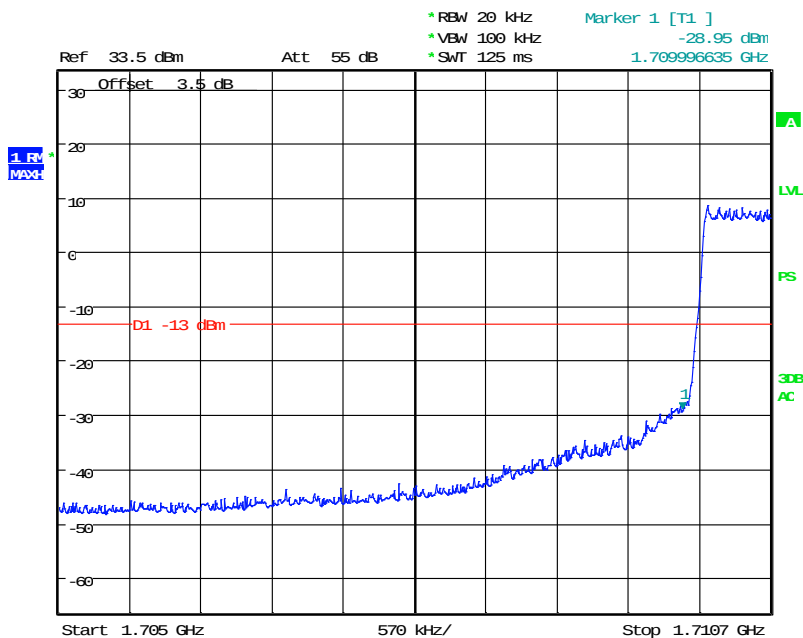
Date: 12.JUN.2015 13:29:34

**1.4MHz bandwidth, QPSK,(6,0) Mode, Above 1755MHz**

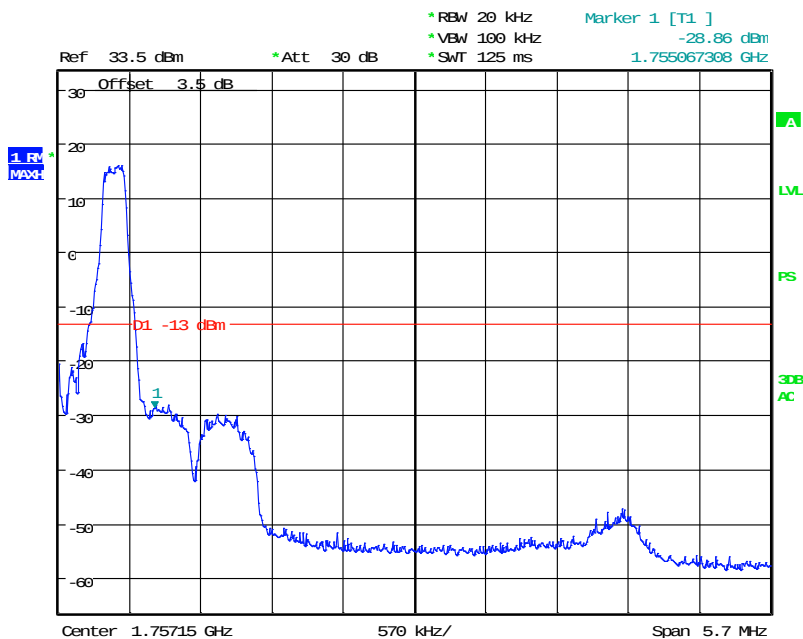
Date: 12.JUN.2015 13:28:14

**1.4MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz**

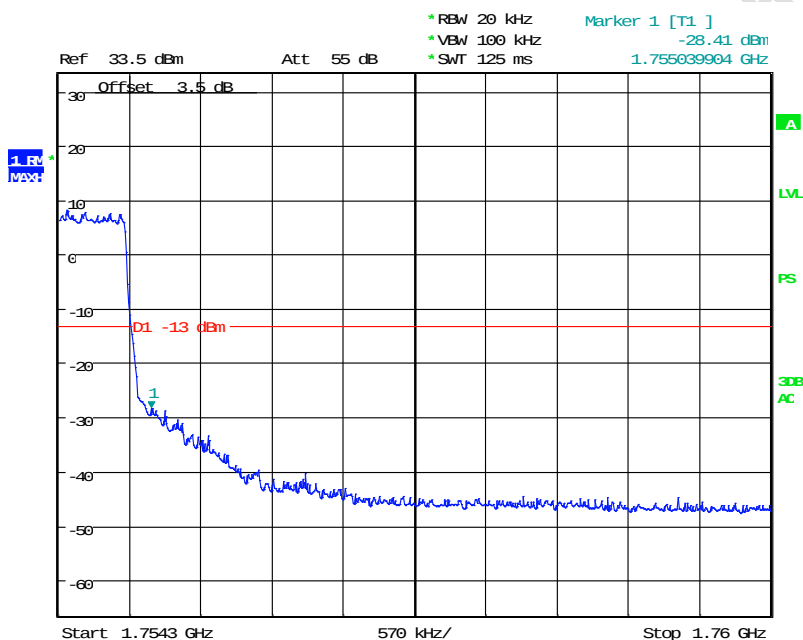
Date: 12.JUN.2015 13:21:42

**1.4MHz bandwidth, 16QAM,(6,0) Mode , below 1710MHz**

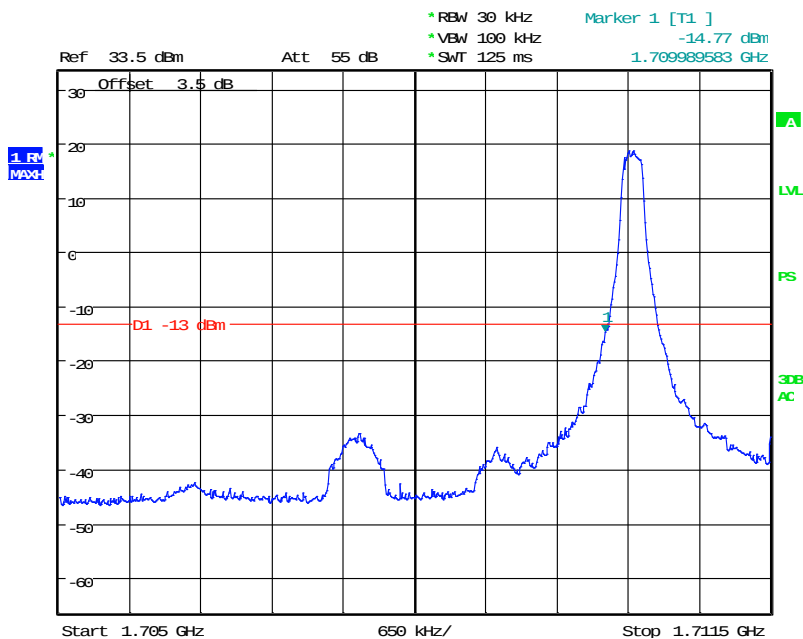
Date: 12.JUN.2015 13:23:35

**1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 1755MHz**

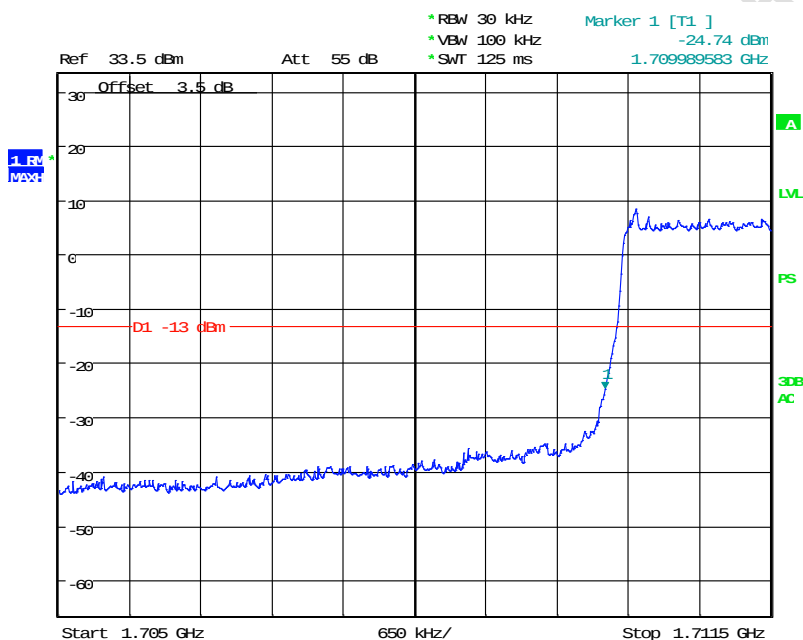
Date: 12.JUN.2015 16:54:43

**1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 1755MHz**

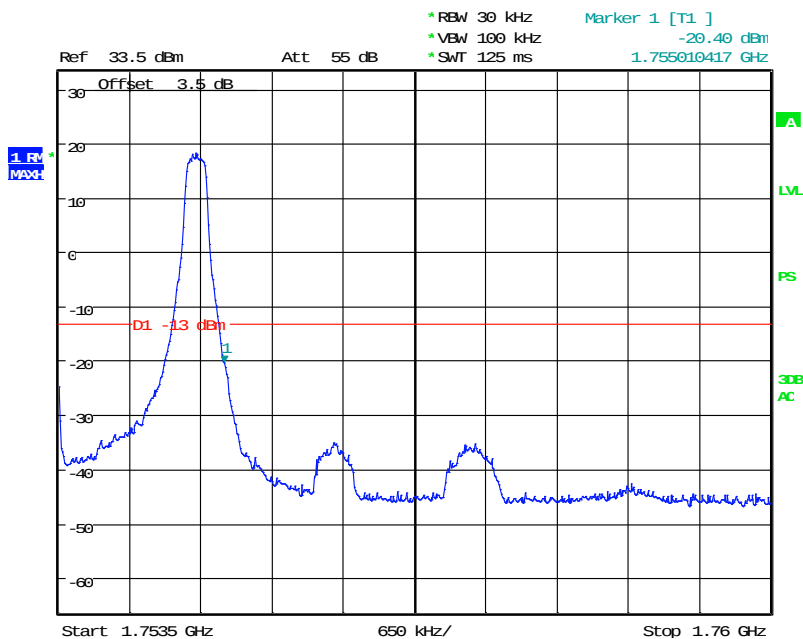
Date: 12.JUN.2015 13:54:24

**3MHz bandwidth,QPSK,(1,0) Mode , below 1710MHz**

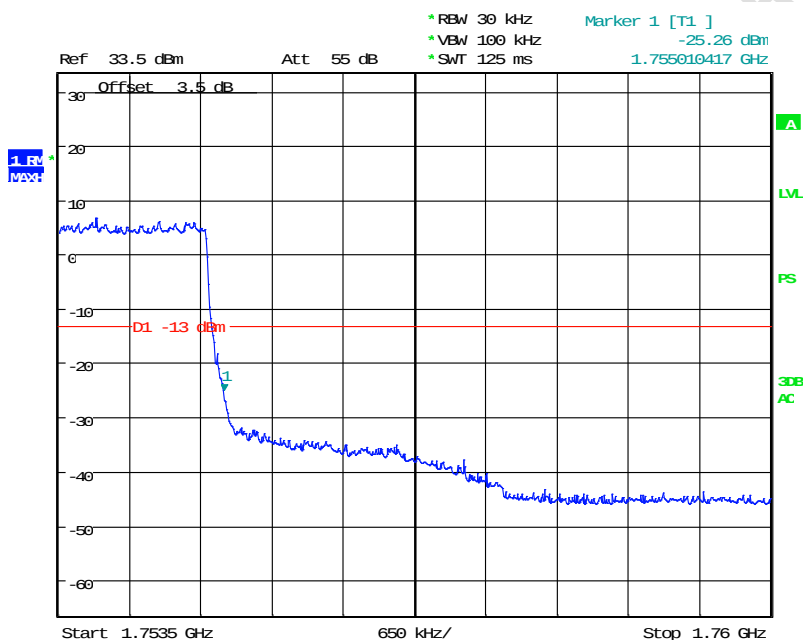
Date: 12.JUN.2015 14:00:23

**3MHz bandwidth,QPSK,(15,0) Mode , below 1710MHz**

Date: 12.JUN.2015 14:01:31

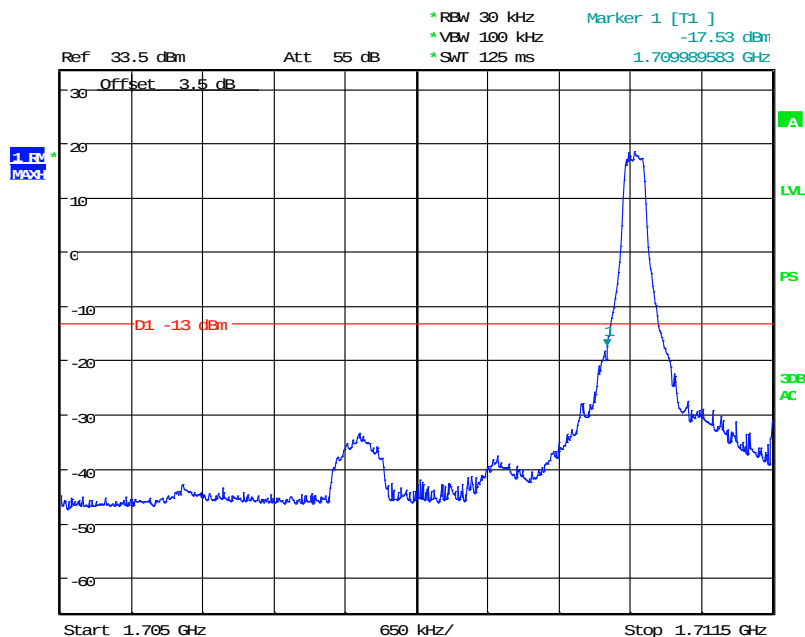
**3MHz bandwidth, QPSK,(1,15) Mode, Above 1755MHz**

Date: 12.JUN.2015 14:06:20

**3MHz bandwidth, QPSK,(15,0) Mode, Above 1755MHz**

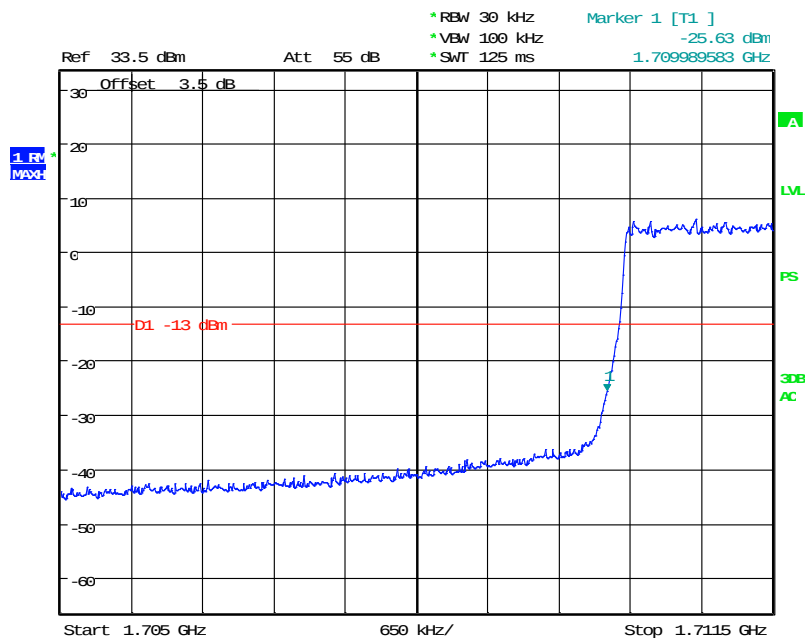
Date: 12.JUN.2015 14:07:00

## 3MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz

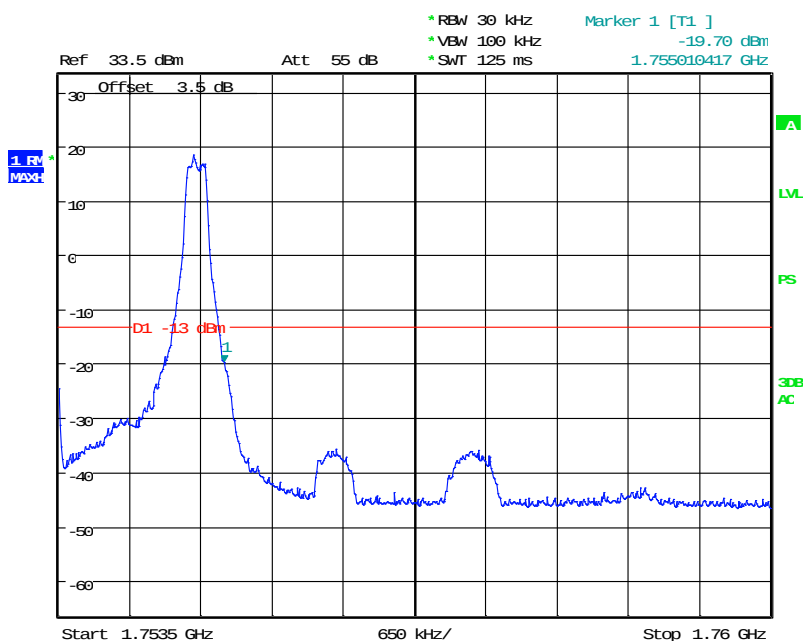


Date: 12.JUN.2015 14:03:02

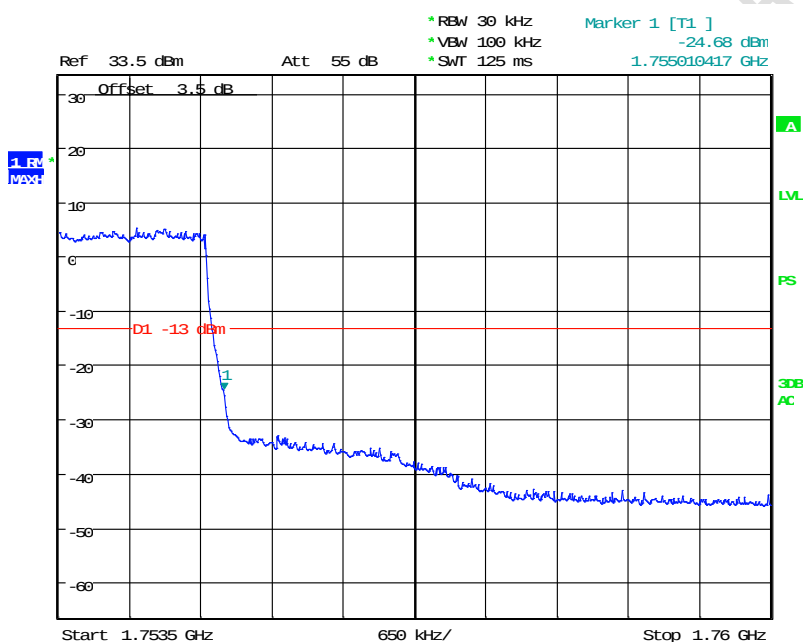
## 3MHz bandwidth, 16QAM,(15,0) Mode , below 1710MHz



Date: 12.JUN.2015 14:04:16

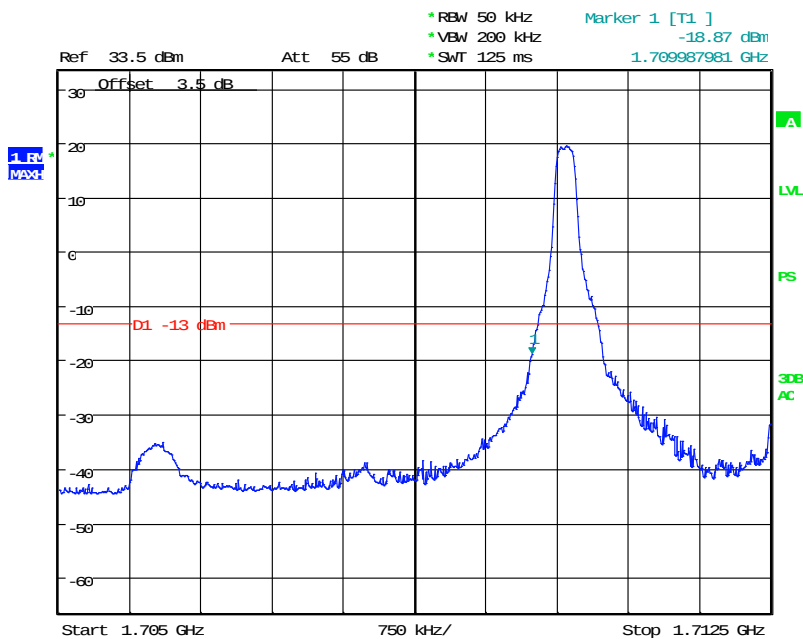
**3MHz bandwidth, 16QAM,(1,15) Mode, Above 1755MHz**

Date: 12.JUN.2015 14:09:00

**3MHz bandwidth, 16QAM,(15,0) Mode, Above 1755MHz**

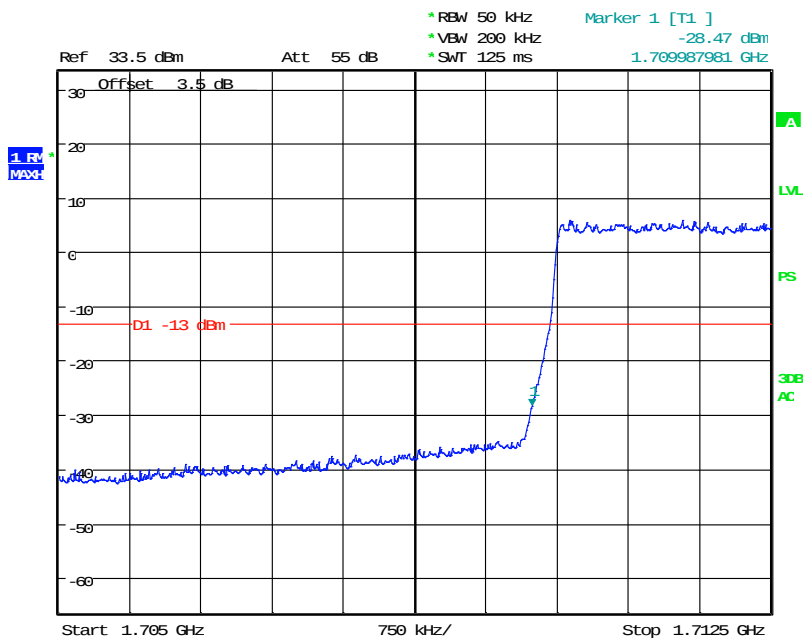
Date: 12.JUN.2015 14:09:46

## 5MHz bandwidth,QPSK,(1,0) Mode , below 1710MHz



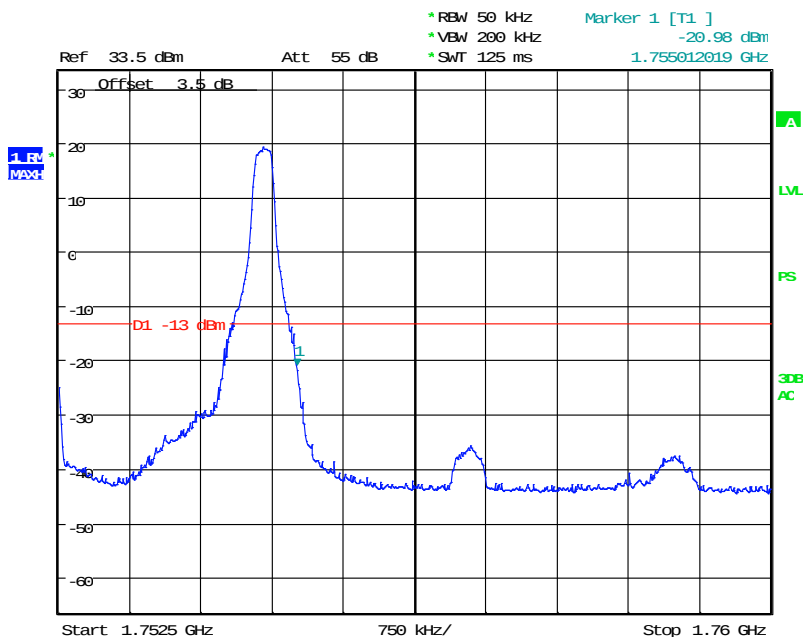
Date: 12.JUN.2015 14:27:10

## 5MHz bandwidth,QPSK,(25,0) Mode , below 1710MHz



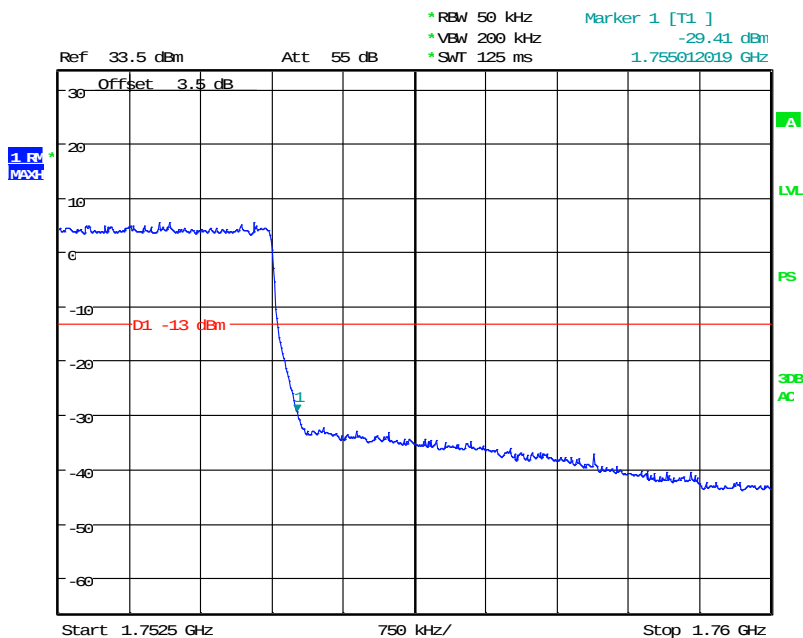
Date: 12.JUN.2015 14:27:53

## 5MHz bandwidth, QPSK,(1,25) Mode, Above 1755MHz



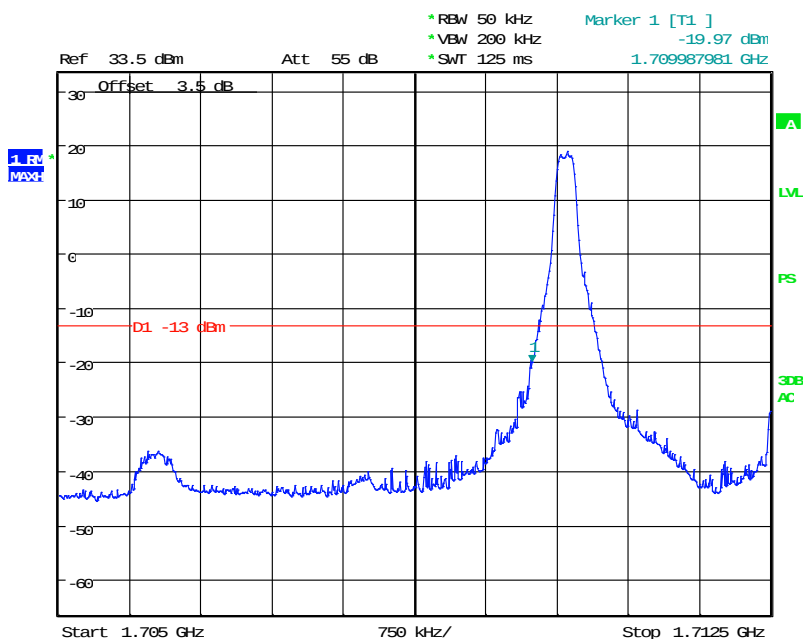
Date: 12.JUN.2015 14:31:29

## 5MHz bandwidth, QPSK,(25,0) Mode, Above 1755MHz



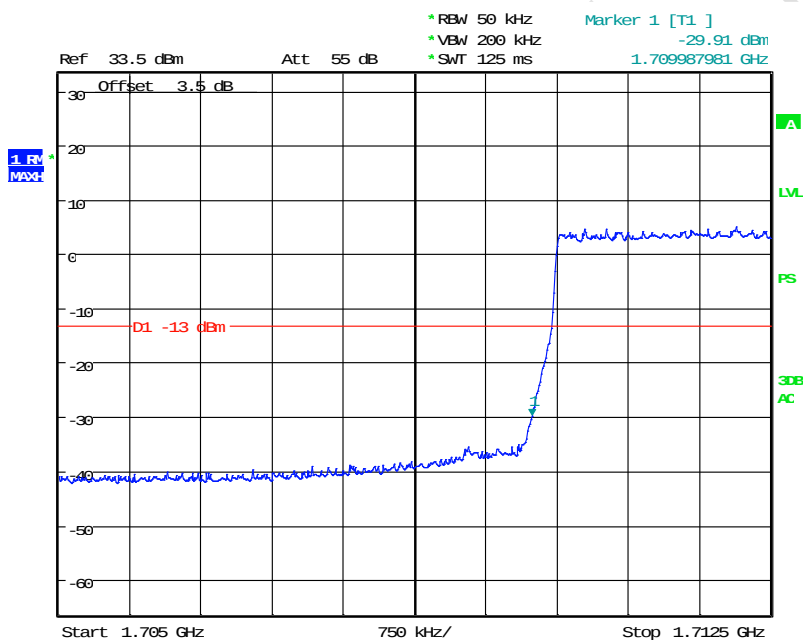
Date: 12.JUN.2015 14:32:08

## 5MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz



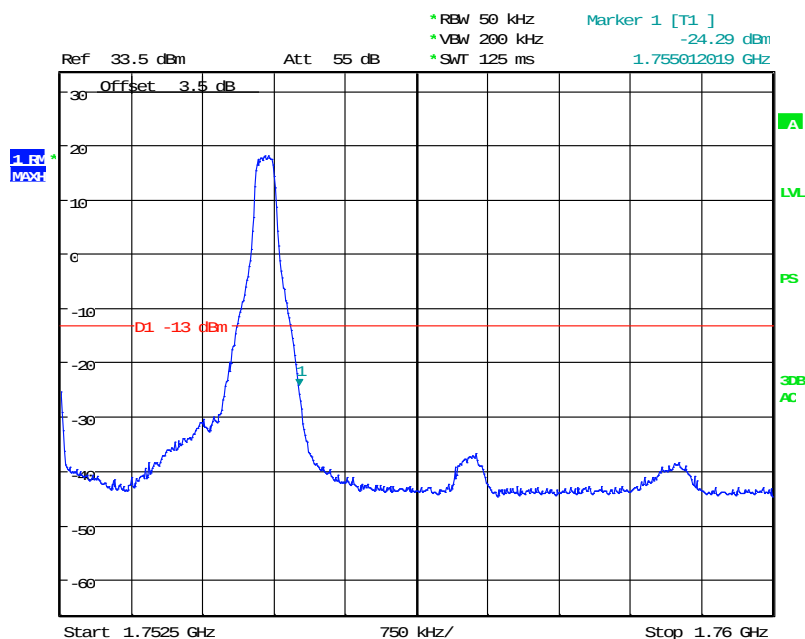
Date: 12.JUN.2015 14:28:47

## 5MHz bandwidth, 16QAM,(25,0) Mode , below 1710MHz



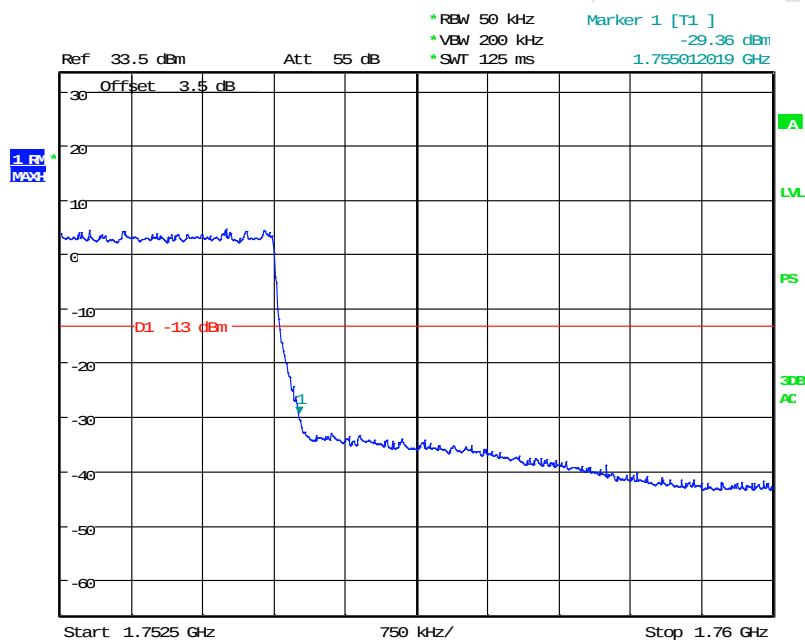
Date: 12.JUN.2015 14:29:41

## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 1755MHz



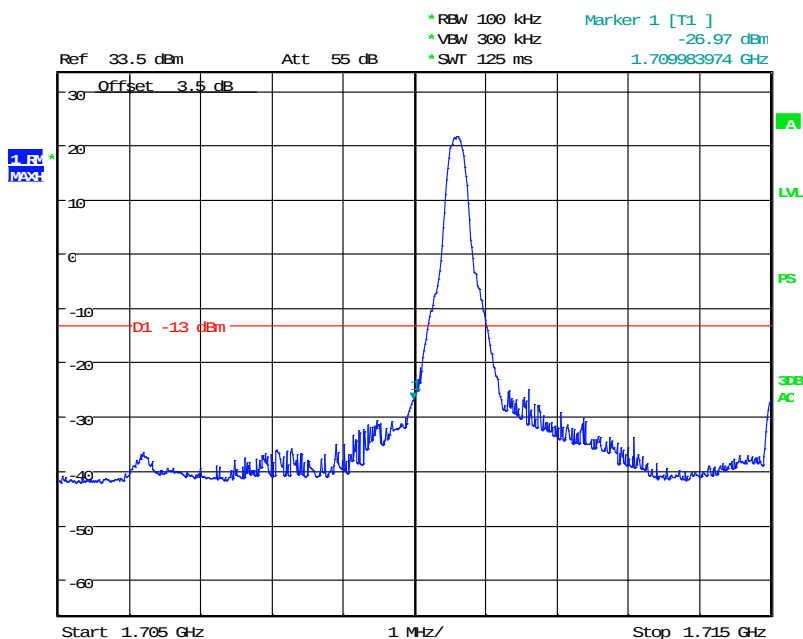
Date: 12.JUN.2015 14:33:35

## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 1755MHz



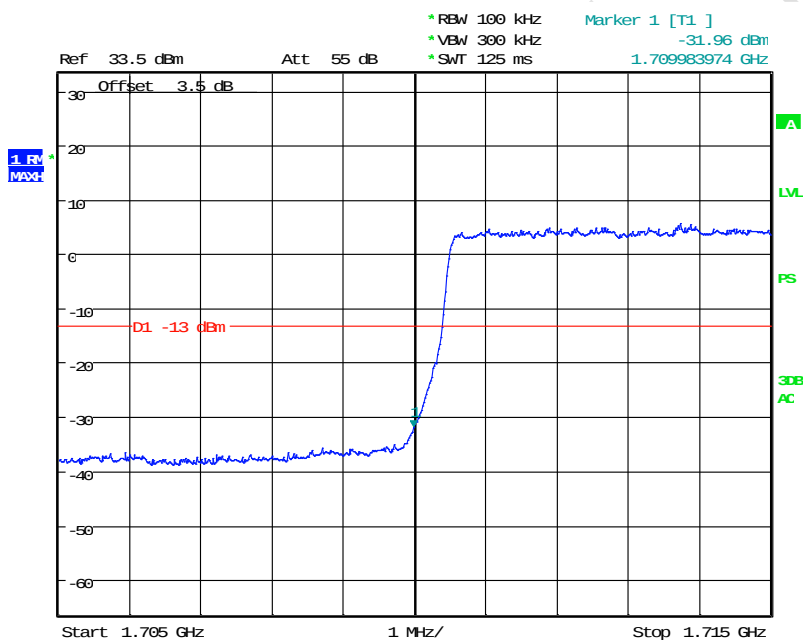
Date: 12.JUN.2015 14:32:47

## 10MHz bandwidth, QPSK, (1,0) Mode , below 1710MHz



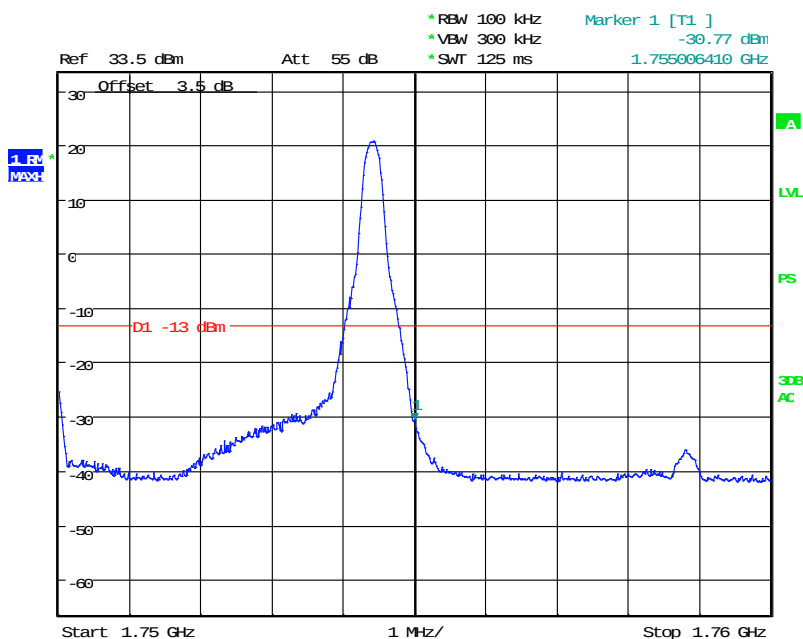
Date: 12.JUN.2015 14:38:27

## 10MHz bandwidth, QPSK, (50,0) Mode , below 1710MHz



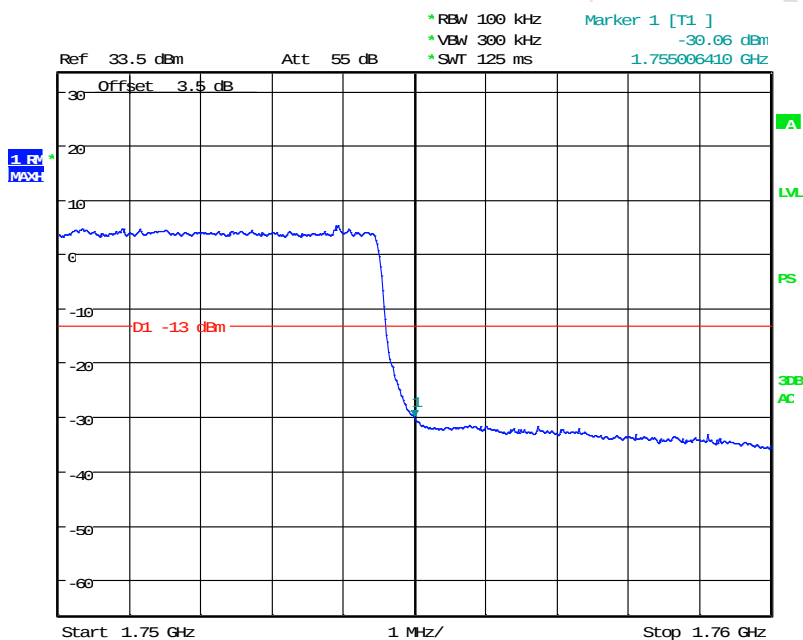
Date: 12.JUN.2015 14:39:20

## 10MHz bandwidth, QPSK,(1,50) Mode, Above 1755MHz



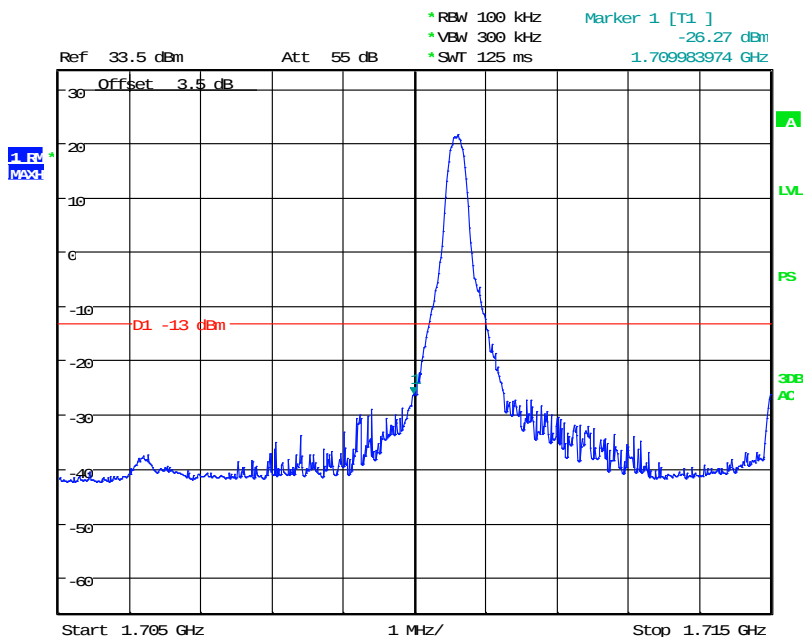
Date: 12.JUN.2015 14:44:03

## 10MHz bandwidth, QPSK,(50,0) Mode, Above 1755MHz



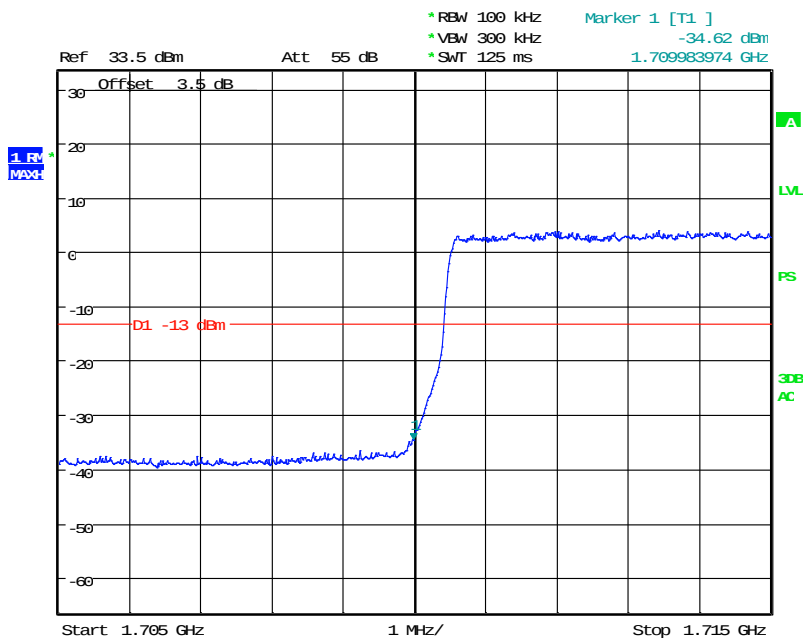
Date: 12.JUN.2015 14:43:30

## 10MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz



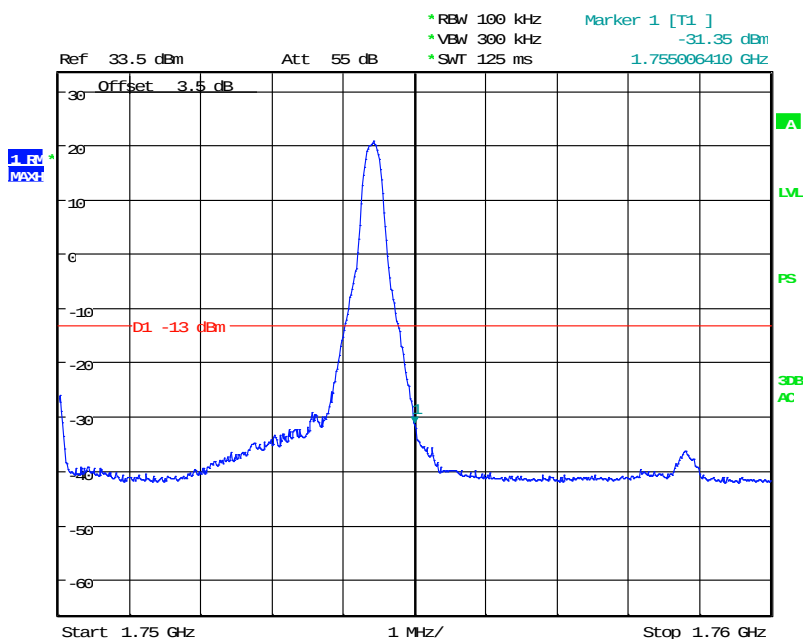
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## 10MHz bandwidth, 16QAM,(50,0) Mode , below 1710MHz



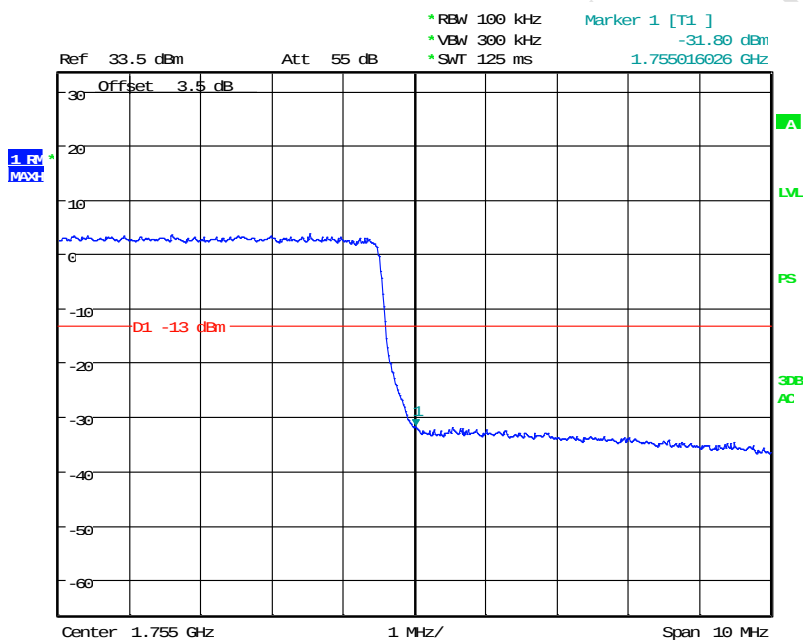
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## 10MHz bandwidth, 16QAM,(1,50) Mode, Above 1755MHz



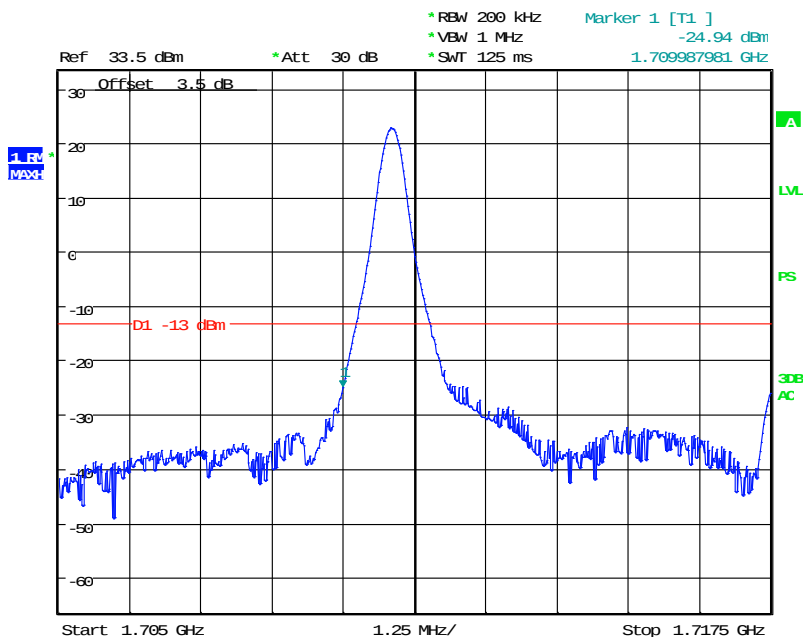
Date: 12.JUN.2015 14:44:28

## 10MHz bandwidth, 16QAM,(50,0) Mode, Above 1755MHz



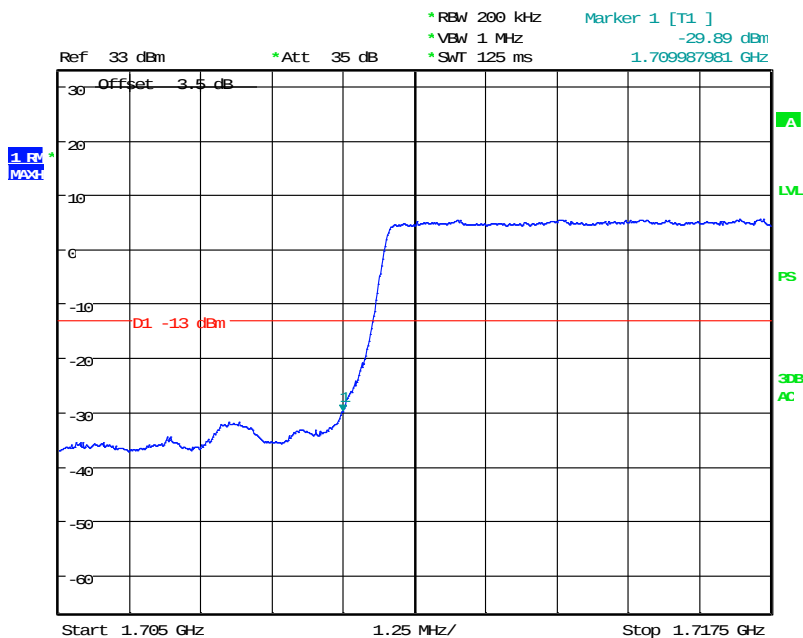
Date: 12.JUN.2015 14:45:03

## 15MHz bandwidth, QPSK, (1,0) Mode , below 1710MHz



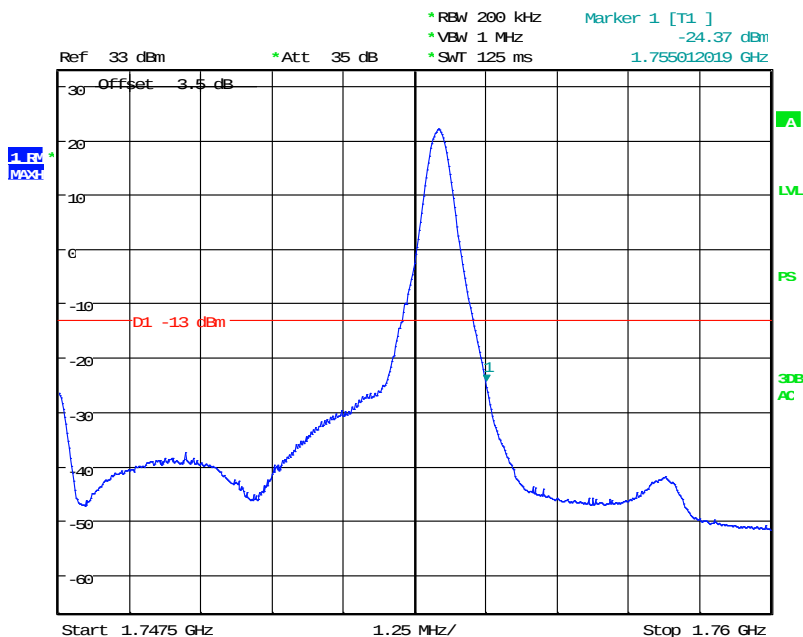
Date: 12.JUN.2015 16:57:11

## 15MHz bandwidth, QPSK, (75,0) Mode , below 1710MHz



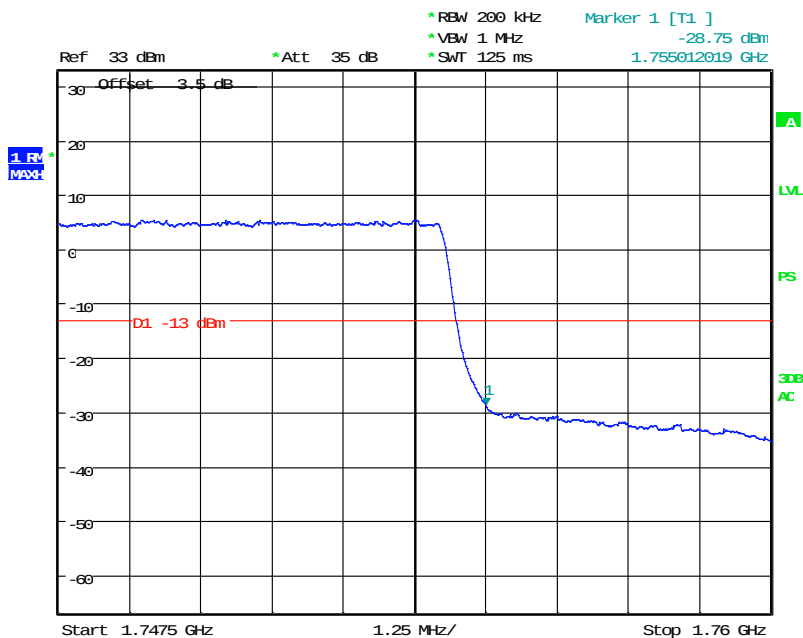
Date: 12.JUN.2015 17:00:45

### 15MHz bandwidth, QPSK,(1,75) Mode, Above 1755MHz



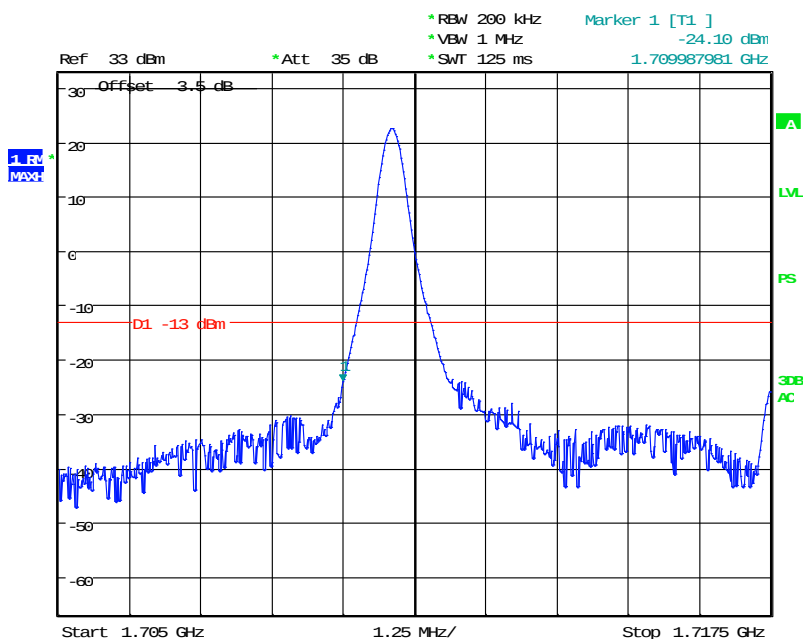
Date: 12.JUN.2015 17:02:43

### 15MHz bandwidth, QPSK,(75,0) Mode, Above 1755MHz



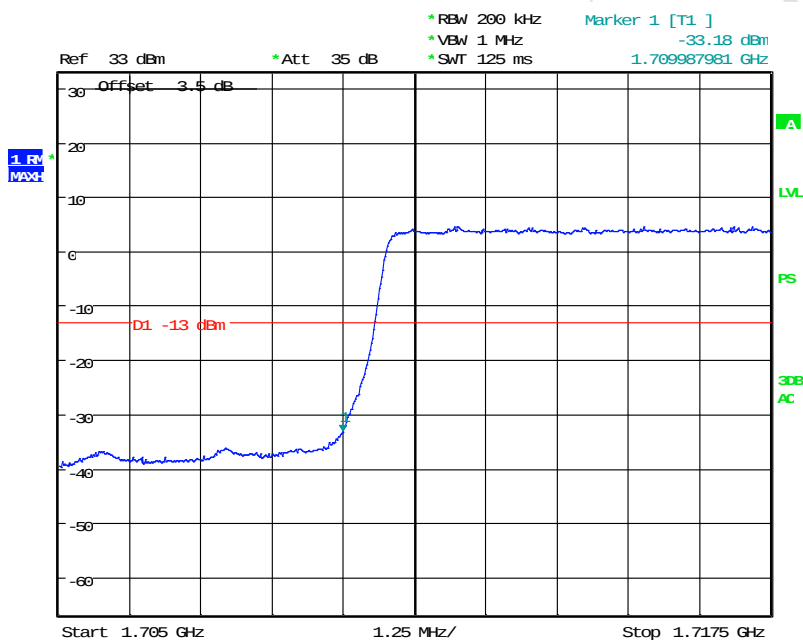
Date: 12.JUN.2015 17:02:02

## 15MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz



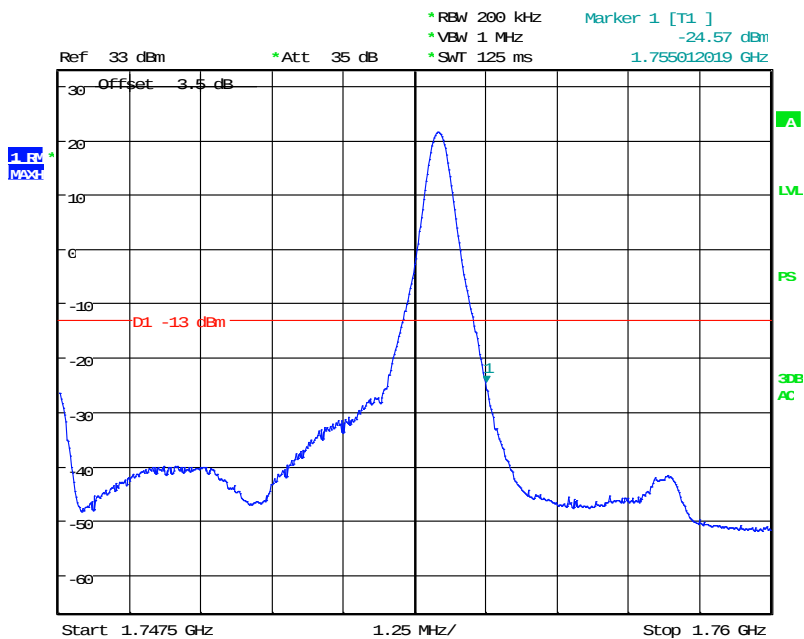
Date: 12.JUN.2015 16:59:45

## 15MHz bandwidth, 16QAM,(75,0) Mode , below 1710MHz



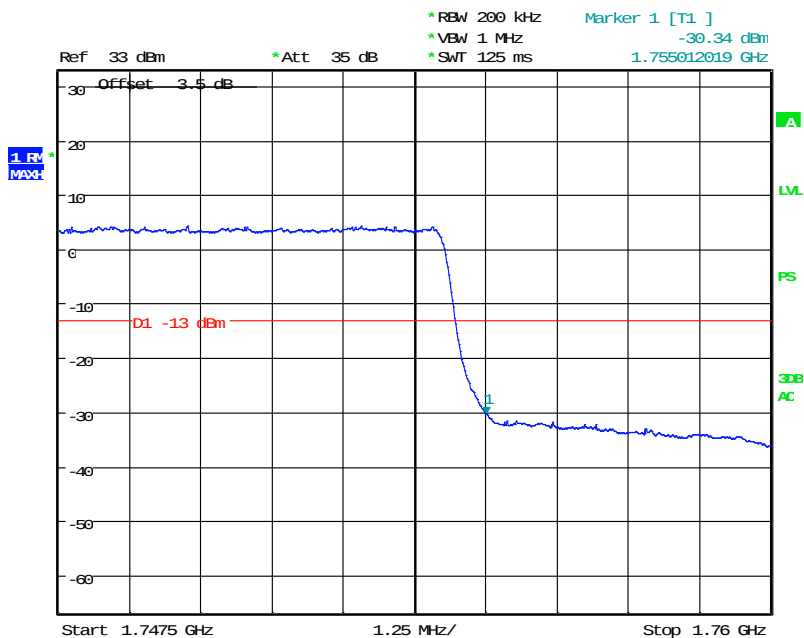
Date: 12.JUN.2015 17:00:16

## 15MHz bandwidth, 16QAM,(1,75) Mode, Above 1755MHz



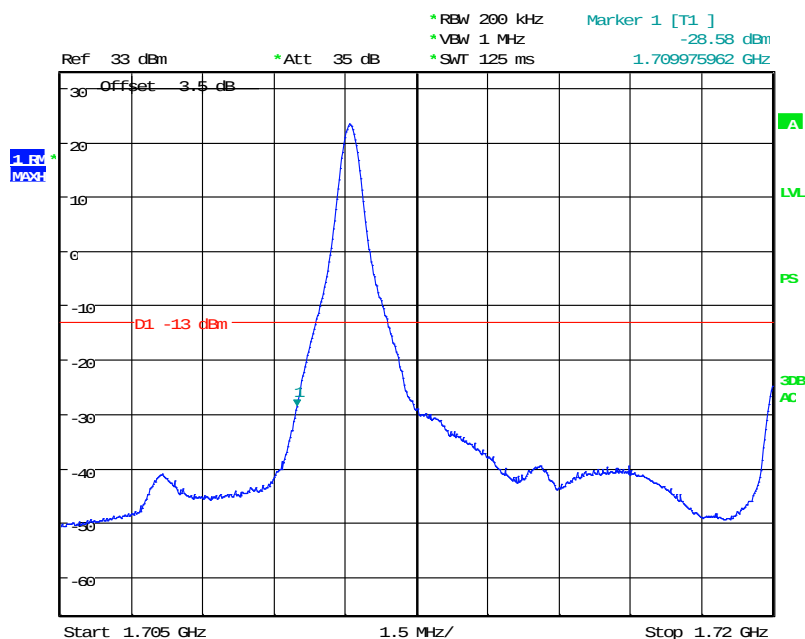
Date: 12.JUN.2015 17:03:37

## 15MHz bandwidth, 16QAM,(75,0) Mode, Above 1755MHz



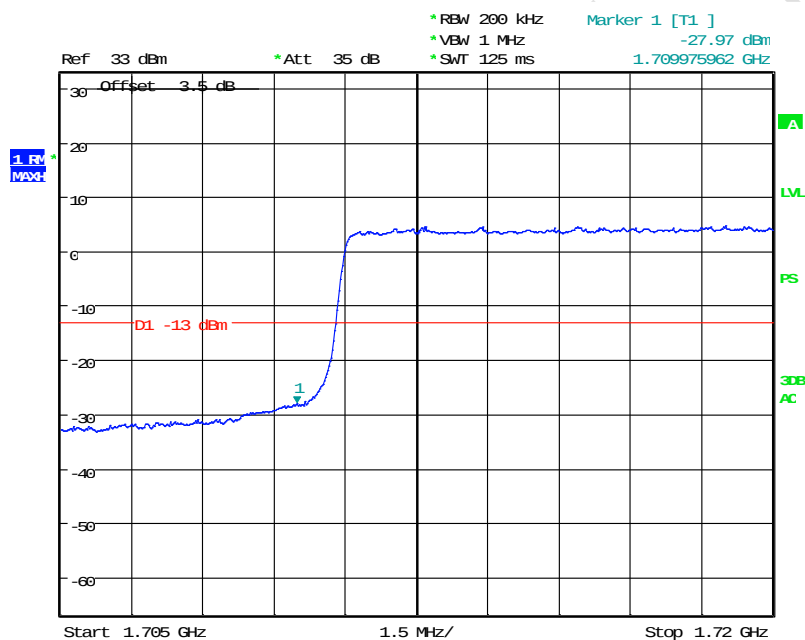
Date: 12.JUN.2015 17:04:22

## 20MHz bandwidth, QPSK, (1,0) Mode, below 1710MHz



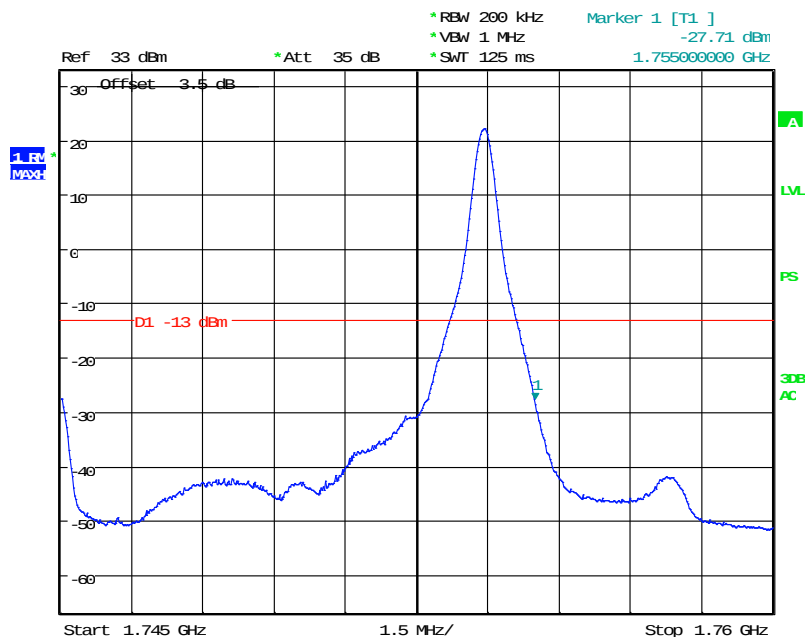
Date: 12.JUN.2015 17:06:58

## 20MHz bandwidth, QPSK, (100,0) Mode, below 1710MHz



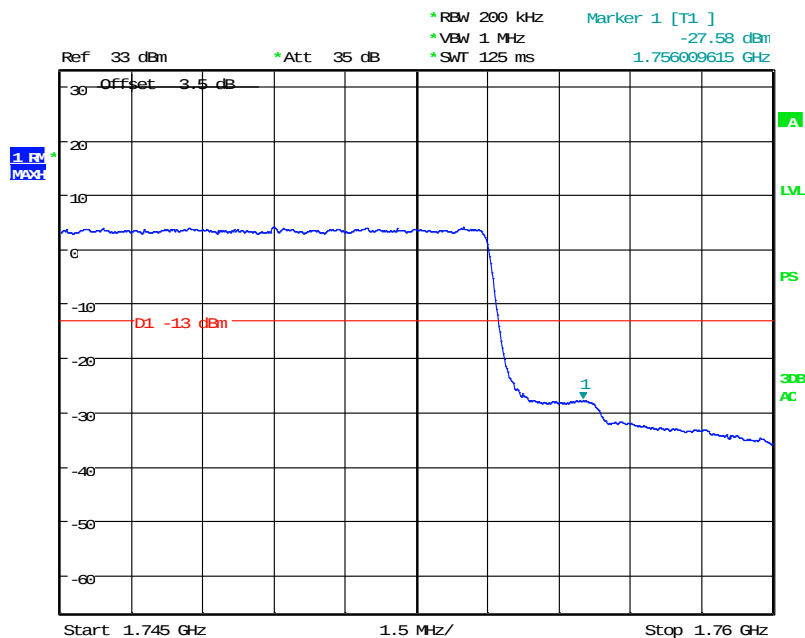
Date: 12.JUN.2015 17:07:34

## 20MHz bandwidth, QPSK,(1,100) Mode, Above 1755MHz

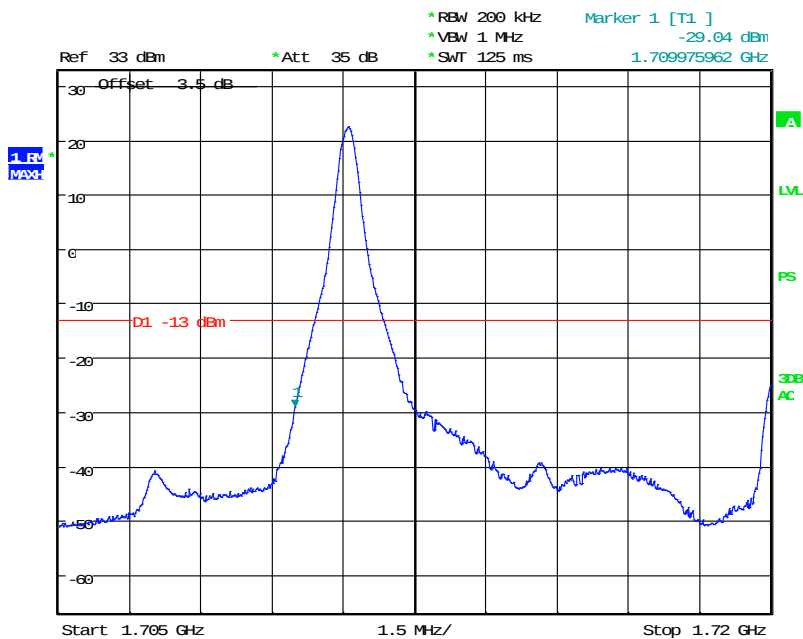


Date: 12.JUN.2015 17:09:39

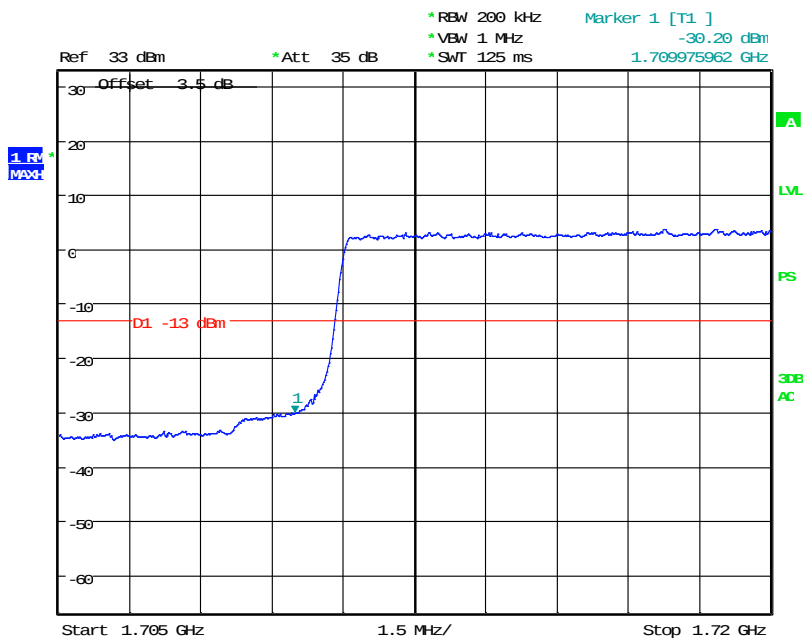
## 20MHz bandwidth, QPSK,(100,0) Mode, Above 1755MHz



Date: 12.JUN.2015 17:10:19

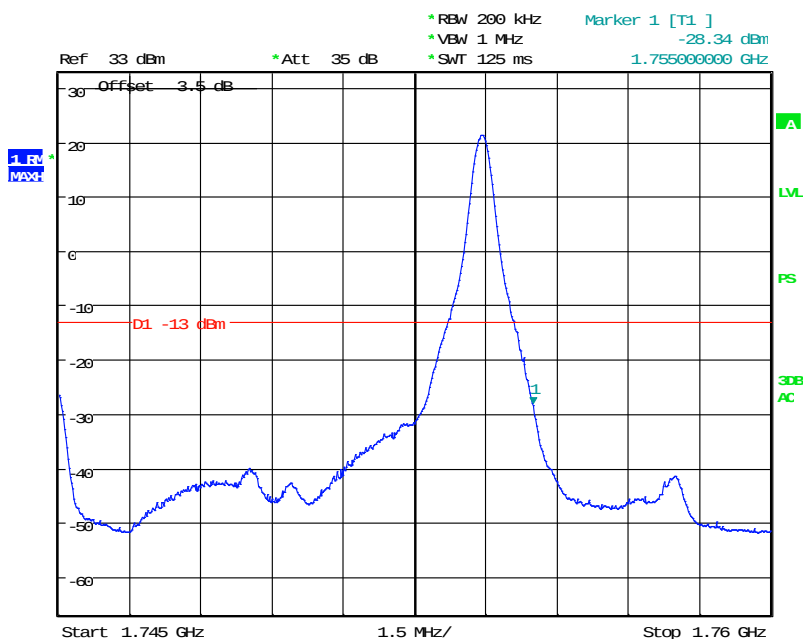
**20MHz bandwidth, 16QAM,(1,0) Mode , below 1710MHz**

Date: 12.JUN.2015 17:08:23

**20MHz bandwidth, 16QAM,(100,0) Mode , below 1710MHz**

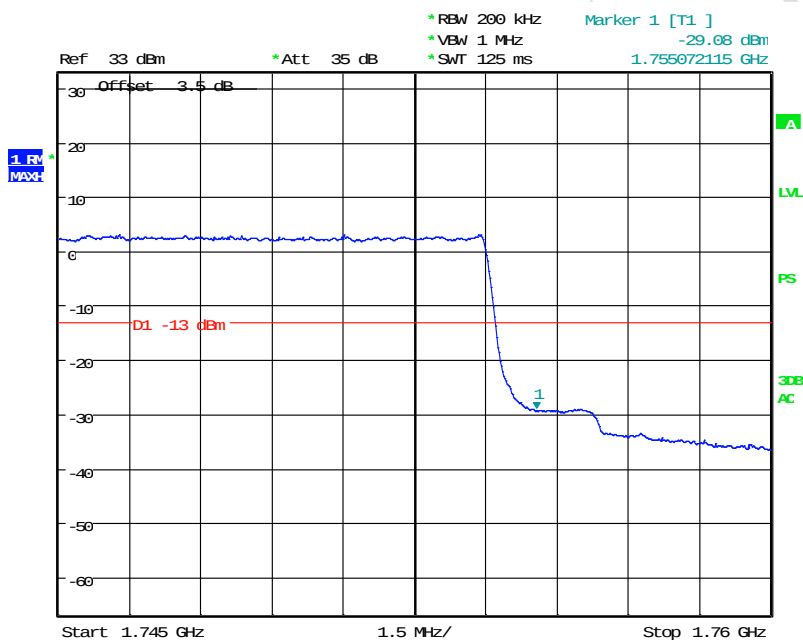
Date: 12.JUN.2015 17:07:58

## 20MHz bandwidth, 16QAM,(1,100) Mode, Above 1755MHz



Date: 12.JUN.2015 17:11:27

## 20MHz bandwidth, 16QAM,100,0) Mode, Above 1755MHz

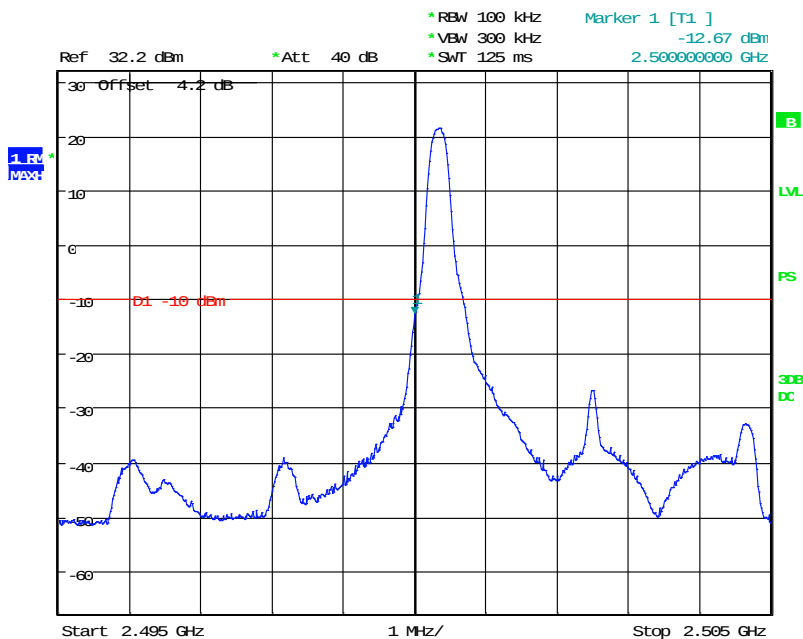


Date: 12.JUN.2015 17:10:54

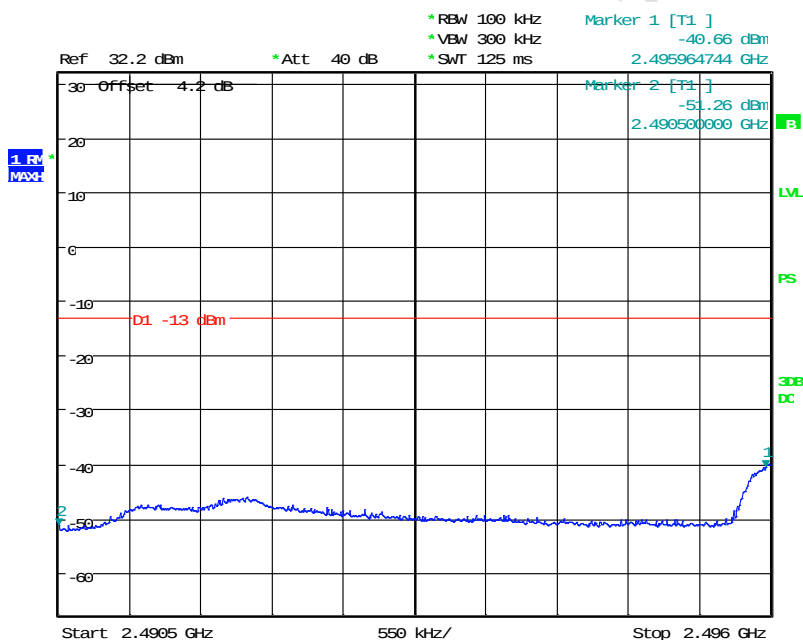
## 4.5.2 LTE B7 Band Edge Results

## Graphical results:

5MHz bandwidth, QPSK, (1,0) Mode, below 2500MHz

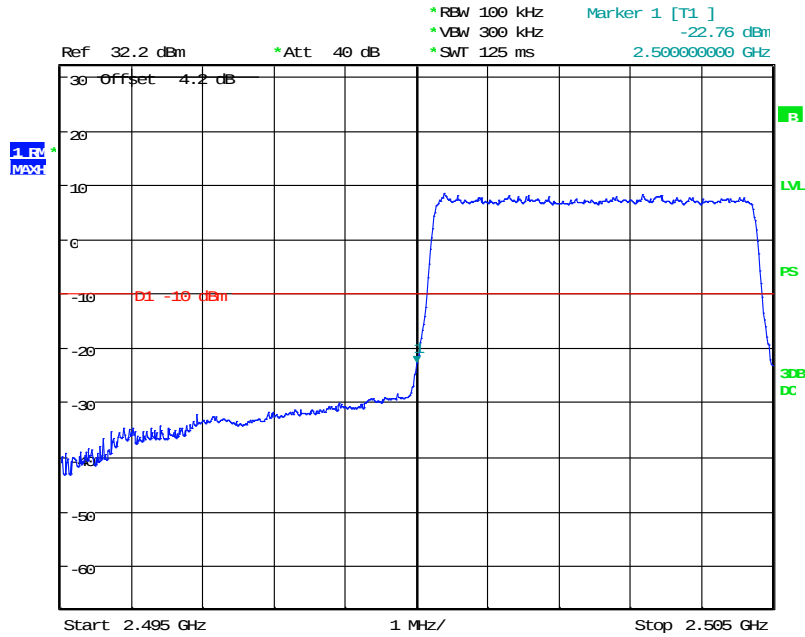


Date: 3.JUL.2015 18:16:09

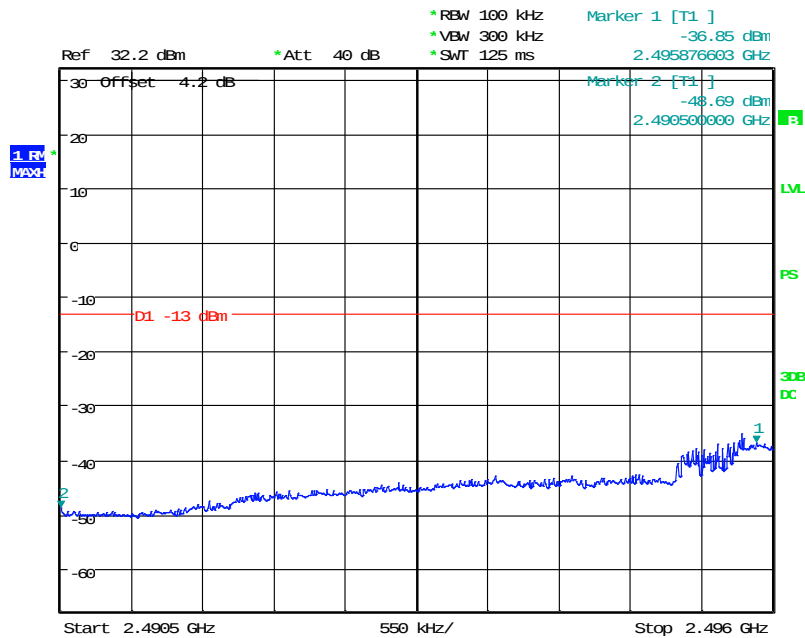


Date: 3.JUL.2015 18:18:17

## 5MHz bandwidth,QPSK,(25,0) Mode , below 2500MHz

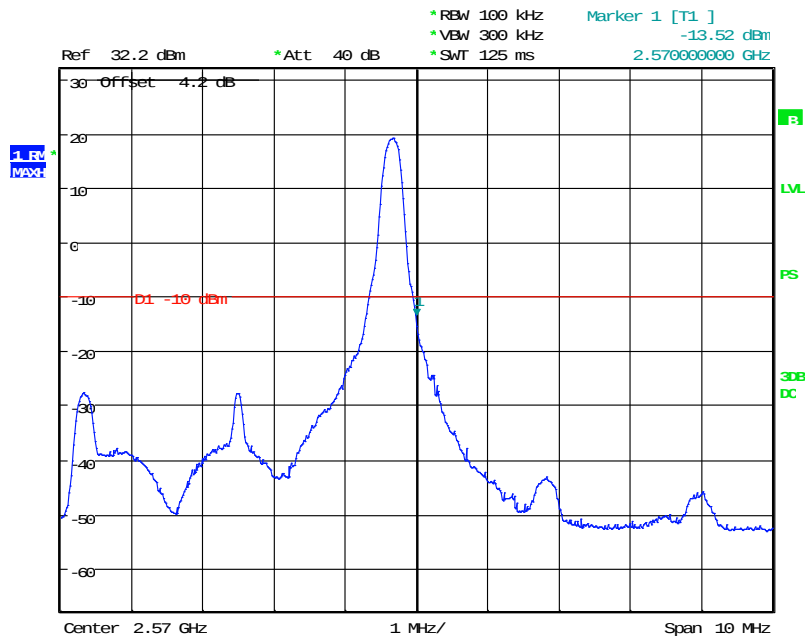


Date: 3.JUL.2015 18:16:32

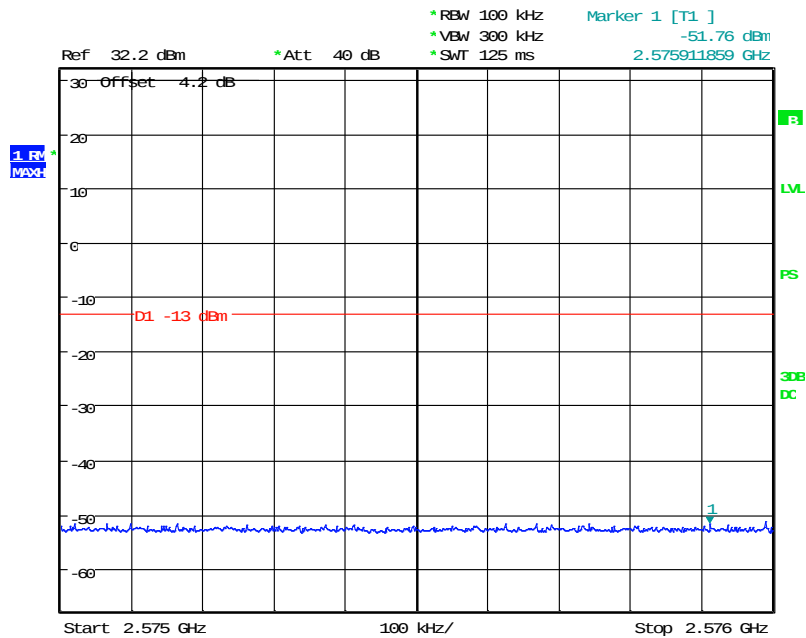


Date: 3.JUL.2015 18:18:41

### 5MHz bandwidth, QPSK,(1,25) Mode, Above 2570MHz

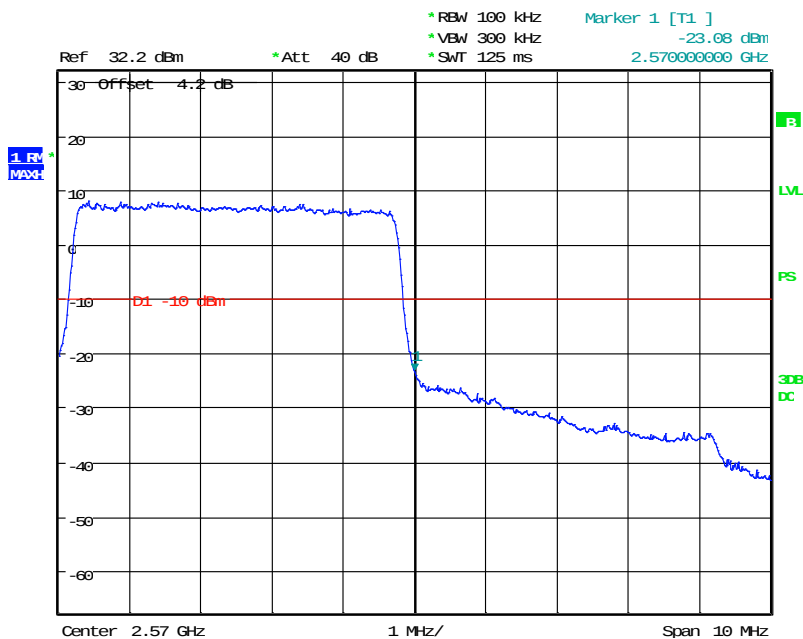


Date: 3.JUL.2015 18:23:17

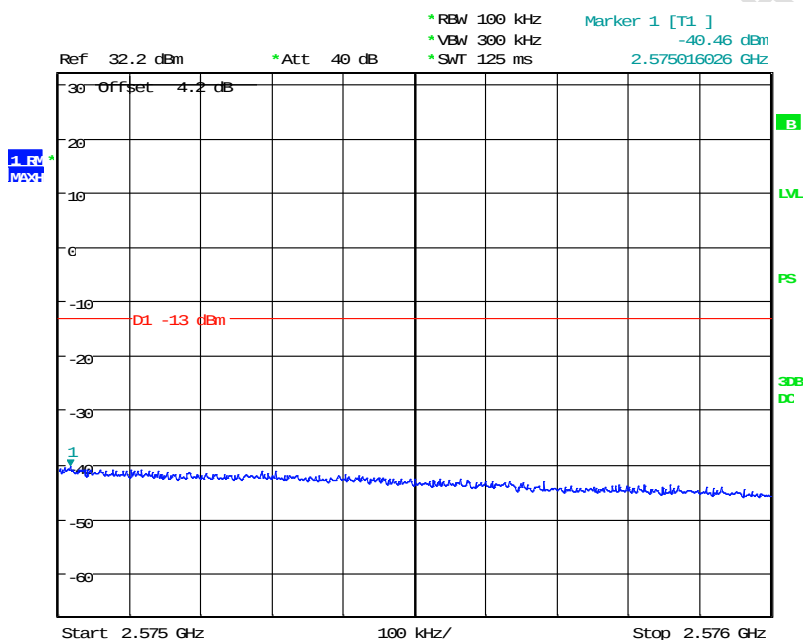


Date: 3.JUL.2015 18:27:34

## 5MHz bandwidth, QPSK,(25,0) Mode, Above 2570MHz

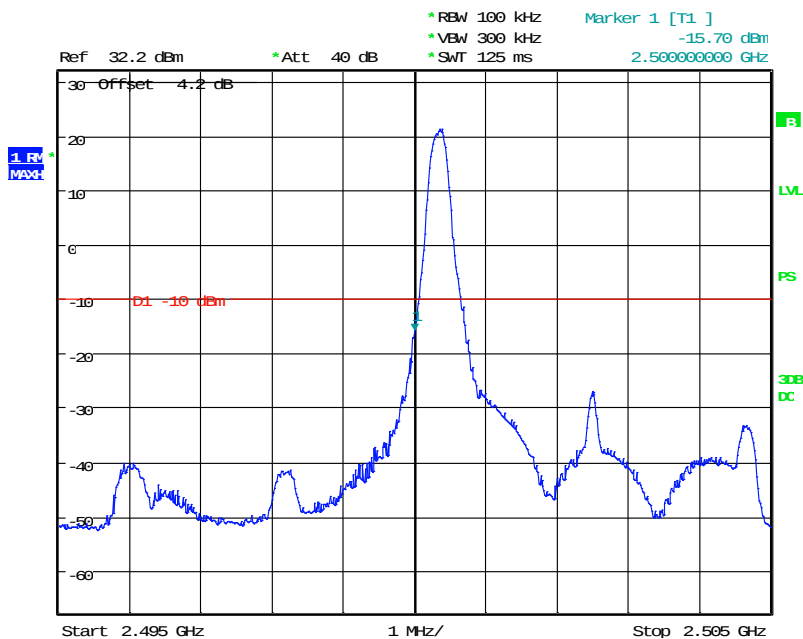


Date: 3.JUL.2015 18:23:33

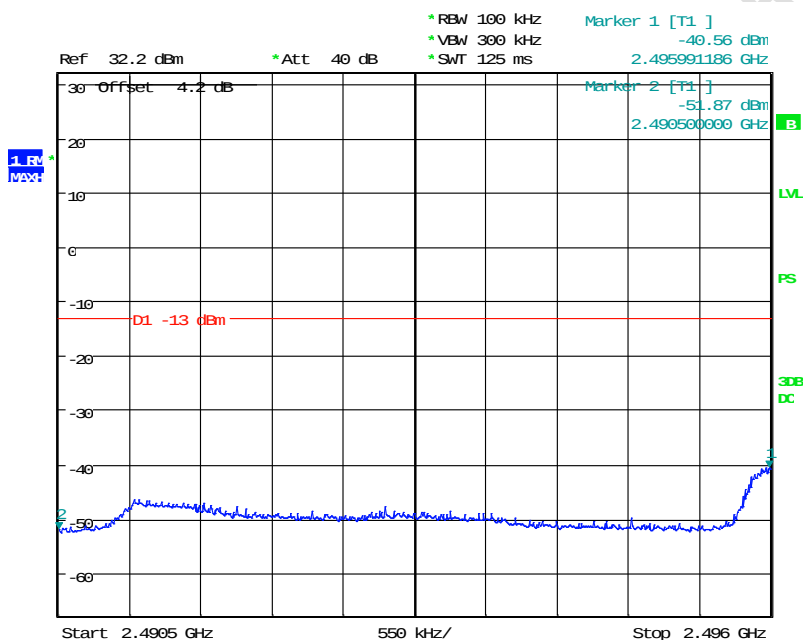


Date: 3.JUL.2015 18:26:50

## 5MHz bandwidth, 16QAM,(1,0) Mode , below 2500MHz



Date: 3.JUL.2015 18:17:04



Date: 3.JUL.2015 18:19:33

Ref 32.2 dBm \*Att 40 dB \*RBW 100 kHz \*VBW 300 kHz \*SWT 125 ms Marker 1 [T1] -23.96 dBm 2.500000000 GHz

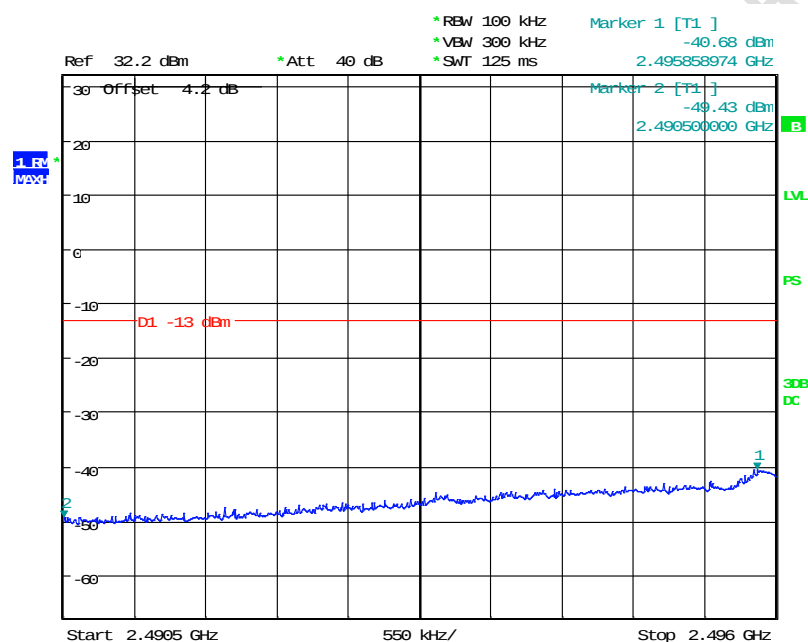
Offset 4.2 dB

1\_FV  
Noise

D1 -10 dBm

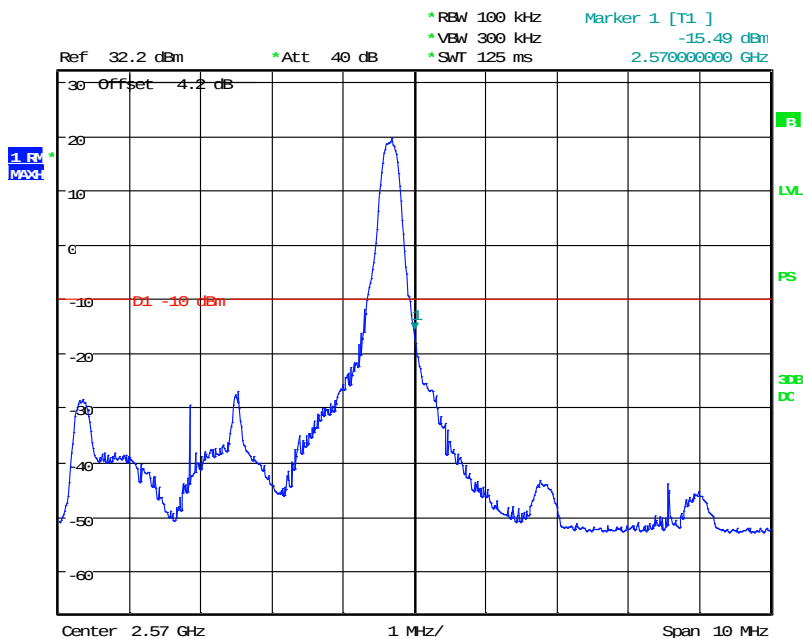
Start 2.495 GHz 1 MHz/ Stop 2.505 GHz

Date: 3.JUL.2015 18:16:48

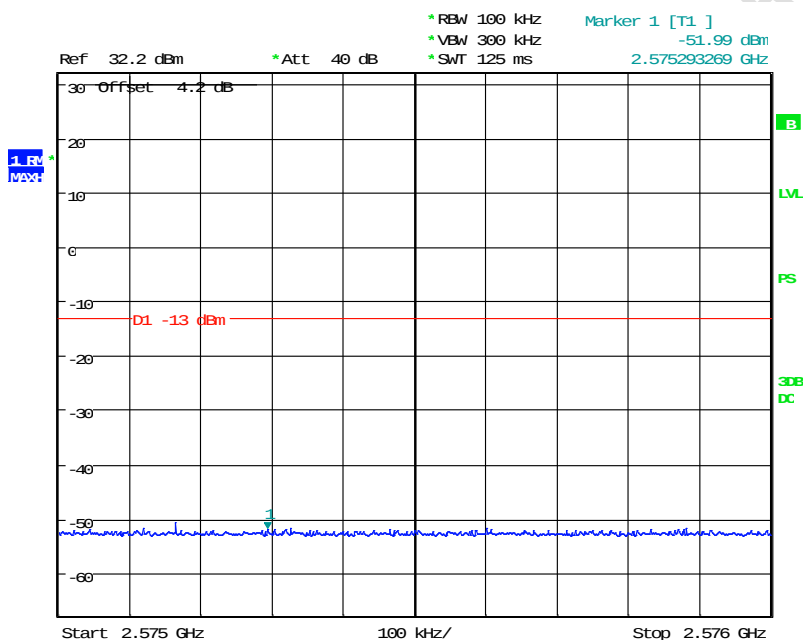


Date: 3.JUL.2015 18:19:05

## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 2570MHz

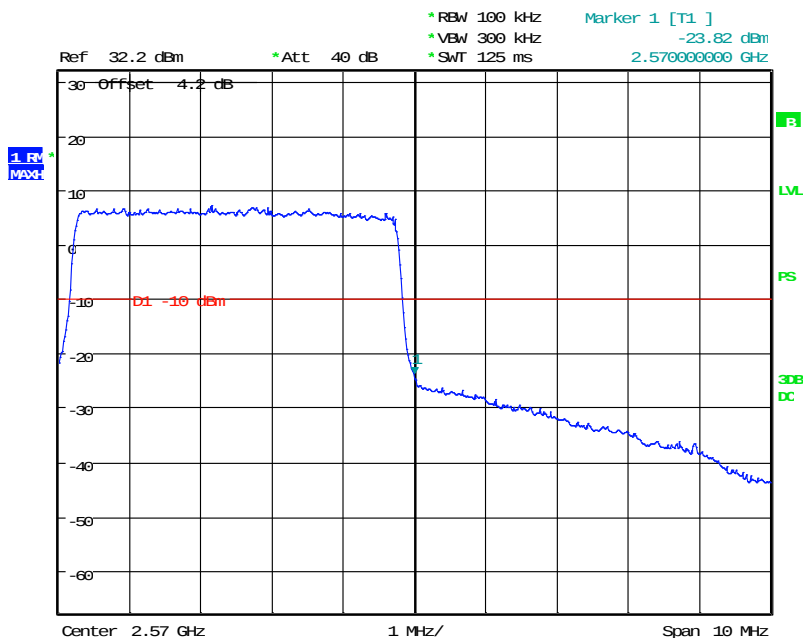


Date: 3.JUL.2015 18:24:56

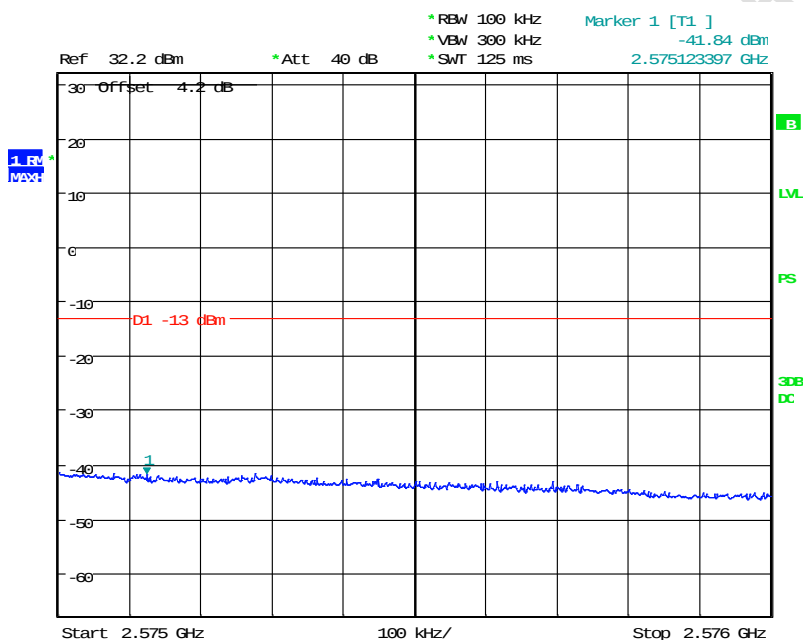


Date: 3.JUL.2015 18:25:42

## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 2570MHz

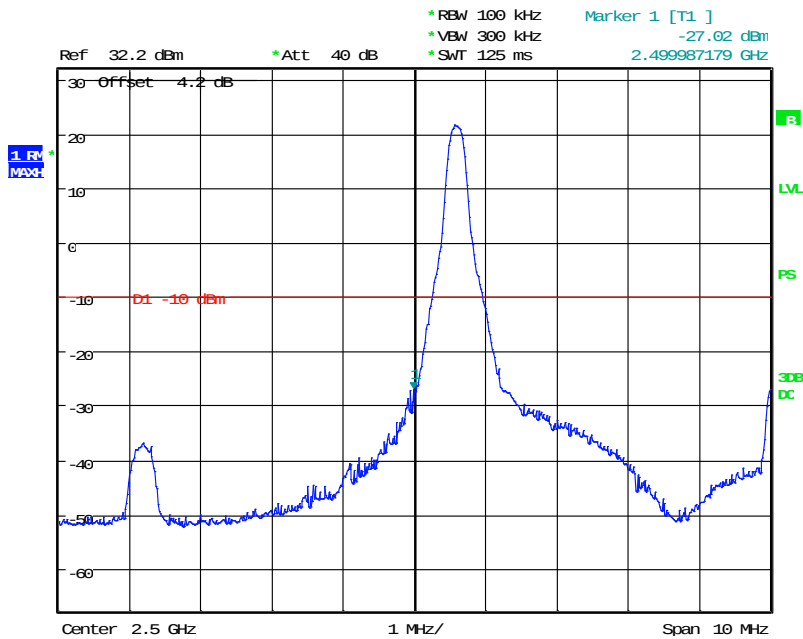


Date: 3.JUL.2015 18:23:48

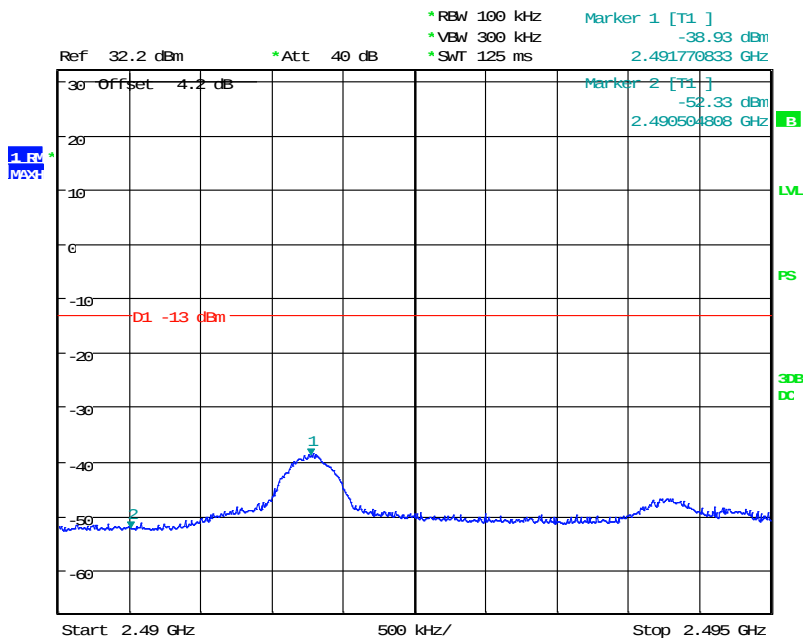


Date: 3.JUL.2015 18:26:31

## 10MHz bandwidth, QPSK, (1,0) Mode, below 2500MHz

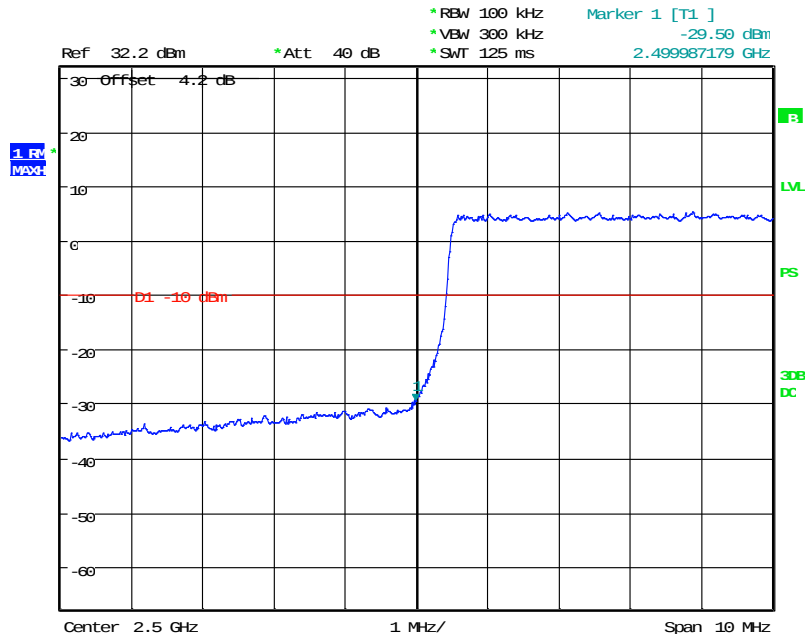


Date: 3.JUL.2015 18:31:07

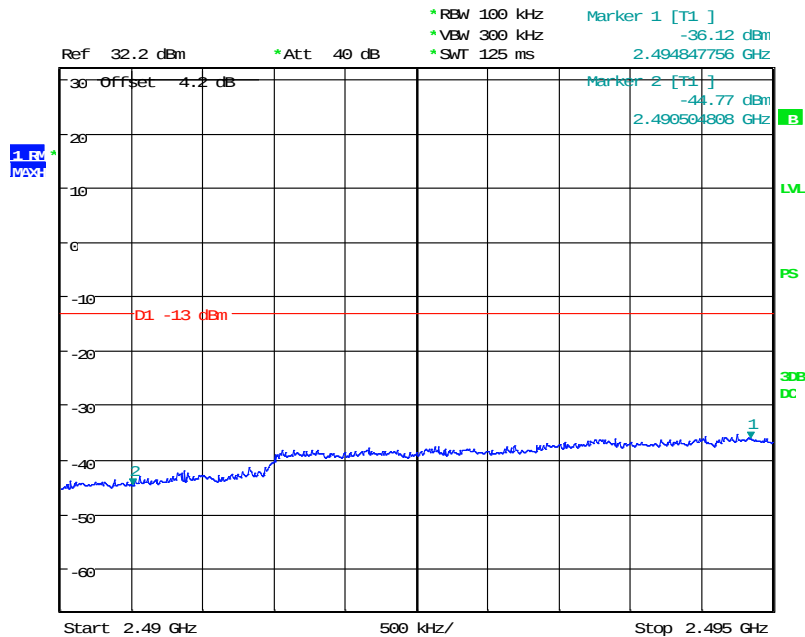


Date: 3.JUL.2015 18:33:52

## 10MHz bandwidth, QPSK, (50,0) Mode, below 2500MHz

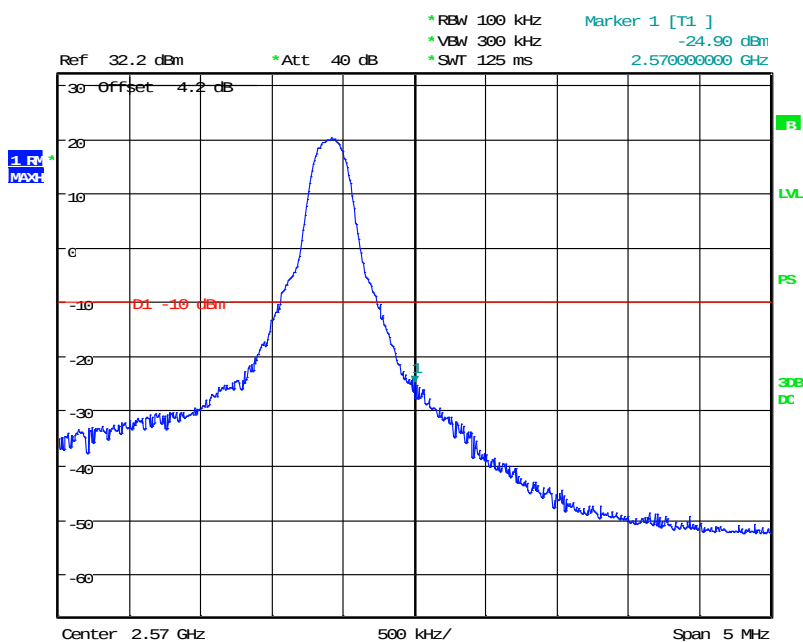


Date: 3.JUL.2015 18:30:50

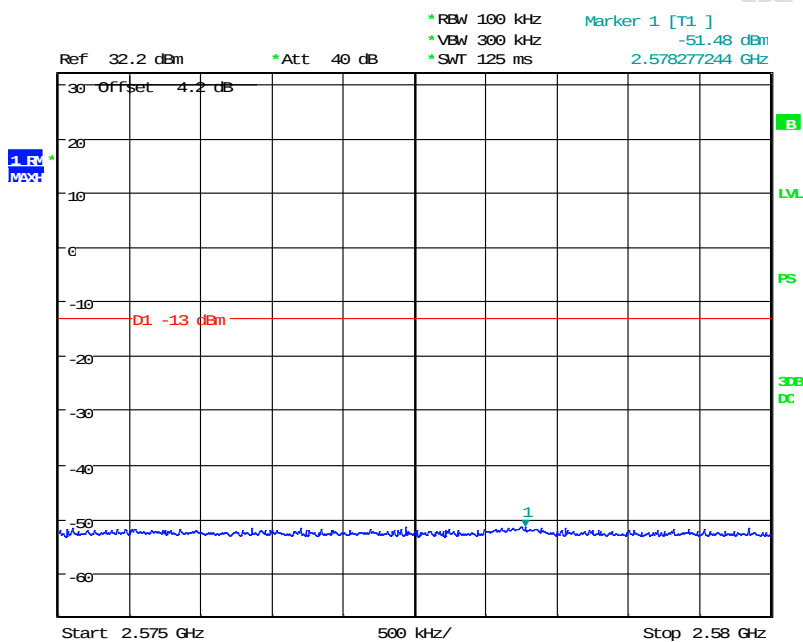


Date: 3.JUL.2015 18:34:08

## 10MHz bandwidth, QPSK,(1,50) Mode, Above 2570MHz

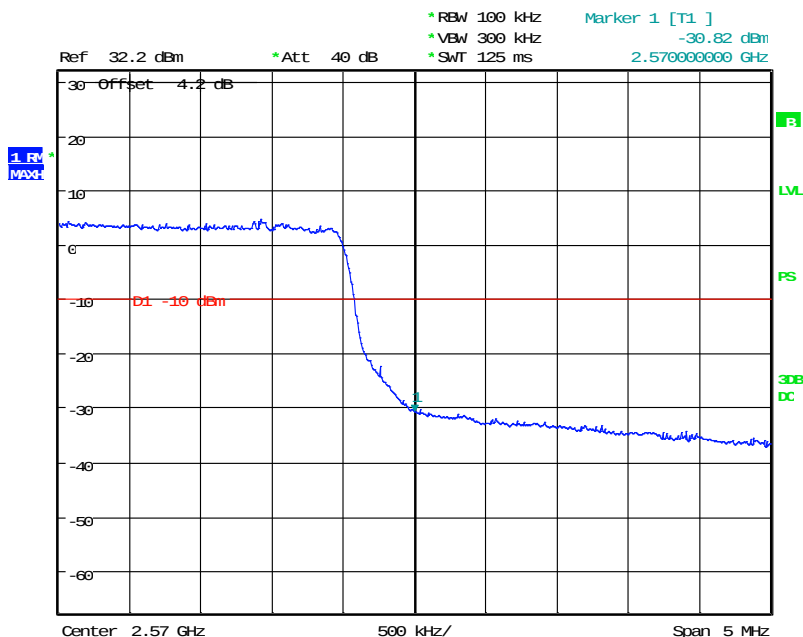


Date: 3.JUL.2015 18:37:45

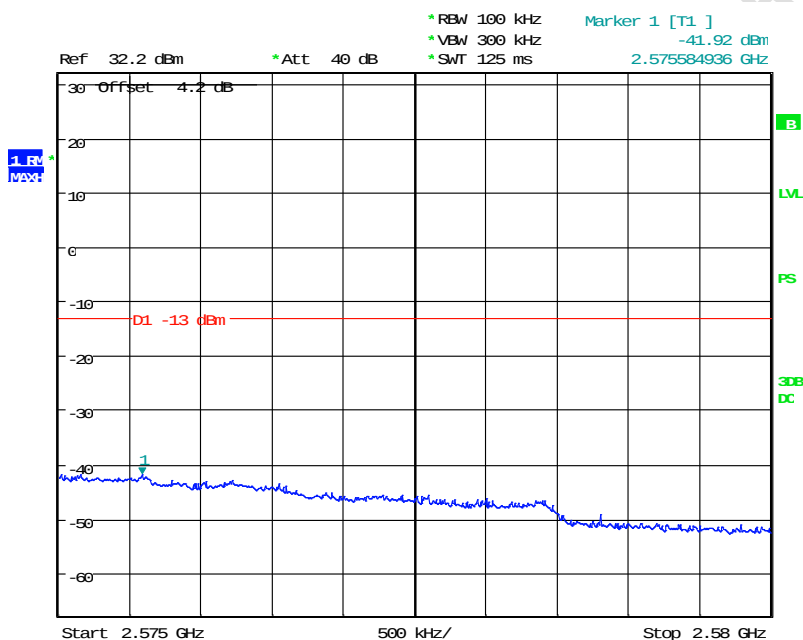


Date: 3.JUL.2015 18:38:34

# 10MHz bandwidth, QPSK,(50,0) Mode, Above 2570MHz

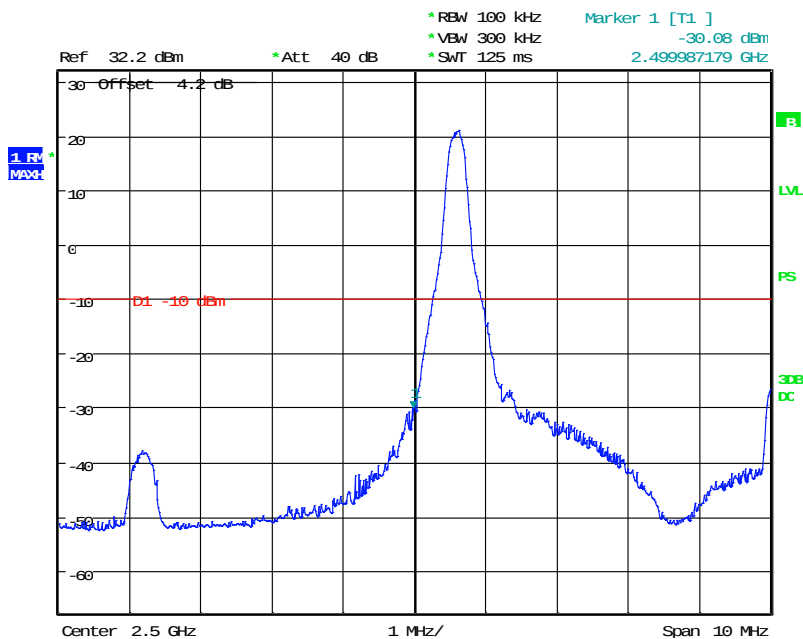


Date: 3.JUL.2015 18:37:10

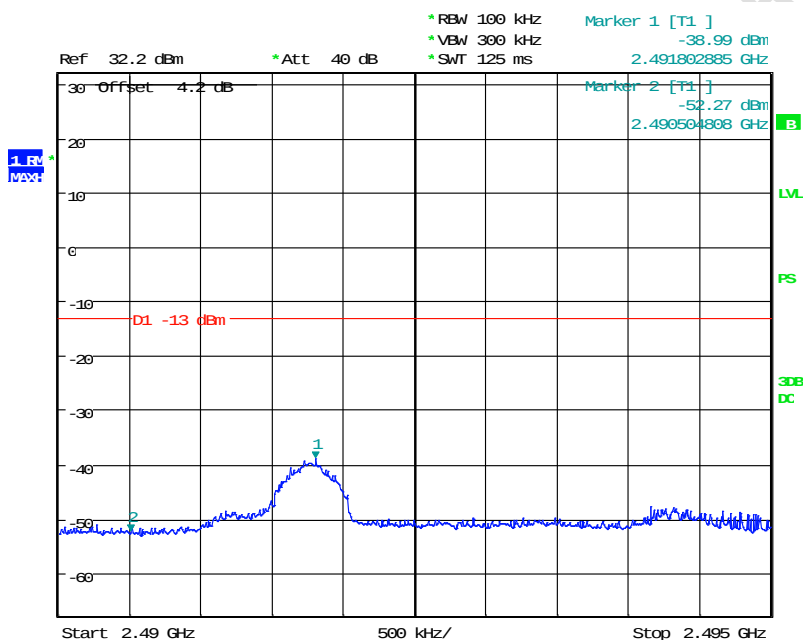


Date: 3.JUL.2015 18:38:49

## 10MHz bandwidth, 16QAM,(1,0) Mode , below 2500MHz

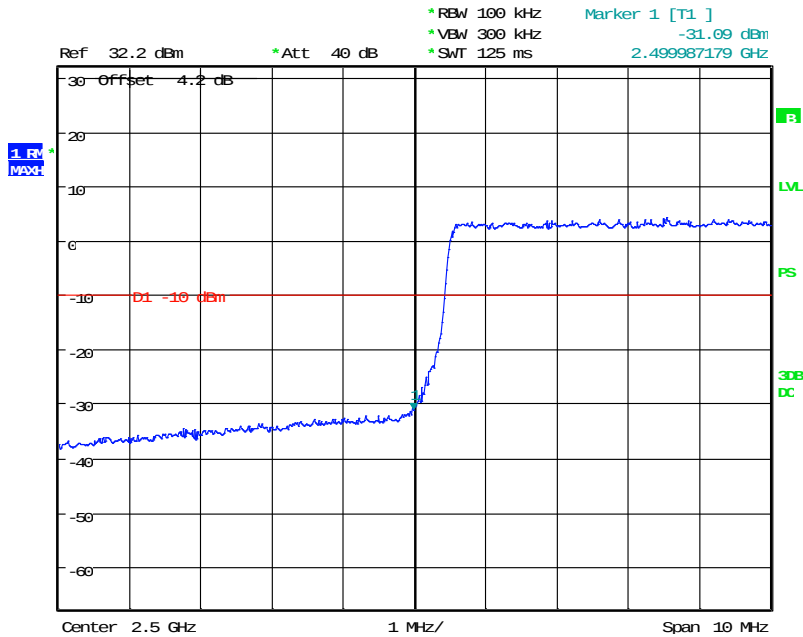


Date: 3.JUL.2015 18:31:21

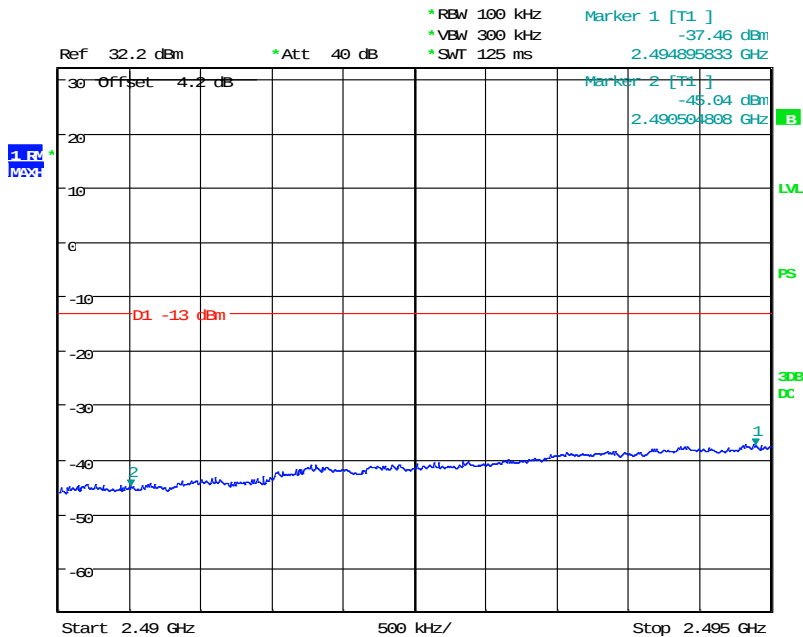


Date: 3.JUL.2015 18:33:05

## 10MHz bandwidth, 16QAM,(50,0) Mode , below 2500MHz

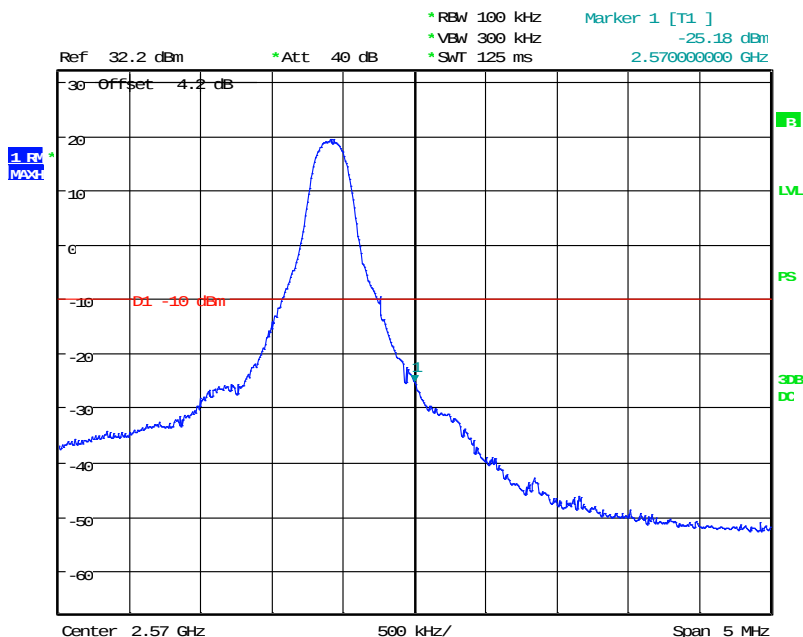


Date: 3.JUL.2015 18:31:36

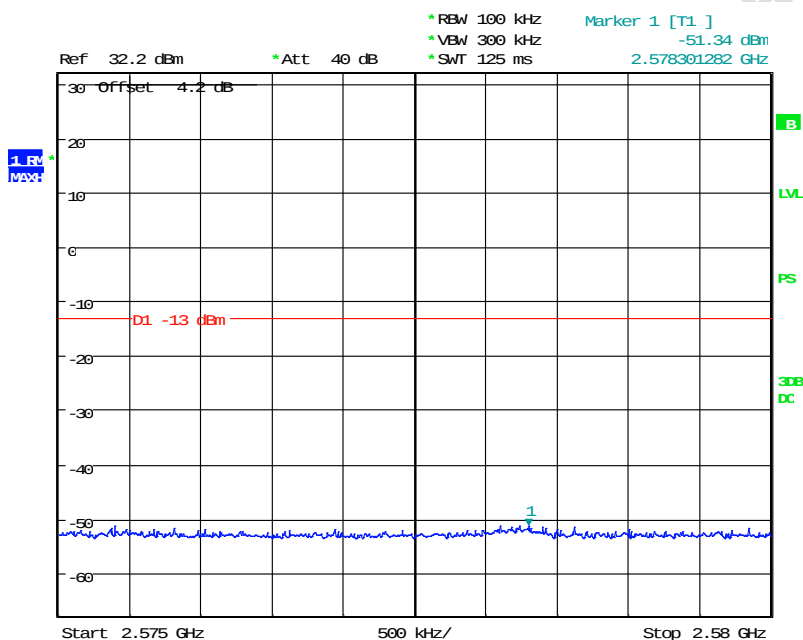


Date: 3.JUL.2015 18:32:46

# 10MHz bandwidth, 16QAM,(1,50) Mode, Above 2570MHz

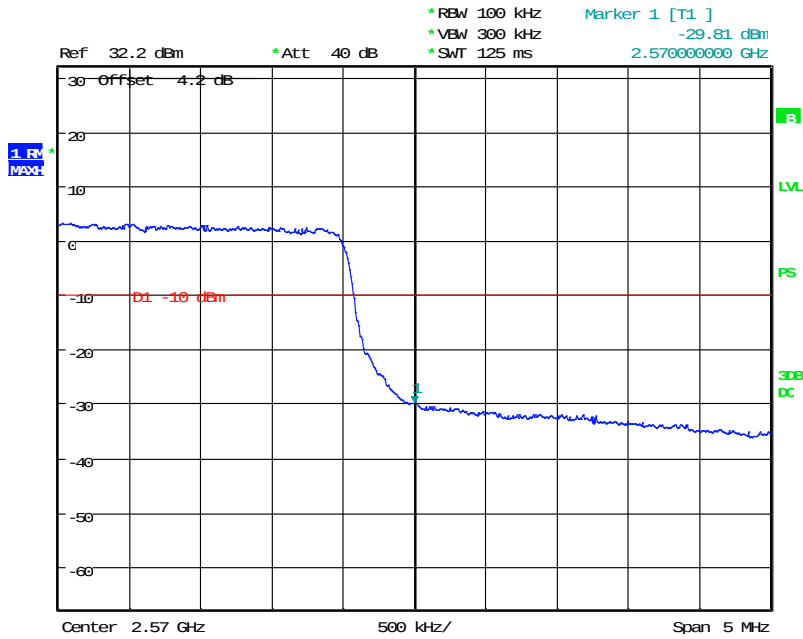


Date: 3.JUL.2015 18:36:31

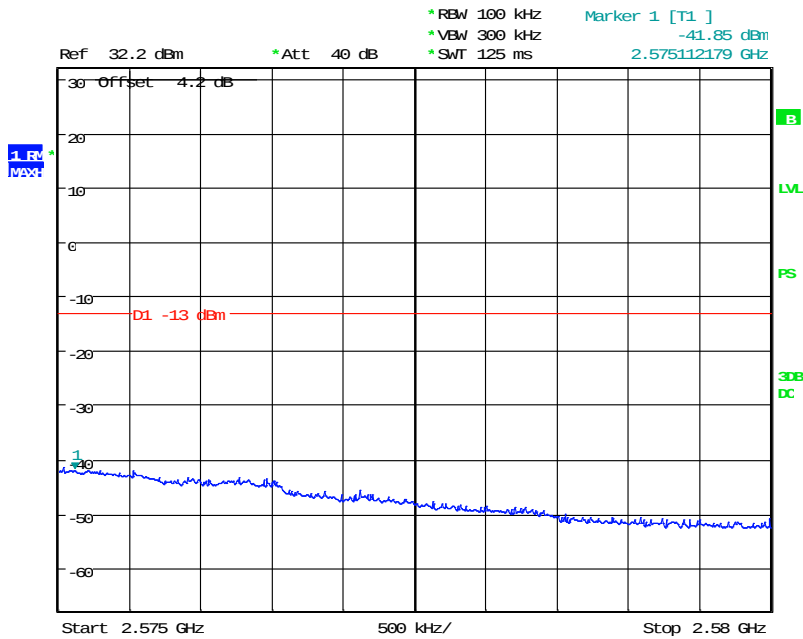


Date: 3.JUL.2015 18:39:23

# 10MHz bandwidth, 16QAM,(50,0) Mode, Above 2570MHz

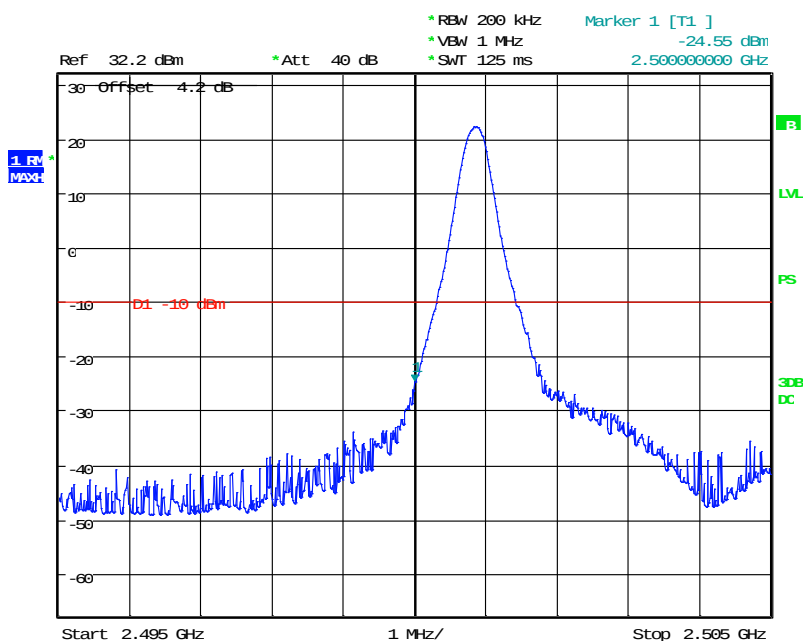


Date: 3.JUL.2015 18:36:51

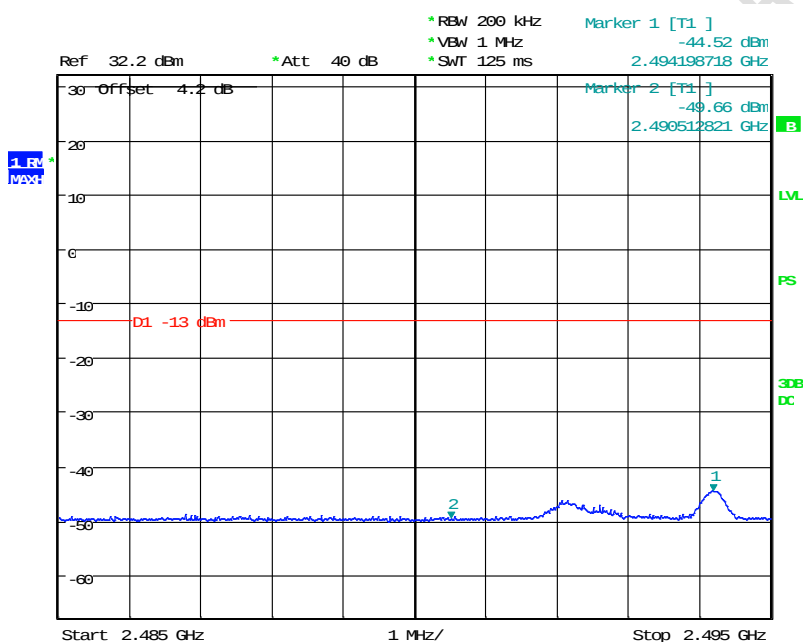


Date: 3.JUL.2015 18:39:05

## 15MHz bandwidth,QPSK,(1,0) Mode , below 2500MHz

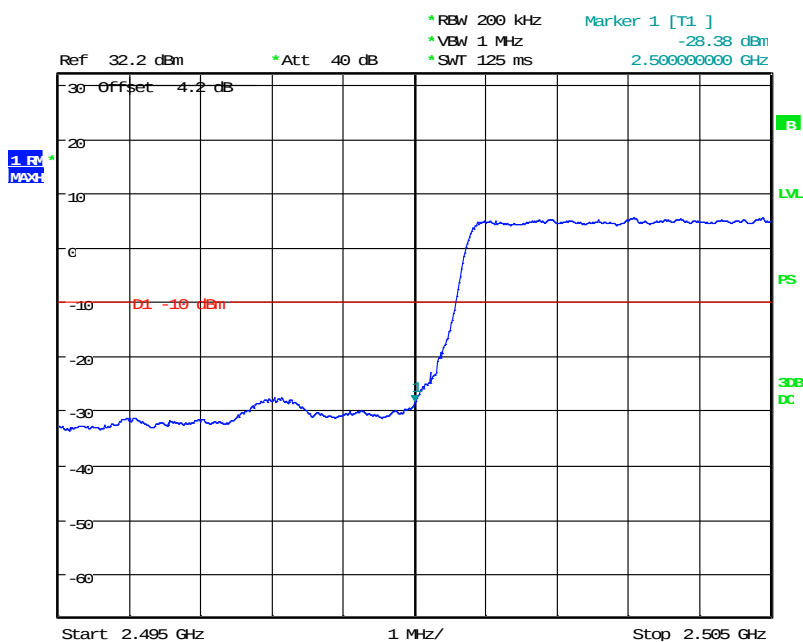


Date: 3.JUL.2015 18:41:16

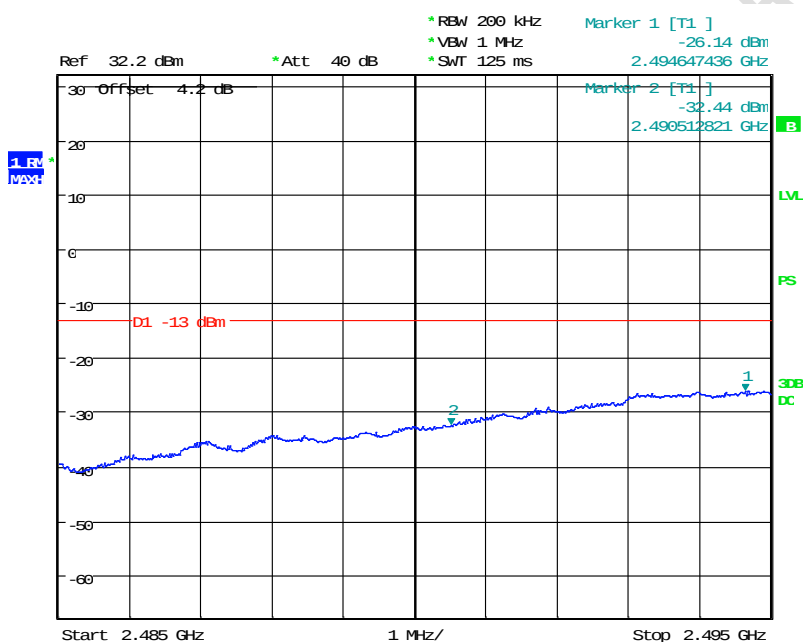


Date: 3.JUL.2015 18:43:48

## 15MHz bandwidth,QPSK,(75,0) Mode , below 2500MHz

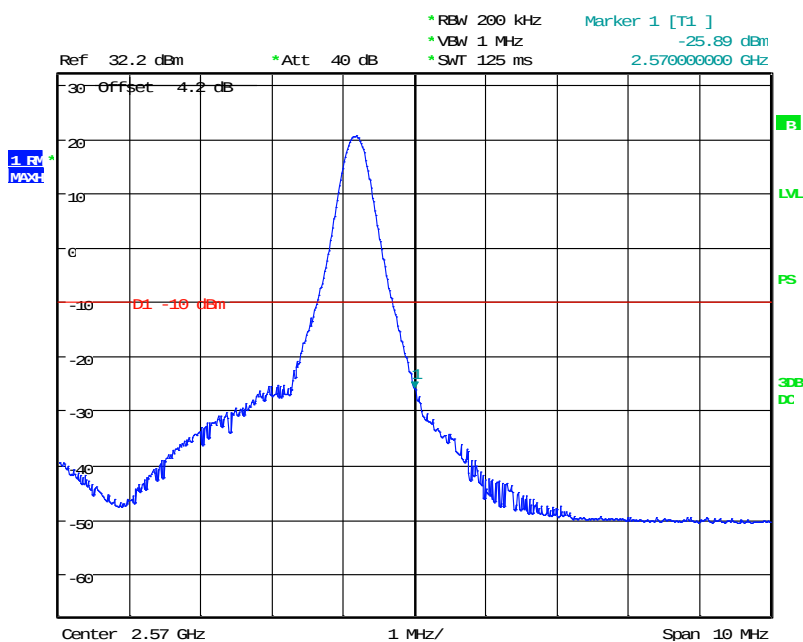


Date: 3.JUL.2015 18:41:01

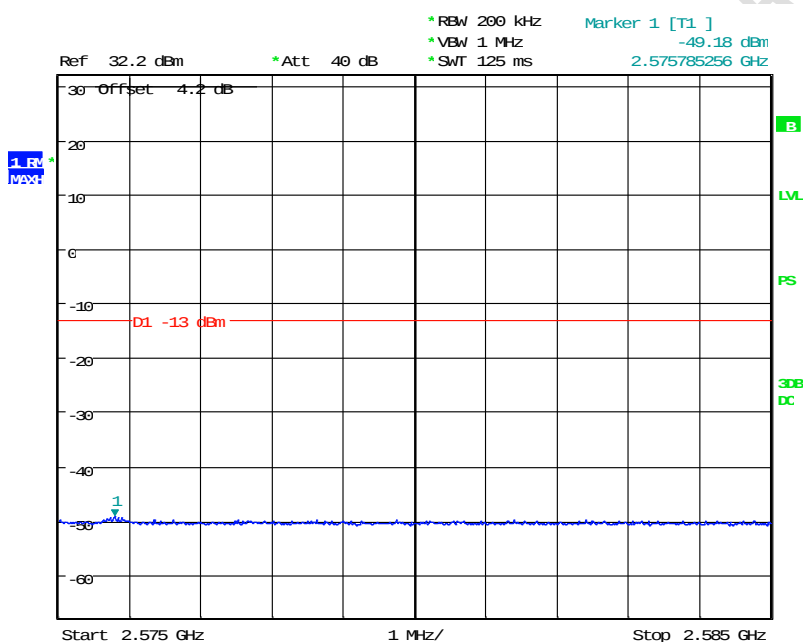


Date: 3.JUL.2015 18:44:05

## 15MHz bandwidth, QPSK,(1,75) Mode, Above 2570MHz

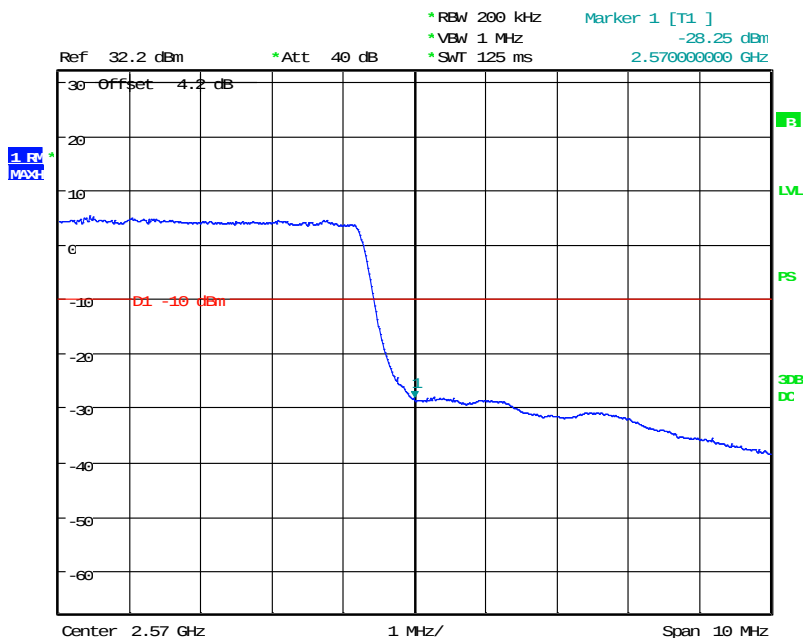


Date: 3.JUL.2015 18:45:32

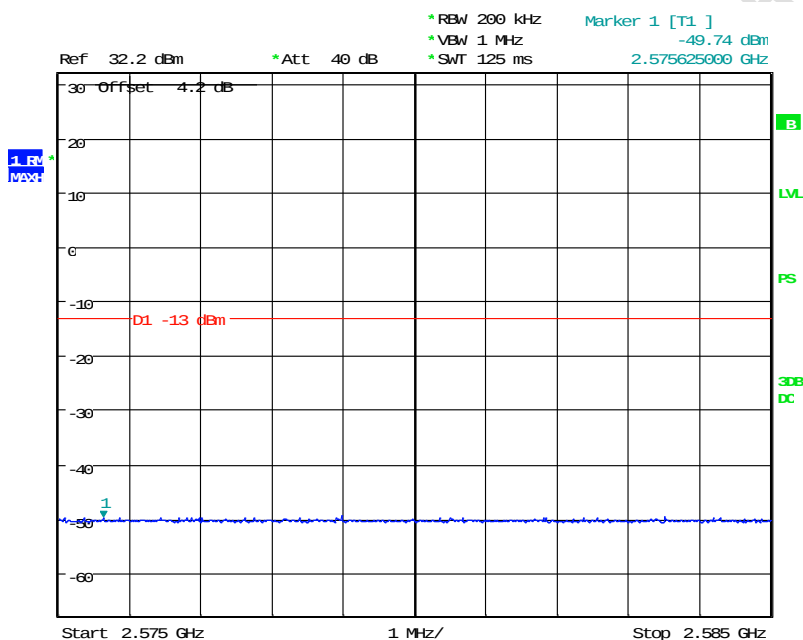


Date: 3.JUL.2015 18:46:49

## 15MHz bandwidth, QPSK,(75,0) Mode, Above 2570MHz

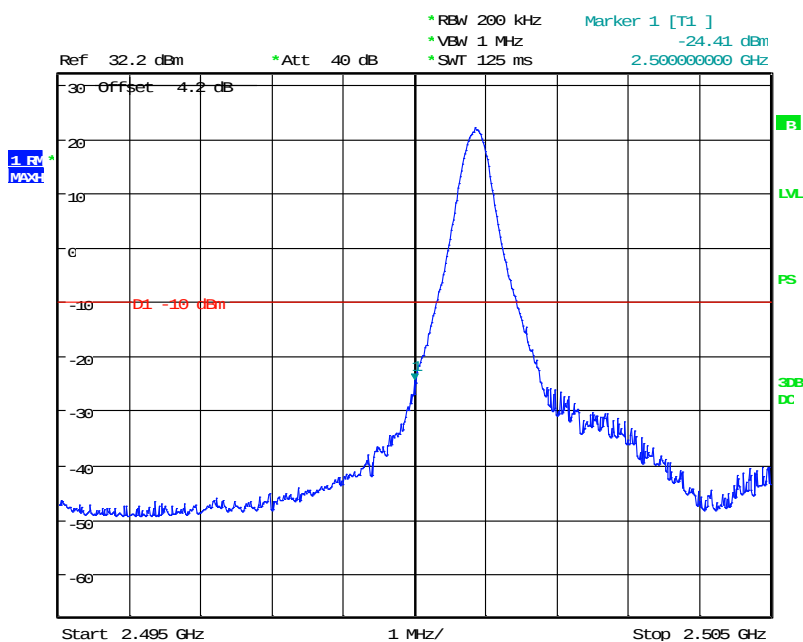


Date: 3.JUL.2015 18:45:14

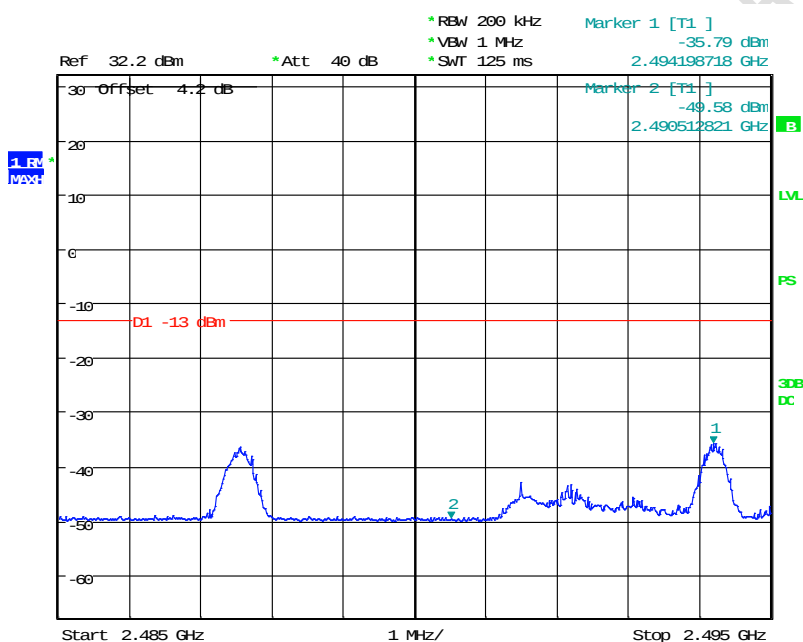


Date: 3.JUL.2015 18:51:47

## 15MHz bandwidth, 16QAM,(1,0) Mode , below 2500MHz

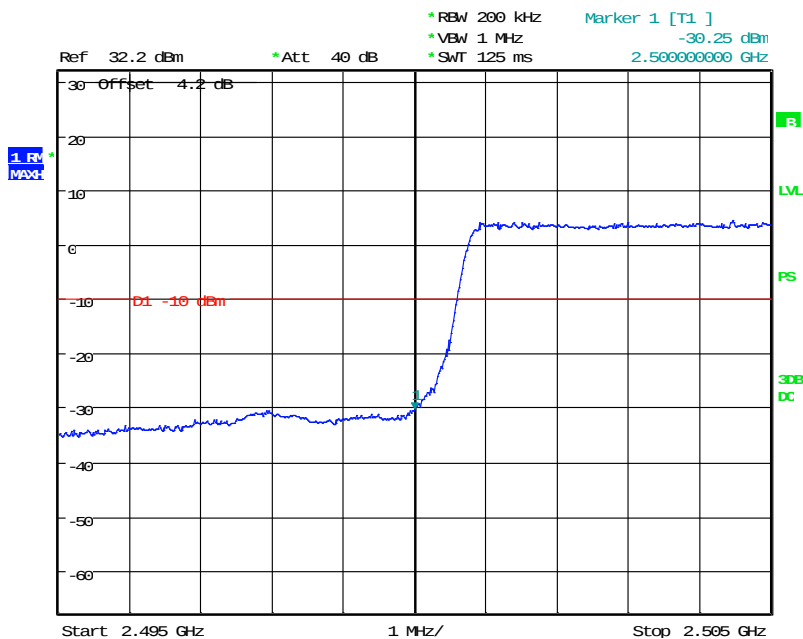


Date: 3.JUL.2015 18:41:34

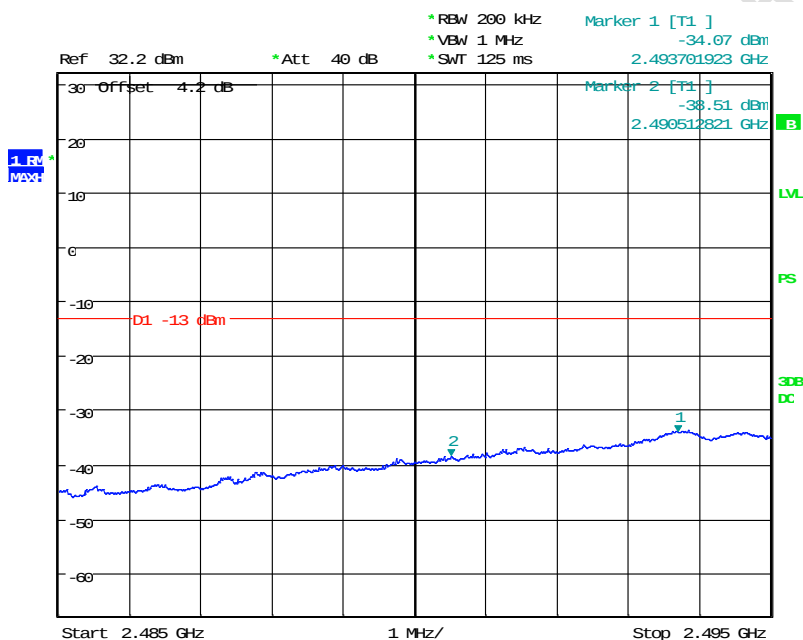


Date: 3.JUL.2015 18:43:07

## 15MHz bandwidth, 16QAM,(75,0) Mode , below 2500MHz

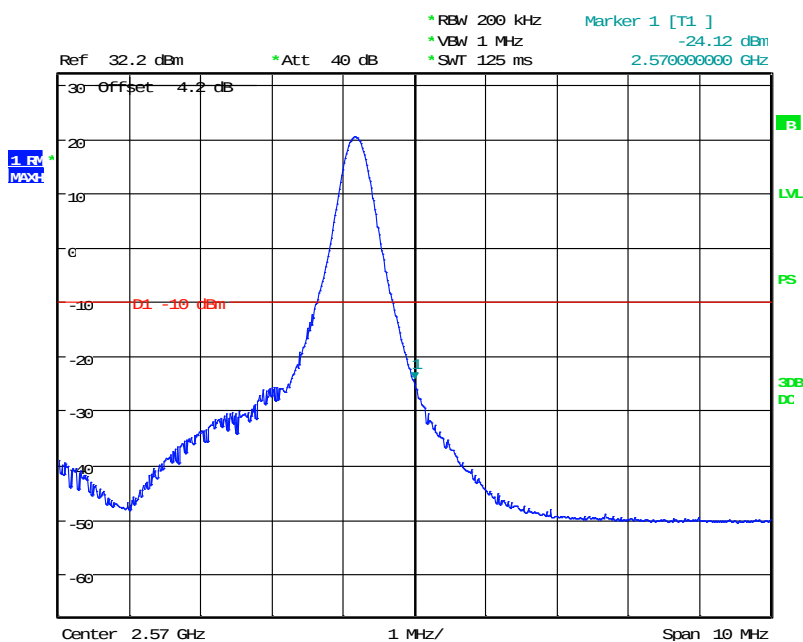


Date: 3.JUL.2015 18:41:47

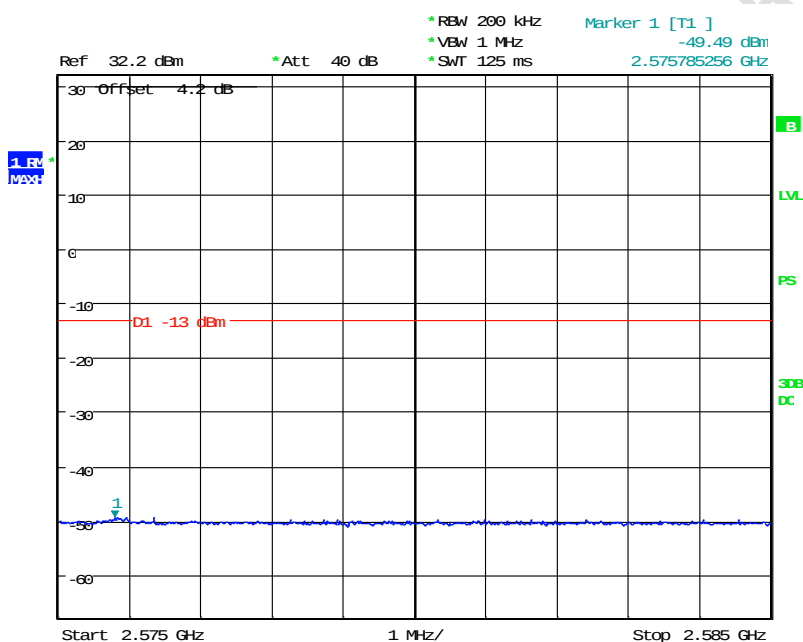


Date: 3.JUL.2015 18:42:41

## 15MHz bandwidth, 16QAM,(1,75) Mode, Above 2570MHz

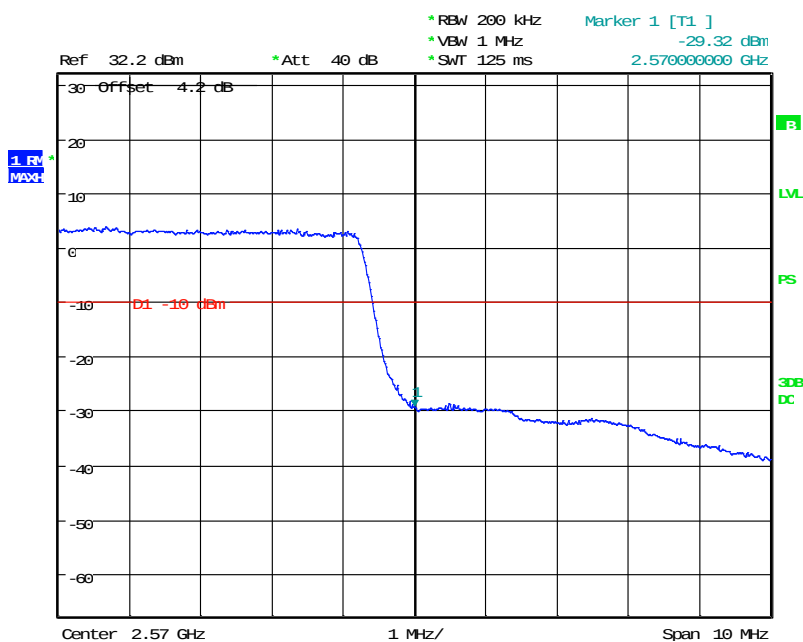


Date: 3.JUL.2015 18:45:47

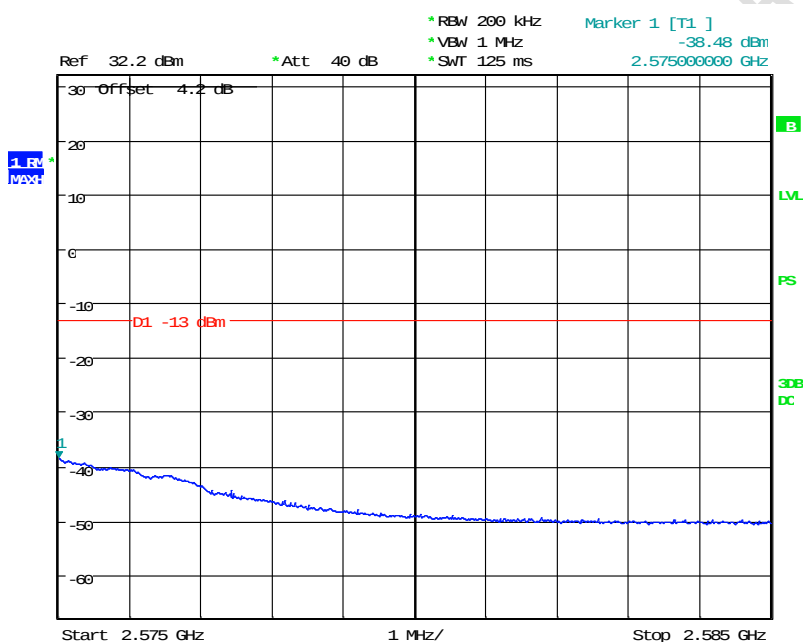


Date: 3.JUL.2015 18:46:37

## 15MHz bandwidth, 16QAM,(75,0) Mode, Above 2570MHz

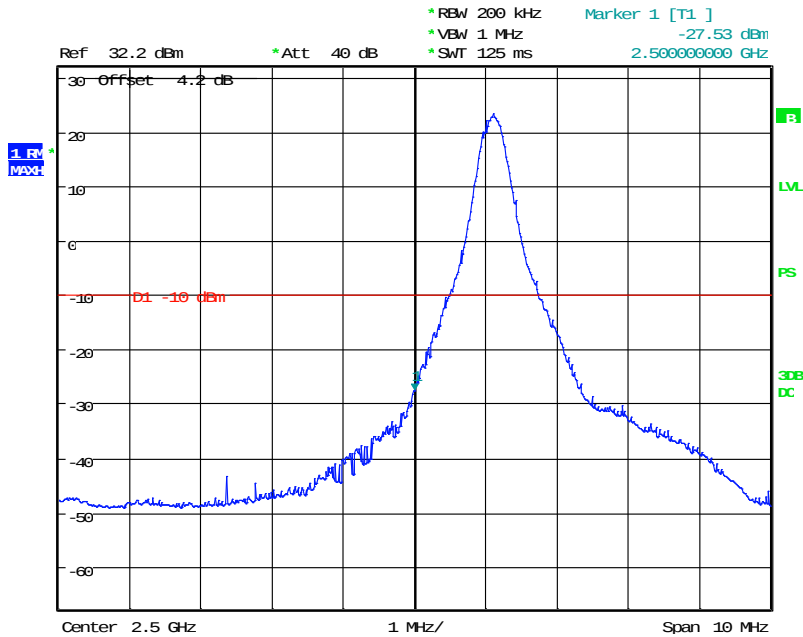


Date: 3.JUL.2015 18:45:58

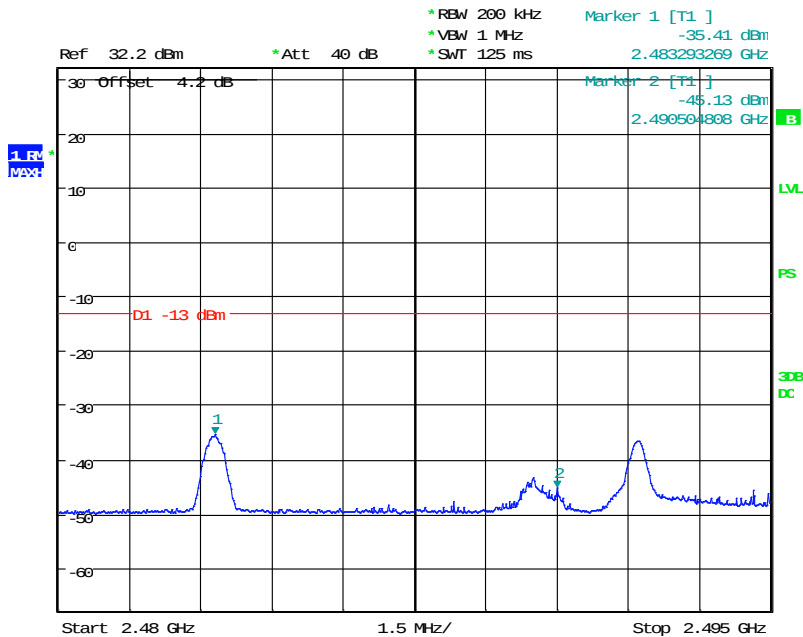


Date: 3.JUL.2015 18:46:25

## 20MHz bandwidth, QPSK, (1,0) Mode, below 2500MHz

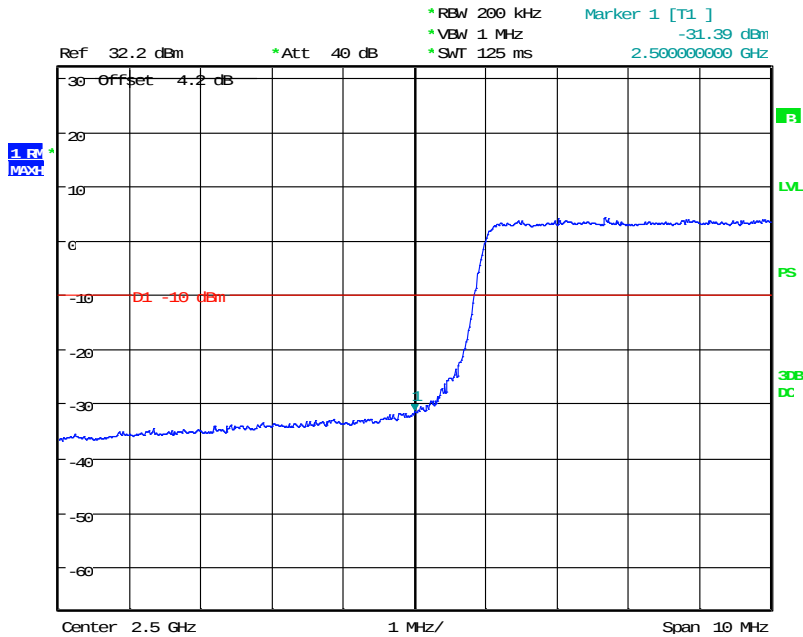


Date: 3.JUL.2015 18:55:20

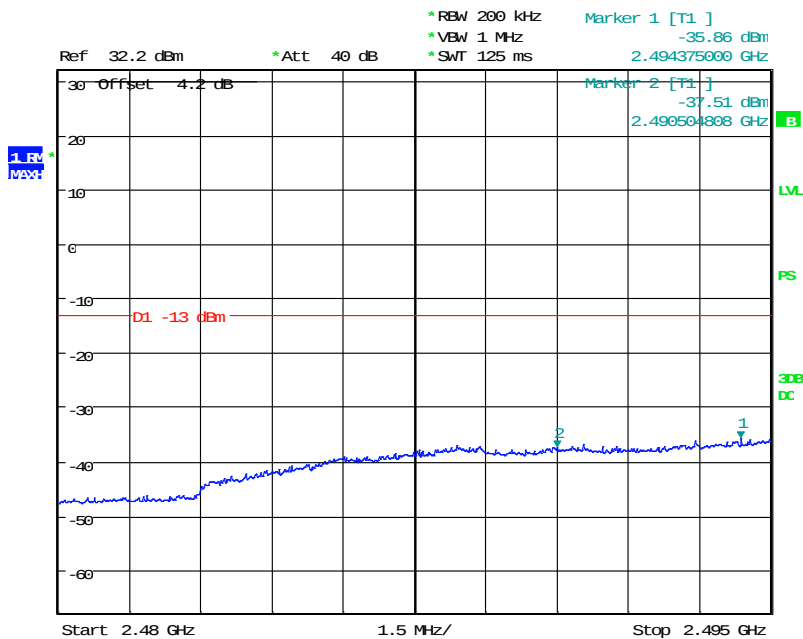


Date: 3.JUL.2015 18:57:49

## 20MHz bandwidth, QPSK, (100,0) Mode, below 2500MHz

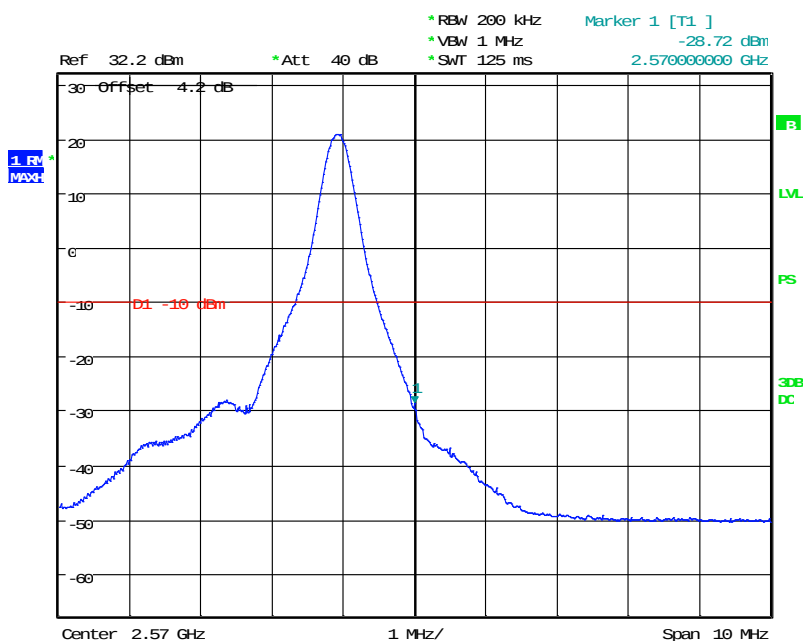


Date: 3.JUL.2015 18:55:34

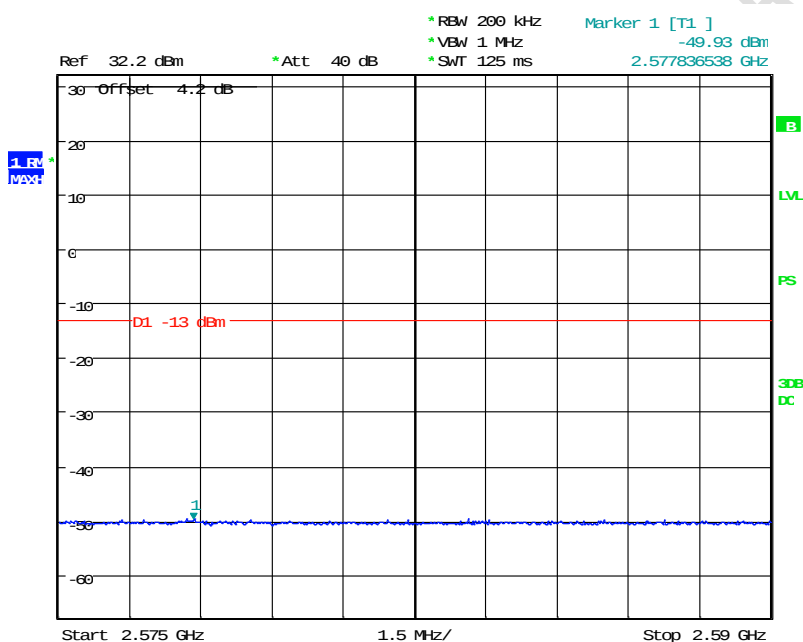


Date: 3.JUL.2015 18:57:34

## 20MHz bandwidth, QPSK,(1,100) Mode, Above 2570MHz

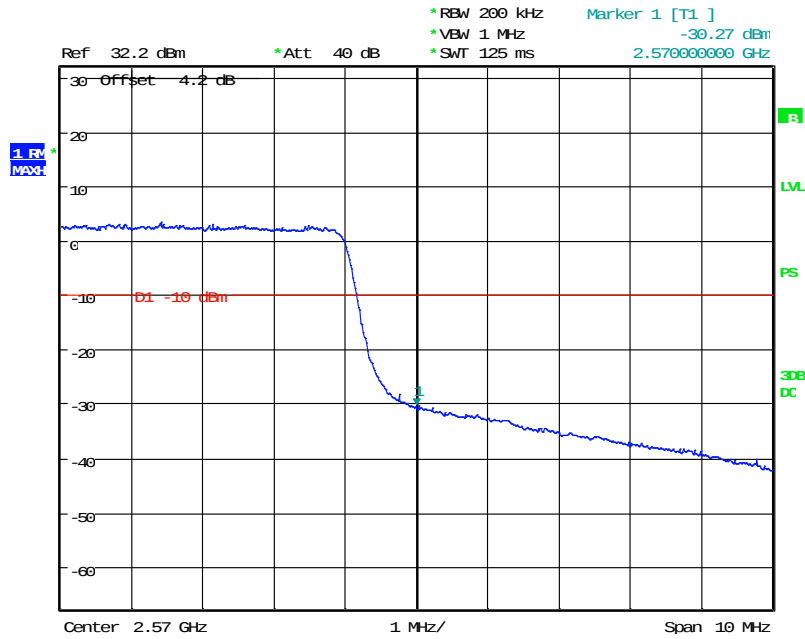


Date: 3.JUL.2015 18:59:00

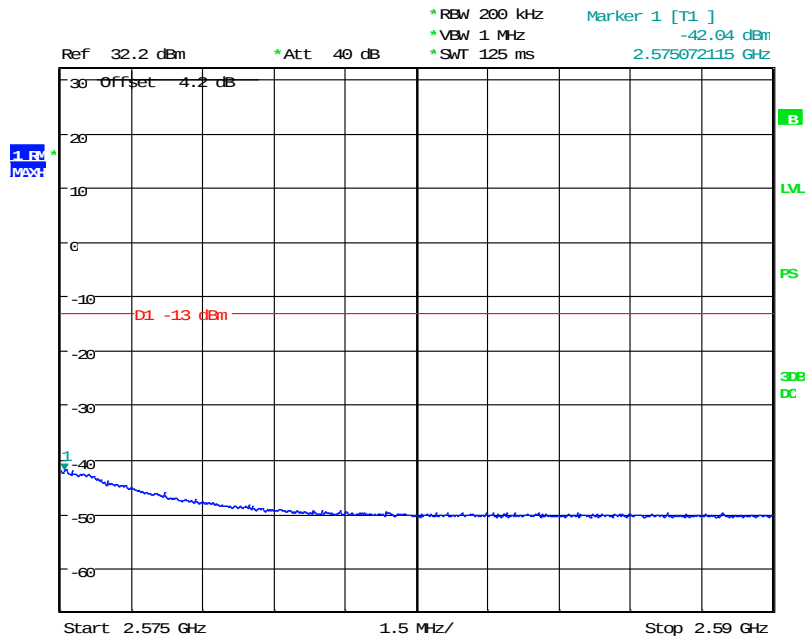


Date: 3.JUL.2015 19:00:54

## 20MHz bandwidth, QPSK,(100,0) Mode, Above 2570MHz

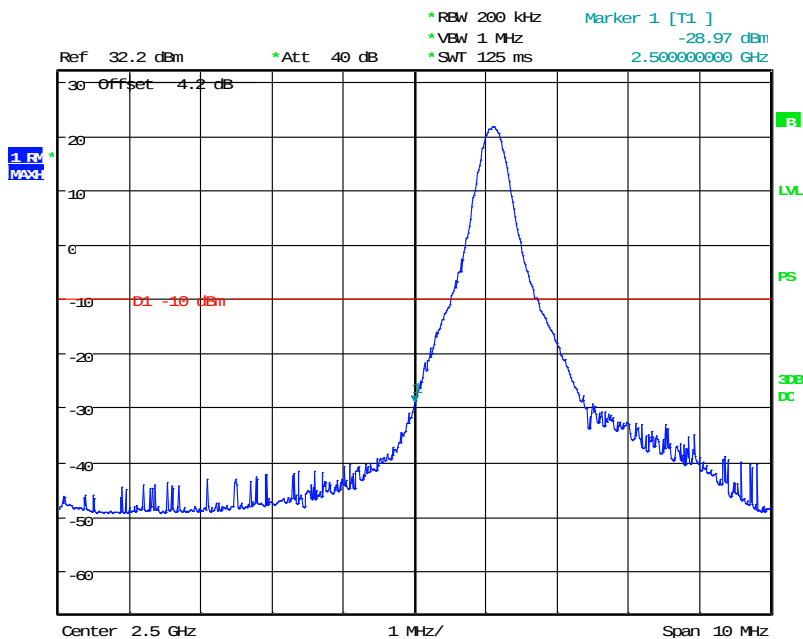


Date: 3.JUL.2015 18:59:10

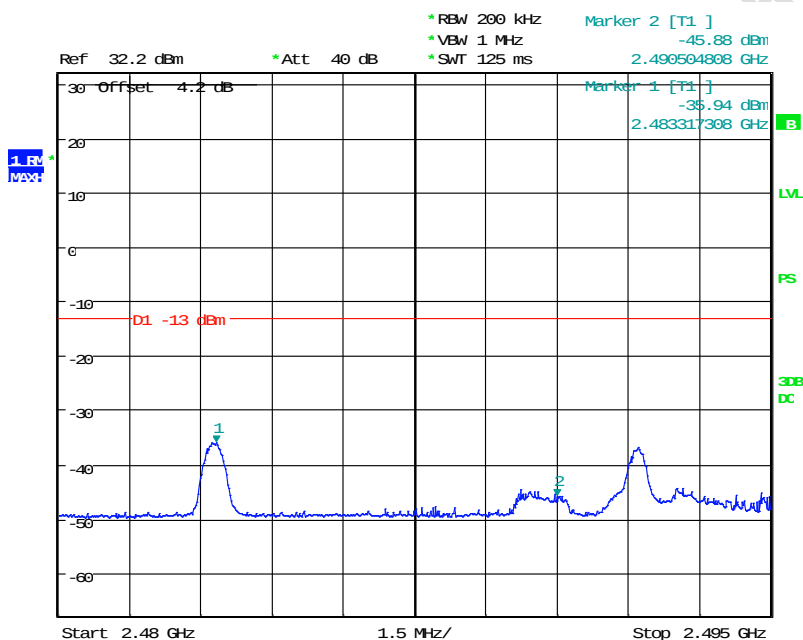


Date: 3.JUL.2015 19:00:36

## 20MHz bandwidth, 16QAM,(1,0) Mode , below 2500MHz

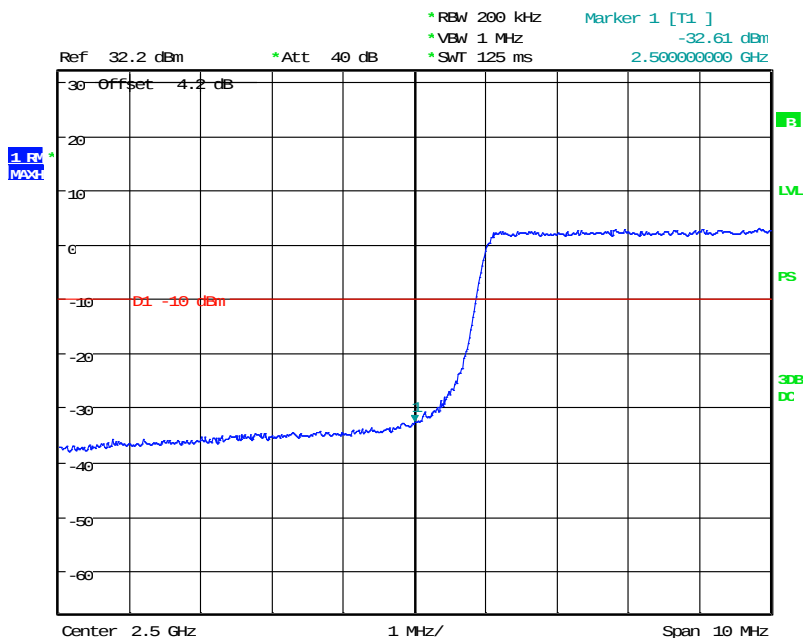


Date: 3.JUL.2015 18:56:01

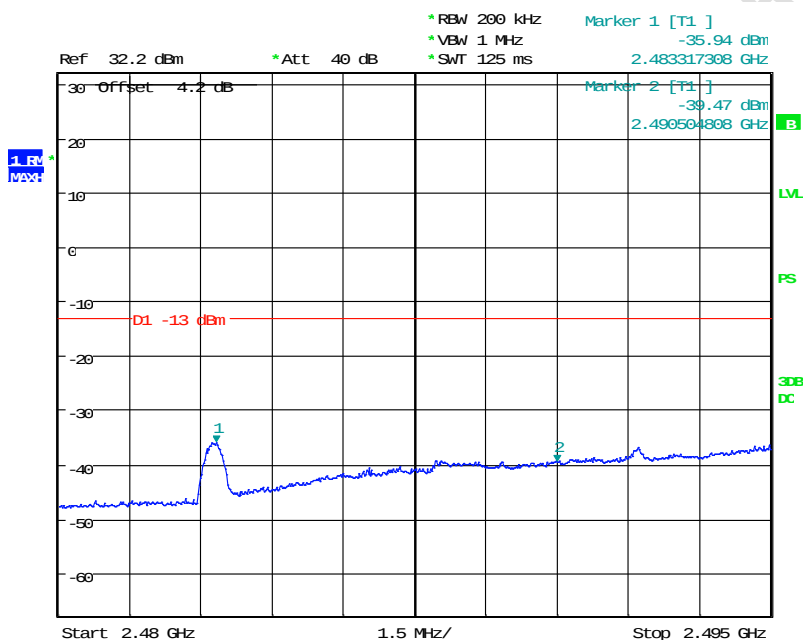


Date: 3.JUL.2015 18:57:00

## 20MHz bandwidth, 16QAM,(100,0) Mode , below 2500MHz

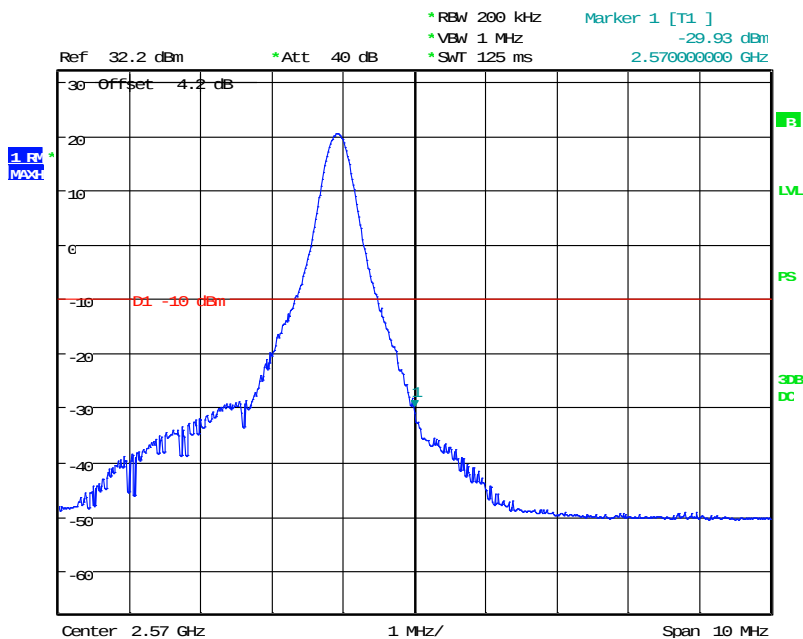


Date: 3.JUL.2015 18:55:46

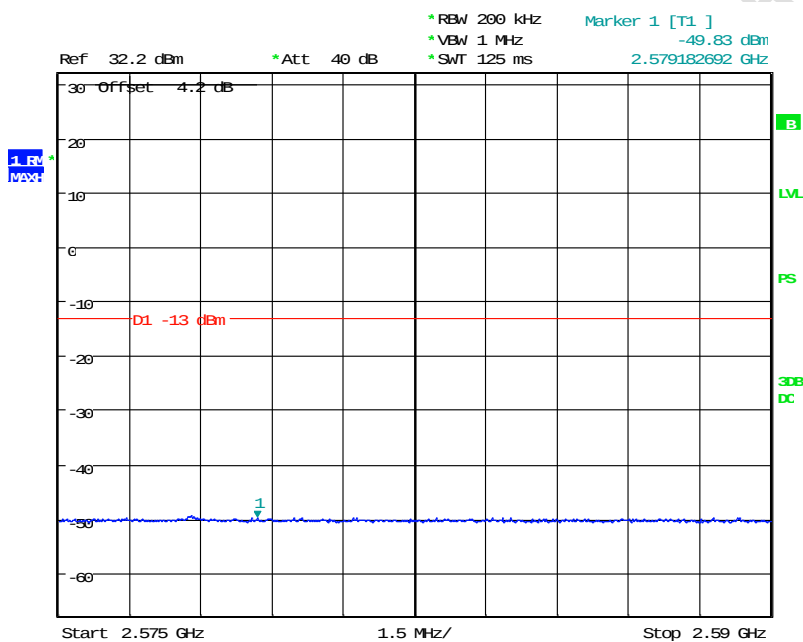


Date: 3.JUL.2015 18:57:13

## 20MHz bandwidth, 16QAM,(1,100) Mode, Above 2570MHz

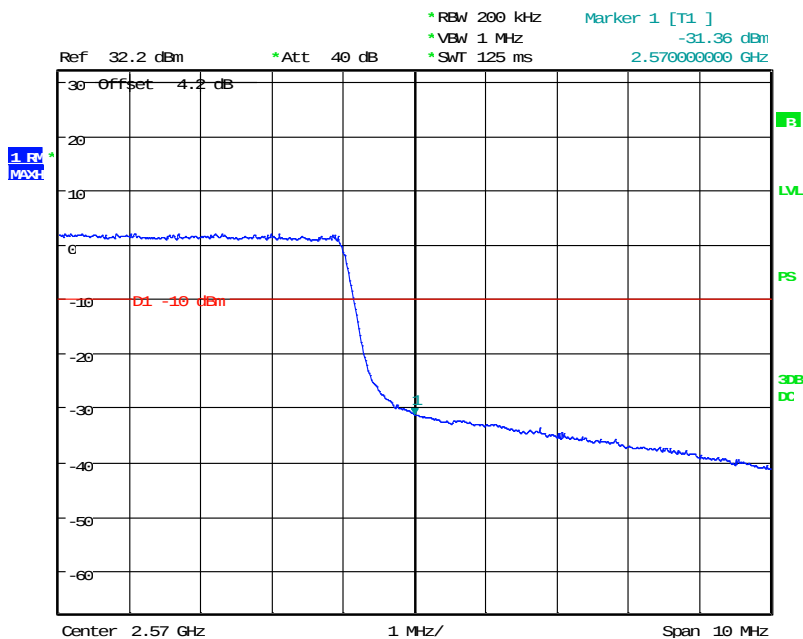


Date: 3.JUL.2015 18:59:36

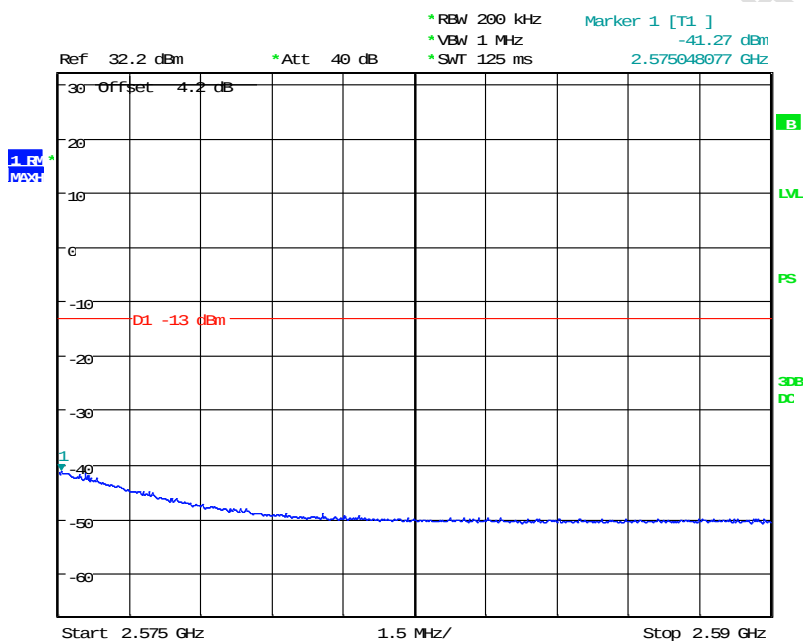


Date: 3.JUL.2015 19:00:09

## 20MHz bandwidth, 16QAM,(100,0) Mode, Above 2570MHz



Date: 3.JUL.2015 18:59:24

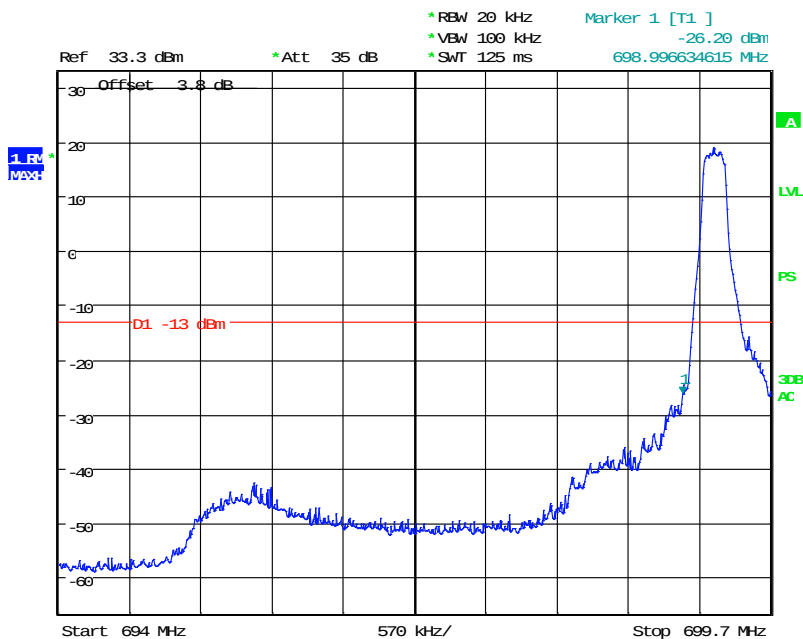


Date: 3.JUL.2015 19:00:20

### 4.5.3 LTE B12 Band Edge Results

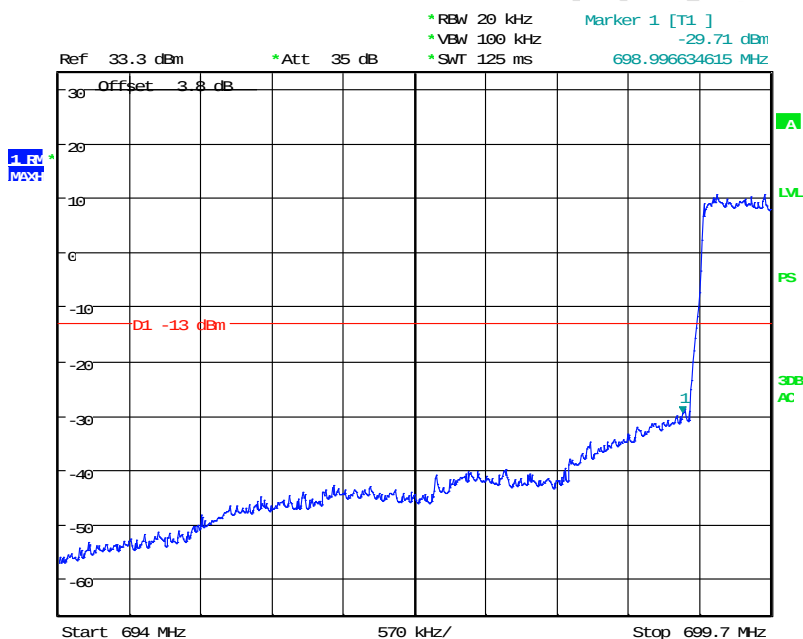
#### Graphical results:

1.4MHz bandwidth,QPSK,(1,0) Mode , below 699MHz



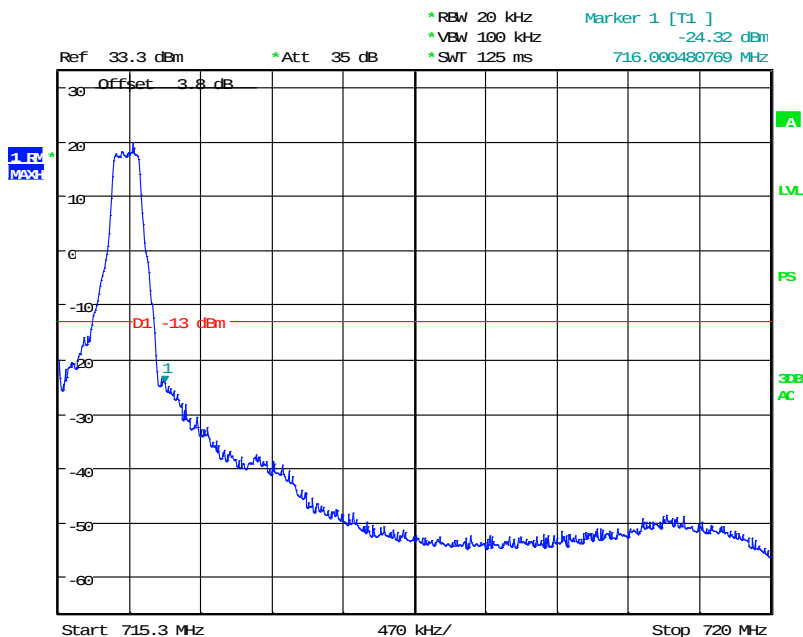
Date: 12.JUN.2015 17:52:36

1.4MHz bandwidth,QPSK,(6,0) Mode , below 699MHz



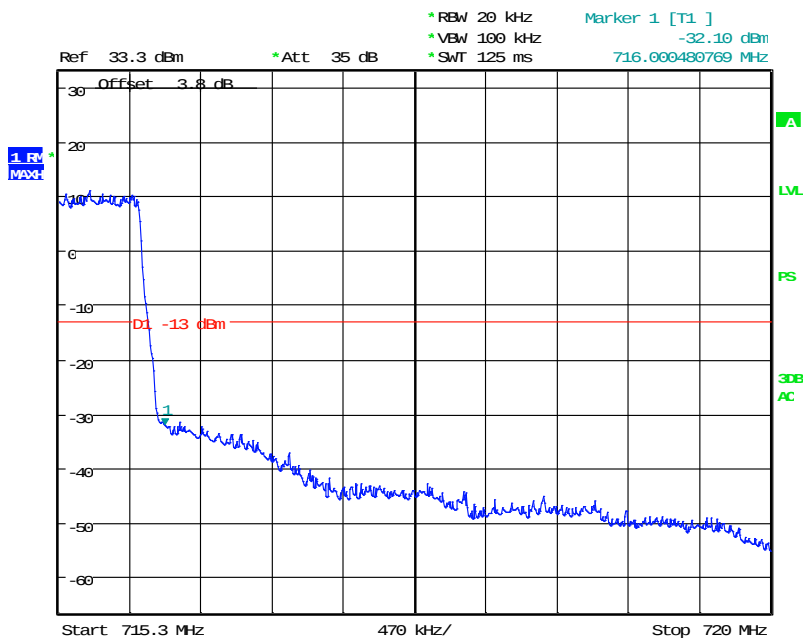
Date: 12.JUN.2015 17:53:15

## 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 716MHz



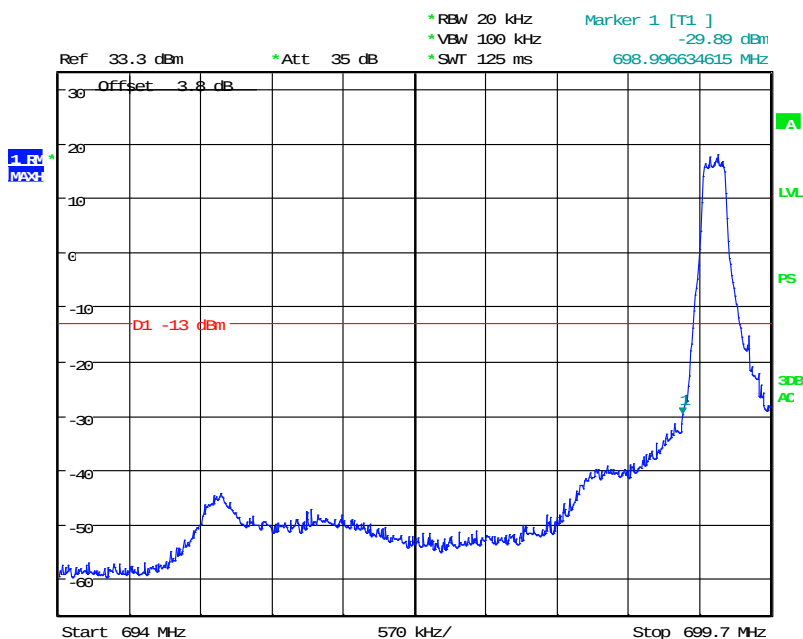
Date: 12.JUN.2015 17:55:11

## 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 716MHz



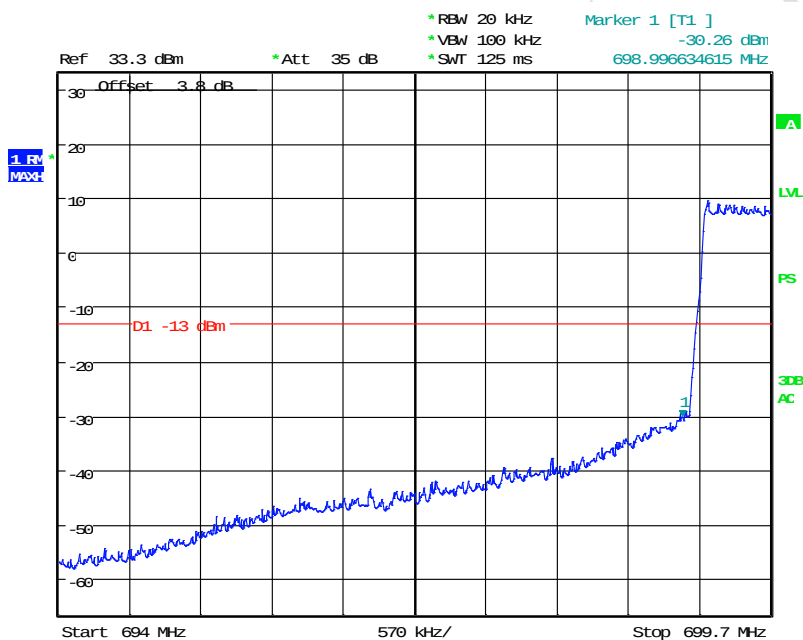
Date: 12.JUN.2015 17:57:22

## 1.4MHz bandwidth, 16QAM,(1,0) Mode , below 699MHz



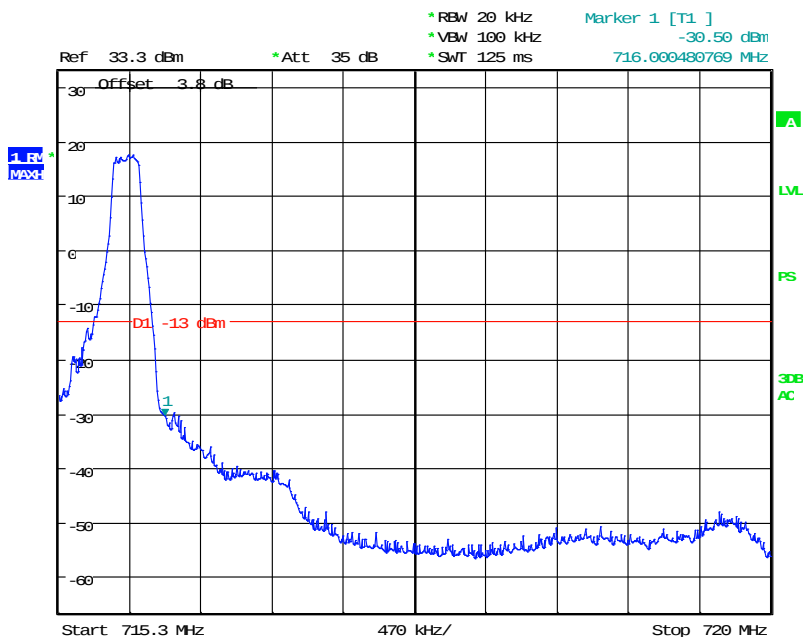
Date: 12.JUN.2015 17:54:03

## 1.4MHz bandwidth, 16QAM,(6,0) Mode , below 699MHz



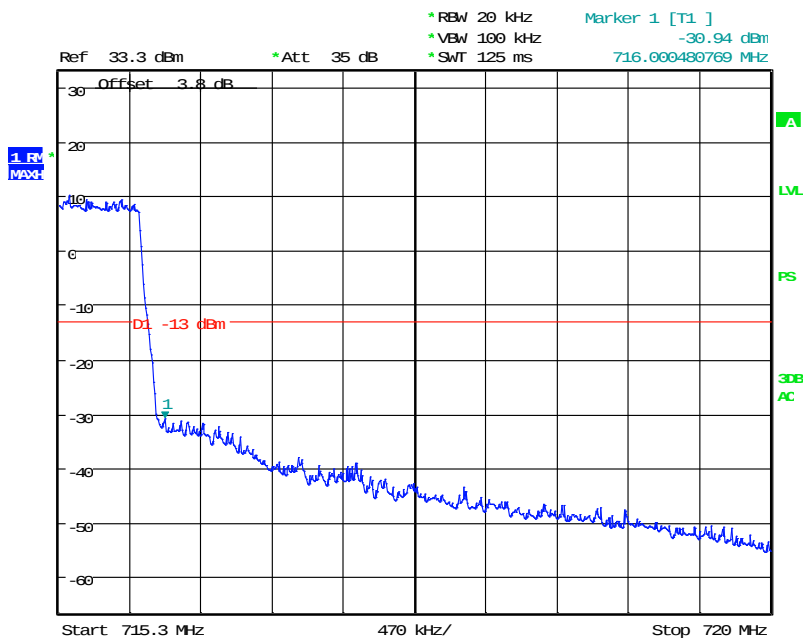
Date: 12.JUN.2015 17:53:41

## 1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 716MHz



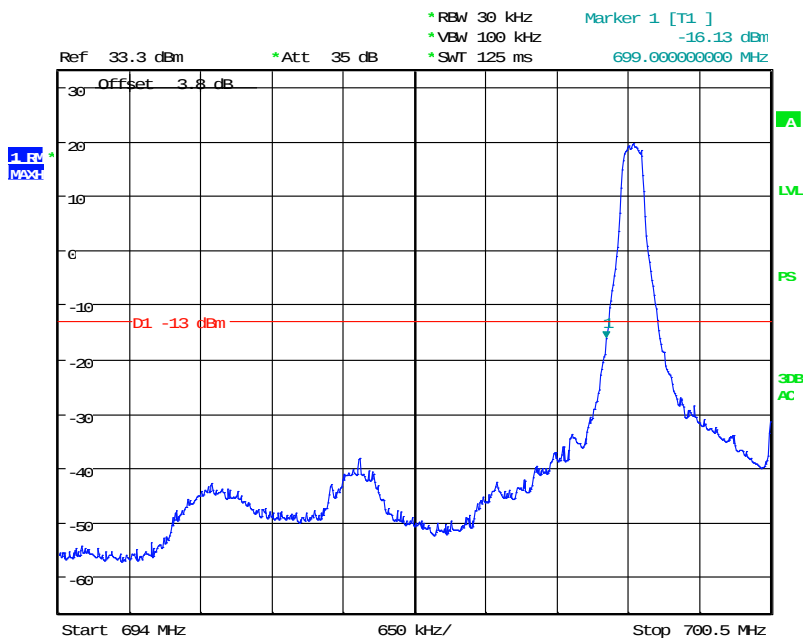
Date: 12.JUN.2015 17:56:34

## 1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 716MHz



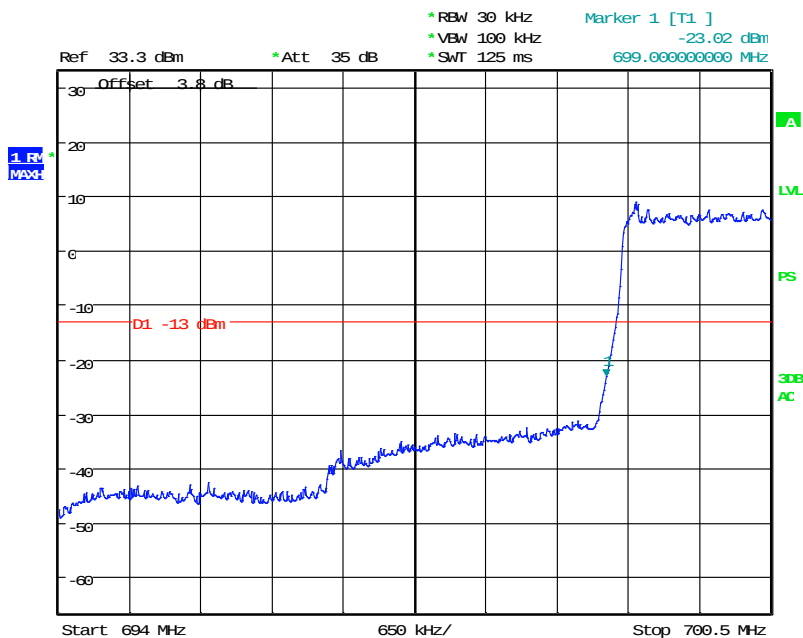
Date: 12.JUN.2015 17:56:59

## 3MHz bandwidth,QPSK,(1,0) Mode , below 699MHz



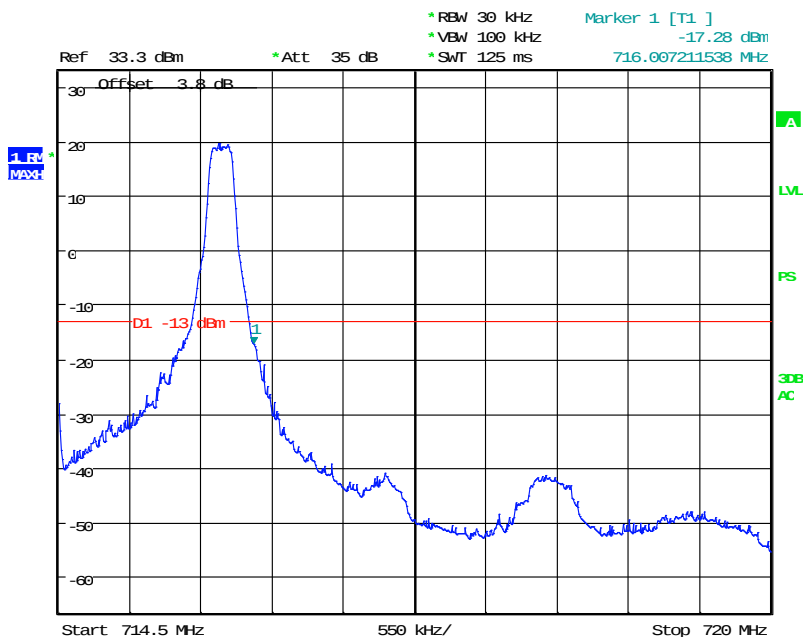
Date: 12.JUN.2015 17:59:44

## 3MHz bandwidth,QPSK,(15,0) Mode , below 699MHz



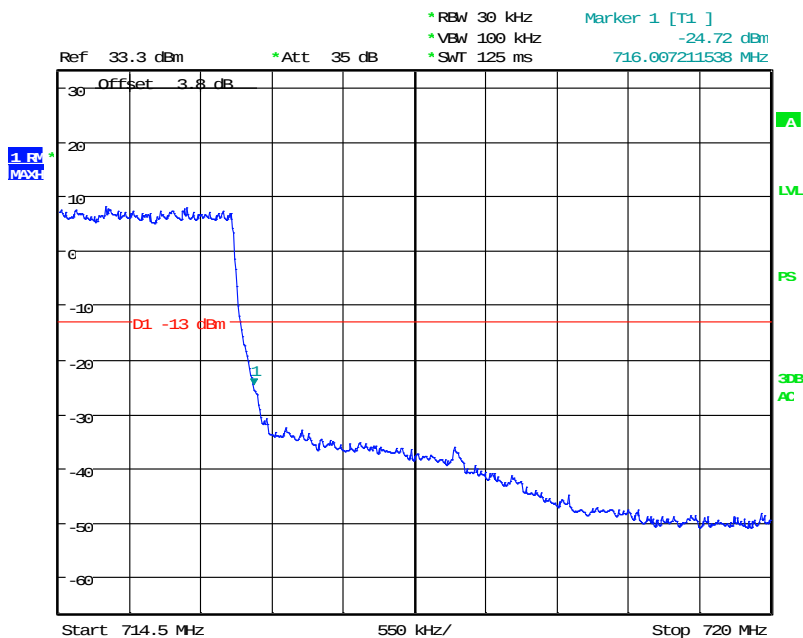
Date: 12.JUN.2015 17:59:17

### 3MHz bandwidth, QPSK,(1,15) Mode, Above 716MHz

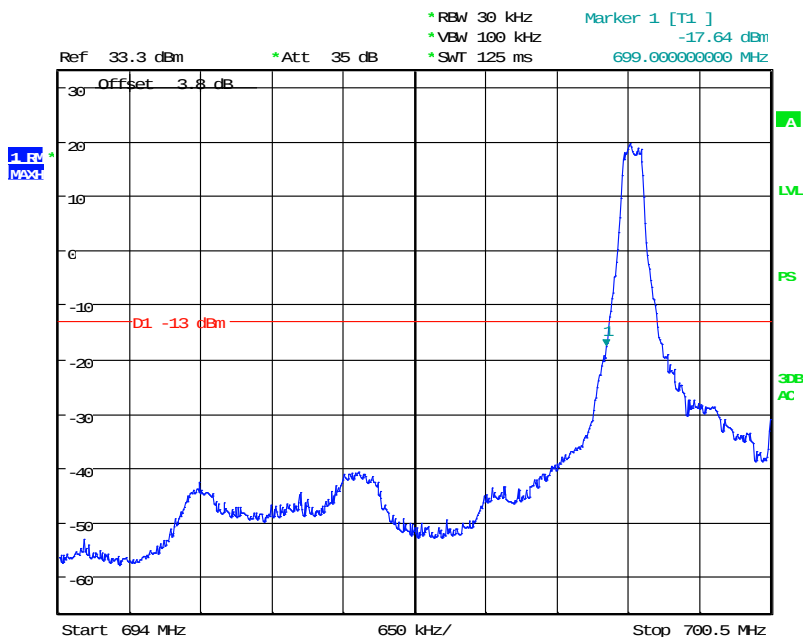


Date: 12.JUN.2015 18:01:34

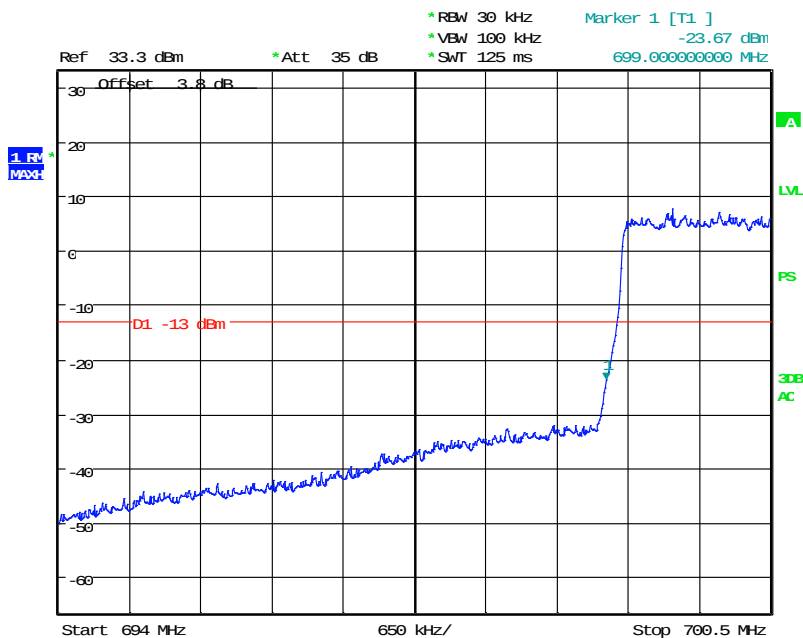
### 3MHz bandwidth, QPSK,(15,0) Mode, Above 716MHz



Date: 12.JUN.2015 18:02:51

**3MHz bandwidth, 16QAM,(1,0) Mode , below 699MHz**

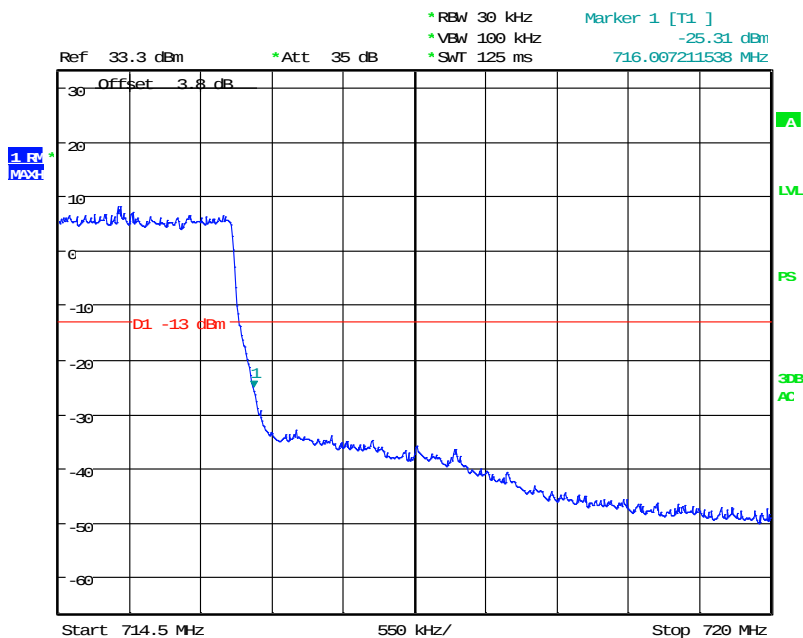
Date: 12.JUN.2015 18:00:14

**3MHz bandwidth, 16QAM,(15,0) Mode , below 699MHz**

Date: 12.JUN.2015 18:00:35

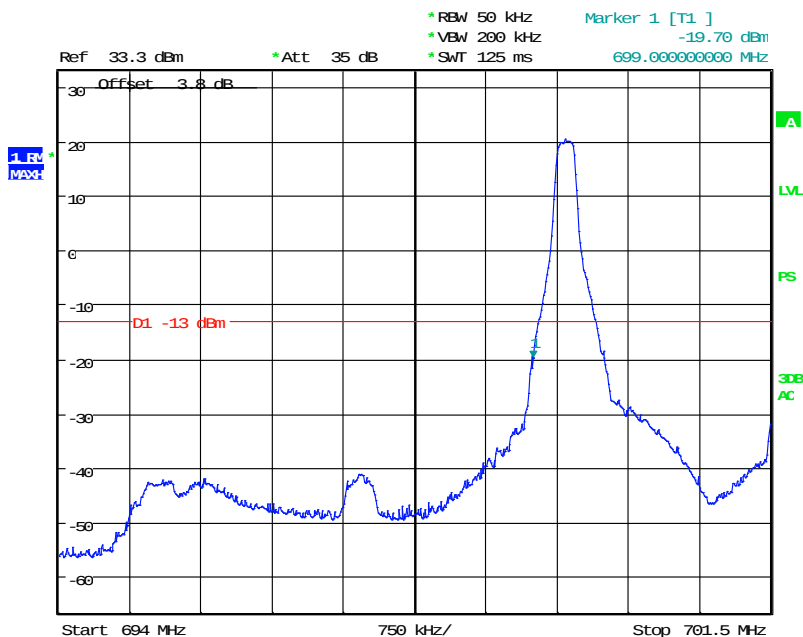
**3MHz bandwidth, 16QAM,(1,15) Mode, Above 716MHz**

Date: 12.JUN.2015 18:01:59

**3MHz bandwidth, 16QAM,(15,0) Mode, Above 716MHz**

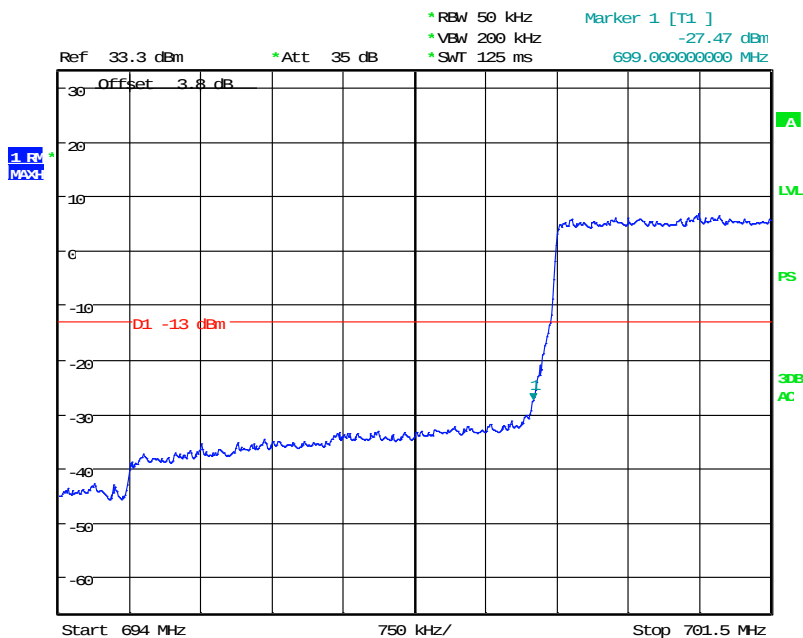
Date: 12.JUN.2015 18:02:26

### 5MHz bandwidth,QPSK,(1,0) Mode , below 699MHz



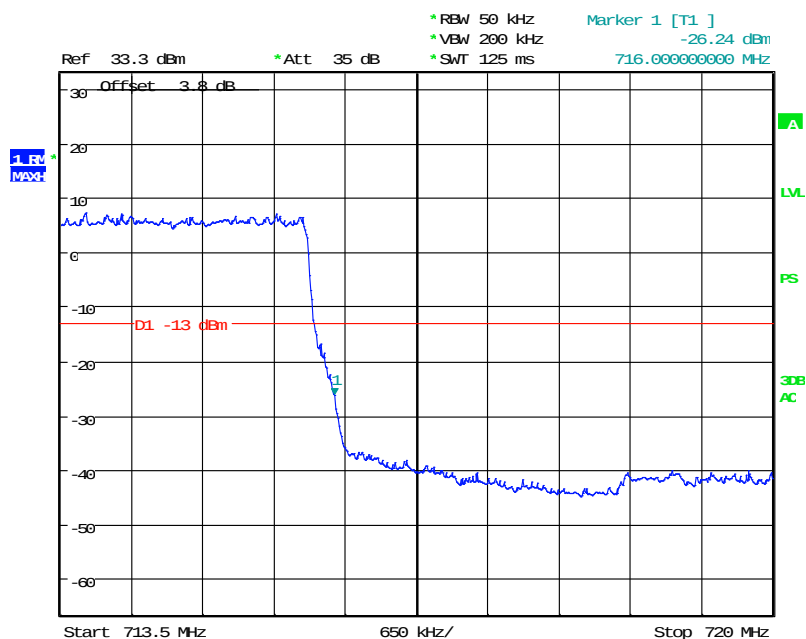
Date: 12.JUN.2015 18:13:23

### 5MHz bandwidth,QPSK,(25,0) Mode , below 699MHz



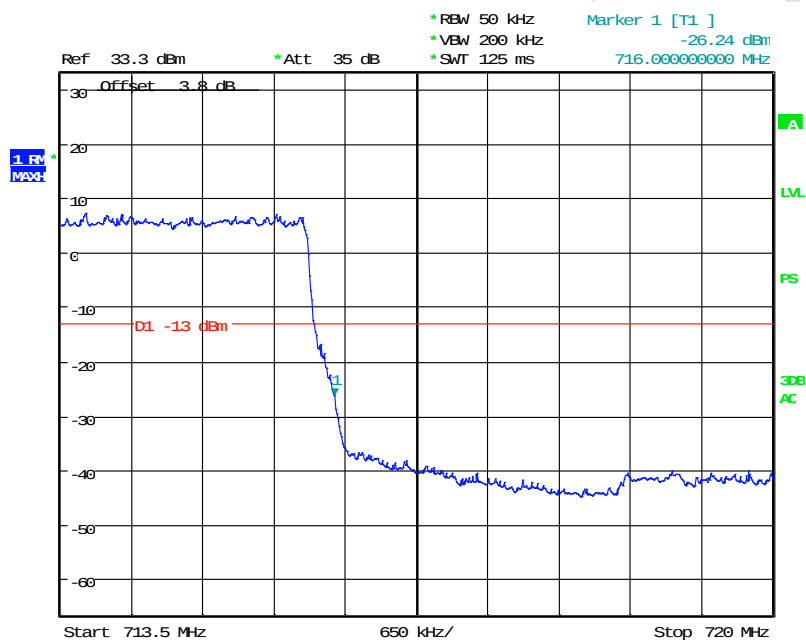
Date: 12.JUN.2015 18:14:24

## 5MHz bandwidth, QPSK,(1,25) Mode, Above 716MHz



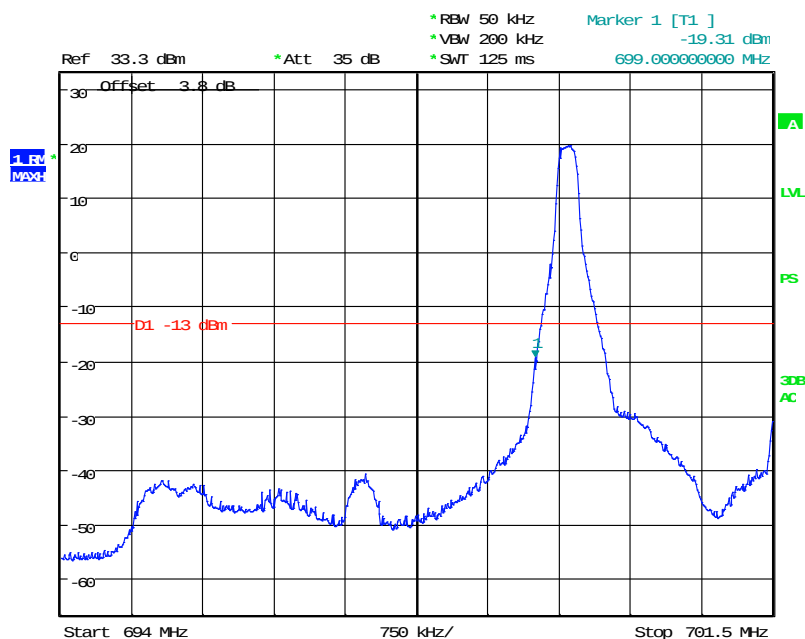
Date: 12.JUN.2015 18:15:30

## 5MHz bandwidth, QPSK,(25,0) Mode, Above 716MHz



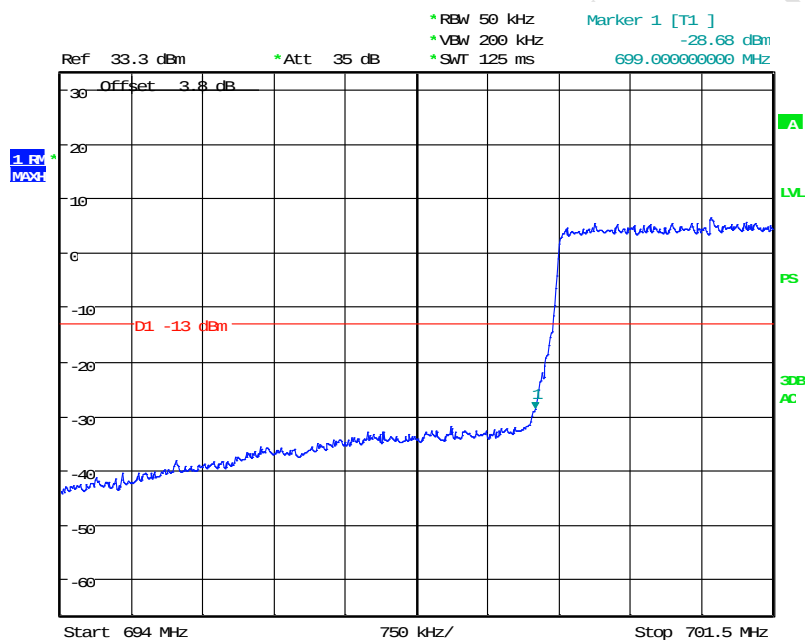
Date: 12.JUN.2015 18:15:30

## 5MHz bandwidth, 16QAM,(1,0) Mode , below 699MHz



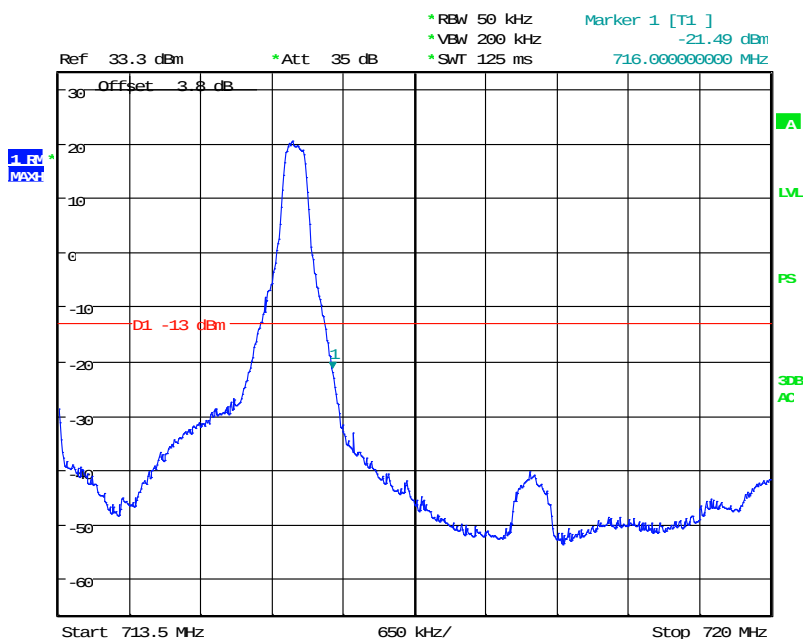
Date: 12.JUN.2015 18:13:44

## 5MHz bandwidth, 16QAM,(25,0) Mode , below 699MHz



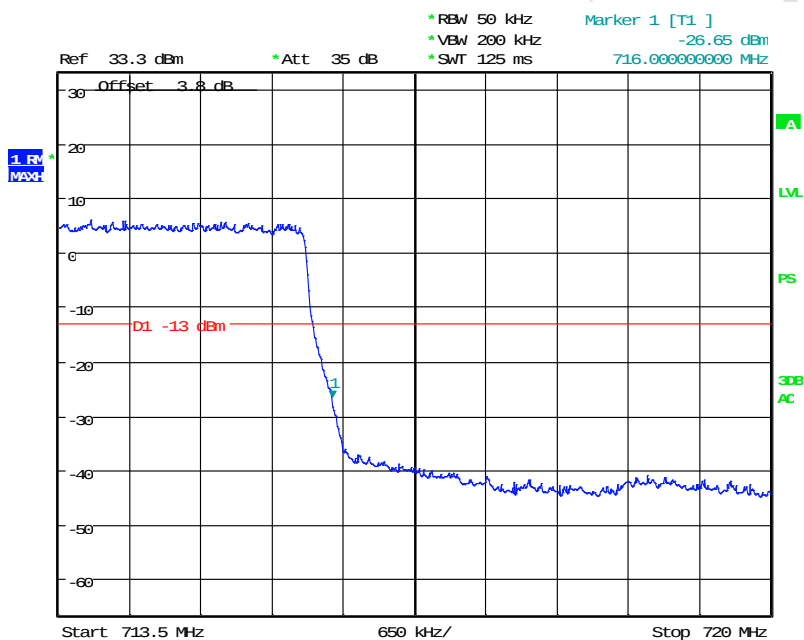
Date: 12.JUN.2015 18:14:01

## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 716MHz



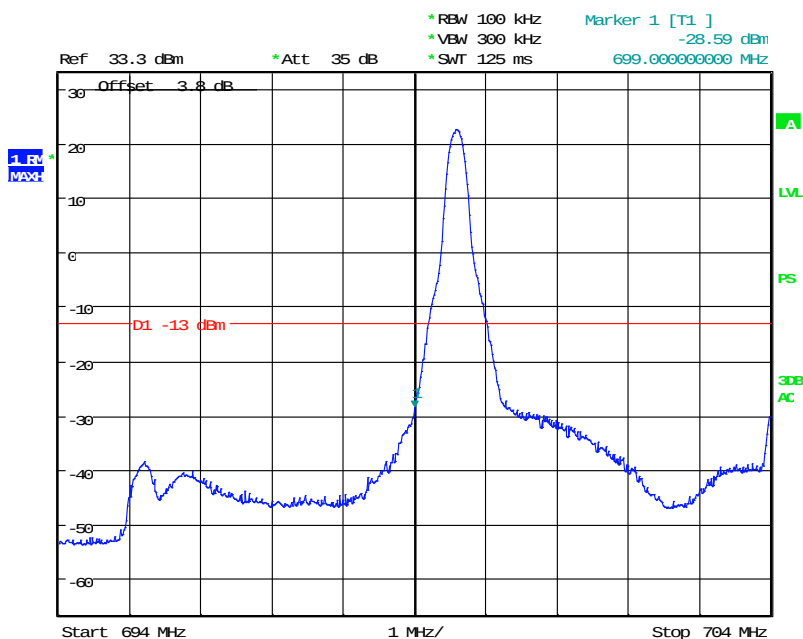
Date: 12.JUN.2015 18:16:11

## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 716MHz



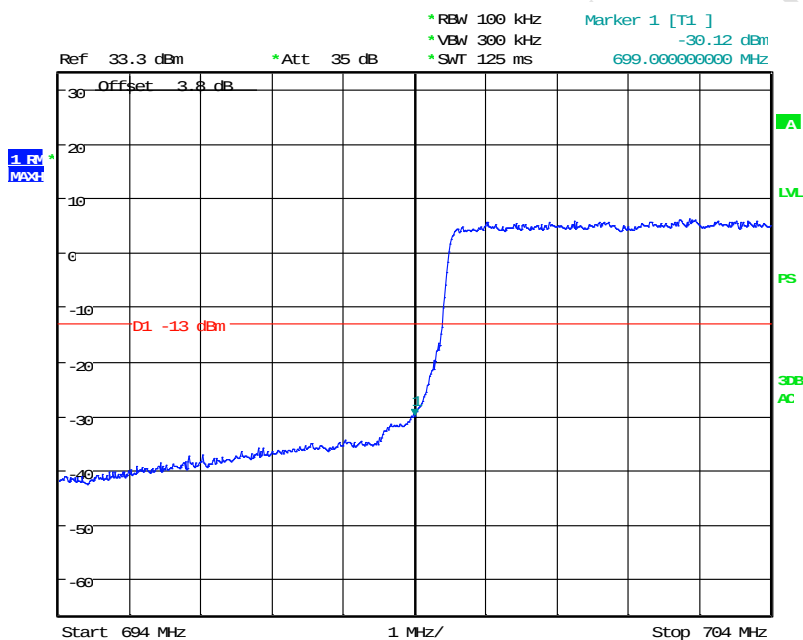
Date: 12.JUN.2015 18:15:50

## 10MHz bandwidth, QPSK, (1,0) Mode, below 699MHz



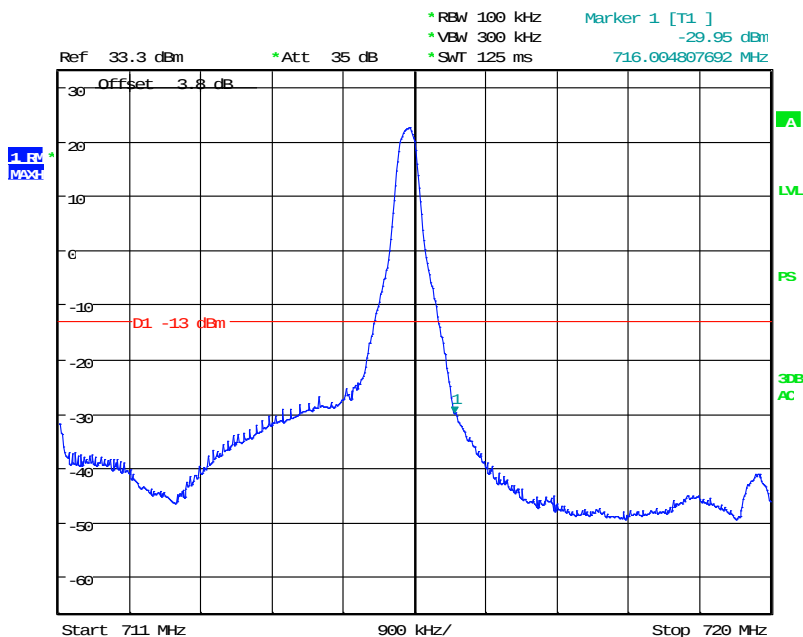
Date: 12.JUN.2015 18:08:50

## 10MHz bandwidth, QPSK, (50,0) Mode, below 699MHz



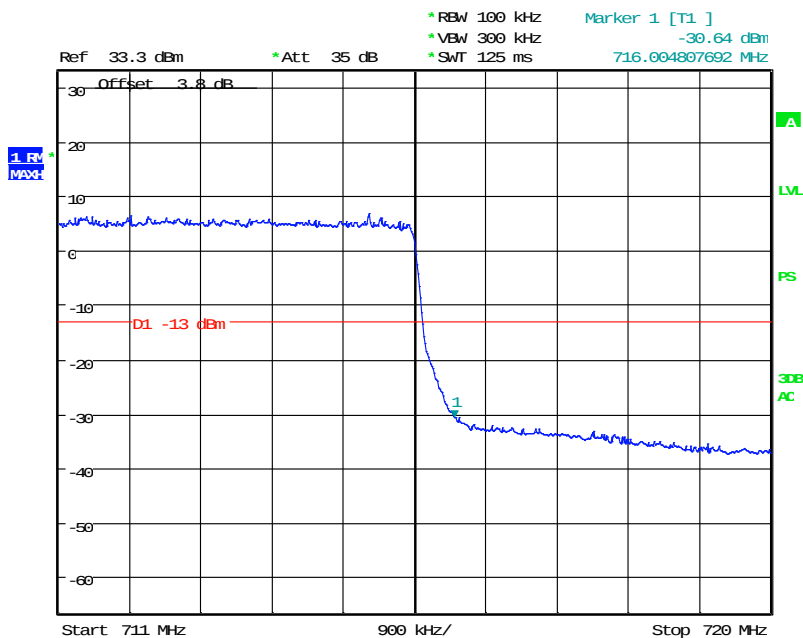
Date: 12.JUN.2015 18:09:10

## 10MHz bandwidth, QPSK,(1,50) Mode, Above 716MHz



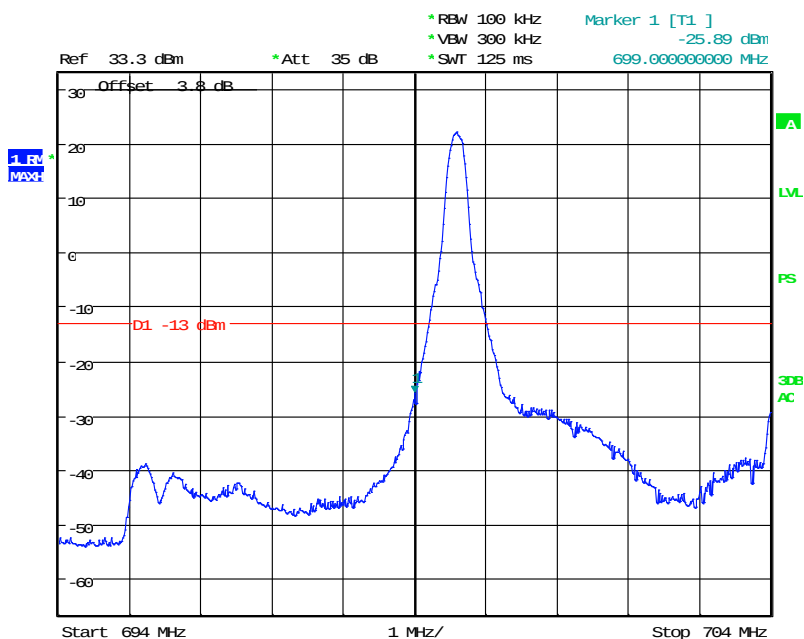
Date: 12.JUN.2015 18:10:44

## 10MHz bandwidth, QPSK,(50,0) Mode, Above 716MHz



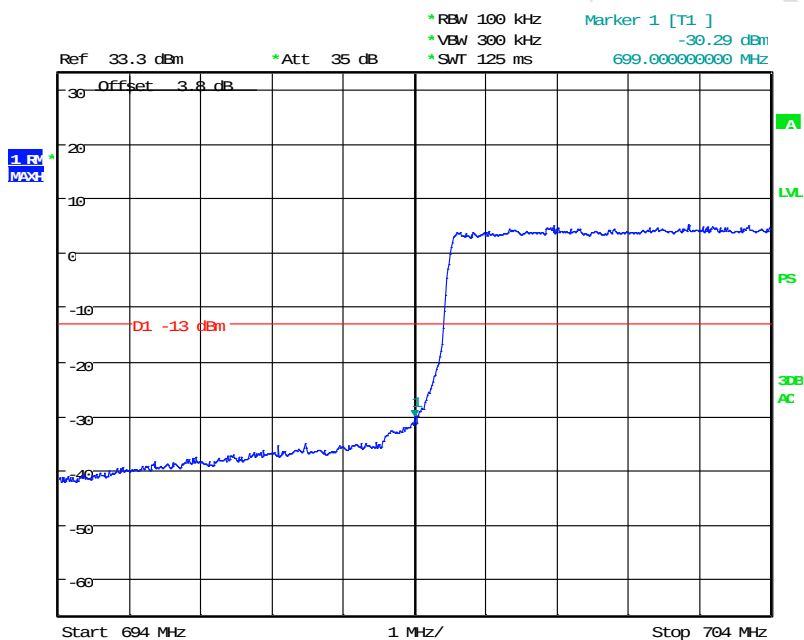
Date: 12.JUN.2015 18:12:02

## 10MHz bandwidth, 16QAM,(1,0) Mode , below 699MHz



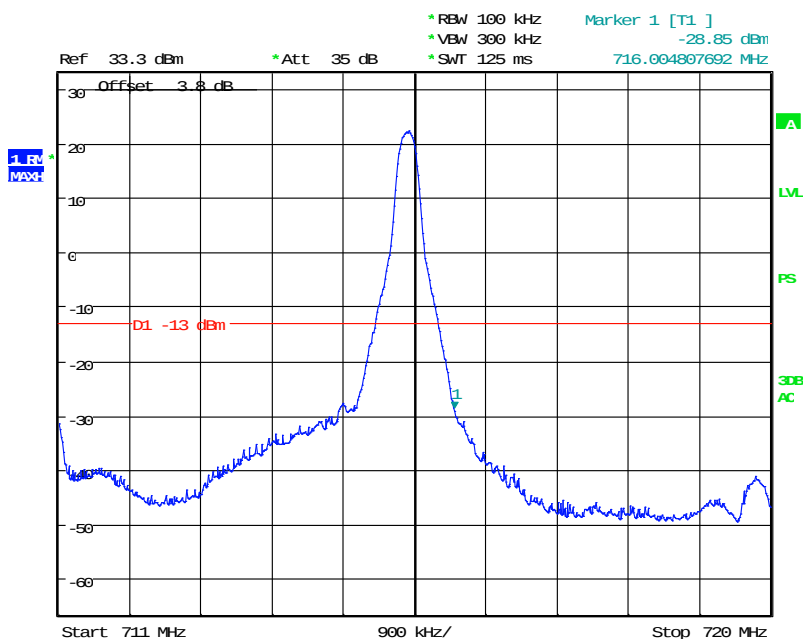
Date: 12.JUN.2015 18:09:52

## 10MHz bandwidth, 16QAM,(50,0) Mode , below 699MHz



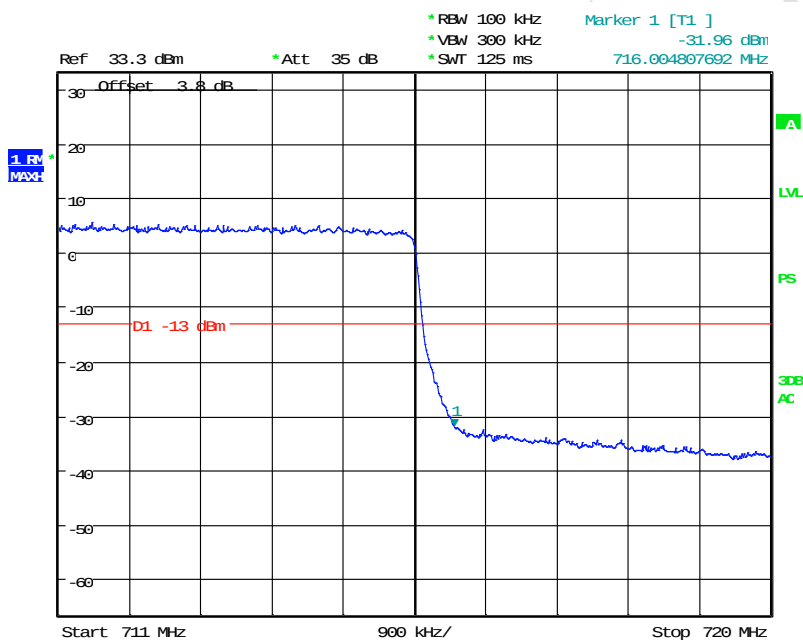
Date: 12.JUN.2015 18:09:27

## 10MHz bandwidth, 16QAM,(1,50) Mode, Above 716MHz



Date: 12.JUN.2015 18:11:10

## 10MHz bandwidth, 16QAM,(50,0) Mode, Above 716MHz

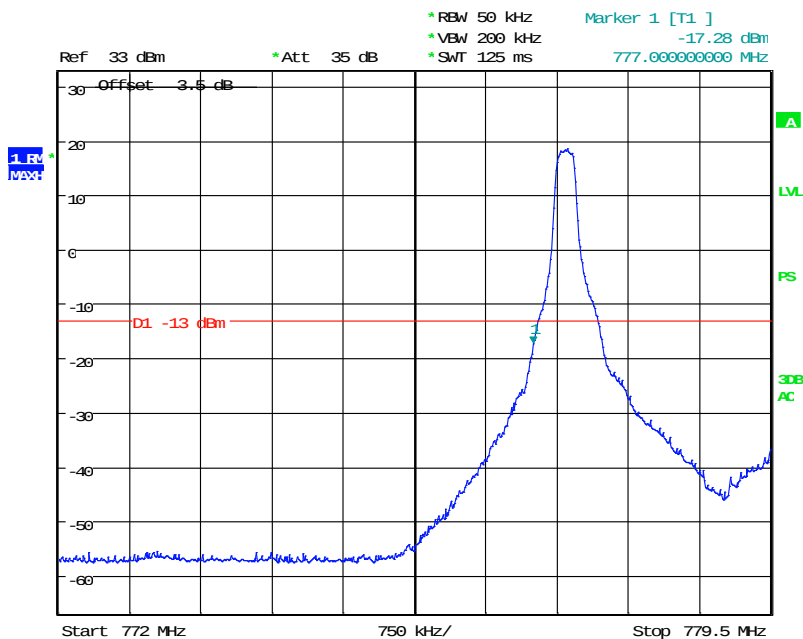


Date: 12.JUN.2015 18:11:45

#### 4.5.4 LTE B13 Band Edge Results

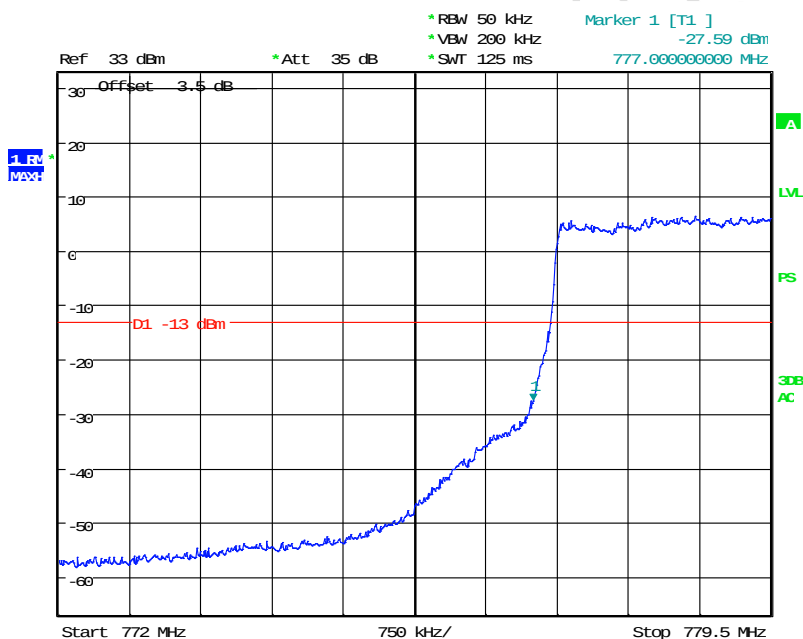
##### Graphical results:

5MHz bandwidth, QPSK,(1,0) Mode , below 777MHz



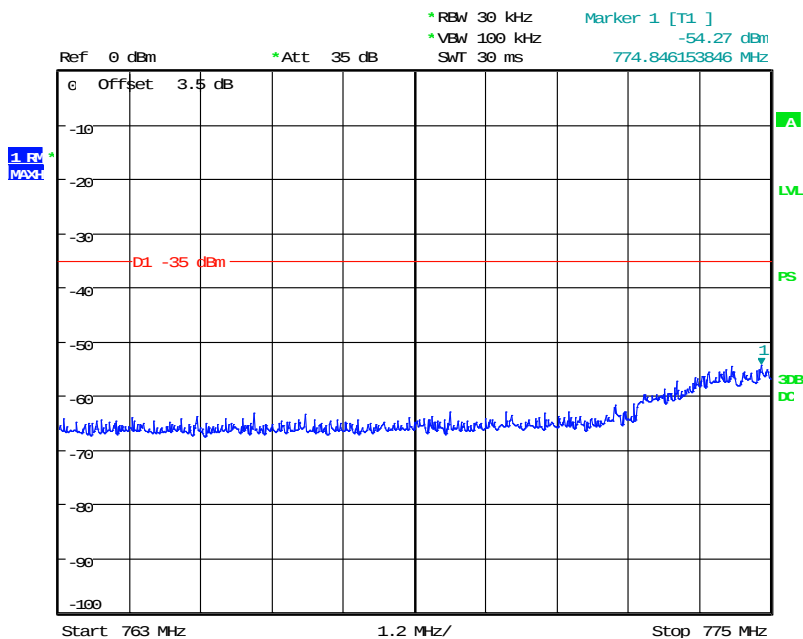
Date: 13.JUN.2015 08:05:26

5MHz bandwidth, QPSK,(25,0) Mode , below 777MHz



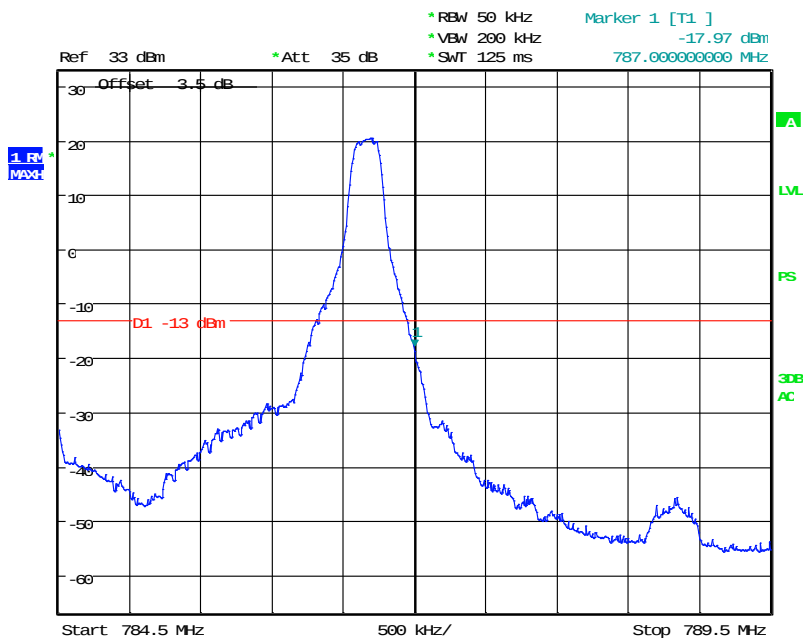
Date: 13.JUN.2015 08:05:59

## 5MHz bandwidth, QPSK, 763MHz-775MHz below 777MHz



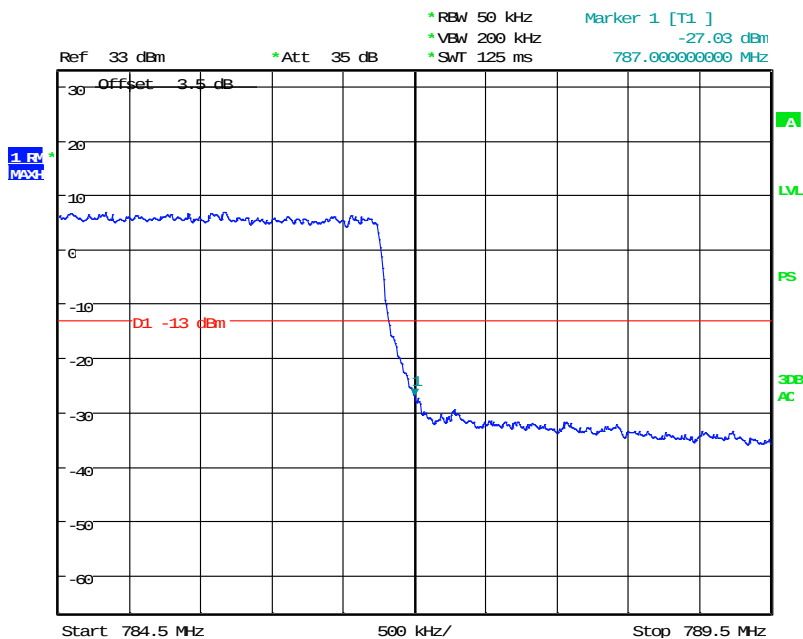
Date: 1.JUL.2015 15:12:50

## 5MHz bandwidth, QPSK, (1,25) Mode, Above 787MHz



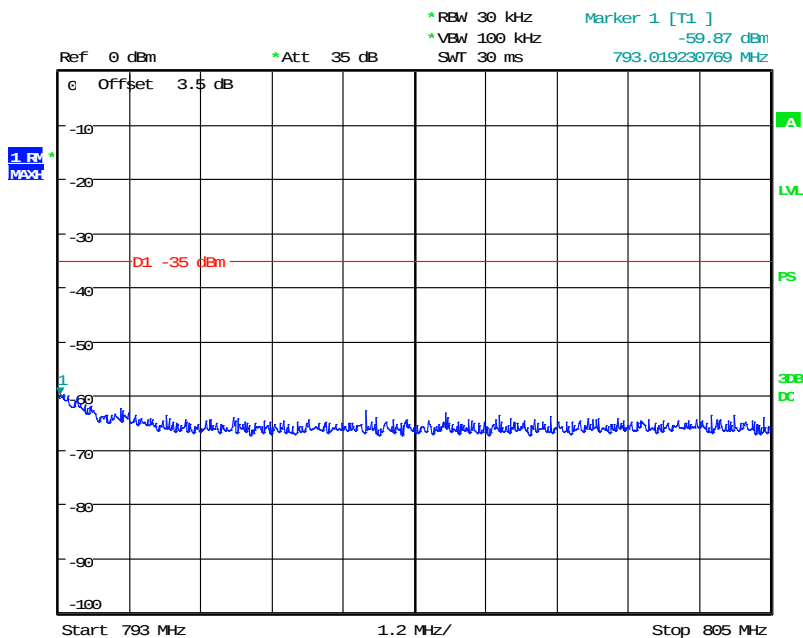
Date: 13.JUN.2015 08:09:59

## 5MHz bandwidth, QPSK,(25,0) Mode, Above 787MHz



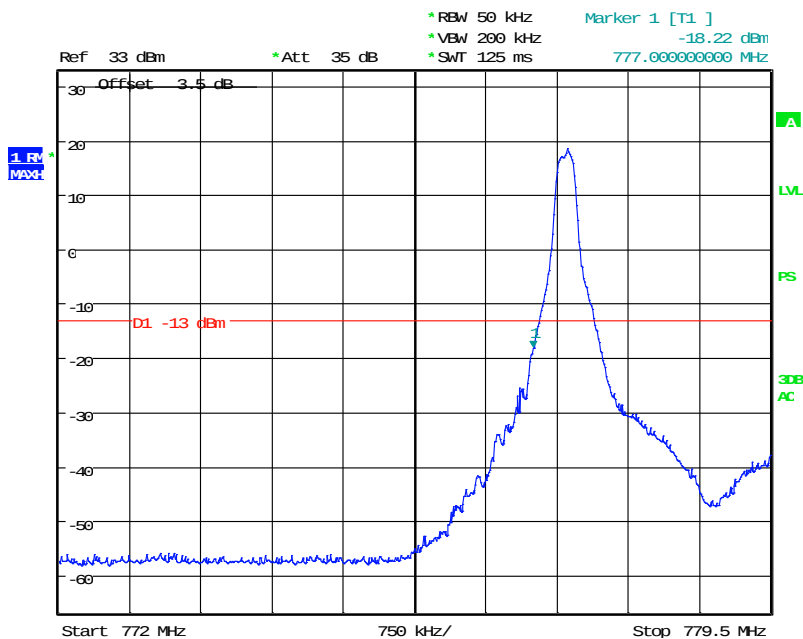
Date: 13.JUN.2015 08:11:18

## 5MHz bandwidth, QPSK, 793MHz-805MHz Above 787MHz



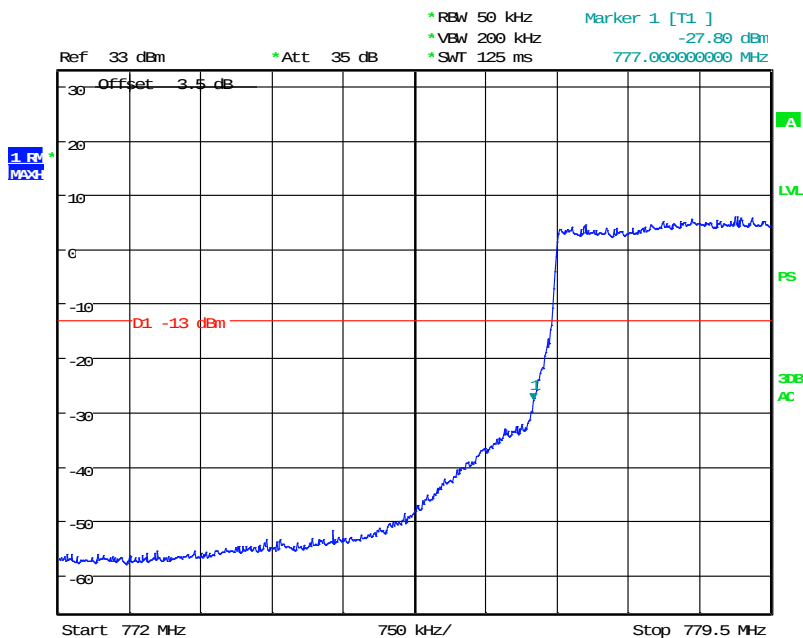
Date: 1.JUL.2015 15:11:02

## 5MHz bandwidth, 16QAM,(1,0) Mode , below 777MHz



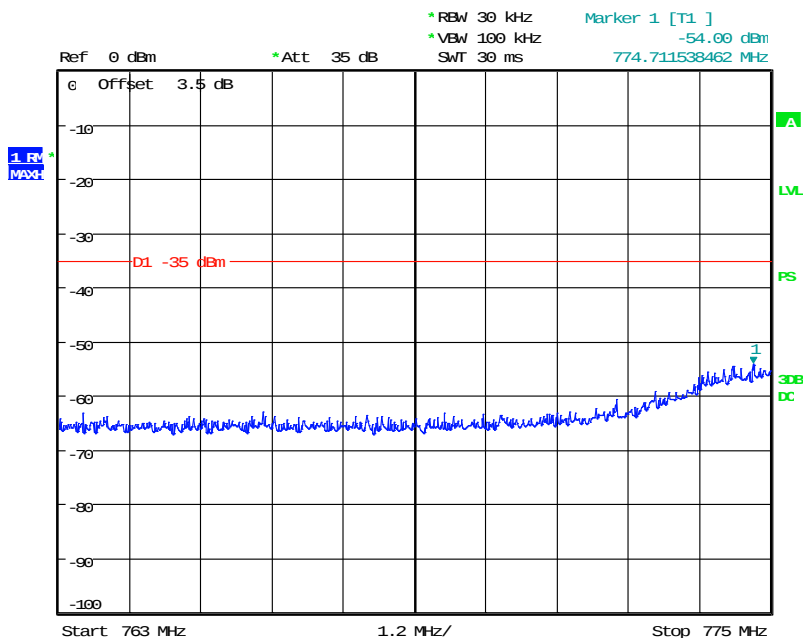
Date: 13.JUN.2015 08:06:51

## 5MHz bandwidth, 16QAM,(25,0) Mode , below 777MHz



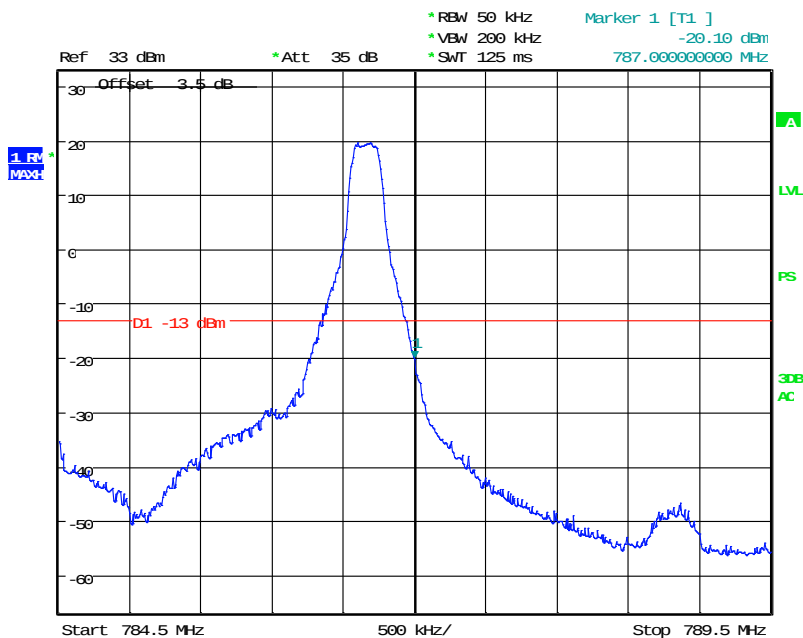
Date: 13.JUN.2015 08:06:20

## 5MHz bandwidth, 16QAM, 763MHz-775MHz below 777MHz



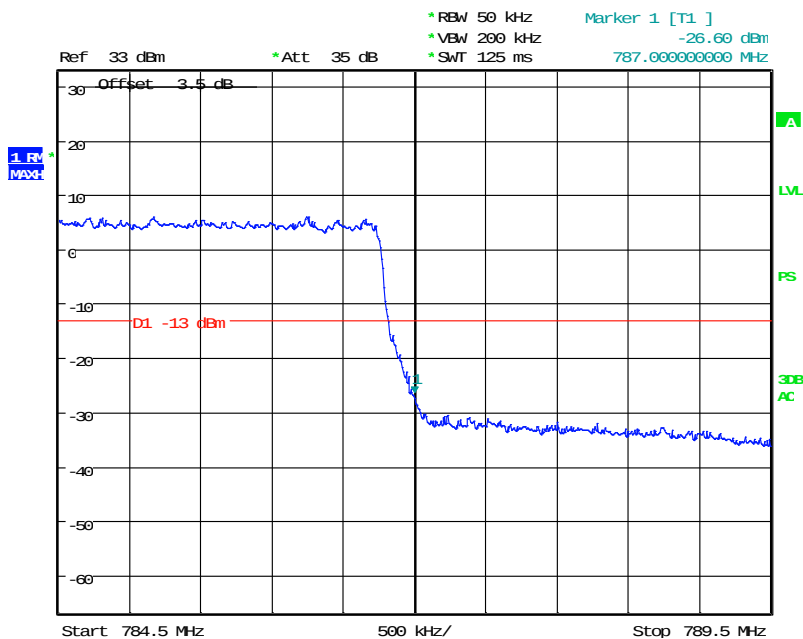
Date: 1.JUL.2015 15:12:30

## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 787MHz



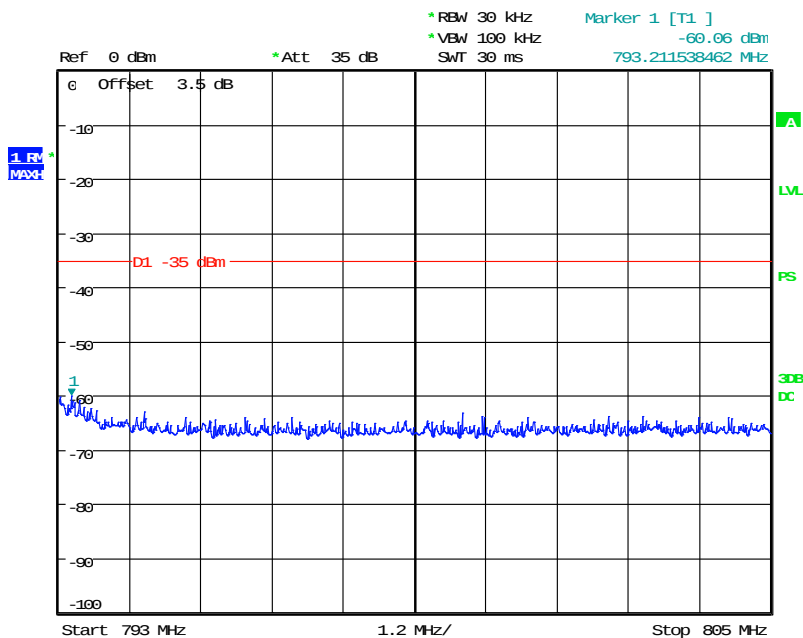
Date: 13.JUN.2015 08:12:26

## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 787MHz



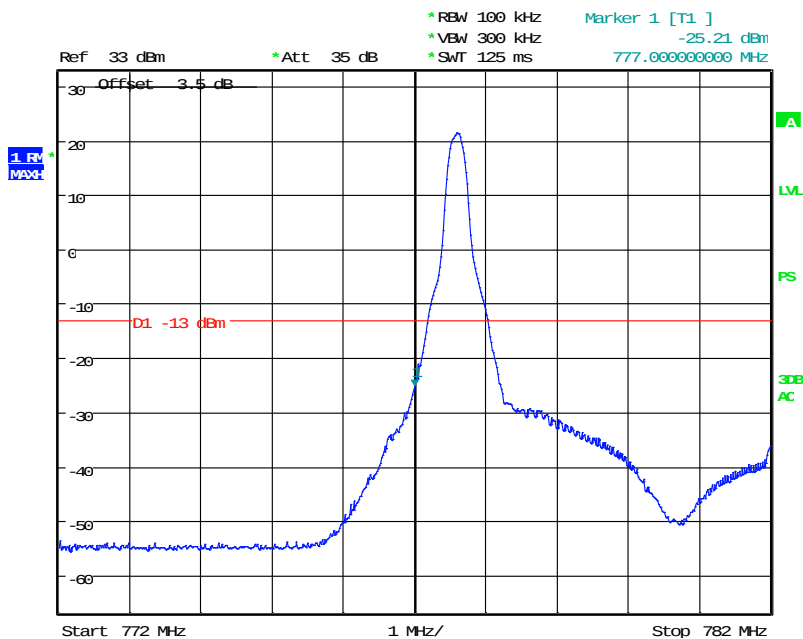
Date: 13.JUN.2015 08:11:59

## 5MHz bandwidth, 16QAM, 793MHz-805MHz Above 787MHz



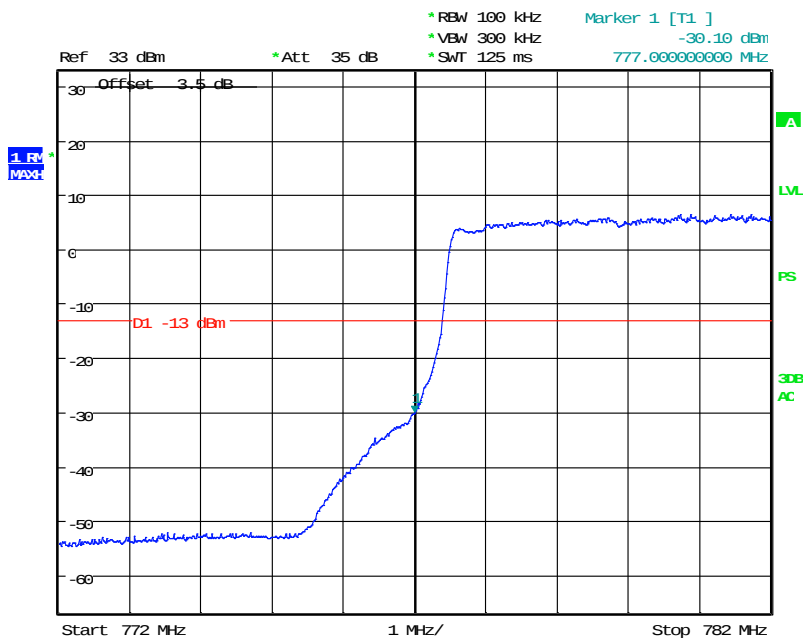
Date: 1.JUL.2015 15:11:25

## 10MHz bandwidth, QPSK,(1,0) Mode , below 777MHz



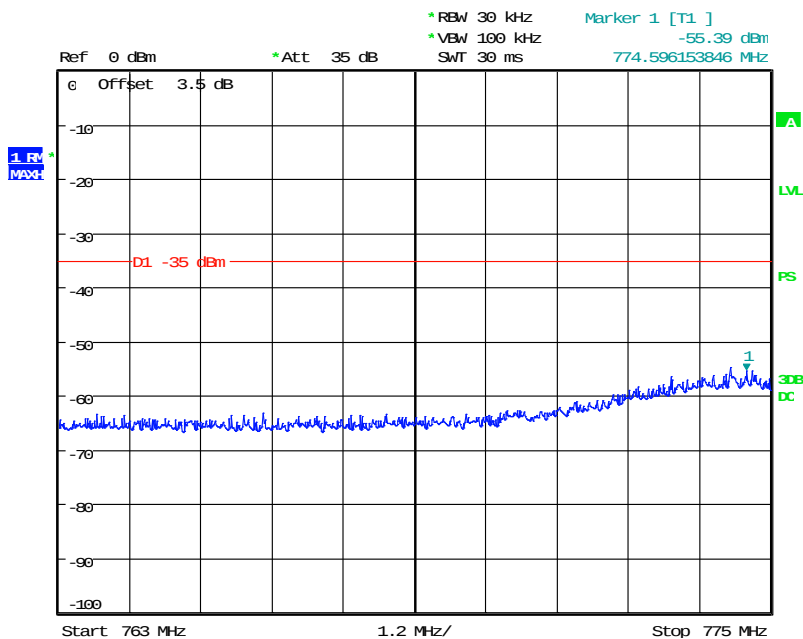
Date: 13.JUN.2015 08:24:03

## 10MHz bandwidth, QPSK,(50,0) Mode , below 777MHz



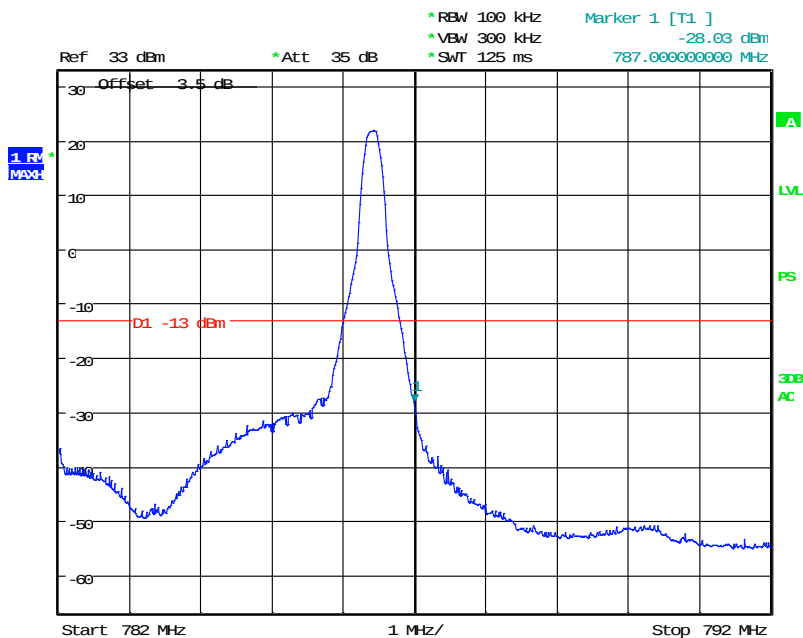
Date: 13.JUN.2015 08:23:26

## 10MHz bandwidth, QPSK, 763MHz-775MHz below 777MHz



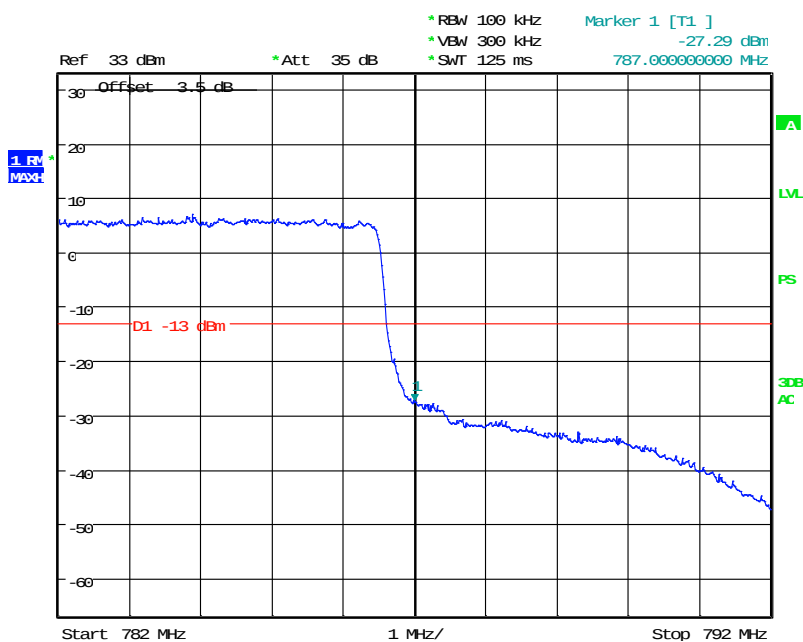
Date: 1.JUL.2015 14:59:29

## 10MHz bandwidth, QPSK,(1,50) Mode, Above 787MHz



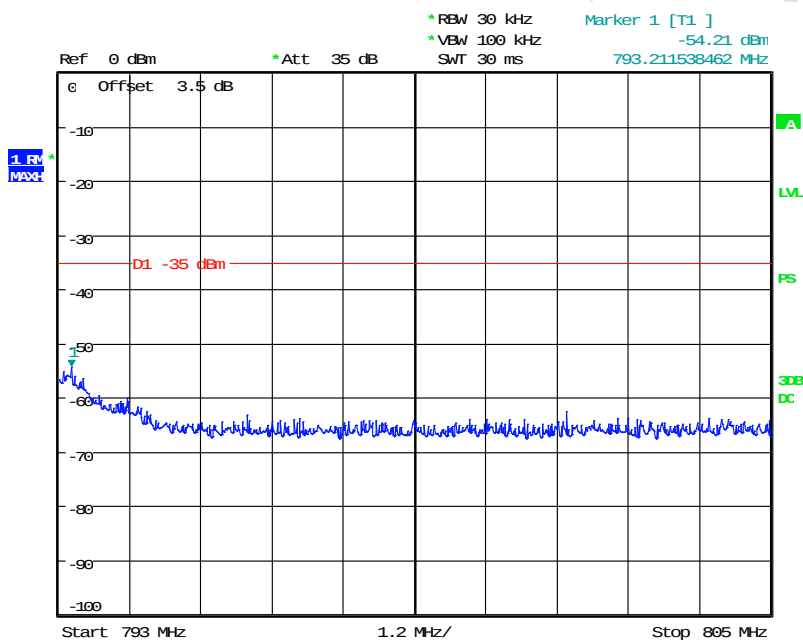
Date: 25.JUN.2015 09:50:21

## 10MHz bandwidth, QPSK,(50,0) Mode, Above 787MHz



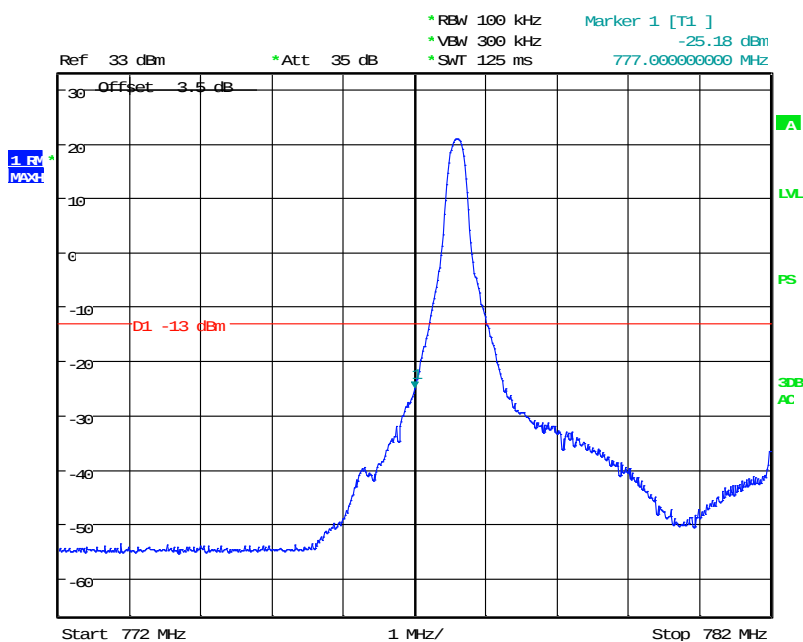
Date: 25.JUN.2015 09:51:10

## 10MHz bandwidth, QPSK, 793MHz-805MHz Above 787MHz



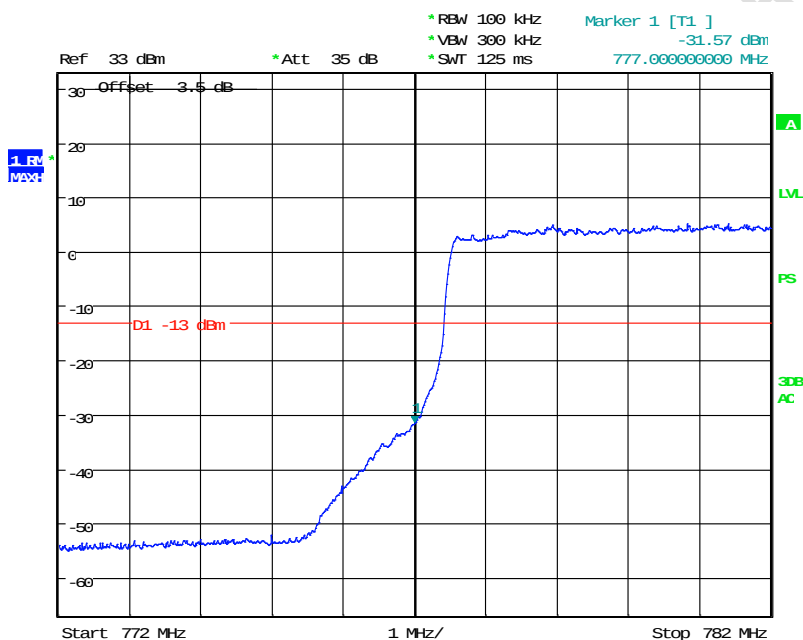
Date: 1.JUL.2015 15:03:45

## 10MHz bandwidth, 16QAM,(1,0) Mode , below 777MHz



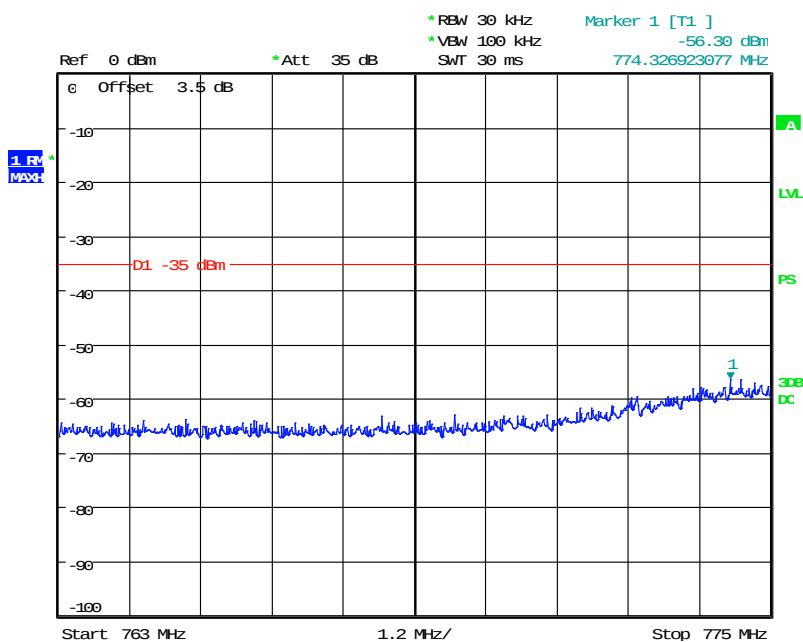
Date: 13.JUN.2015 08:21:53

## 10MHz bandwidth, 16QAM,(50,0) Mode , below 777MHz



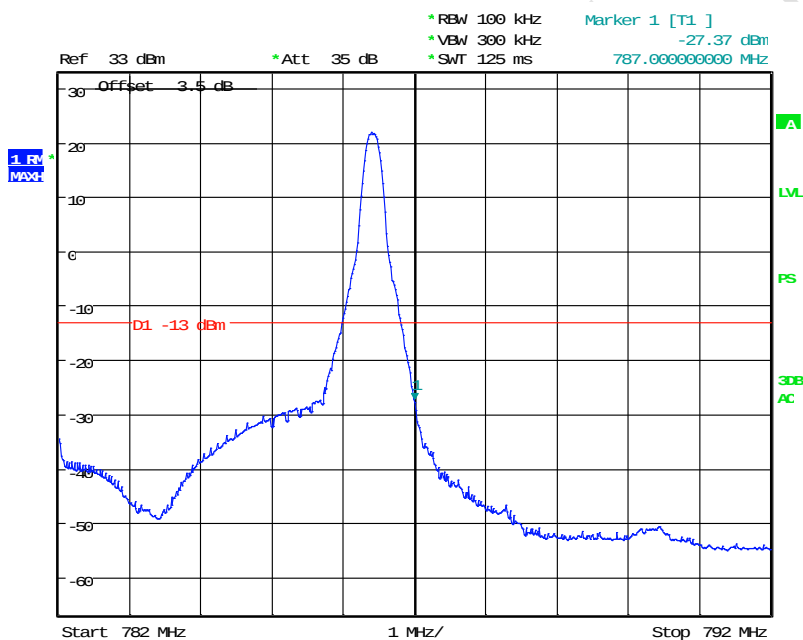
Date: 13.JUN.2015 08:22:27

## 10MHz bandwidth, 16QAM, 763MHz-775MHz below 777MHz



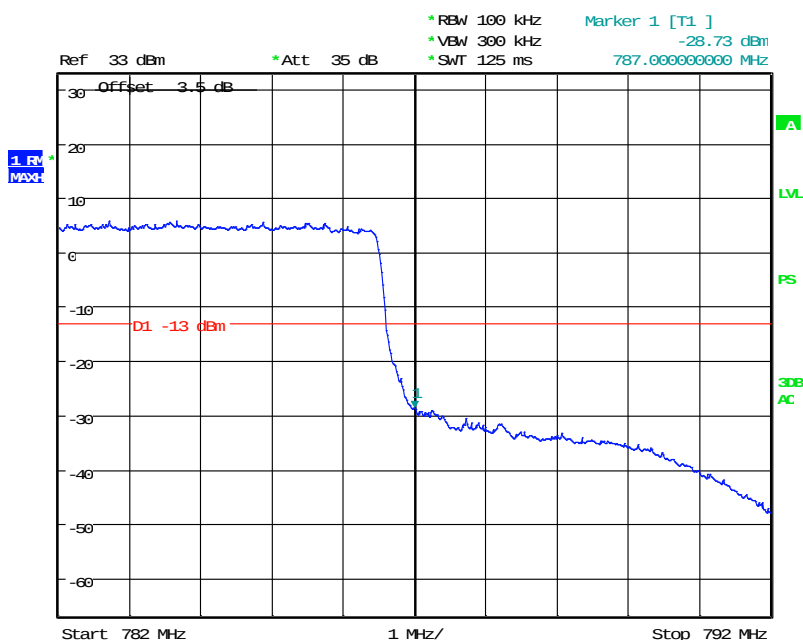
Date: 1.JUL.2015 15:00:02

## 10MHz bandwidth, 16QAM,(1,50) Mode, Above 787MHz



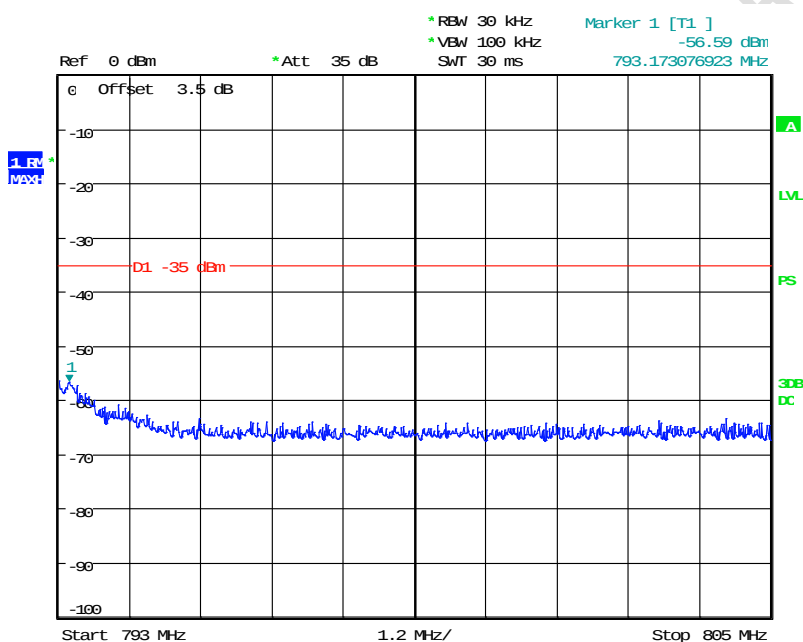
Date: 25.JUN.2015 09:52:37

## 10MHz bandwidth, 16QAM,(50,0) Mode, Above 787MHz



Date: 25.JUN.2015 09:53:07

## 10MHz bandwidth, 16QAM, 793MHz-805MHz Above 787MHz

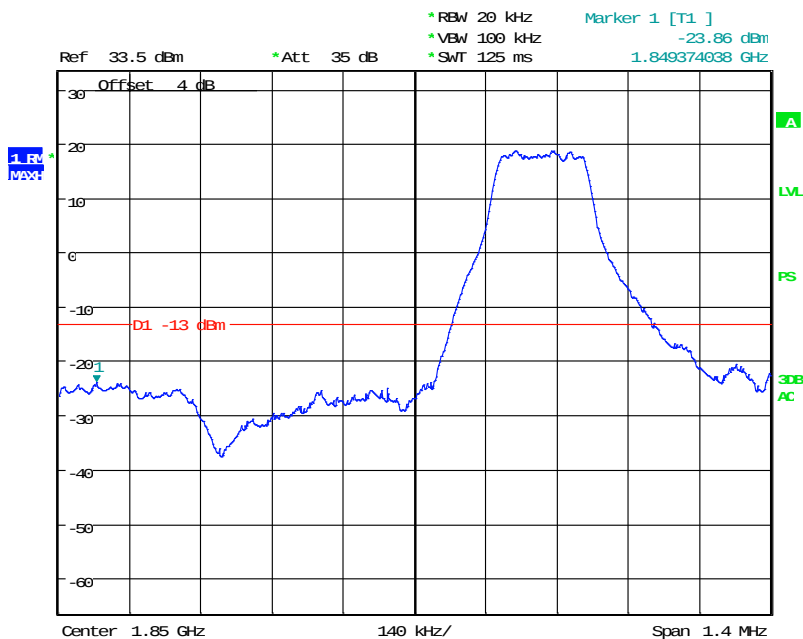


Date: 1.JUL.2015 15:04:20

#### 4.5.5 LTE B25 Band Edge Results

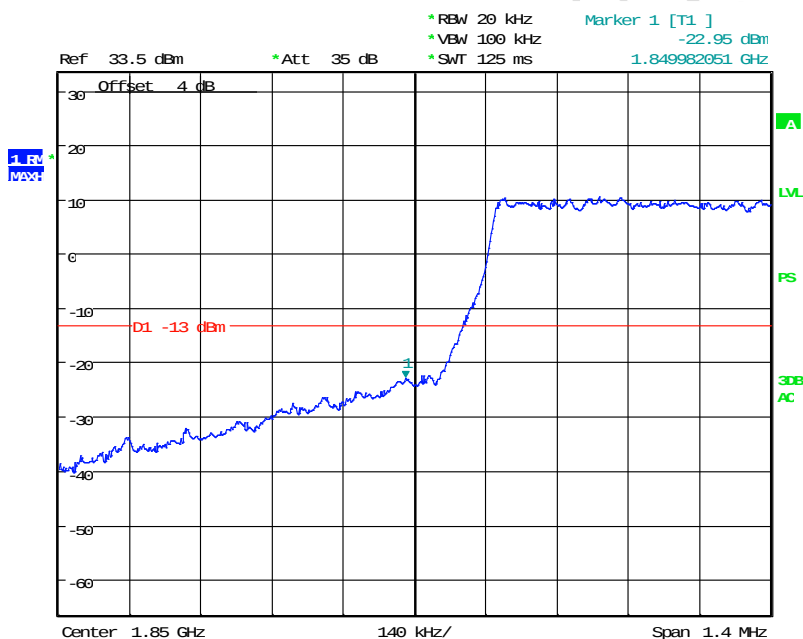
##### Graphical results:

1.4MHz bandwidth,QPSK,(1,0) Mode , below 1850MHz



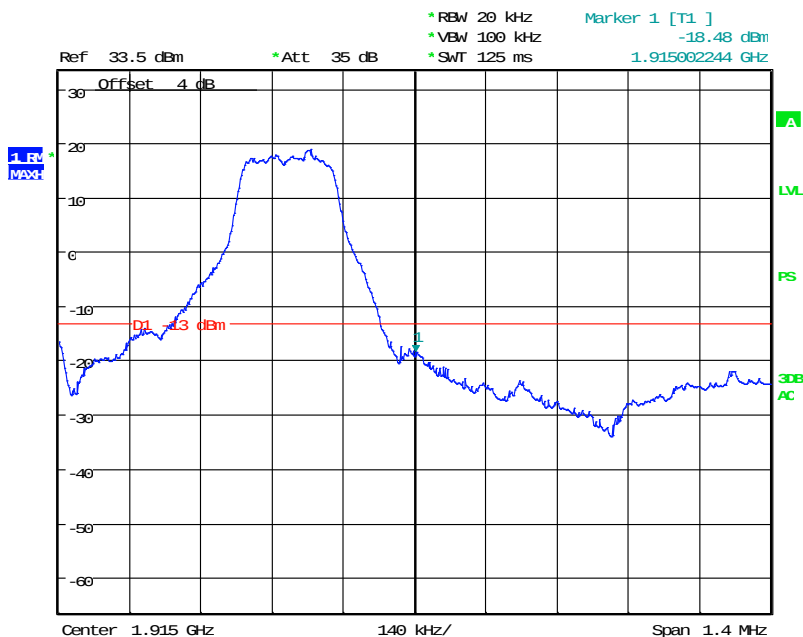
Date: 25.JUN.2015 10:17:20

1.4MHz bandwidth,QPSK,(6,0) Mode , below 1850MHz



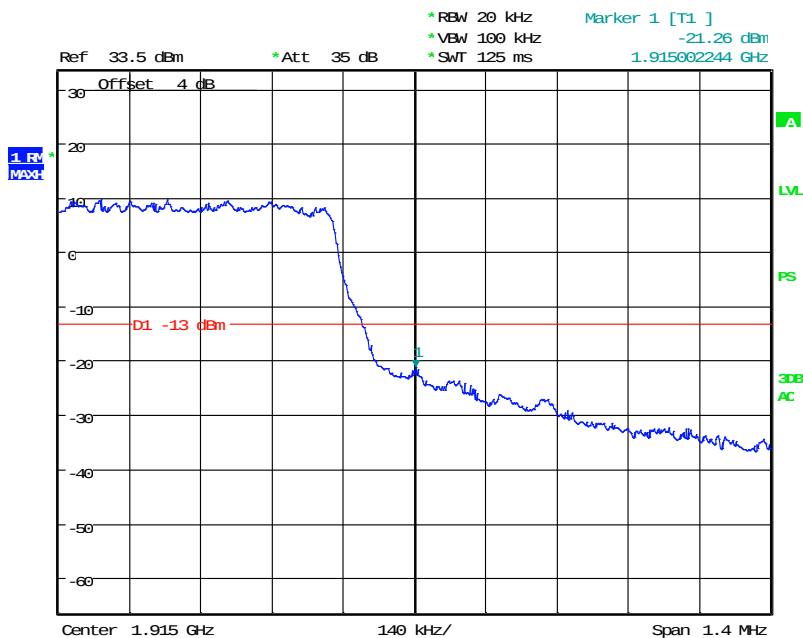
Date: 25.JUN.2015 10:17:56

## 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 1915MHz

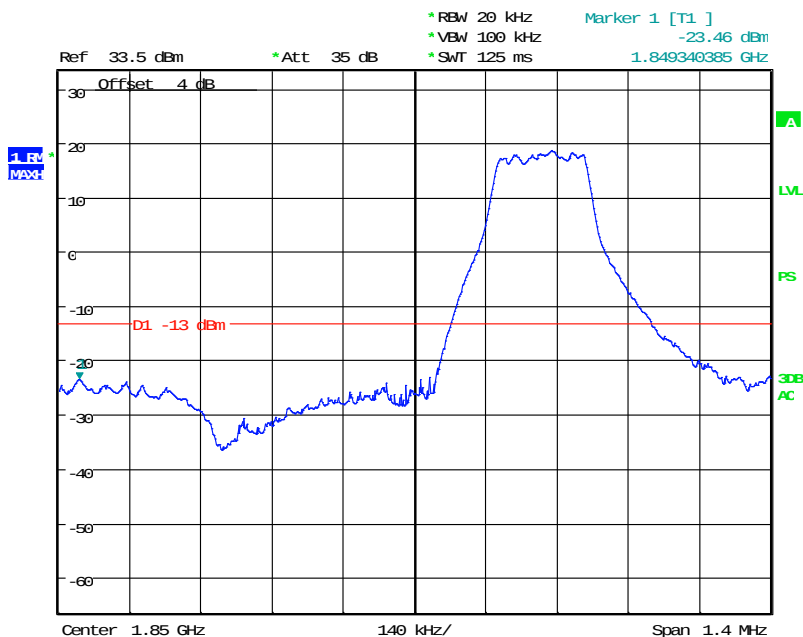


Date: 25.JUN.2015 10:12:58

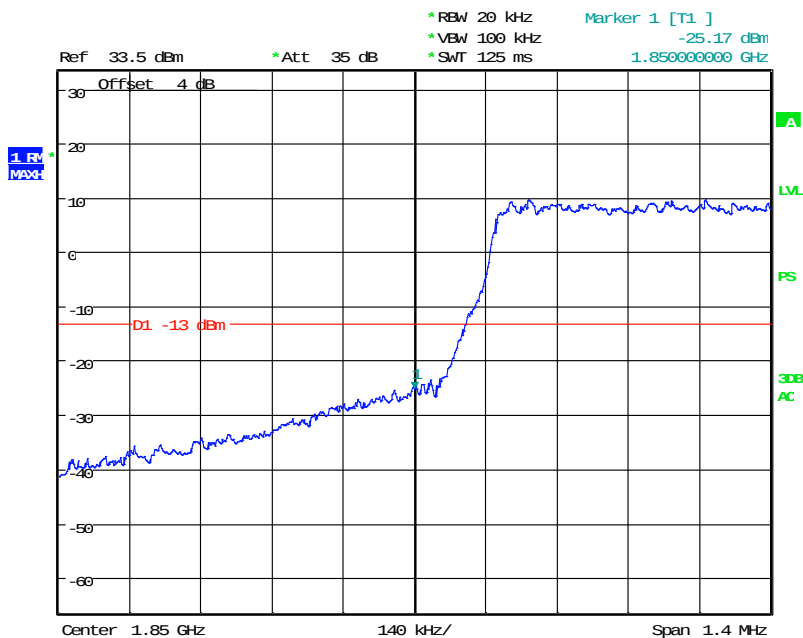
## 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 1915MHz



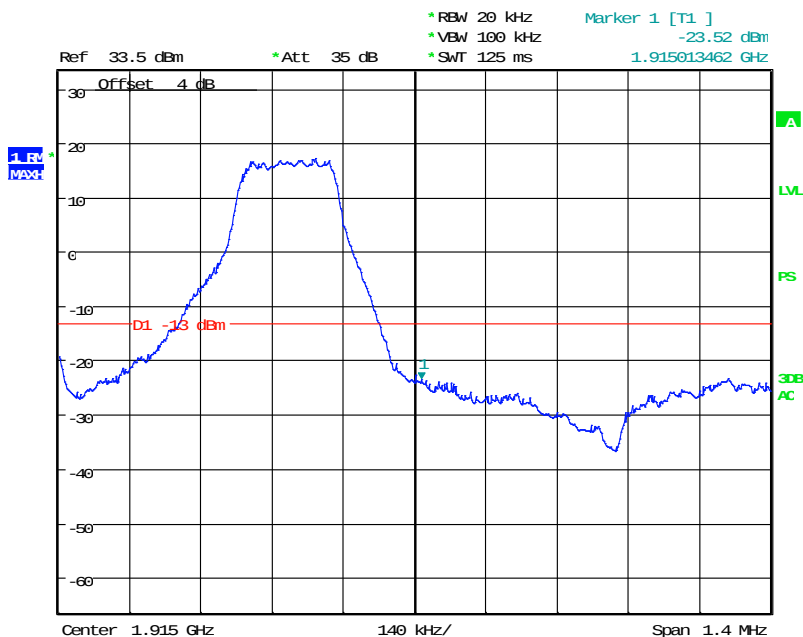
Date: 25.JUN.2015 10:13:37

**1.4MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz**

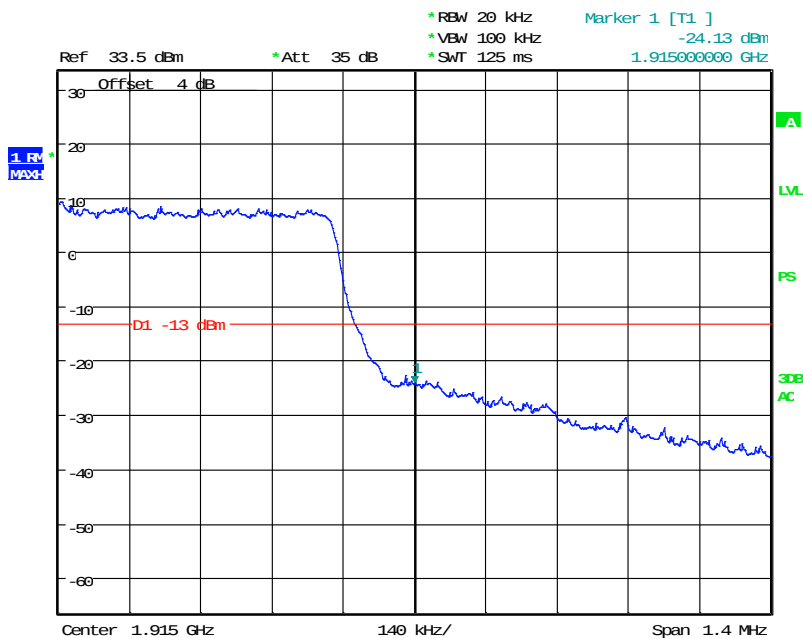
Date: 25.JUN.2015 10:20:52

**1.4MHz bandwidth, 16QAM,(6,0) Mode , below 1850MHz**

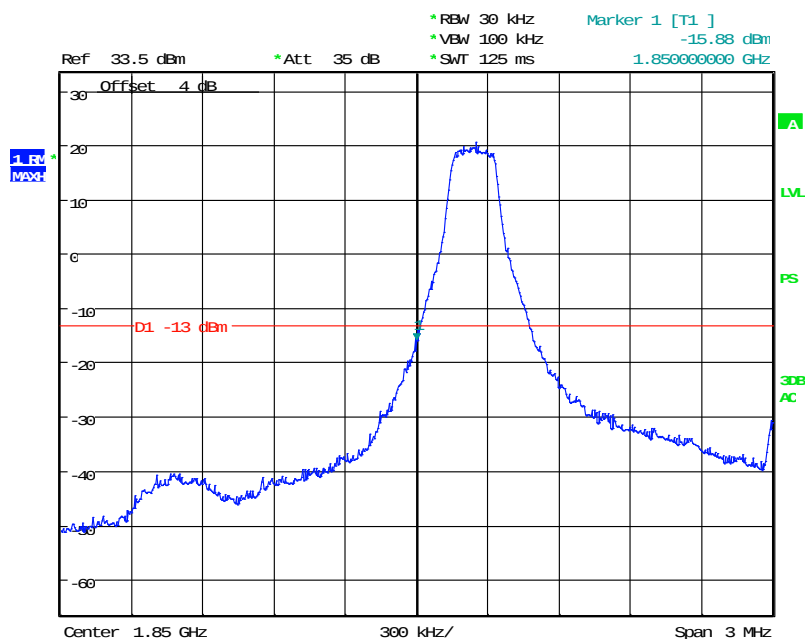
Date: 25.JUN.2015 10:18:36

**1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 1915MHz**

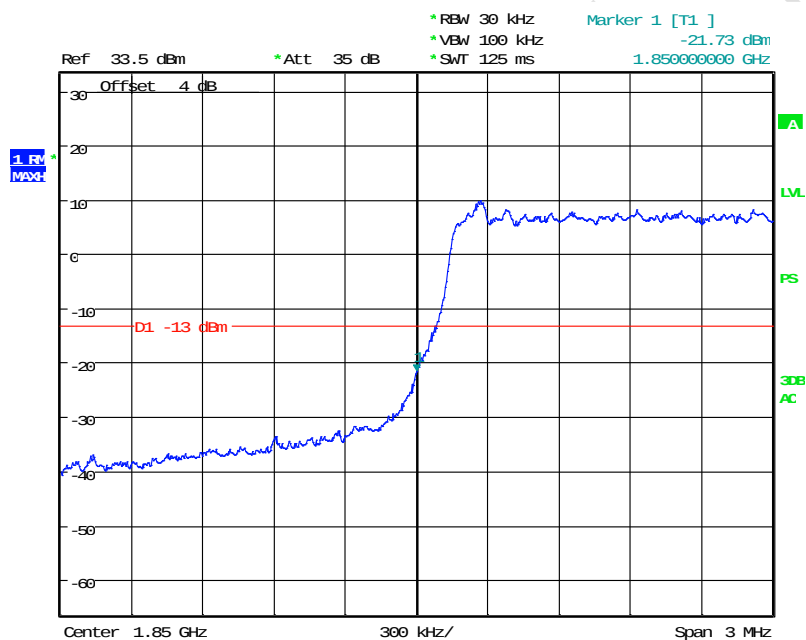
Date: 25.JUN.2015 10:15:03

**1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 1915MHz**

Date: 25.JUN.2015 10:14:15

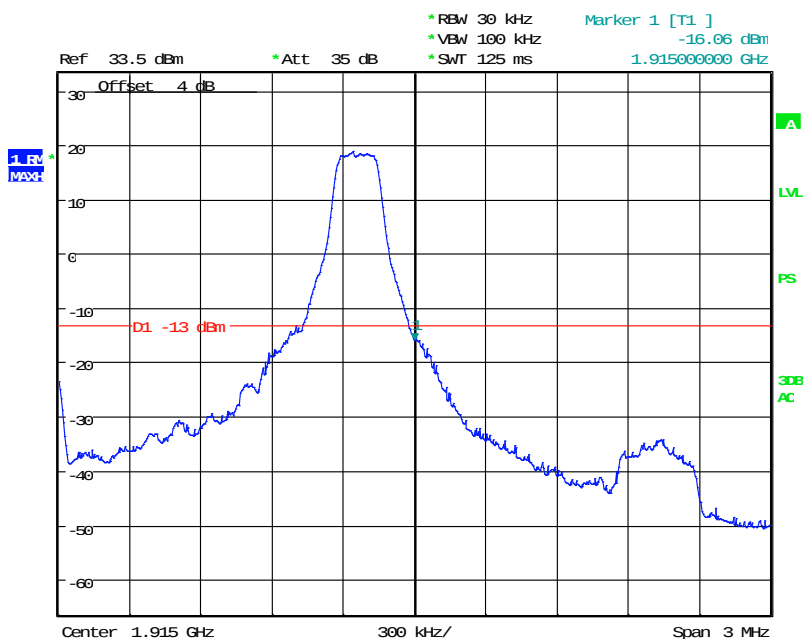
**3MHz bandwidth,QPSK,(1,0) Mode , below 1850MHz**

Date: 25.JUN.2015 10:23:52

**3MHz bandwidth,QPSK,(15,0) Mode , below 1850MHz**

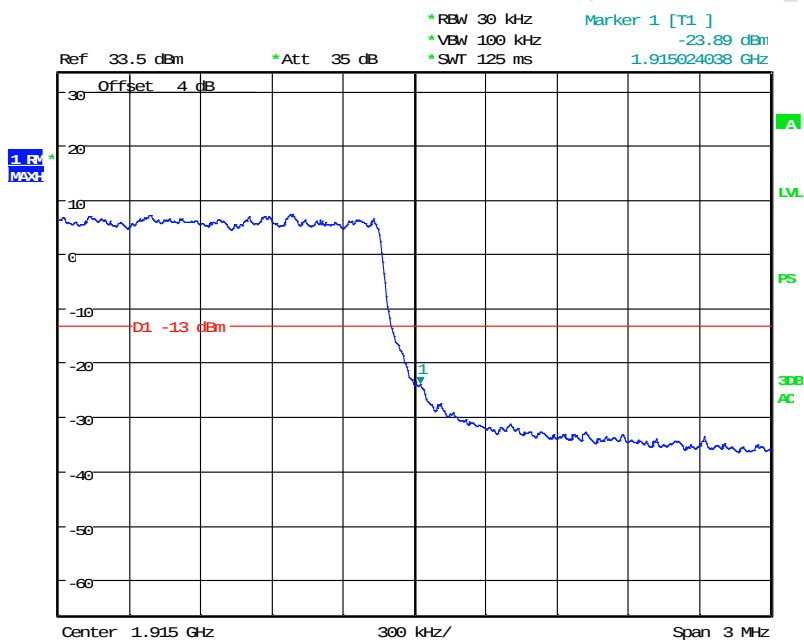
Date: 25.JUN.2015 10:24:56

## 3MHz bandwidth, QPSK,(1,15) Mode, Above 1915MHz

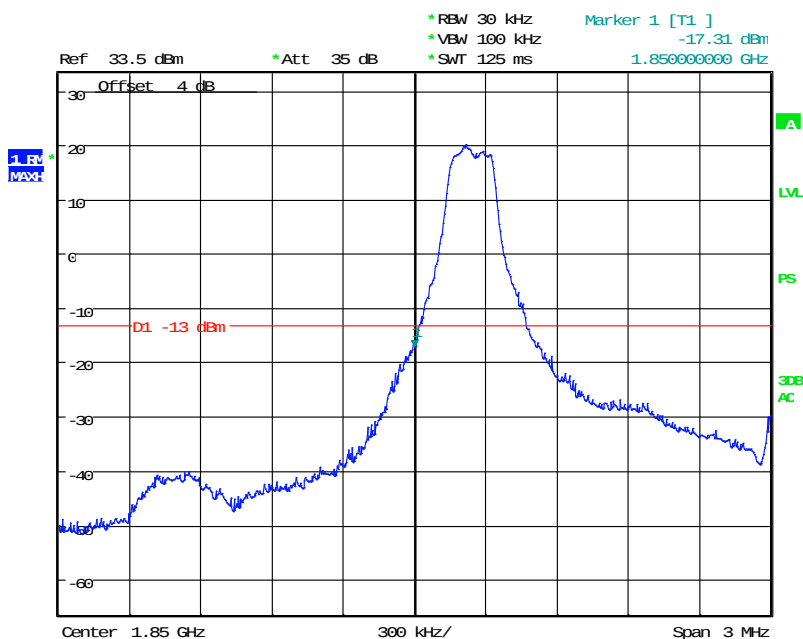


Date: 25.JUN.2015 10:28:26

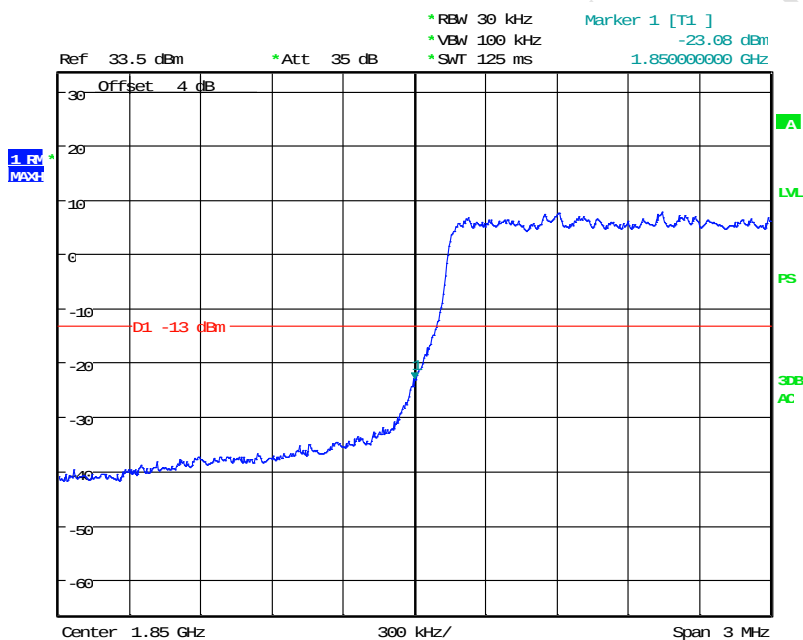
## 3MHz bandwidth, QPSK,(15,0) Mode, Above 1915MHz



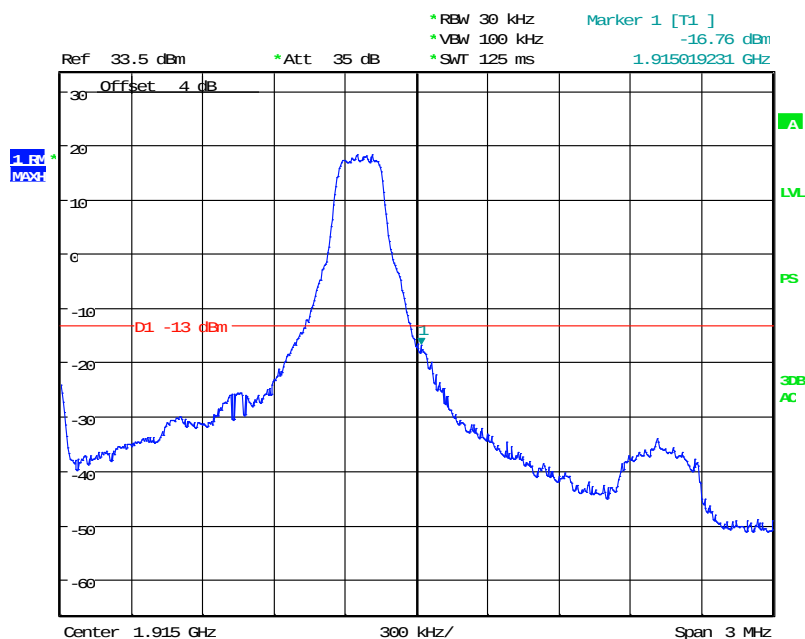
Date: 25.JUN.2015 10:29:38

**3MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz**

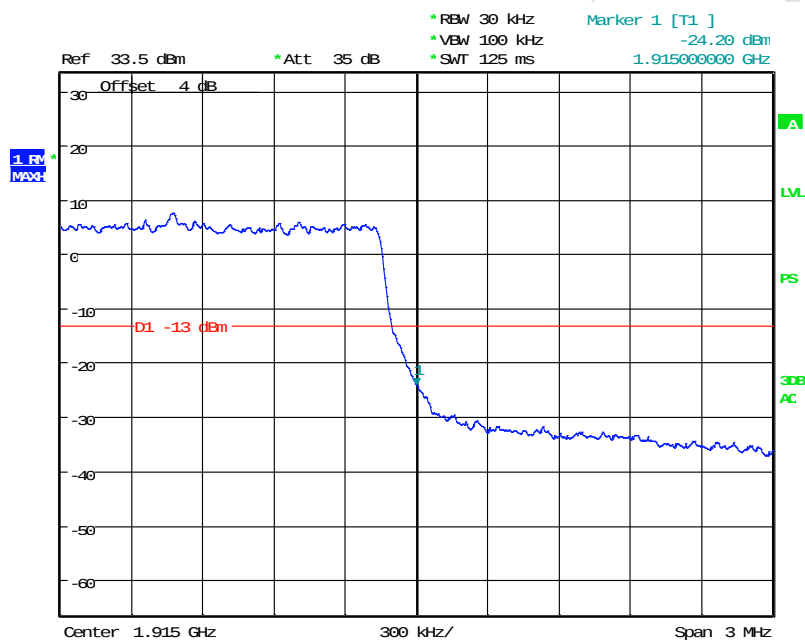
Date: 25.JUN.2015 10:26:23

**3MHz bandwidth, 16QAM,(15,0) Mode , below 1850MHz**

Date: 25.JUN.2015 10:25:40

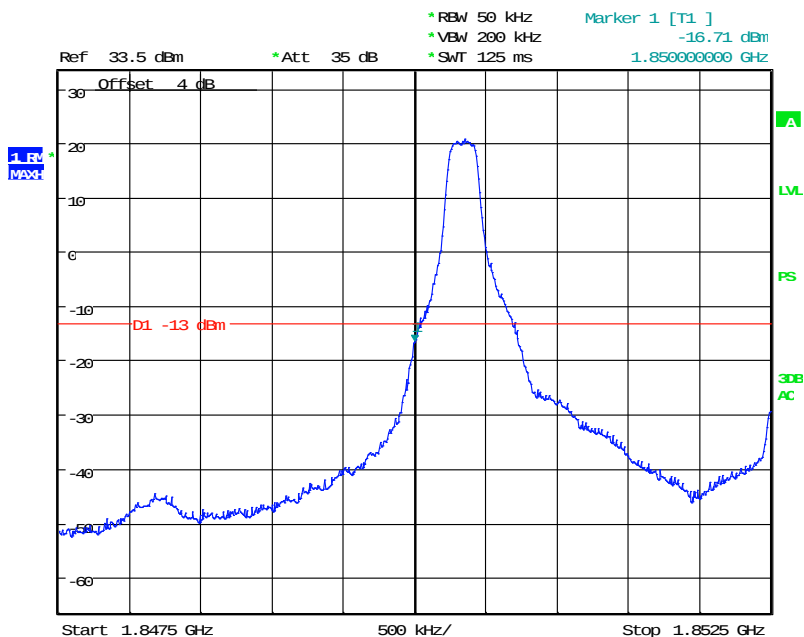
**3MHz bandwidth, 16QAM,(1,15) Mode, Above 1915MHz**

Date: 25.JUN.2015 10:33:28

**3MHz bandwidth, 16QAM,(15,0) Mode, Above 1915MHz**

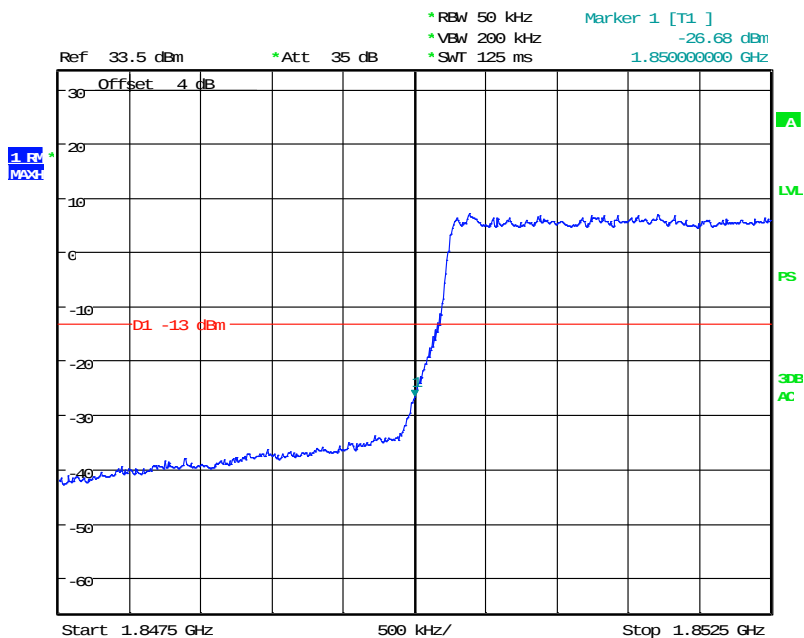
Date: 25.JUN.2015 10:32:23

## 5MHz bandwidth, QPSK, (1,0) Mode, below 1850MHz



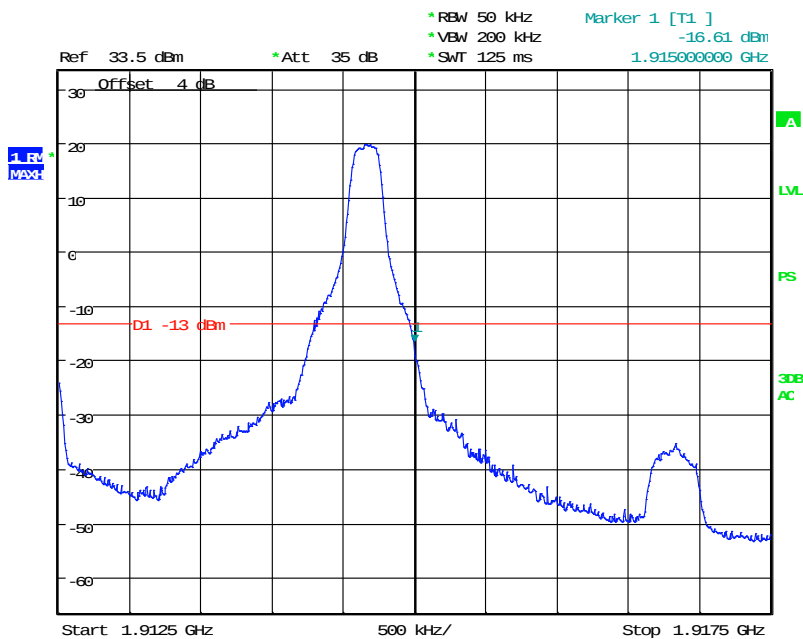
Date: 25.JUN.2015 10:35:19

## 5MHz bandwidth, QPSK, (25,0) Mode, below 1850MHz



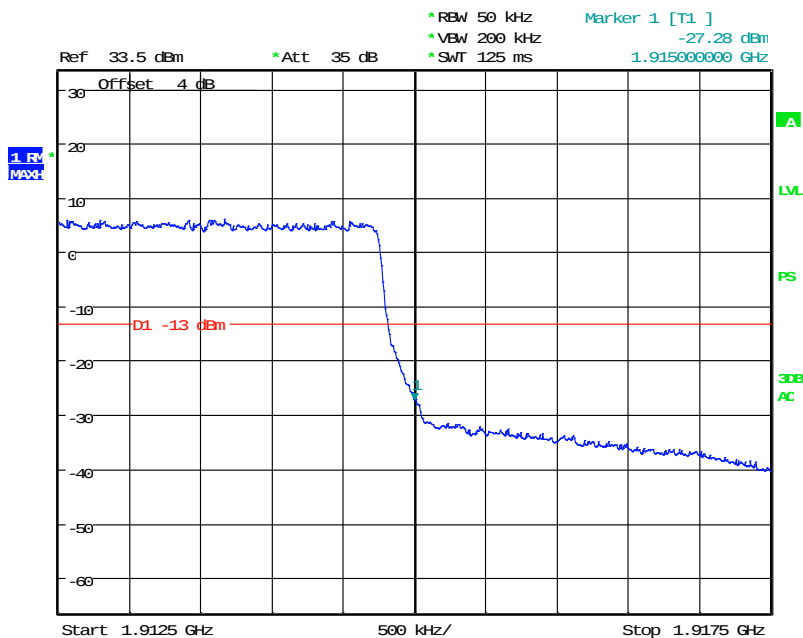
Date: 25.JUN.2015 10:35:41

## 5MHz bandwidth, QPSK,(1,25) Mode, Above 1915MHz



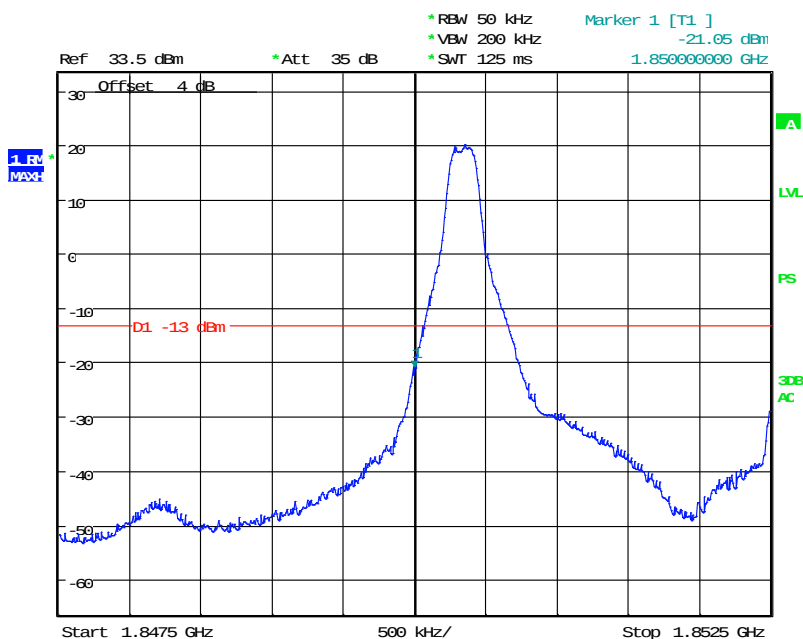
Date: 25.JUN.2015 10:37:32

## 5MHz bandwidth, QPSK,(25,0) Mode, Above 1915MHz



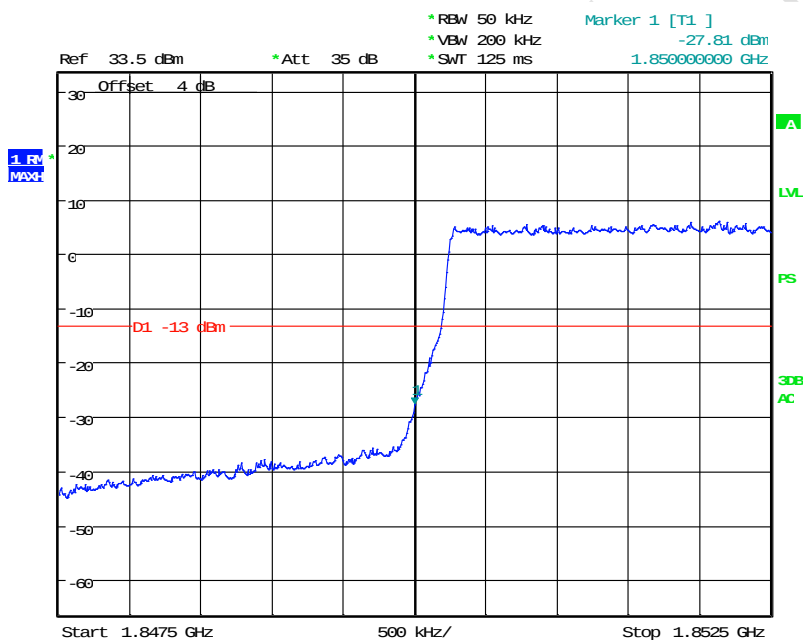
Date: 25.JUN.2015 10:38:09

## 5MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz



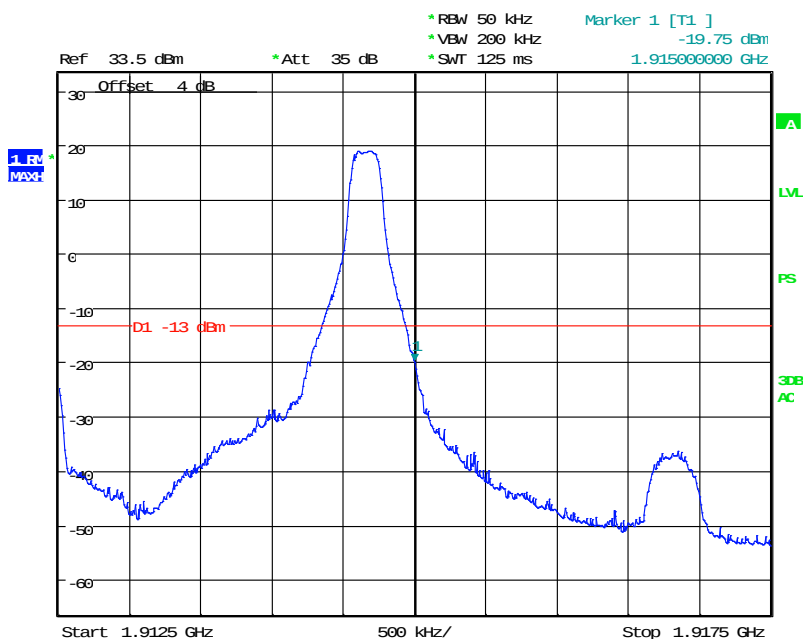
Date: 25.JUN.2015 10:36:22

## 5MHz bandwidth, 16QAM,(25,0) Mode , below 1850MHz



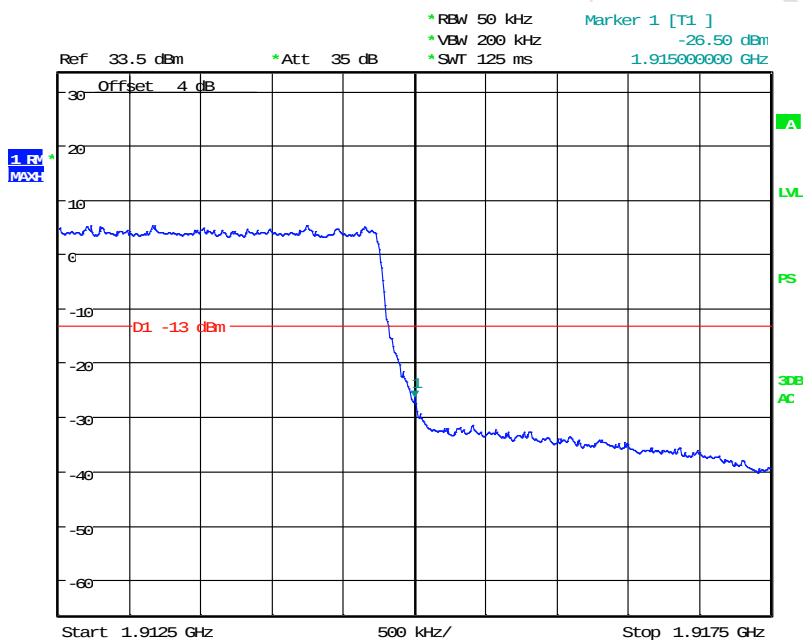
Date: 25.JUN.2015 10:36:06

## 5MHz bandwidth, 16QAM,(1,25) Mode, Above 1915MHz



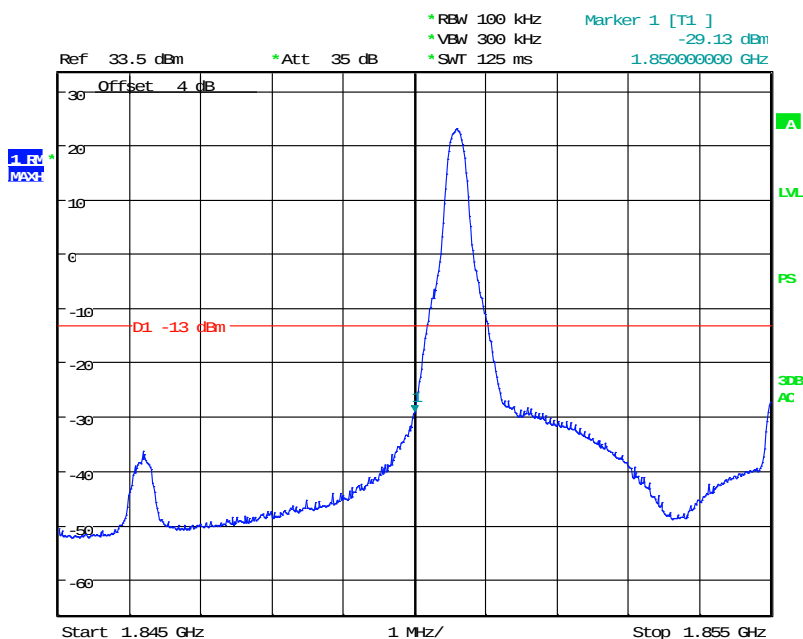
Date: 25.JUN.2015 10:39:16

## 5MHz bandwidth, 16QAM,(25,0) Mode, Above 1915MHz



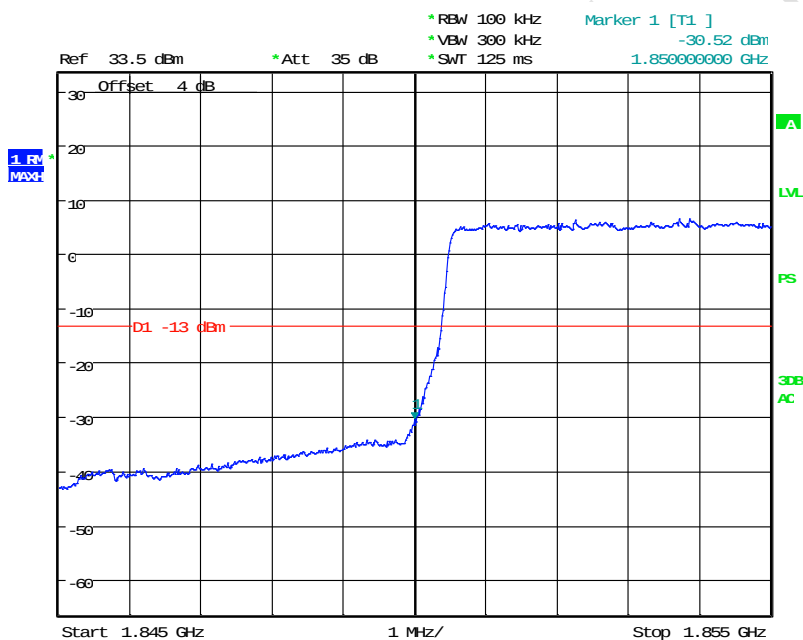
Date: 25.JUN.2015 10:38:52

## 10MHz bandwidth, QPSK, (1,0) Mode, below 1850MHz



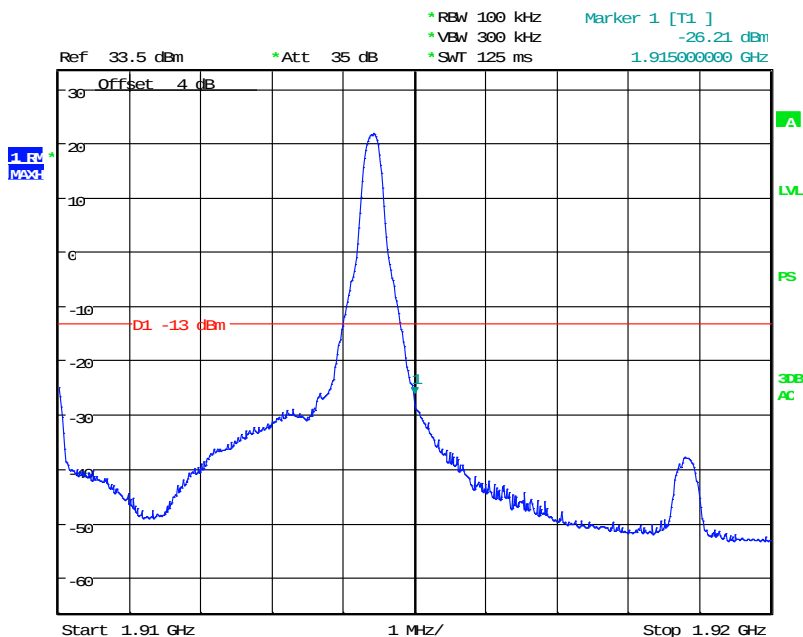
Date: 25.JUN.2015 10:53:00

## 10MHz bandwidth, QPSK, (50,0) Mode, below 1850MHz



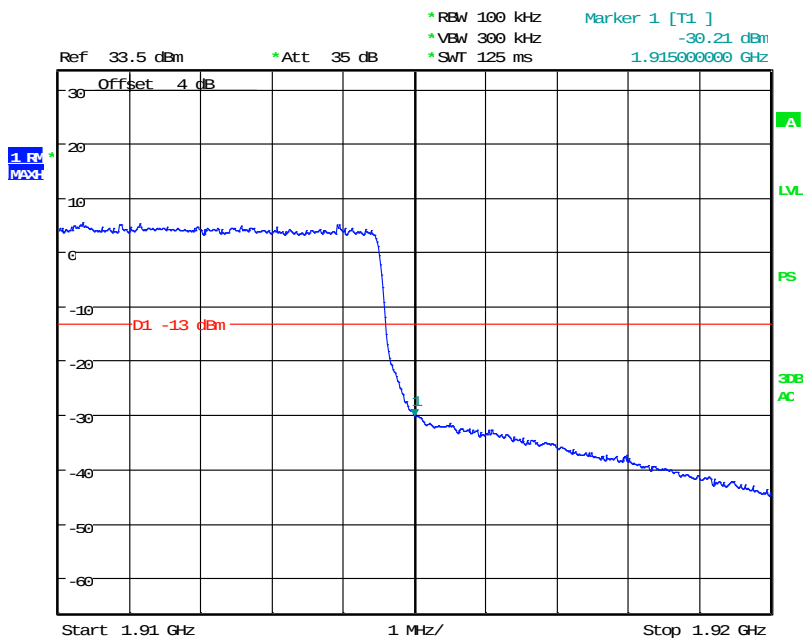
Date: 25.JUN.2015 10:53:23

## 10MHz bandwidth, QPSK,(1,50) Mode, Above 1915MHz



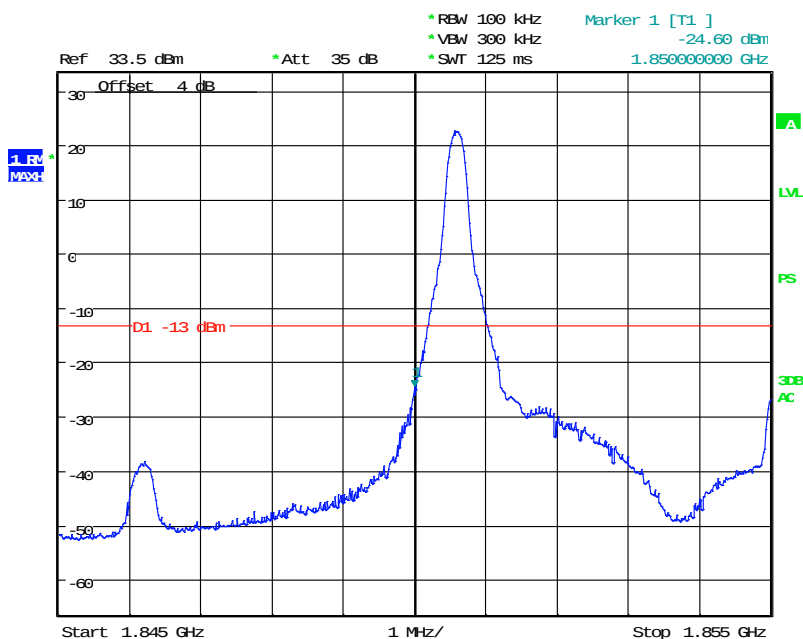
Date: 25.JUN.2015 10:55:24

## 10MHz bandwidth, QPSK,(50,0) Mode, Above 1915MHz



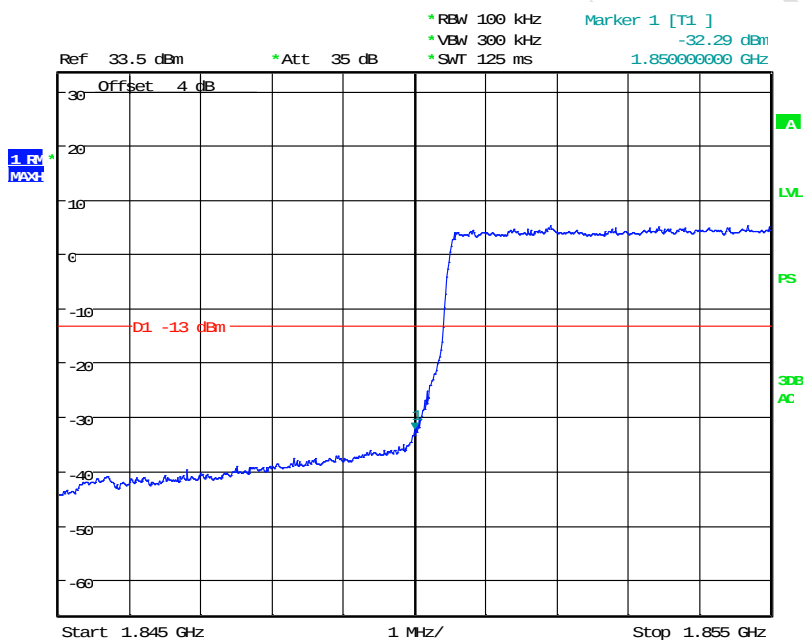
Date: 25.JUN.2015 10:55:43

## 10MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz



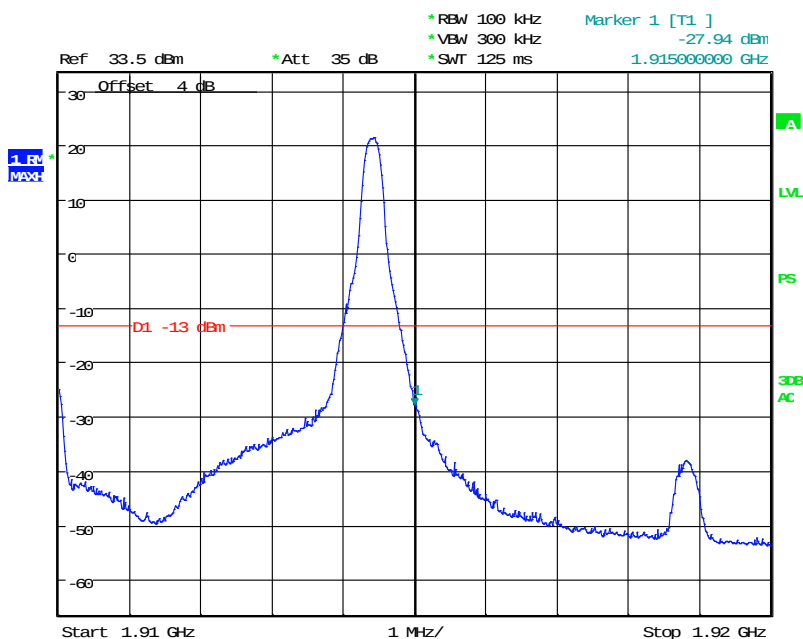
Date: 25.JUN.2015 10:54:17

## 10MHz bandwidth, 16QAM,(50,0) Mode , below 185MHz



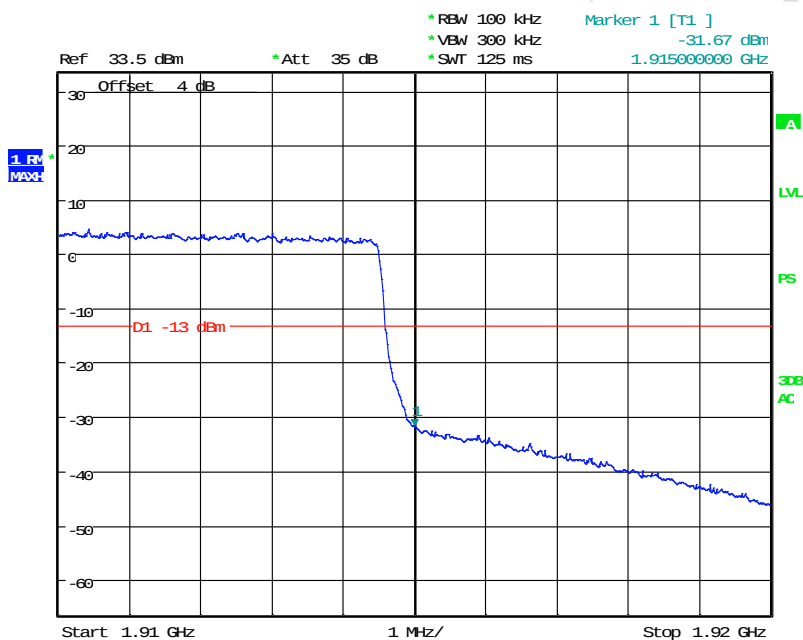
Date: 25.JUN.2015 10:53:45

## 10MHz bandwidth, 16QAM,(1,50) Mode, Above 1915MHz



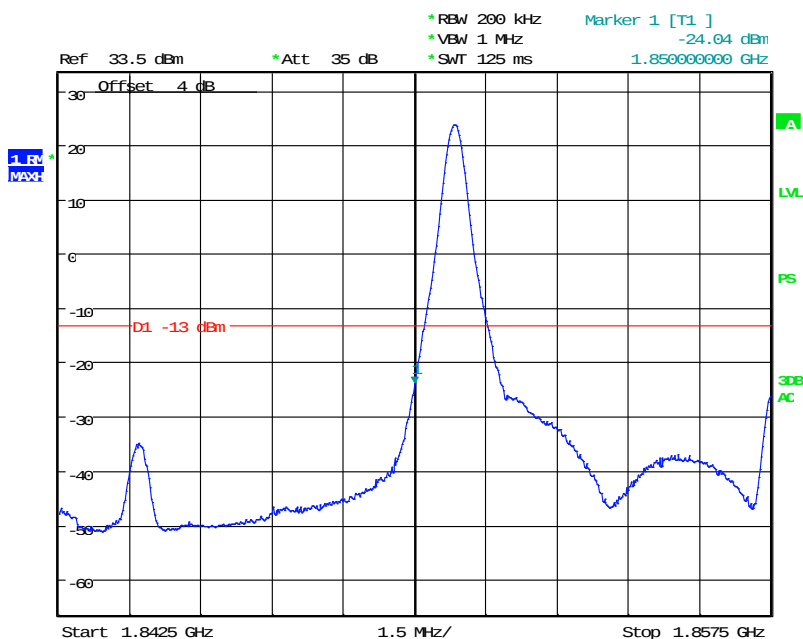
Date: 25.JUN.2015 10:56:28

## 10MHz bandwidth, 16QAM,(50,0) Mode, Above 1915MHz



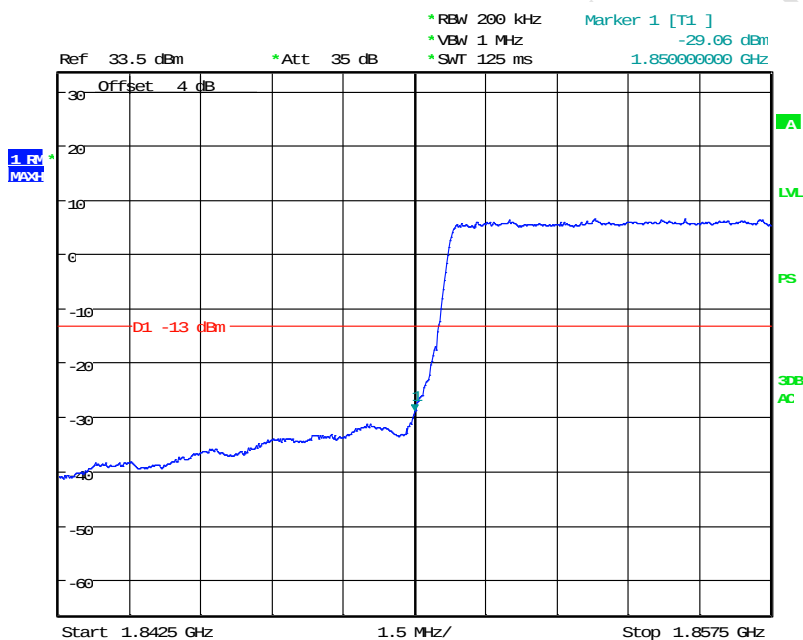
Date: 25.JUN.2015 10:56:04

## 15MHz bandwidth, QPSK, (1,0) Mode, below 1850MHz



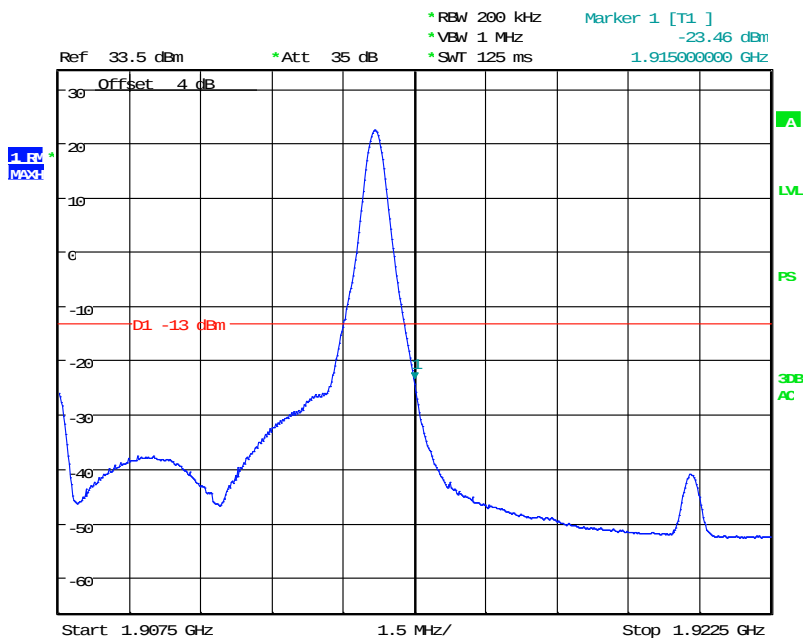
Date: 25.JUN.2015 10:59:43

## 15MHz bandwidth, QPSK, (75,0) Mode, below 1850MHz



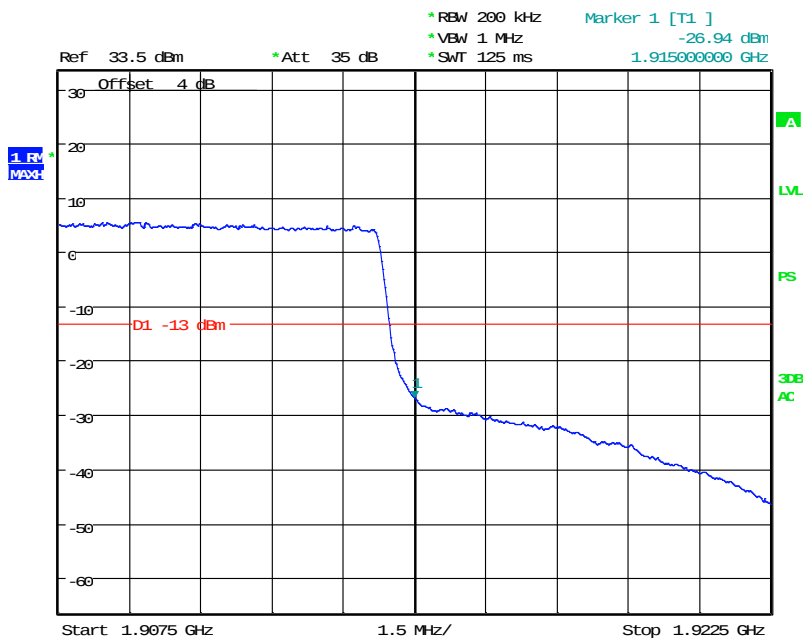
Date: 25.JUN.2015 11:00:00

## 15MHz bandwidth, QPSK,(1,75) Mode, Above 1915MHz



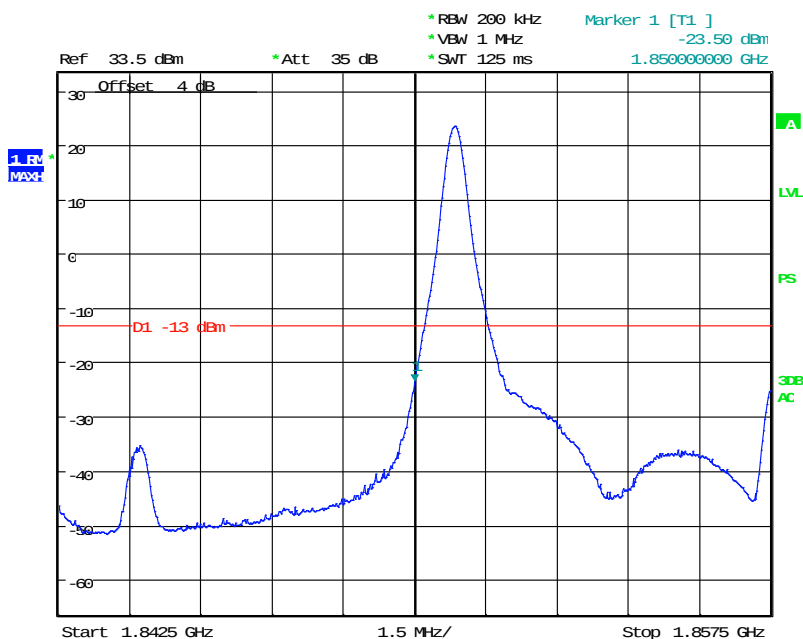
Date: 25.JUN.2015 11:38:40

## 15MHz bandwidth, QPSK,(75,0) Mode, Above 1915MHz



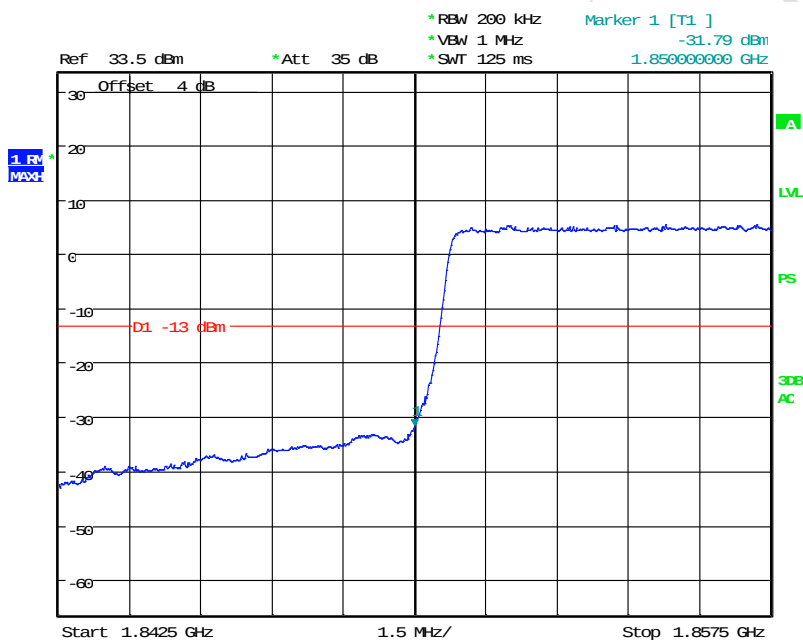
Date: 25.JUN.2015 11:39:12

## 15MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz



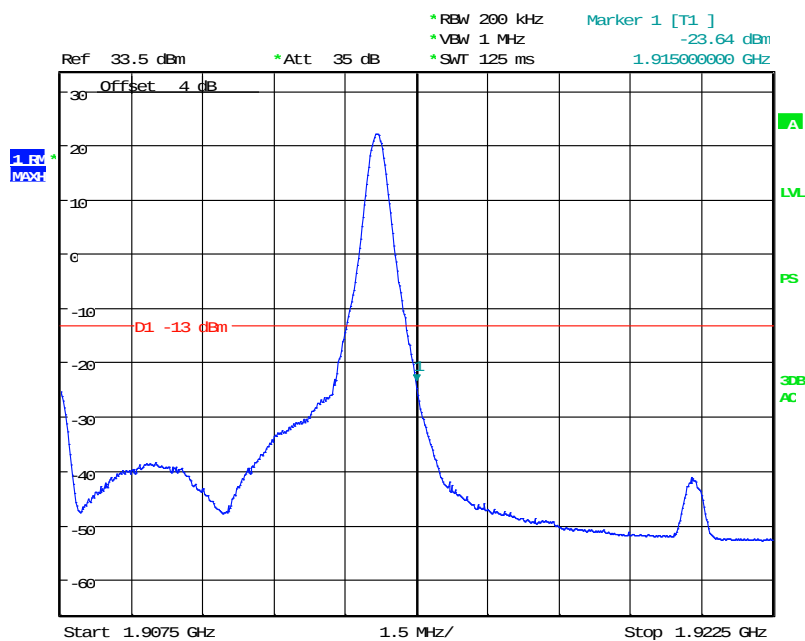
Date: 25.JUN.2015 11:01:02

## 15MHz bandwidth, 16QAM,(75,0) Mode , below 1850MHz



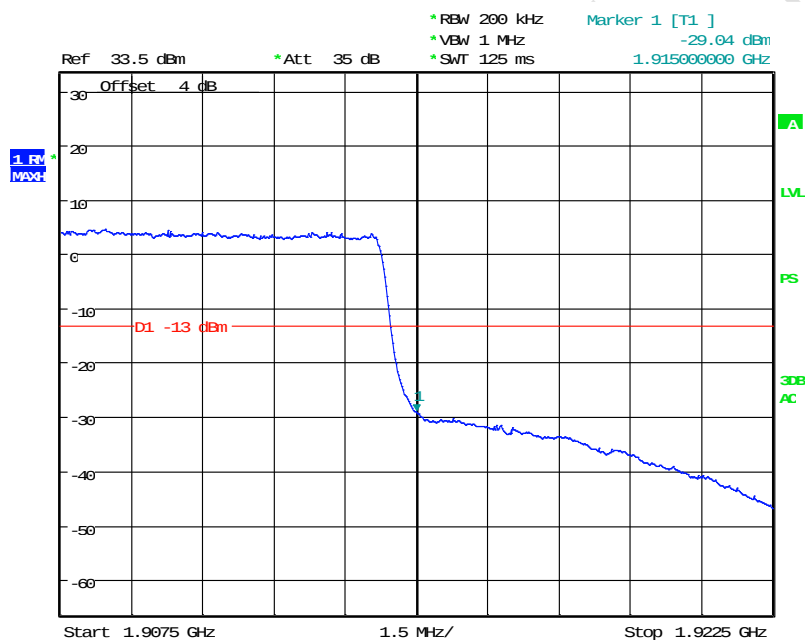
Date: 25.JUN.2015 11:00:17

## 15MHz bandwidth, 16QAM,(1,75) Mode, Above 1915MHz



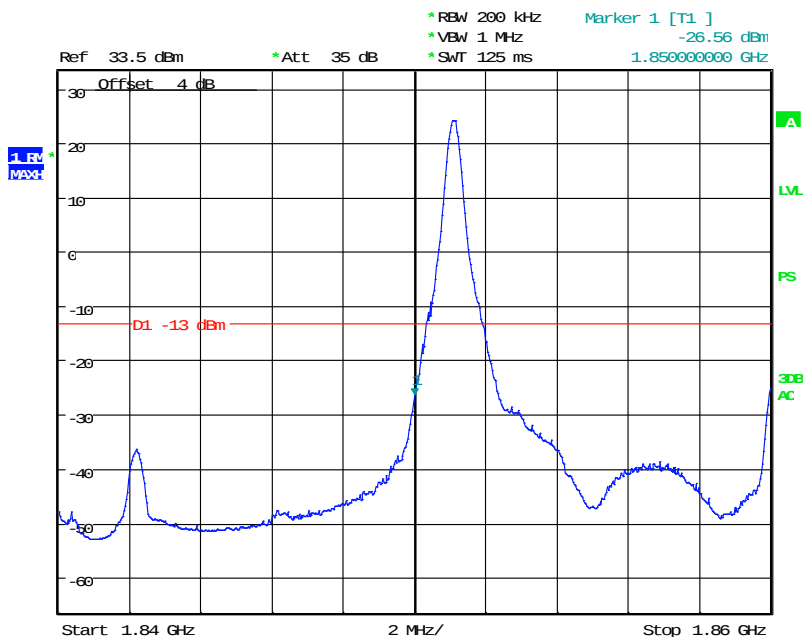
Date: 25.JUN.2015 11:40:20

## 15MHz bandwidth, 16QAM,(75,0) Mode, Above 1915MHz



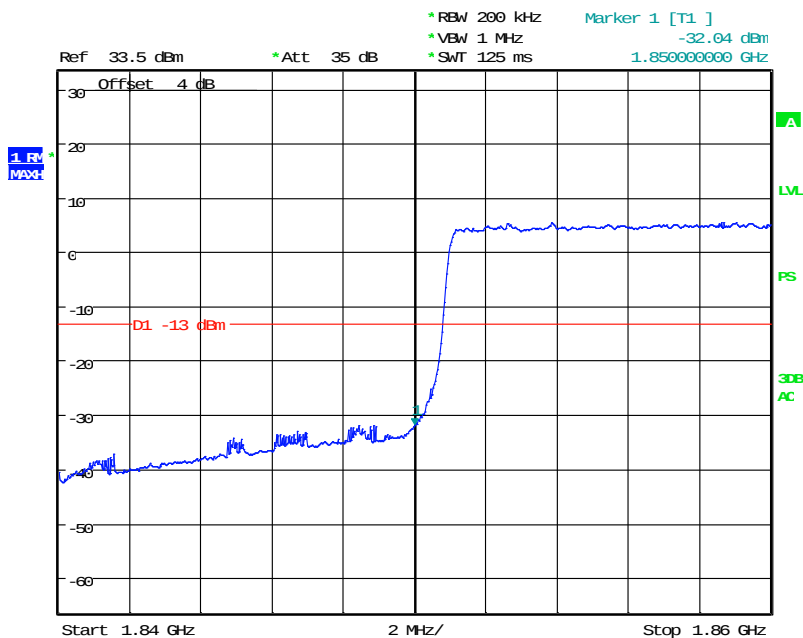
Date: 25.JUN.2015 11:39:40

## 20MHz bandwidth, QPSK, (1,0) Mode, below 1850MHz



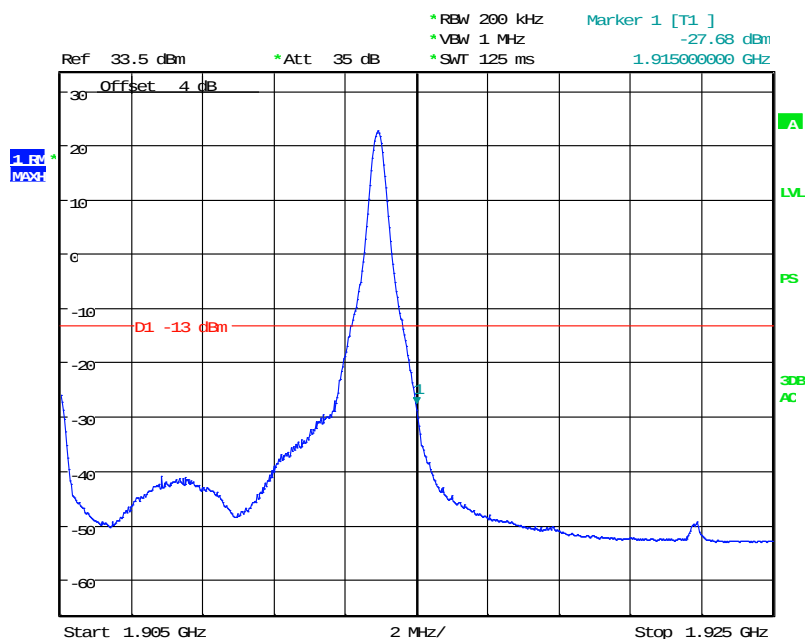
Date: 25.JUN.2015 11:07:40

## 20MHz bandwidth, QPSK, (100,0) Mode, below 1850MHz



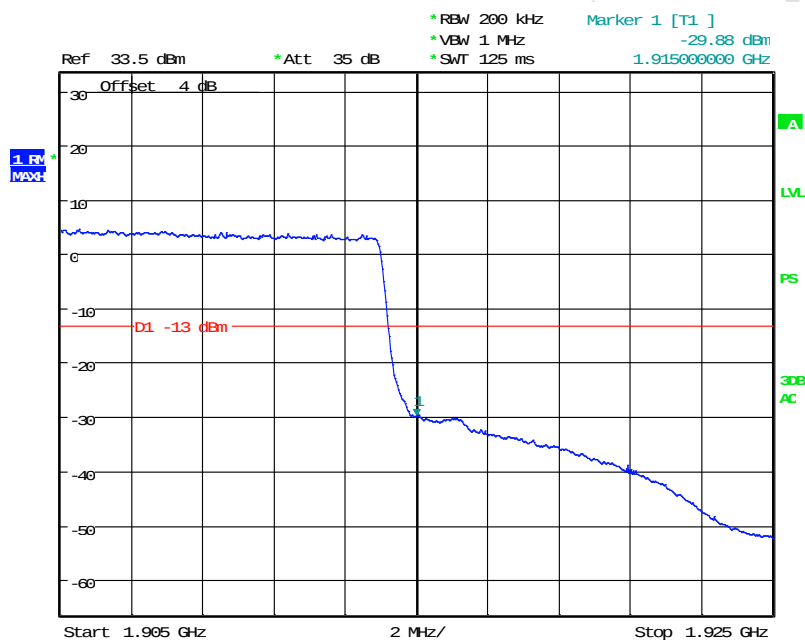
Date: 25.JUN.2015 11:08:08

## 20MHz bandwidth, QPSK,(1,100) Mode, Above 1915MHz

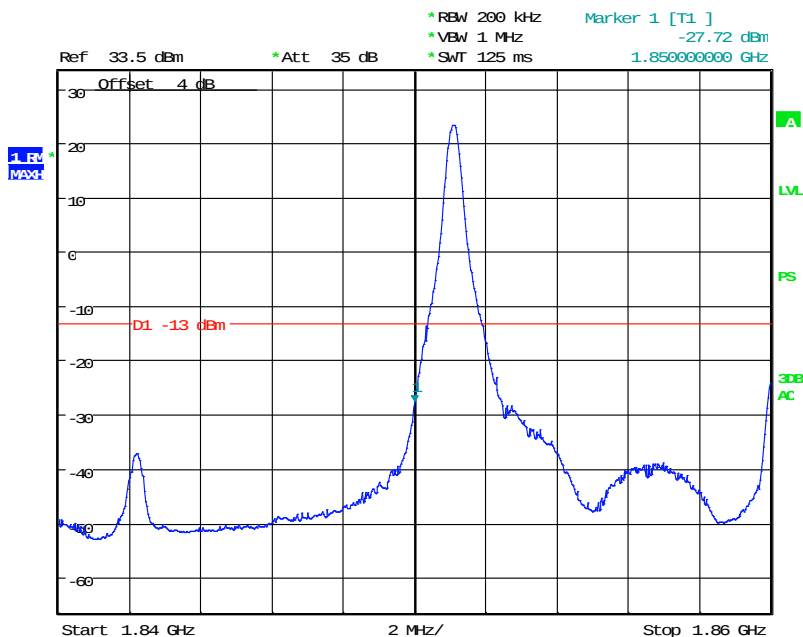


Date: 25.JUN.2015 11:10:00

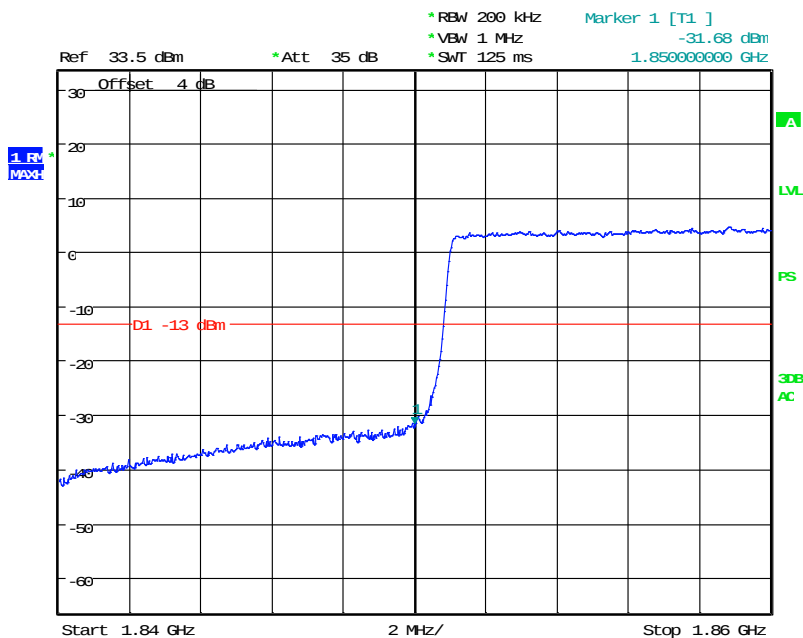
## 20MHz bandwidth, QPSK,(100,0) Mode, Above 1915MHz



Date: 25.JUN.2015 11:10:18

**20MHz bandwidth, 16QAM,(1,0) Mode , below 1850MHz**

Date: 25.JUN.2015 11:09:03

**20MHz bandwidth, 16QAM,(100,0) Mode , below 1850MHz**

Date: 25.JUN.2015 11:08:36