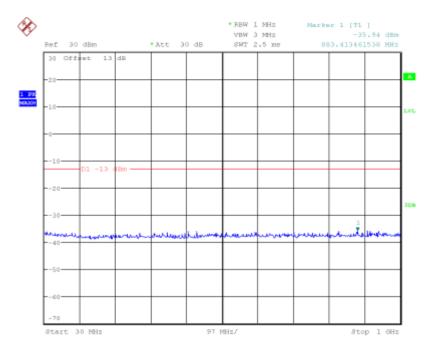
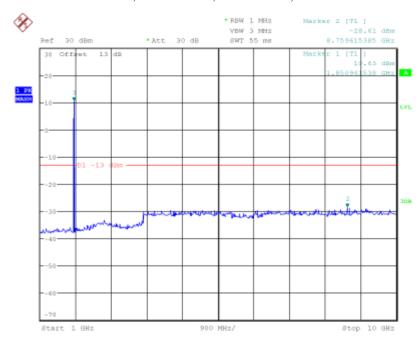
#### Report No.:B19W50074-WWAN\_Rev3

### **5.3.2 PCS1900 Conducted Spurious Emission Results**



Date: 14.MAR.2019 05:41:54

#### GMSK, Low channel, 1850.2 MHz, 30MHz to 1GHz



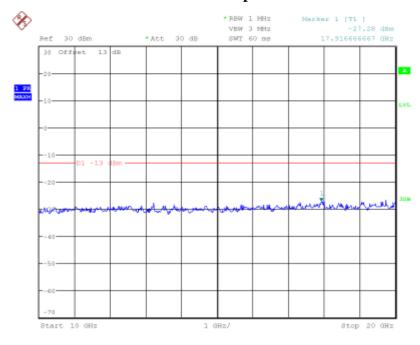
Date: 14.MAR.2019 05:42:20

GMSK, Low channel, 1850.2 MHz, 1GHz to 10GHz

Note: The strong emission shown is the carrier signal.

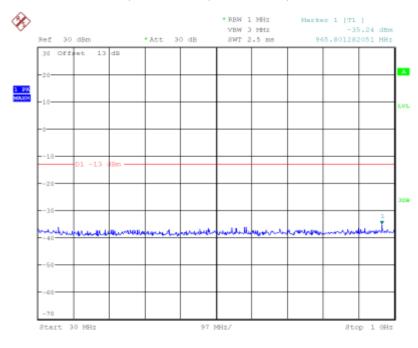
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:42:48

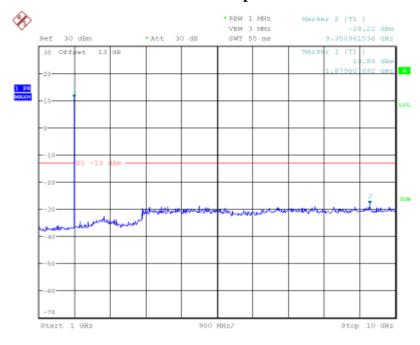
GMSK, Low channel, 1850.2 MHz, 10GHz to 20GHz



Date: 14.MAR.2019 05:44:21

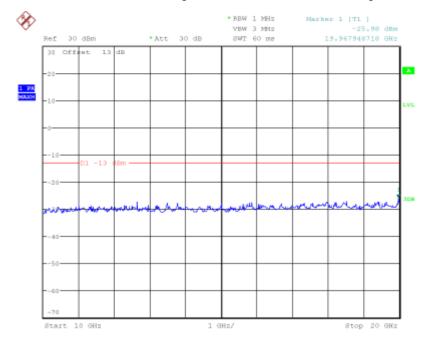
GMSK, Middle channel, 1880.0 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:43:57

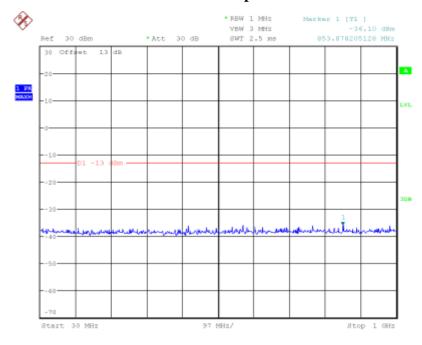
GMSK, Middle channel, 1880.0 MHz, 1GHz to 10GHz Note: The strong emission shown is the carrier signal.



Date: 14.MAR.2019 05:43:21

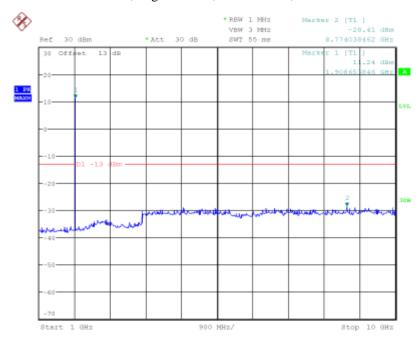
GMSK, Middle channel, 1880.0 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:44:44

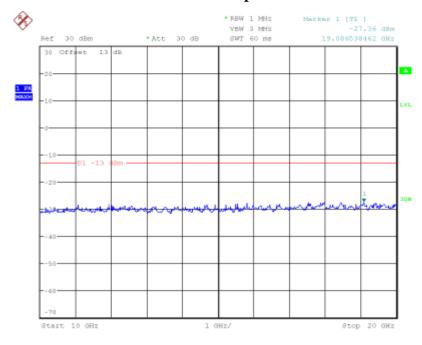
#### GMSK, High channel, 1909.8 MHz, 30MHz to 1GHz



Date: 14.MAR.2019 05:45:08

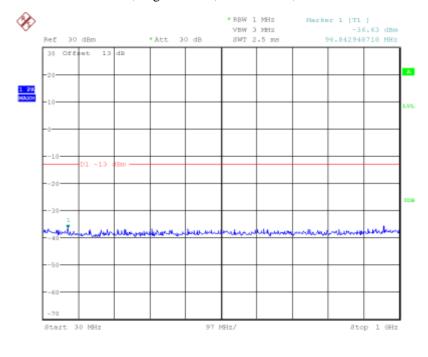
GMSK, High channel, 1909.8 MHz, 1GHz to 10GHz Note: The strong emission shown is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:45:32

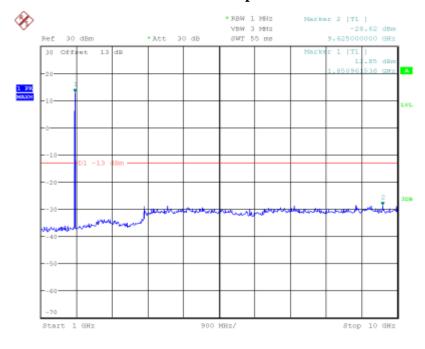
GMSK, High channel, 1909.8 MHz, 10GHz to 20GHz



Date: 14.MAR.2019 05:48:35

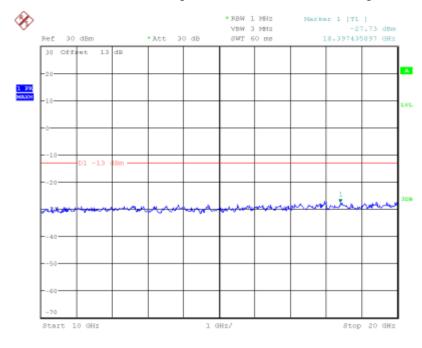
8PSK, Low channel, 1850.2 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:47:40

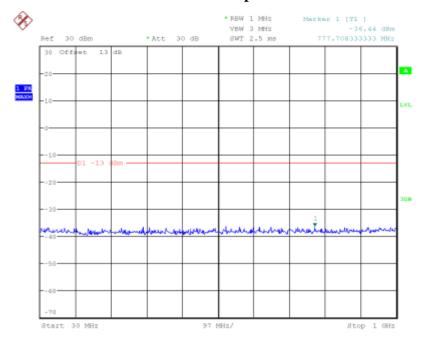
8PSK, Low channel, 1850.2 MHz, 1GHz to 10GHz Note: The strong emission shown is the carrier signal.



Date: 14.MAR.2019 05:47:14

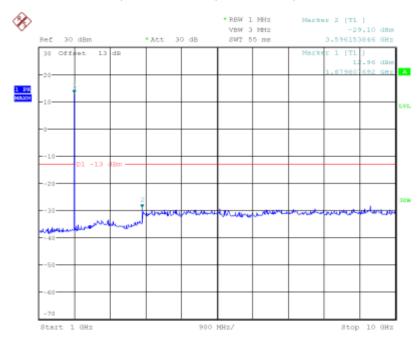
8PSK, Low channel, 1850.2 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:49:00

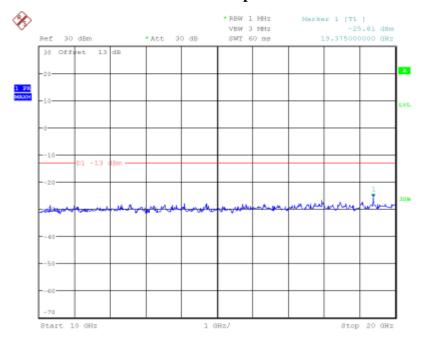
#### 8PSK, Middle channel, 1880.0 MHz, 30MHz to 1GHz



Date: 14.MAR.2019 05:49:22

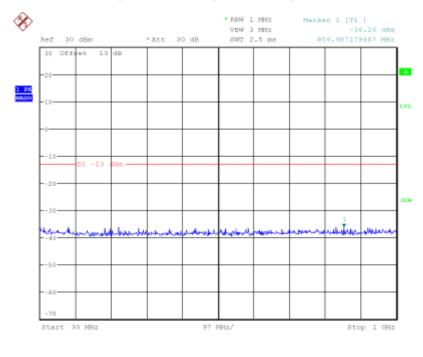
8PSK, Middle channel, 1880.0 MHz, 1GHz to 10GHz Note: The strong emission shown is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:49:45

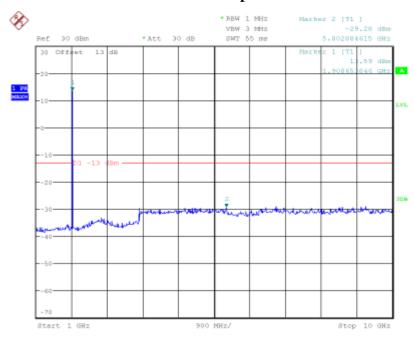
8PSK, Middle channel, 1880.0 MHz, 10GHz to 20GHz



Date: 14.MAR.2019 05:50:52

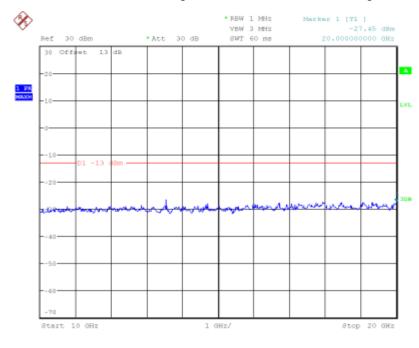
8PSK, High channel, 1909.8 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:50:32

8PSK, High channel, 1909.8 MHz, 1GHz to 10GHz Note: The strong emission shown is the carrier signal

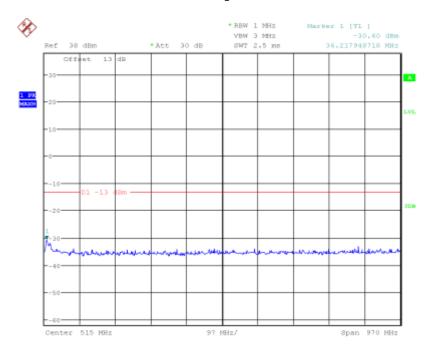


Date: 14.MAR.2019 05:50:12

8PSK, High channel, 1909.8 MHz, 10GHz to 20GHz

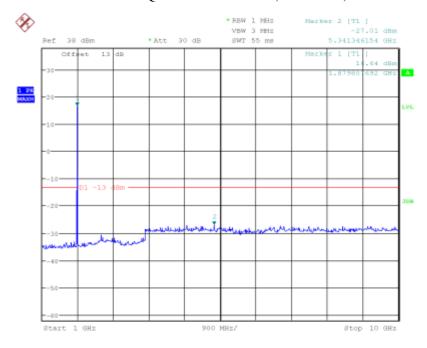
### Report No.:B19W50074-WWAN\_Rev3

#### 5.3.3 WCDMA Band 2 Conducted Spurious Emission Results



Date: 12.MAR.2019 10:46:55

#### WCDMA Band 2 QPSK Middle Channel, 1880 MHz, 30MHz to 1GHz



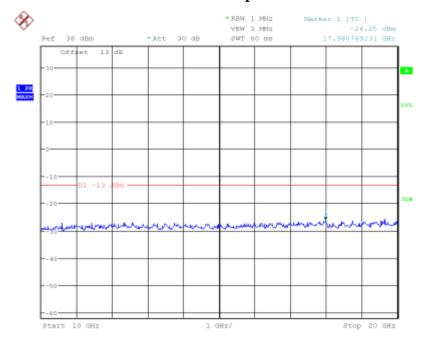
Date: 12.MAR.2019 10:47:41

WCDMA Band 2 QPSK Middle Channel, 1880 MHz, 1GHz to 10GHz

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

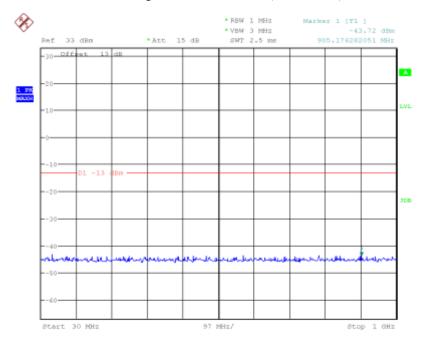
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 10:48:07

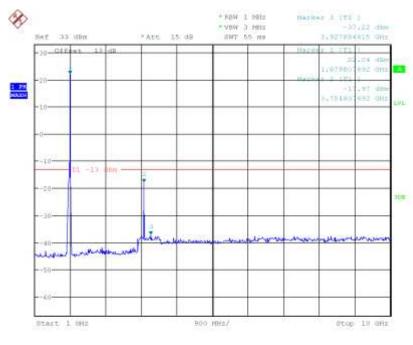
#### WCDMA Band 2 QPSK Middle Channel, 1880 MHz, 10GHz to 20GHz



Date: 16.APR.2019 06:07:34

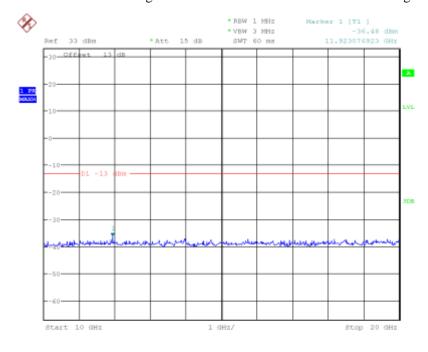
WCDMA Band 2 16QAM Middle Channel, 1880 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 16.APR.2019: 06:08:36

WCDMA Band 2 16QAM Middle Channel, 1880 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

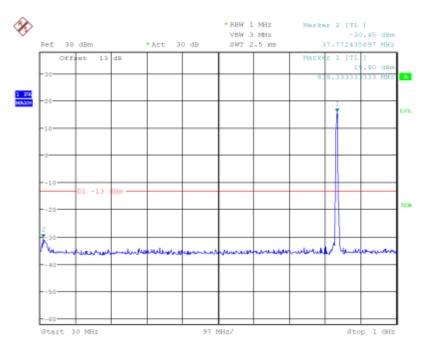


Date: 16.APR.2019 06:08:54

WCDMA Band 2 16QAM Middle Channel, 1880 MHz, 10GHz to 20GHz

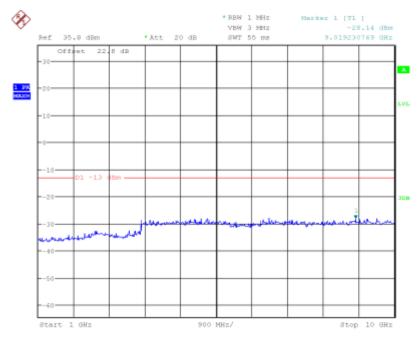
### Report No.:B19W50074-WWAN\_Rev3

#### 5.3.4 WCDMA Band 5 Conducted Spurious Emission Results



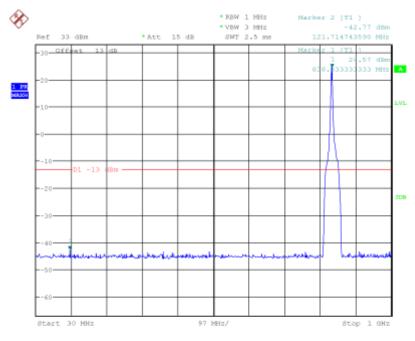
Date: 12.MAR.2019 10:49:30

WCDMA Band 5 QPSK Middle Channel, 836.4 MHz, 30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



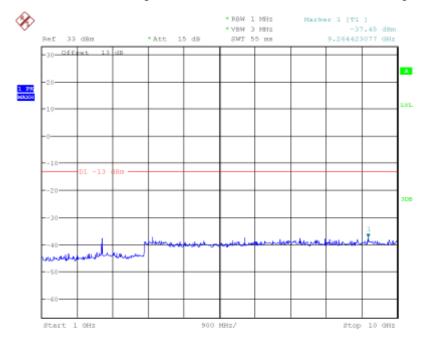
Date: 23.007.2018 09:40:02

### Report No.:B19W50074-WWAN\_Rev3



Date: 16.APR.2019 06:11:18

WCDMA Band 5 16QAM Middle Channel, 836.4 MHz, 30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.

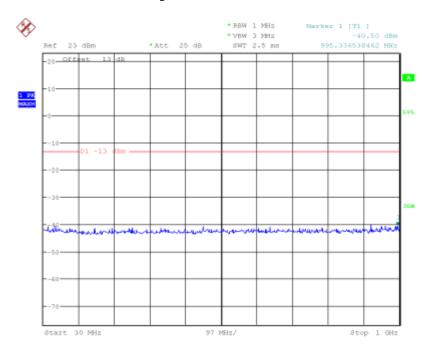


Date: 16.APR.2019 06:11:35

WCDMA Band 5 16QAM Middle Channel, 836.4 MHz, 1GHz to 10GHz

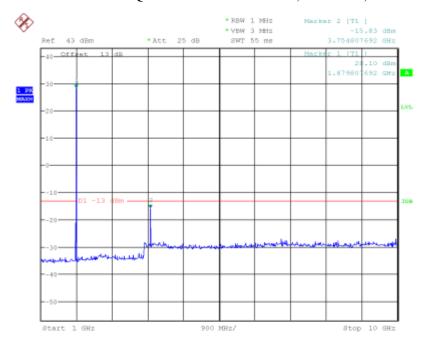
### Report No.:B19W50074-WWAN\_Rev3

#### **5.3.5 LTE B2 Conducted Spurious Emission Results**



Date: 12.MAR.2019 09:22:44

#### 1.4MHz bandwidth QPSK Mode Middle channel, 1880 MHz, 30MHz to 1GHz



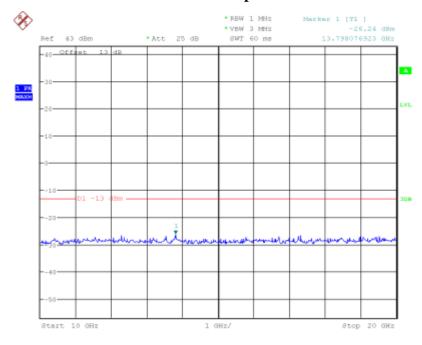
Date: 12.MAR.2019 09:23:26

1.4MHz bandwidth QPSK Middle channel, 1880MHz,1GHz to 10GHz

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

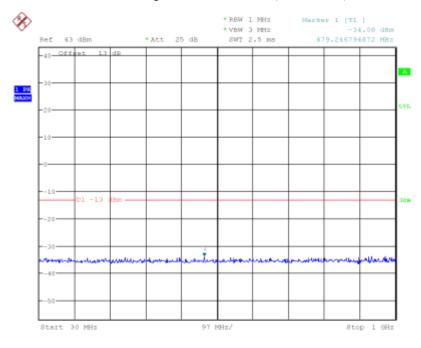
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:23:52

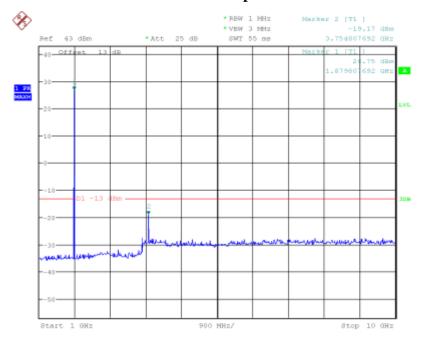
#### 1.4MHz bandwidth QPSK Middle channel, 1880 MHz,10GHz to 20GHz



Date: 12.MAR.2019 09:25:15

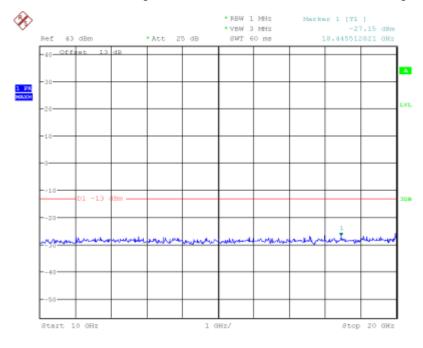
3MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:24:47

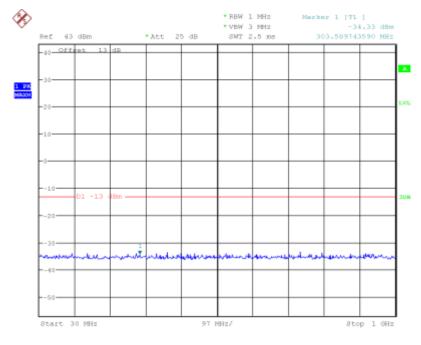
3MHz bandwidth QPSK Middle Channel, 1880 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:24:21

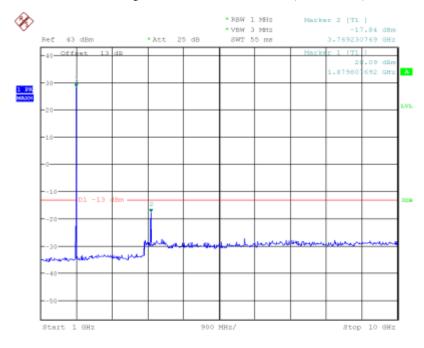
3MHz bandwidth QPSK Middle Channel, 1880 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:25:58

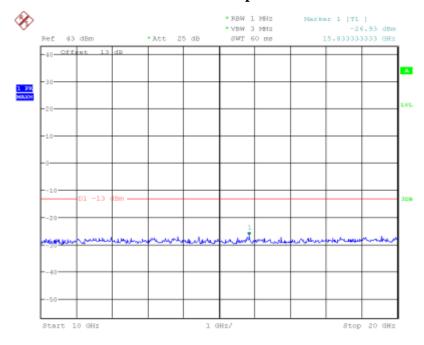
#### 5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz,30MHz to 1GHz



Date: 12.NAR.2019 09:26:24

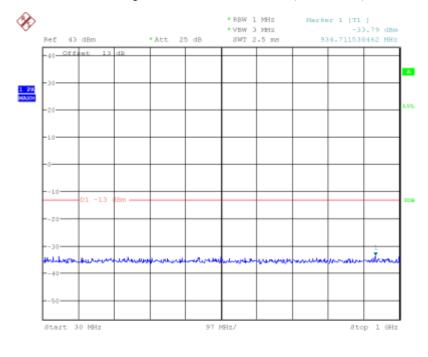
5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:26:49

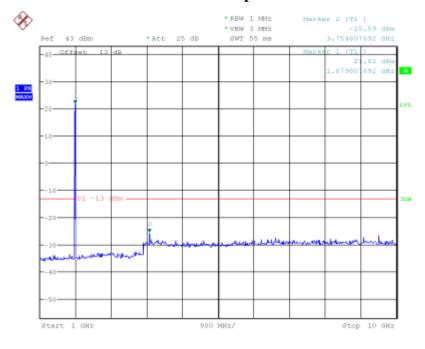
#### 5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz,10GHz to 20GHz



Date: 12.MAR.2019 09:28:09

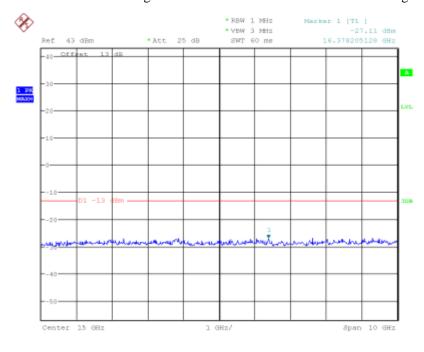
10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:27:46

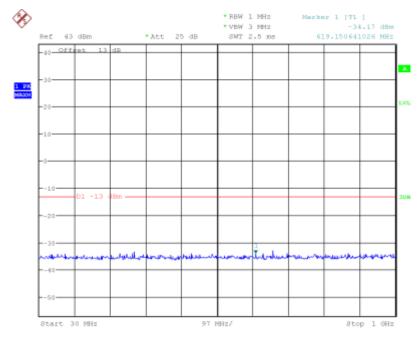
10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:27:16

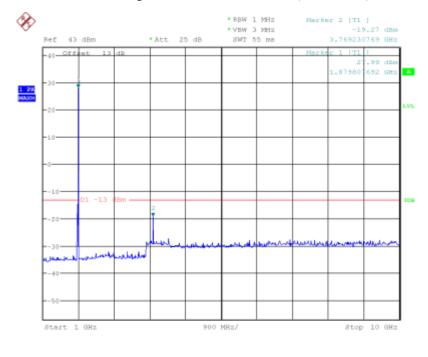
10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:28:37

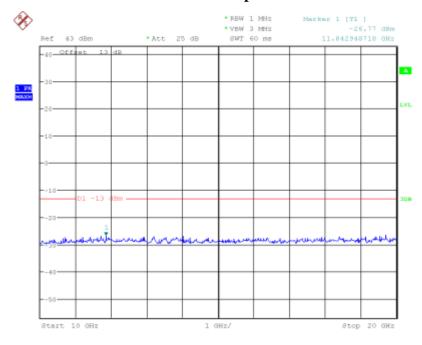
#### 15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz



Date: 12.MAR.2019 09:29:03

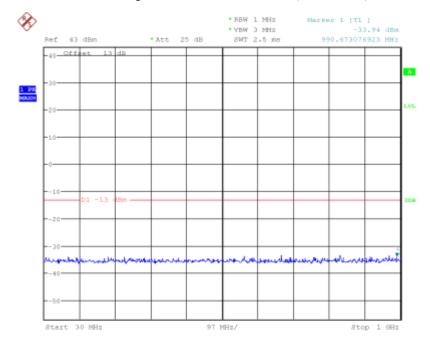
15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:29:33

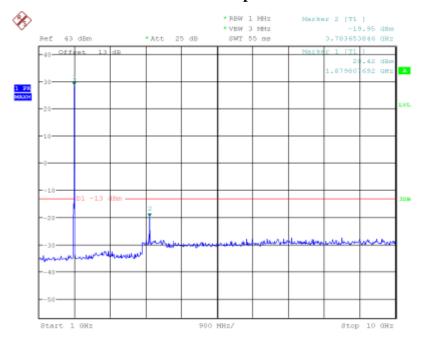
#### 15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz



Date: 12.MAR.2019 09:35:06

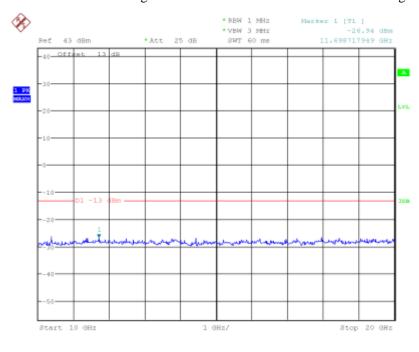
20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:34:42

20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

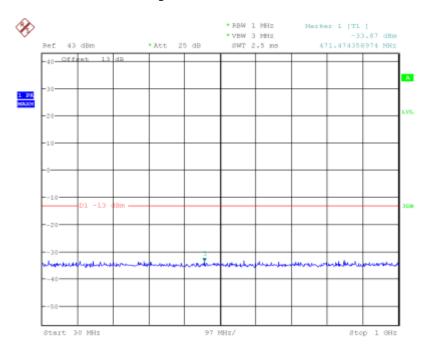


Date: 12.MAR.2019 09:34:14

20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz

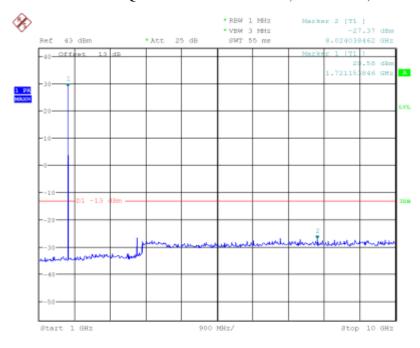
### Report No.:B19W50074-WWAN\_Rev3

#### **5.3.6 LTE B4 Conducted Spurious Emission Results**



Date: 12.MAR.2019 09:37:04

#### 1.4MHz bandwidth QPSK Mode Middle channel, 1732.5 MHz, 30MHz to 1GHz



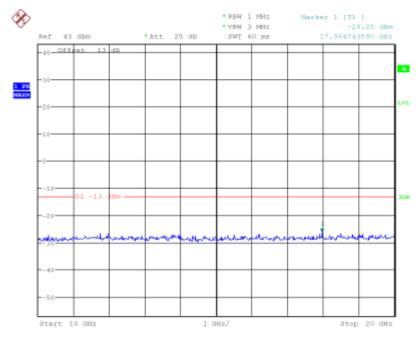
Date: 12.MAR.2019 09:38:35

1.4MHz bandwidth QPSK Middle channel, 1732.5MHz,1GHz to 10GHz

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

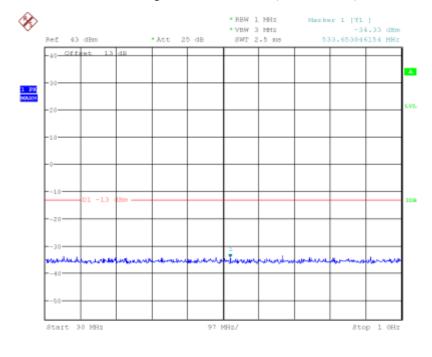
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:39:20

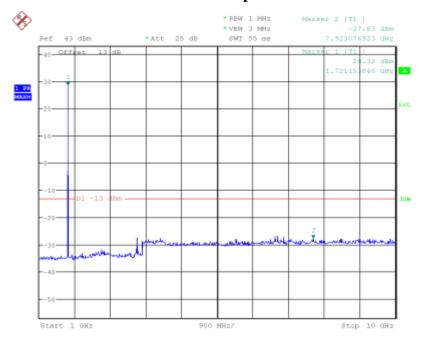
#### 1.4MHz bandwidth QPSK Middle channel, 1732.5 MHz,10GHz to 20GHz



Date: 12.MAR.2019 09:41:11

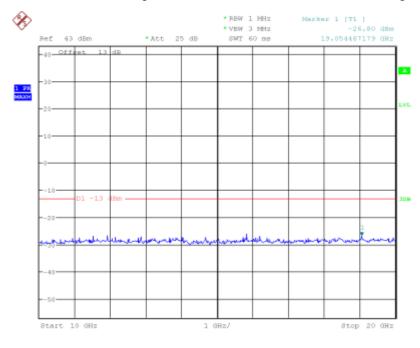
3MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:40:47

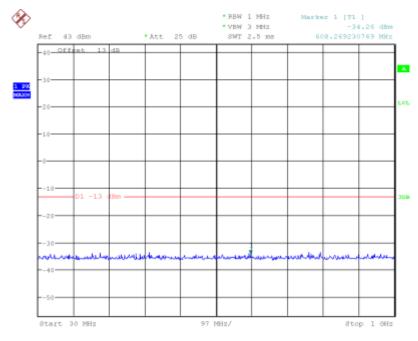
3MHz bandwidth QPSK Middle Channel, 1732.5 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:39:42

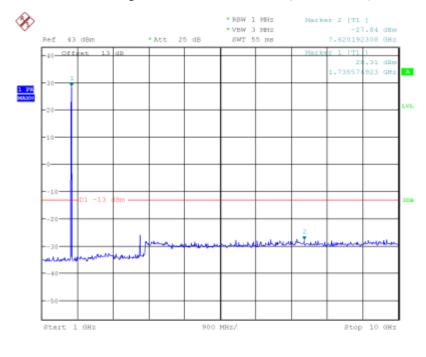
3MHz bandwidth QPSK Middle Channel, 1732.5 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:45:34

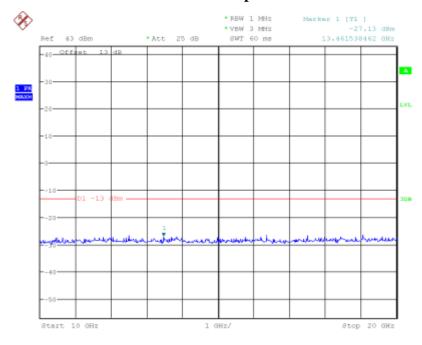
#### 5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,30MHz to 1GHz



Date: 12.MAR.2019 09:46:03

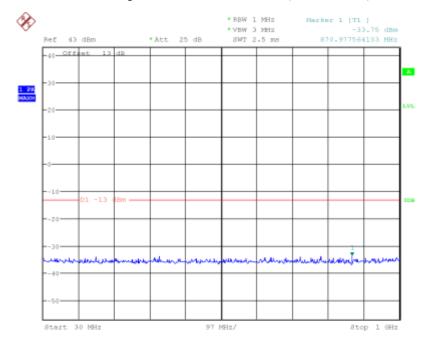
5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:46:38

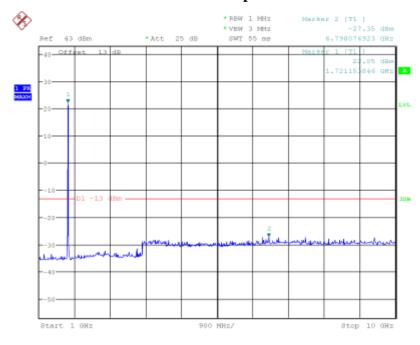
#### 5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,10GHz to 20GHz



Date: 12.MAR.2019 09:48:14

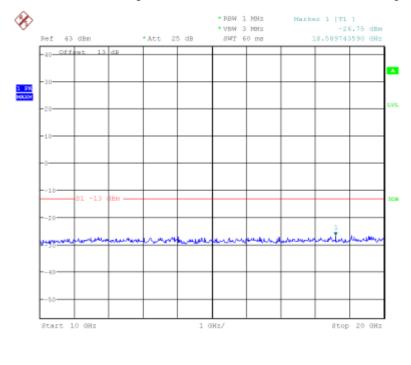
10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:47:47

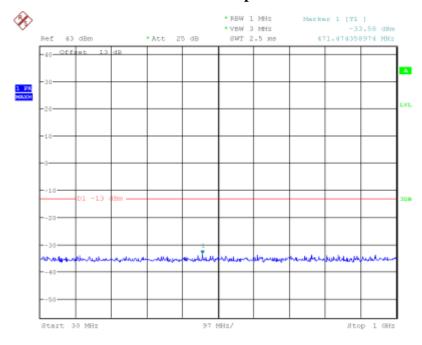
10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:47:17

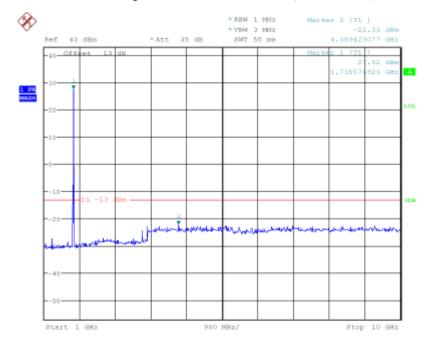
10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:48:57

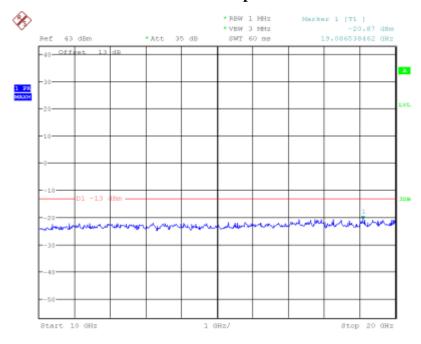
#### 15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz



Date: 12.MAR.2019 09:51:14

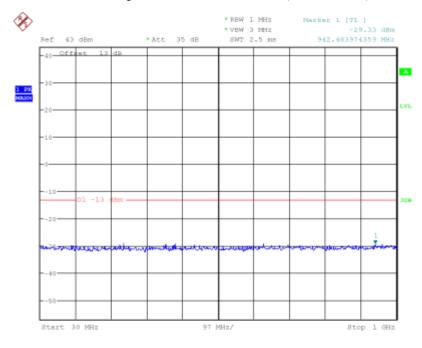
15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:51:48

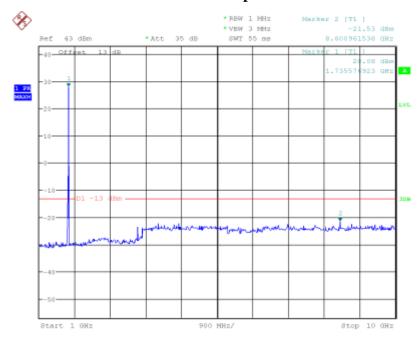
#### 15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz



Date: 12.MAR.2019 09:53:08

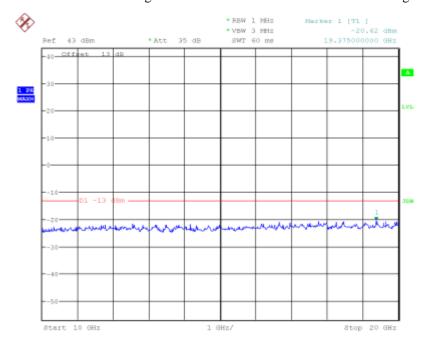
20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:52:42

20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

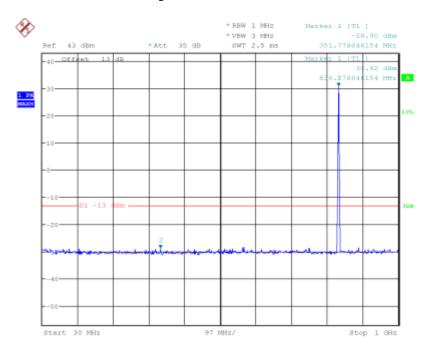


Date: 12.MAR.2019 09:52:13

20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz

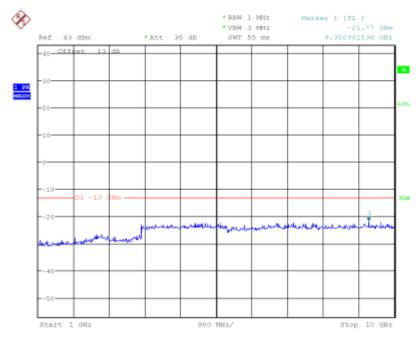
### Report No.:B19W50074-WWAN\_Rev3

#### **5.3.7 LTE B5 Conducted Spurious Emission Results**



Date: 12.MAR.2019 09:56:11

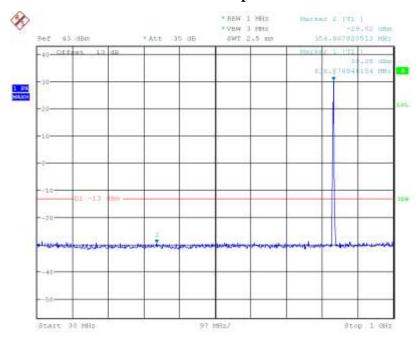
1.4MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:56:44

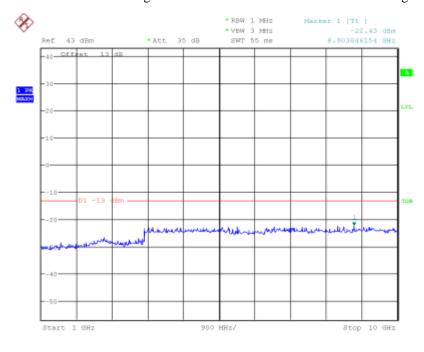
1.4MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 09:58:17

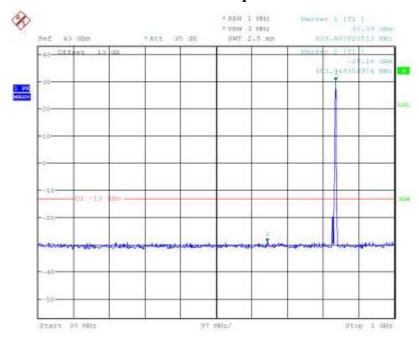
3MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:58:43

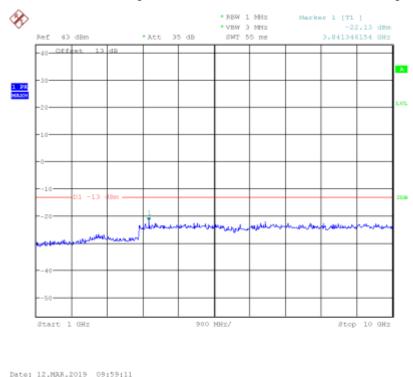
3MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz

### Report No.:B19W50074-WWAN\_Rev3



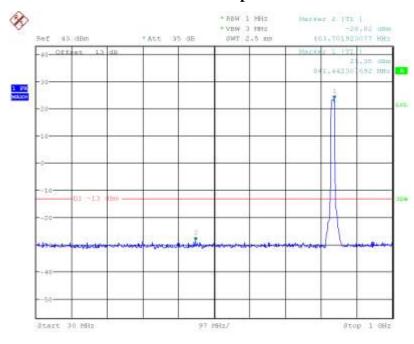
Date: 12.MAR.2019 09:59:58

5MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



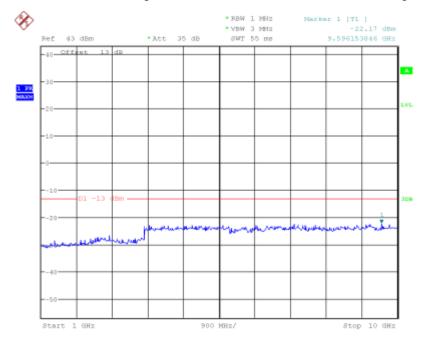
5MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz, 1GHz to 10GHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 18:81:03

10MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.

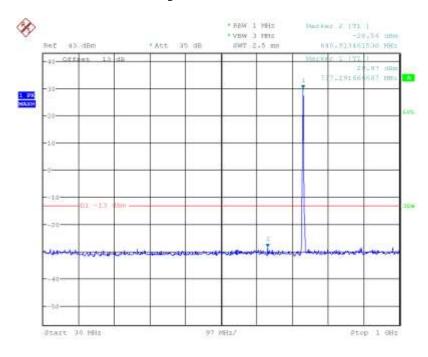


Date: 12.MAR.2019 10:01:32

10MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz

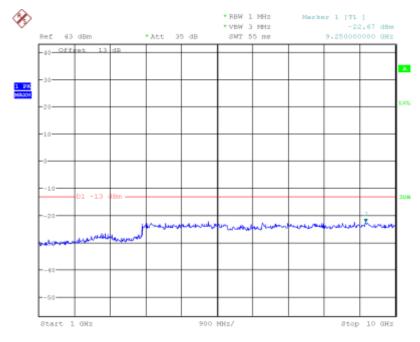
## Report No.:B19W50074-WWAN\_Rev3

### **5.3.8 LTE B28 Conducted Spurious Emission Results**



Date: 12.MAR.2019 10:12:21

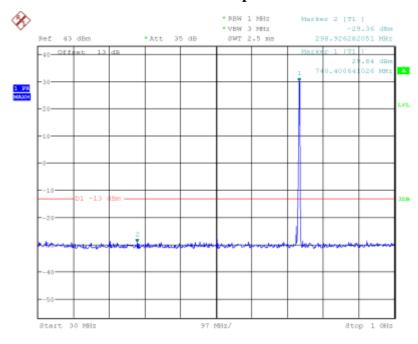
3MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 10:09:37

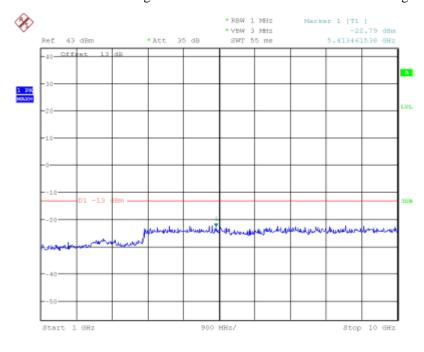
3MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz, 1GHz to 10GHz
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

## Report No.:B19W50074-WWAN\_Rev3



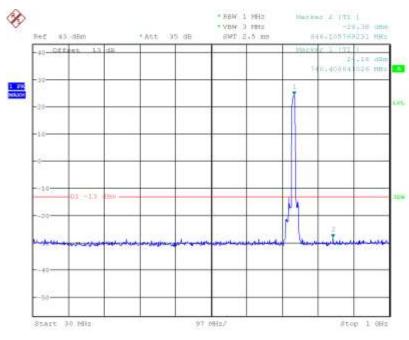
Date: 12.MAR.2019 10:11:39

5MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



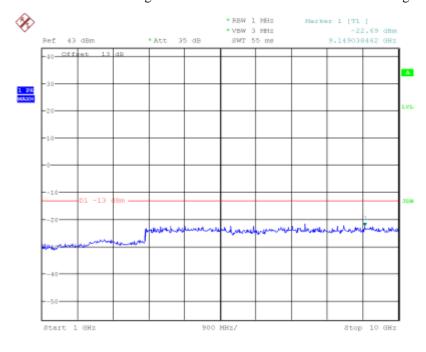
Date: 12.MAR.2019 10:10:43

## Report No.:B19W50074-WWAN\_Rev3



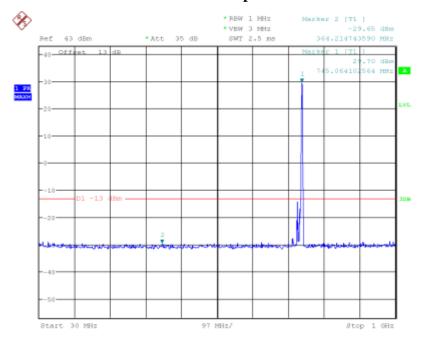
Date: 12.MAR.2019 10:13:27

10MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz,30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



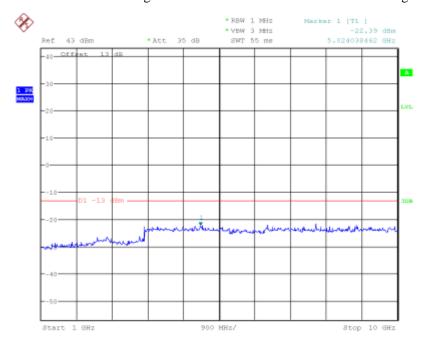
Date: 12.MAR.2019 10:13:59

## Report No.:B19W50074-WWAN\_Rev3



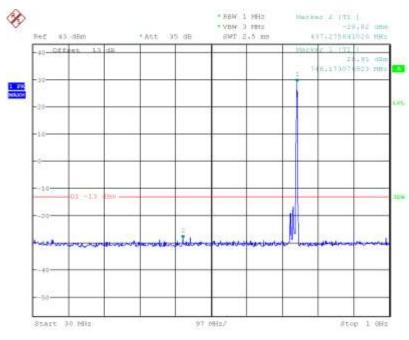
Date: 12.MAR.2019 10:16:06

15MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz, 30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



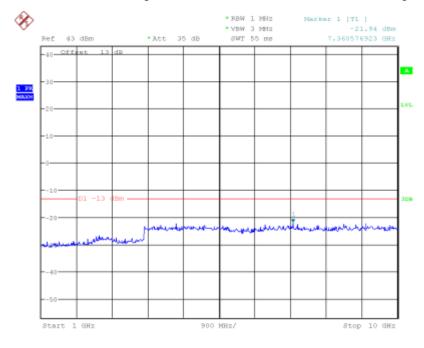
Date: 12.MAR.2019 10:15:26

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 18:16:49

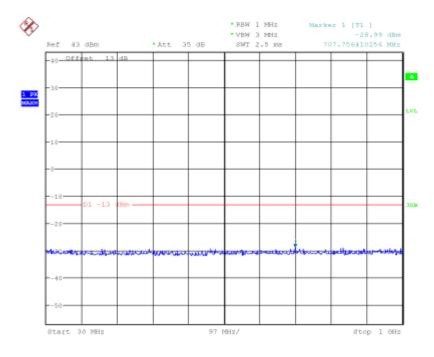
20MHz bandwidth QPSK Mode Middle Channel, 725.5 MHz, 30MHz to 1GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 10:17:18

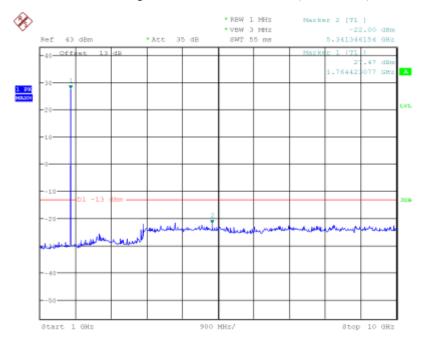
## Report No.:B19W50074-WWAN\_Rev3

### **5.3.9 LTE B66 Conducted Spurious Emission Results**



Date: 12.MAR.2019 10:19:27

#### 1.4MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,30MHz to 1GHz



Date: 12.MAR.2019 10:19:02

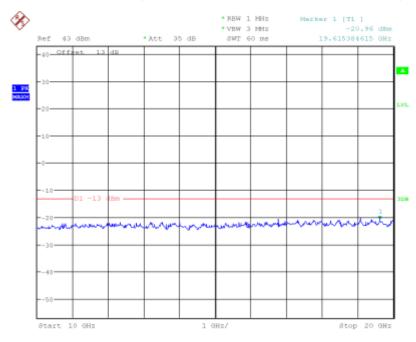
1.4MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965

FAX: 0086-23-88608777

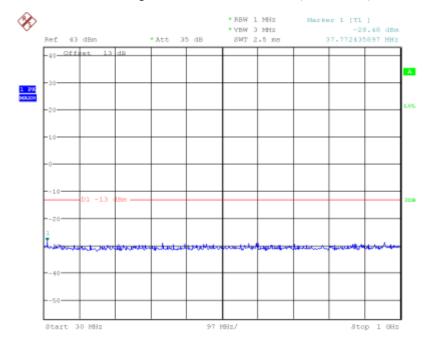
## Report No.:B19W50074-WWAN\_Rev3

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



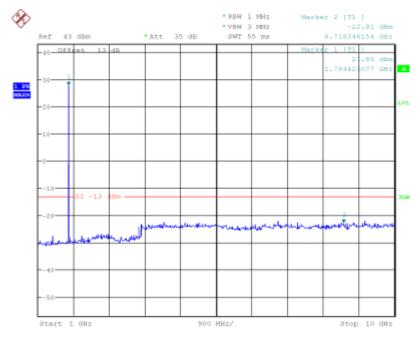
Date: 12.MAR.2019 10:18:37

#### 1.4MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,10GHz to 20GHz



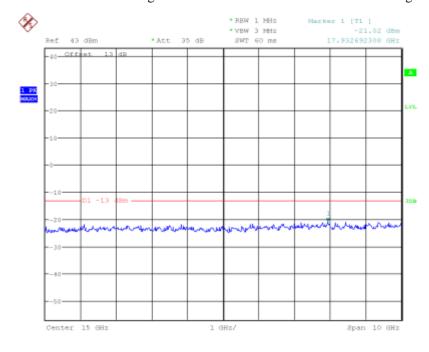
Date: 12.MAR.2019 10:19:50

## Report No.:B19W50074-WWAN\_Rev3



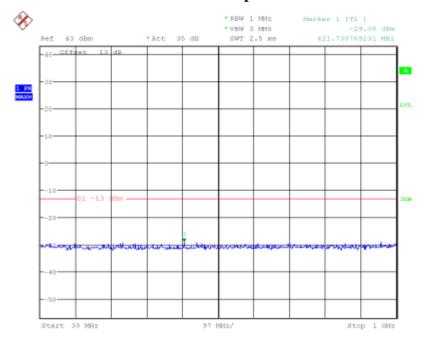
Date: 12.MAR.2019 10:20:18

3MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



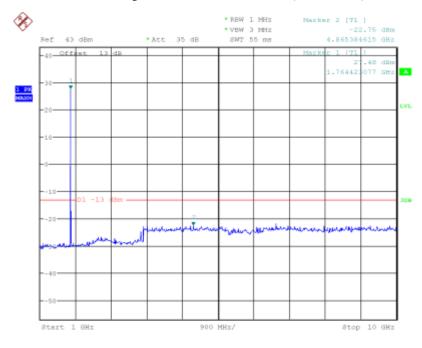
Date: 12.MAR.2019 10:20:45

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 10:22:04

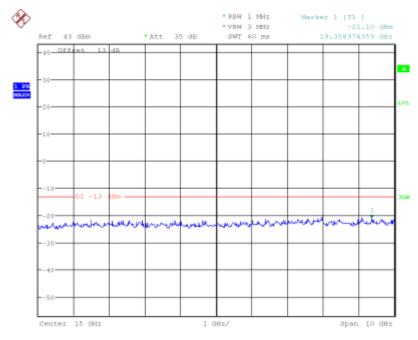
#### 5MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,30MHz to 1GHz



Date: 12.MAR.2019 10:21:35

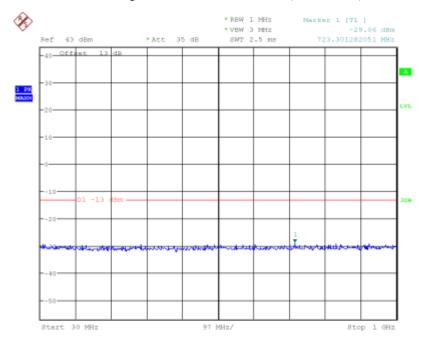
5MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

## Report No.:B19W50074-WWAN\_Rev3



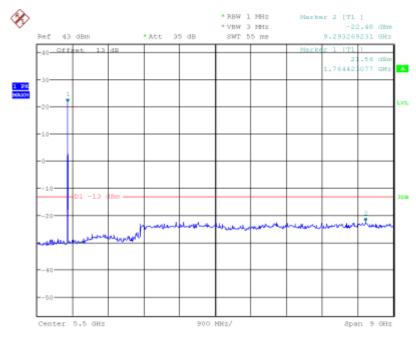
Date: 12.MAR.2019 10:21:05

#### 5MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,10GHz to 20GHz



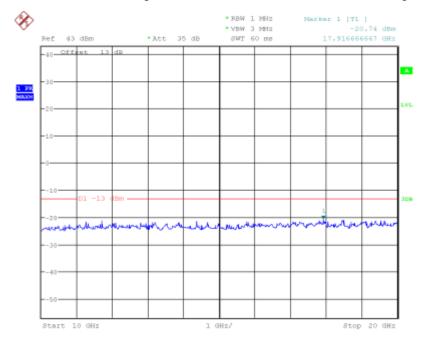
Date: 12.MAR.2019 10:22:28

## Report No.:B19W50074-WWAN\_Rev3



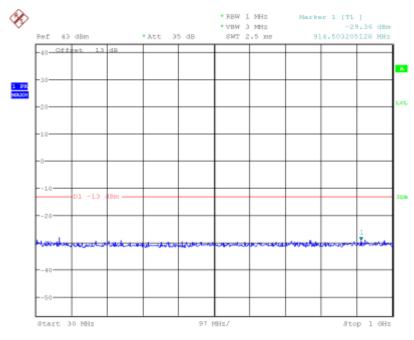
Date: 12.MAR.2019 10:23:02

10MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



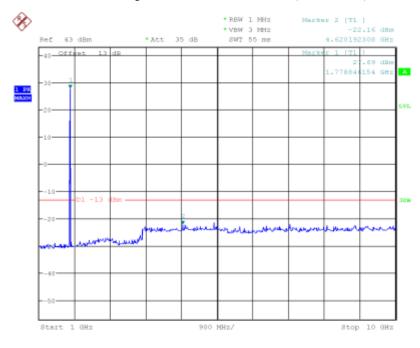
Date: 12.MAR.2019 10:23:30

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 10:25:00

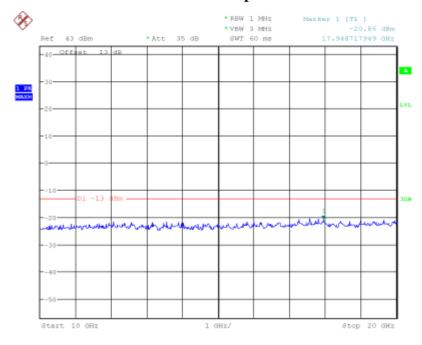
#### 15MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,30MHz to 1GHz



Date: 12.MAR.2019 10:24:29

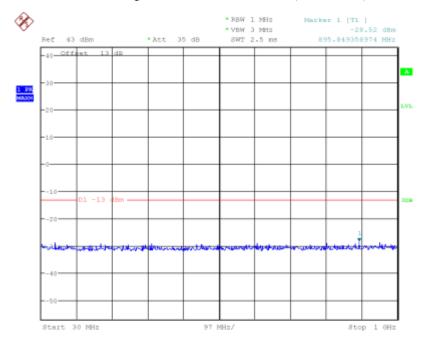
15MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.

## Report No.:B19W50074-WWAN\_Rev3



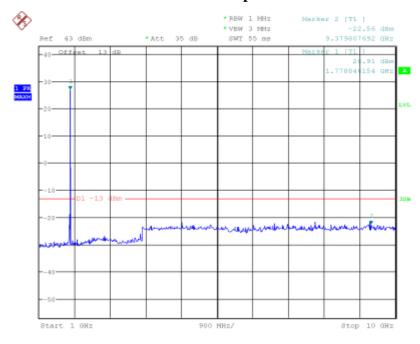
Date: 12.MAR.2019 10:23:54

#### 15MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,10GHz to 20GHz



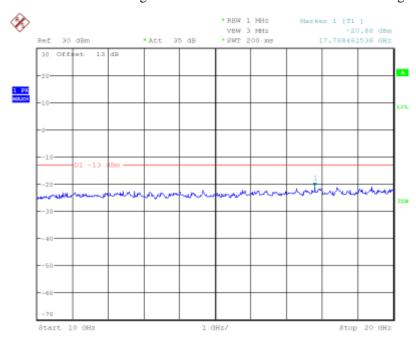
Date: 12.MAR.2019 10:25:26

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 10:25:57

20MHz bandwidth QPSK Mode Middle Channel, 1745 MHz,1GHz to 10GHz Note: The strong emission shown in each case is the carrier signal.



Date: 12.MAR.2019 09:36:17

### Report No.:B19W50074-WWAN\_Rev3

#### **5.4 Radiated Spurious Emission**

Specifications:	FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53
DUT Serial Number:	868020030259252
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

#### **Limit Level Construction:**

According to Part 22.917 (a), i.e., 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.

According to Part 24.238 (a), i.e., 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:  $P(dBm) - (43 + 10 \log(P))$  dB= -13dBm.

#### According to Part 27.53(h):

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 Bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log 10$  (P) dB.

#### According to Part 27.53(g):

For operations in the 600 MHz Band and the 698-746 MHz Band, the power of any emission outside a 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, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution Bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz Bands immediately outside and adjacent to a licensee's frequency block, a resolution Bandwidth of at least 30 kHz may be employed.

Limits for Radiated spurious emissions(UE)					
Frequency range Limit Level /Resolution Bandwidth					
30 MHz to 20000 MHz	-13dBm/1MHz				

### **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:**

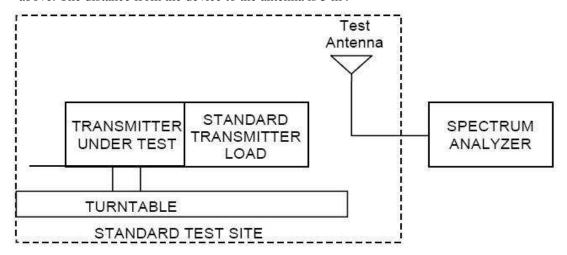
The measurement method is substitution method accordance with section 2.2.12 of

ANSI/TIA-603-D: Land Mobile FM or PM Communications Equipment Measurement and

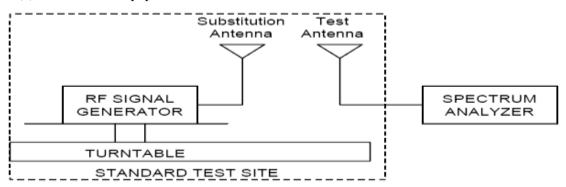
### Report No.:B19W50074-WWAN Rev3

Performance Standards.

(a) Connect the equipment as illustrated and measure the spurious emissions as the method as above. The distance from the device to the antenna is 3 m.



(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:

#### $P_d(dBm) = P_g(dBm) - cable loss (dB) + antenna gain (dB)$

## Report No.:B19W50074-WWAN\_Rev3

where:

Pd is the dipole equivalent power and Pg is the generator output power into the substitution antenna.

## 5.4.1 GSM850 GMSK Radiated Spurious Emission Results

Test Data (GMSK Mode channel 128)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1648.4	-63.2	4.8	7.3	-60.7	V
2472.6	-52.0	6.0	6.8	-51.2	V
3296.8	-53.5	6.7	8.9	-51.3	V
4121.0	-52.5	7.6	9.2	-50.9	V
4945.2	-50.4	7.7	9.9	-48.2	V
5769.4	-57.6	1.5	10.5	-48.6	V

#### Test Data (GMSK Mode channel 190)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1672.8	-64.8	4.7	7.3	-62.2	V
2509.2	-53.4	5.9	6.7	-52.6	V
3345.6	-53.9	6.8	8.9	-51.8	V
4182.0	-52.4	7.8	9.2	-51.0	V
5018.4	-52.0	7.5	9.9	-49.6	V
5854.8	-58.5	1.1	10.5	-49.1	V

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Test Data (GMSK Mode channel 251)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1697.6	-66.3	4.8	8.0	-63.1	V
2546.4	-54.2	5.9	6.9	-53.2	V
3395.2	-54.7	6.9	8.9	-52.7	V
4244.0	-53.5	7.8	9.2	-52.1	V
5092.8	-53.8	6.8	9.9	-50.7	V
5941.6	-58.7	1.4	10.9	-49.2	V

### **5.4.2 GSM850 8PSK Radiated Spurious Emission Results**

Test Data (8PSK Mode channel 128)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1648.4	-62.7	4.8	7.3	-60.2	V
2472.6	-53.5	6.0	6.8	-52.7	V
3296.8	-54.7	6.7	8.9	-52.5	V
4121.0	-52.7	7.6	9.2	-51.1	V
4945.2	-51.6	7.7	9.9	-49.4	V
5769.4	-57.1	1.5	10.5	-48.1	V

## Report No.:B19W50074-WWAN\_Rev3

Test Data (8PSK Mode channel 190)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1672.8	-65.8	4.7	7.3	-63.2	V
2509.2	-53.9	5.9	6.7	-53.1	V
3345.6	-53.3	6.8	8.9	-51.2	V
4182.0	-52.6	7.8	9.2	-51.2	V
5018.4	-52.1	7.5	9.9	-49.7	V
5854.8	-59.6	1.1	10.5	-50.2	V

### Test Data (8PSK Mode channel 251)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1697.6	-66.9	4.8	8.0	-63.7	V
2546.4	-55.8	5.9	6.9	-54.8	V
3395.2	-55.7	6.9	8.9	-53.7	V
4244.0	-54.5	7.8	9.2	-53.1	V
5092.8	-54.8	6.8	9.9	-51.7	V
5941.6	-59.7	1.4	10.9	-50.2	V

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## **5.4.3 PCS1900 GMSK Radiated Spurious Emission Results**

**Test Data** (GMSK Mode channel 512)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.4	-53.0	7.2	8.9	-51.3	V
5550.6	-59.2	2.0	10.5	-50.7	V
7400.8	-61.6	0.9	11.9	-50.6	V
9251.0	-59.2	1.0	11.5	-48.7	V
11101.2	-61.5	0.3	12.1	-49.7	V
12951.4	-58.6	0.4	12.4	-46.6	V

### **Test Data** (GMSK Mode channel 661)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-52.5	7.3	8.9	-50.9	V
5640.0	-57.5	1.8	10.5	-48.8	V
7520.0	-58.3	0.9	11.9	-47.3	V
9400.0	-57.1	0.8	11.8	-46.1	V
11280.0	-57.3	0.3	12.1	-45.5	V
13160.0	-56.3	0.4	12.4	-44.3	V

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Test Data (GMSK Mode channel 810)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3819.6	-53.5	7.4	9.2	-51.7	V
5729.4	-59.2	1.5	10.5	-50.2	V
7639.2	-58.2	1.1	11.9	-47.4	V
9549.0	-59.0	0.9	11.8	-48.1	V
11458.8	-61.6	0.8	12.2	-50.2	V
13368.6	-55.2	0.4	12.4	-43.2	V

## **5.4.4 PCS 1900 8PSK Radiated Spurious Emission Results**

Test Data (8PSK Mode channel 512)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.4	-54.1	7.2	8.9	-52.4	V
5550.6	-60.2	2.0	10.5	-51.7	V
7400.8	-62.2	0.9	11.9	-51.2	V
9251.0	-60.6	1.0	11.5	-50.1	V
11101.2	-62.1	0.3	12.1	-50.3	V
12951.4	-59.7	0.4	12.4	-47.7	V

## Report No.:B19W50074-WWAN\_Rev3

Test Data (8PSK Mode channel 661)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-52.3	7.3	8.9	-50.7	V
5640.0	-57.8	1.8	10.5	-49.1	V
7520.0	-60.7	0.9	11.9	-49.7	V
9400.0	-58.9	0.8	11.8	-47.9	V
11280.0	-57.5	0.3	12.1	-45.7	V
13160.0	-58.2	0.4	12.4	-46.2	V

### Test Data (8PSK Mode channel 810)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3819.6	-54.6	7.4	9.2	-52.8	V
5729.4	-60.1	1.5	10.5	-51.1	V
7639.2	-59.5	1.1	11.9	-48.7	V
9549.0	-57.6	0.9	11.8	-46.7	V
11458.8	-61.5	0.8	12.2	-50.1	V
13368.6	-56.2	0.4	12.4	-44.2	V

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### **5.4.5 WCDMA B2 Radiated Spurious Emission Results**

Test Data (QPSK Mode channel 9262)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3704.8	-54.4	7.2	8.9	-52.7	V
5557.2	-70.9	2.0	10.5	-62.4	V
7409.6	-73.5	0.9	11.9	-62.5	V
9262.0	-72.0	1.0	11.5	-61.5	V
11114.4	-72.2	0.4	12.1	-60.5	V
12966.8	-71.9	0.4	12.4	-59.9	V

### Test Data (QPSK Mode channel 9400)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-53.9	7.4	8.9	-52.4	V
5640.0	-71.4	1.8	10.5	-62.7	V
7520.0	-73.2	0.9	11.9	-62.2	V
9400.0	-72.7	0.8	11.8	-61.7	V
11280.0	-73.2	0.3	12.1	-61.4	V
13160.0	-72.2	0.4	12.4	-60.2	V

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Test Data (QPSK Mode channel 9538)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3815.2	-55.5	7.4	9.2	-53.7	V
5722.8	-70.7	1.5	10.5	-61.7	V
7630.4	-72.4	0.8	11.9	-61.3	V
9538.0	-71.8	0.9	11.8	-60.9	V
11445.6	-72.1	0.8	12.2	-60.7	V
13353.2	-72.3	0.4	12.4	-60.3	V

### Test Data (16QAM Mode channel 9262)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3704.8	-60.5	7.2	8.9	-58.8	V
5557.2	-70.4	2.0	10.5	-61.9	V
7409.6	-73.7	0.9	11.9	-62.7	V
9262.0	-71.3	1.0	11.5	-60.8	V
11114.4	-71.3	0.4	12.1	-59.6	V
12966.8	-72.1	0.4	12.4	-60.1	V

#### Test Data (16QAM Mode channel 9400)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3704.8	-60.5	7.2	8.9	-58.8	V
5557.2	-70.4	2.0	10.5	-61.9	V
7409.6	-73.7	0.9	11.9	-62.7	V
9262.0	-71.3	1.0	11.5	-60.8	V
11114.4	-71.3	0.4	12.1	-59.6	V

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12966.8	-72.1	0.4	12.4	-60.1	V

### Test Data (16QAM Mode channel 9538)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3815.2	-66.8	7.4	9.2	-65.0	V
5722.8	-72.1	1.5	10.5	-63.1	V
7630.4	-73.1	0.8	11.9	-62.0	V
9538.0	-71.3	0.9	11.8	-60.4	V
11445.6	-72.6	0.8	12.2	-61.2	V
13353.2	-71.9	0.4	12.4	-59.9	V

## 5.4.6 WCDMA B5 Radiated Spurious Emission Results

### Test Data (QPSK Mode channel 4132)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1652.8	-61.2	4.8	7.3	-58.7	Н
2479.2	-55.3	6.0	6.8	-54.5	Н
3305.6	-67.3	6.7	8.9	-65.1	V
4132.0	-66.2	7.6	9.2	-64.6	V
4958.4	-64.7	7.7	9.9	-62.5	V
5784.8	-72.7	1.5	10.5	-63.7	V

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Test Data (QPSK Mode channel 4182)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1672.8	-63.3	4.7	7.3	-60.7	V
2509.2	-54.5	5.9	6.7	-53.7	V
3345.6	-64.4	6.8	8.9	-62.3	V
4182.0	-65.5	7.8	9.2	-64.1	V
5018.4	-65.1	7.5	9.9	-62.7	V
5854.8	-71.7	1.1	10.5	-62.3	V

### Test Data (QPSK Mode channel 4233)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1693.2	-62.9	4.8	8.0	-59.7	V
2539.8	-56.3	5.9	6.9	-55.3	V
3386.4	-64.7	6.9	8.9	-62.7	V
4233.0	-65.3	7.8	9.2	-63.9	V
5079.6	-66.2	6.8	9.9	-63.1	V
5926.2	-73.7	1.4	10.9	-64.2	V

### Test Data (16QAM Mode channel 4132)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1652.8	-62.8	4.8	7.3	-60.3	Н
2479.2	-61.8	6.0	6.8	-61.0	Н
3305.6	-67.9	6.7	8.9	-65.7	V
4132.0	-65.6	7.6	9.2	-64.0	V

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4958.4	-65.4	7.7	9.9	-63.2	V
5784.8	-72.0	1.5	10.5	-63.0	V

### Test Data (16QAM Mode channel 4182)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1672.8	-62.4	4.7	7.3	-59.8	V
2509.2	-63.8	5.9	6.7	-63.0	Н
3345.6	-67.9	6.8	8.9	-65.8	V
4182.0	-65.2	7.8	9.2	-63.8	V
5018.4	-65.4	7.5	9.9	-63.0	V
5854.8	-72.5	1.1	10.5	-63.1	V

### Test Data (16QAM Mode channel 4233)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1693.2	-54.9	4.8	8.0	-51.7	V
2539.8	-78.1	5.9	6.9	-77.1	V
3386.4	-67.8	6.9	8.9	-65.8	V
4233.0	-65.7	7.8	9.2	-64.3	V
5079.6	-67.2	6.8	9.9	-64.1	V
5926.2	-73.0	1.4	10.9	-63.5	V

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### **5.4.7 LTE B2 Radiated Spurious Emission Results**

Test Data (1.4MHz bandwidth 18607 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3701.4	-67.3	7.2	8.9	-65.6	V
5552.1	-71.2	2.5	10.5	-63.2	V
7402.8	-73.3	0.9	11.9	-62.3	V
9253.5	-71.3	1.0	11.5	-60.8	V
11104.2	-72.4	0.3	12.1	-60.6	V
12954.9	-72.5	0.4	12.4	-60.5	V

Test Data (1.4MHz bandwidth 18607 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3701.4	-67.6	7.2	8.9	-65.9	V
5552.1	-71.7	2.5	10.5	-63.7	V
7402.8	-72.6	0.9	11.9	-61.6	V
9253.5	-71.4	1.0	11.5	-60.9	V
11104.2	-72.0	0.3	12.1	-60.2	V
12954.9	-72.1	0.4	12.4	-60.1	V

Test Data (1.4MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.5	7.3	8.9	-64.9	V
5640.0	-72.2	1.8	10.5	-63.5	V
7520.0	-72.3	0.9	11.9	-61.3	V
9400.0	-71.5	0.8	11.8	-60.5	V

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11280.0	-72.5	0.3	12.1	-60.7	V
13160.0	-72.4	0.4	12.4	-60.4	V

Test Data (1.4MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.0	7.3	8.9	-64.4	V
5640.0	-71.6	1.8	10.5	-62.9	V
7520.0	-72.2	0.9	11.9	-61.2	V
9400.0	-71.2	0.8	11.8	-60.2	V
11280.0	-72.9	0.3	12.1	-61.1	V
13160.0	-72.4	0.4	12.4	-60.4	V

Test Data (1.4MHz bandwidth 19192 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3818.4	-65.9	7.4	9.2	-64.1	V
5727.6	-72.2	1.5	10.5	-63.2	V
7636.8	-72.2	1.1	11.9	-61.4	V
9546.0	-71.3	0.9	11.8	-60.4	V
11455.2	-72.9	0.3	12.2	-61.0	V
13364.4	-72.3	0.4	12.4	-60.3	V

Test Data (1.4MHz bandwidth 19192 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3818.4	-64.1	7.4	9.2	-62.3	V
5727.6	-75.4	1.5	10.5	-66.4	V
7636.8	-69.4	1.1	11.9	-58.6	V
9546.0	-71.9	0.9	11.8	-61.0	V

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11455.2	-79.2	0.3	12.2	-67.3	V
13364.4	-73.2	0.4	12.4	-61.2	V

### Test Data (3MHz bandwidth 18615 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3703.0	-67.1	7.2	8.9	-65.4	V
5554.5	-70.9	2.0	10.5	-62.4	V
7406.0	-72.2	0.9	11.9	-61.2	V
9257.5	-71.7	1.0	11.5	-61.2	V
11109.0	-72.9	0.4	12.1	-61.2	V
12960.5	-72.5	0.4	12.4	-60.5	V

### Test Data (3MHz bandwidth 18615 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3703.0	-66.1	7.2	8.9	-64.4	V
5554.5	-71.0	2.0	10.5	-62.5	V
7406.0	-73.3	0.9	11.9	-62.3	V
9257.5	-71.1	1.0	11.5	-60.6	V
11109.0	-72.9	0.4	12.1	-61.2	V
12960.5	-71.9	0.4	12.4	-59.9	V

## Test Data (3MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-63.9	7.3	8.9	-62.3	V
5640.0	-70.7	1.8	10.5	-62.0	V
7520.0	-72.7	0.9	11.9	-61.7	V
9400.0	-72.3	0.8	11.8	-61.3	V

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11280.0	-72.6	0.3	12.1	-60.8	V
13160.0	-72.2	0.4	12.4	-60.2	V

Test Data (3MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.3	7.3	8.9	-64.7	V
5640.0	-72.5	1.8	10.5	-63.8	V
7520.0	-73.1	0.9	11.9	-62.1	V
9400.0	-72.7	0.8	11.8	-61.7	V
11280.0	-73.0	0.3	12.1	-61.2	V
13160.0	-72.7	0.4	12.4	-60.7	V

Test Data (3MHz bandwidth 19184 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3816.4	-65.4	7.4	9.2	-63.6	V
5724.8	-72.3	1.4	10.5	-63.2	V
7633.2	-72.9	1.1	11.9	-62.1	V
9541.6	-71.8	0.9	11.8	-60.9	V
11450.0	-72.7	0.8	12.2	-61.3	V
13358.4	-72.3	0.4	12.4	-60.3	V

Test Data (3MHz bandwidth 19184 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3816.4	-67.6	7.4	9.2	-65.8	V
5724.8	-71.0	1.4	10.5	-61.9	V
7633.2	-72.0	1.1	11.9	-61.2	V
9541.6	-71.9	0.9	11.8	-61.0	V

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11450.0	-72.4	0.8	12.2	-61.0	V
13358.4	-72.3	0.4	12.4	-60.3	V

### Test Data (5MHz bandwidth 18625 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3705.0	-66.2	7.2	8.9	-64.5	V
5557.5	-71.0	2.5	10.5	-63.0	V
7410.0	-73.4	0.9	11.9	-62.4	V
9262.5	-71.7	1.0	11.5	-61.2	V
11115.0	-73.2	0.3	12.1	-61.4	V
12967.5	-72.5	0.4	12.4	-60.5	V

### Test Data (5MHz bandwidth 18625 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3705.0	-65.6	7.2	8.9	-63.9	V
5557.5	-70.3	2.5	10.5	-62.3	V
7410.0	-73.0	0.9	11.9	-62.0	V
9262.5	-70.9	1.0	11.5	-60.4	V
11115.0	-72.9	0.3	12.1	-61.1	V
12967.5	-72.0	0.4	12.4	-60.0	V

### Test Data (5MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.2	7.3	8.9	-64.6	V
5640.0	-72.4	1.8	10.5	-63.7	V
7520.0	-74.1	0.9	11.9	-63.1	V
9400.0	-73.6	0.8	11.8	-62.6	V

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11280.0	-74.4	0.3	12.1	-62.6	V
13160.0	-72.2	0.4	12.4	-60.2	V

Test Data (5MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-65.7	7.3	8.9	-64.1	V
5640.0	-72.9	1.8	10.5	-64.2	V
7520.0	-74.7	0.9	11.9	-63.7	V
9400.0	-74.1	0.8	11.8	-63.1	V
11280.0	-74.7	0.3	12.1	-62.9	V
13160.0	-73.2	0.4	12.4	-61.2	V

Test Data (5MHz bandwidth 19174 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3814.8	-66.6	7.4	9.2	-64.8	V
5722.2	-71.2	1.5	10.5	-62.2	V
7629.6	-72.9	0.8	11.9	-61.8	V
9537.0	-71.5	0.9	11.8	-60.6	V
11444.4	-72.6	0.8	12.2	-61.2	V
13351.8	-72.3	0.4	12.4	-60.3	V

Test Data (5MHz bandwidth 19174 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3814.8	-66.3	7.4	9.2	-64.5	V
5722.2	-71.4	1.5	10.5	-62.4	V
7629.6	-73.1	0.8	11.9	-62.0	V
9537.0	-71.5	0.9	11.8	-60.6	V

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11444.4	-72.6	0.8	12.2	-61.2	V
13351.8	-72	0.4	12.4	-60.0	V

Test Data (10MHz bandwidth 18650 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3710.0	-66.8	7.2	8.9	-65.1	V
5565.0	-71.7	2.0	10.5	-63.2	V
7420.0	-73.1	0.9	11.9	-62.1	V
9275.0	-71.4	1.0	11.5	-60.9	V
11130.0	-73.3	0.3	12.1	-61.5	V
12985.0	-72.5	0.4	12.4	-60.5	V

Test Data (10MHz bandwidth 18650 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3710.0	-67.1	7.2	8.9	-65.4	V
5565.0	-71.6	2.0	10.5	-63.1	V
7420.0	-73.5	0.9	11.9	-62.5	V
9275.0	-71.7	1.0	11.5	-61.2	V
11130.0	-72.5	0.3	12.1	-60.7	V
12985.0	-72	0.4	12.4	-60.0	V

Test Data (10MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-65.7	7.3	8.9	-64.1	V
5640.0	-72.4	1.8	10.5	-63.7	V
7520.0	-74.4	0.9	11.9	-63.4	V
9400.0	-73.4	0.8	11.8	-62.4	V

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11280.0	-73.7	0.3	12.1	-61.9	V
13160.0	-72.8	0.4	12.4	-60.8	V

#### Test Data (10MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-65.9	7.3	8.9	-64.3	V
5640.0	-72.5	1.8	10.5	-63.8	V
7520.0	-74.4	0.9	11.9	-63.4	V
9400.0	-73.7	0.8	11.8	-62.7	V
11280.0	-74.0	0.3	12.1	-62.2	V
13160.0	-73.2	0.4	12.4	-61.2	V

### Test Data (10MHz bandwidth 19149 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3809.8	-66.6	7.4	9.2	-64.8	V
5714.7	-72.2	1.5	10.5	-63.2	V
7619.6	-72.2	1.1	11.9	-61.4	V
9524.5	-71.7	0.9	11.8	-60.8	V
11429.4	-72.7	0.8	12.2	-61.3	V
13343.3	-72.3	0.4	12.4	-60.3	V

### Test Data (10MHz bandwidth 19149 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3809.8	-66.8	7.4	9.2	-65.0	V
5714.7	-72.2	1.5	10.5	-63.2	V
7619.6	-72.9	1.1	11.9	-62.1	V
9524.5	-71.5	0.9	11.8	-60.6	V

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11429.4	-72.4	0.8	12.2	-61.0	V
13343.3	-72.4	0.4	12.4	-60.4	V

Test Data (15MHz bandwidth 18675 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3715.0	-67.0	7.2	8.9	-65.3	V
5572.5	-71.3	2.0	10.5	-62.8	V
7430.0	-73.9	0.9	11.9	-62.9	V
9287.5	-72.2	1.0	11.5	-61.7	V
11145.0	-72.2	0.3	12.1	-60.4	V
13002.5	-72.4	0.4	12.4	-60.4	V

Test Data (15MHz bandwidth 18675 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3715.0	-66.3	7.2	8.9	-64.6	V
5572.5	-71.7	2.0	10.5	-63.2	V
7430.0	-72.9	0.9	11.9	-61.9	V
9287.5	-71.1	1.0	11.5	-60.6	V
11145.0	-72.4	0.3	12.1	-60.6	V
13002.5	-72.1	0.4	12.4	-60.1	V

Test Data (15MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.3	7.3	8.9	-64.7	V
5640.0	-72.9	1.8	10.5	-64.2	V
7520.0	-74.7	0.9	11.9	-63.7	V
9400.0	-74.3	0.8	11.8	-63.3	V

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11280.0	-74.5	0.3	12.1	-62.7	V
13160.0	-74.0	0.4	12.4	-62.0	V

Test Data (15MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-65.5	7.3	8.9	-63.9	V
5640.0	-71.4	1.8	10.5	-62.7	V
7520.0	-73.3	0.9	11.9	-62.3	V
9400.0	-73.1	0.8	11.8	-62.1	V
11280.0	-73.7	0.3	12.1	-61.9	V
13160.0	-73.7	0.4	12.4	-61.7	V

Test Data (15MHz bandwidth 19124 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3804.8	-65.9	7.4	9.2	-64.1	V
5707.2	-72.1	1.5	10.5	-63.1	V
7609.6	-72.3	1.1	11.9	-61.5	V
9512.0	-72.1	0.9	11.8	-61.2	V
11414.4	-72.4	0.8	12.2	-61.0	V
13316.8	-72.1	0.4	12.4	-60.1	V

Test Data (15MHz bandwidth 19124 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3804.8	-66.6	7.4	9.2	-64.8	V
5707.2	54.5	1.5	10.5	63.5	V
7609.6	50.8	1.1	11.9	61.6	V
9512.0	-71.7	0.9	11.8	-60.8	V

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11414.4	-71.7	0.8	12.2	-60.3	V
13316.8	-72.1	0.4	12.4	-60.1	V

#### Test Data (20MHz bandwidth 18700 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3720.0	-66.4	7.3	9.2	-64.5	V
5580.0	-71.8	2.0	10.5	-63.3	V
7440.0	-72.6	0.9	11.9	-61.6	V
9300.	-71.6	0.7	11.8	-60.5	V
11160.0	-72.2	0.3	12.2	-60.3	V
13020.0	-72.5	0.4	12.4	-60.5	V

#### Test Data (20MHz bandwidth 18700 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3720.0	-66.6	7.3	9.2	-64.7	V
5580.0	-71.9	2.0	10.5	-63.4	V
7440.0	-71.6	0.9	11.9	-60.6	V
93000	-72.4	0.7	11.8	-61.3	V
11160.0	-72.5	0.3	12.2	-60.6	V
13020.0	-72.3	0.4	12.4	-60.3	V

#### Test Data (20MHz bandwidth 18900 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.6	7.3	8.9	-65.0	V
5640.0	-72.9	1.8	10.5	-64.2	V
7520.0	-74.7	0.9	11.9	-63.7	V
9400.0	-74.2	0.8	11.8	-63.2	V

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11280.0	-74.5	0.3	12.1	-62.7	V
13160.0	-73.5	0.4	12.4	-61.5	V

#### Test Data (20MHz bandwidth 18900 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.0	-66.3	7.3	8.9	-64.7	V
5640.0	-72.6	1.8	10.5	-63.9	V
7520.0	-73.7	0.9	11.9	-62.7	V
9400.0	-73.5	0.8	11.8	-62.5	V
11280.0	-74.9	0.3	12.1	-63.1	V
13160.0	-73.2	0.4	12.4	-61.2	V

#### Test Data (20MHz bandwidth 19099 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3799.8	-65.9	7.4	9.2	-64.1	V
5699.7	-72.0	1.7	10.5	-63.2	V
7599.6	-73.3	0.8	11.9	-62.2	V
9499.5	-71.5	0.8	11.8	-60.5	V
11399.4	-72.0	0.8	12.2	-60.6	V
13299.3	-72.5	0.4	12.4	-60.5	V

#### Test Data (20MHz bandwidth 19099 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3799.8	-66.4	7.4	9.2	-64.6	V
5699.7	-71.8	1.7	10.5	-63.0	V
7599.6	-73.8	0.8	11.9	-62.7	V
9499.5	-71.7	0.8	11.8	-60.7	V

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11399.4	-72.6	0.8	12.2	-61.2	V
13299.3	-73.1	0.4	12.4	-61.1	V

#### **5.4.8 LTE B4 Radiated Spurious Emission Results**

Test Data (1.4MHz bandwidth 19957 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3421.4	-64.5	6.9	8.9	-62.5	V
5132.1	-66.5	6.3	9.9	-62.9	V
6842.8	-73.4	0.8	11.9	-62.3	V
8553.5	-71.9	0.9	11.2	-61.6	V
10264.2	-72.7	0.5	12.0	-61.2	V
11974.9	-72.1	0.4	12.2	-60.3	V

#### Test Data (1.4MHz bandwidth 19957 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3421.4	-64.7	6.9	8.9	-62.7	V
5132.1	-65.9	6.3	9.9	-62.3	V
6842.8	-73.5	0.8	11.9	-62.4	V
8553.5	-72.3	0.9	11.2	-62.0	V
10264.2	-73.5	0.5	12.0	-62.0	V
11974.9	-72.2	0.4	12.2	-60.4	V

#### Test Data (1.4MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-65.5	6.9	8.9	-63.5	V
5197.5	-68.1	5.8	9.9	-64.0	V

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6930.0	-73.2	0.9	11.9	-62.2	V
8662.5	-71.5	0.9	11.2	-61.2	V
10395.0	-72.9	0.7	12.2	-61.4	V
12127.5	-72.0	0.6	12.2	-60.4	V

Test Data (1.4MHz bandwidth 20175 QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-66.3	6.9	8.9	-64.3	V
5197.5	-67.9	5.8	9.9	-63.8	V
6930.0	-73.5	0.9	11.9	-62.5	V
8662.5	-71.3	0.9	11.2	-61.0	V
10395.0	-73.1	0.7	12.2	-61.6	V
12127.5	-72.6	0.6	12.2	-61.0	V

Test Data (1.4MHz bandwidth 20392 OPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3508.4	-65.4	7.0	8.9	-63.5	V
5262.5	-69.0	4.7	9.9	-63.8	V
7016.8	-72.3	1.2	11.9	-61.6	V
8771.0	-71.4	1.1	11.2	-61.3	V
10525.2	-72.3	0.6	12.2	-60.7	V
12279.4	-72.0	0.3	12.2	-60.1	V

Test Data (1.4MHz bandwidth 20392 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3508.4	-65.1	7.0	8.9	-63.2	V
5262.5	-68.6	4.7	9.9	-63.4	V

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7016.8	-71.3	1.2	11.9	-60.6	V
8771.0	-71.1	1.1	11.2	-61.0	V
10525.2	-72.3	0.6	12.2	-60.7	V
12279.4	-71.7	0.3	12.2	-59.8	V

Test Data (3MHz bandwidth 19965 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3423.0	-67.3	6.9	8.9	-65.3	V
5134.5	-66.7	6.3	9.9	-63.1	V
6846.0	-73.7	0.8	11.9	-62.6	V
8557.5	-71.0	0.9	11.2	-60.7	V
10269.0	-72.7	0.5	12.0	-61.2	V
11980.5	-72.5	0.4	12.2	-60.7	V

Test Data (3MHz bandwidth 19965 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3423.0	-67.9	6.9	8.9	-65.9	V
5134.5	-67.3	6.3	9.9	-63.7	V
6846.0	-73.0	0.8	11.9	-61.9	V
8557.5	-72.0	0.9	11.2	-61.7	V
10269.0	-72.1	0.5	12.0	-60.6	V
11980.5	-72.1	0.4	12.2	-60.3	V

Test Data (3MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-65.4	6.9	8.9	-63.4	V
5197.5	-68.2	5.8	9.9	-64.1	V

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6930.0	-73.3	0.9	11.9	-62.3	V
8662.5	-71.6	0.9	11.2	-61.3	V
10395.0	-72.9	0.7	12.2	-61.4	V
12127.5	-72.0	0.6	12.2	-60.4	V

Test Data (3MHz bandwidth 20175 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-67.3	6.9	8.9	-65.3	V
5197.5	-67.4	5.8	9.9	-63.3	V
6930.0	-72.2	0.9	11.9	-61.2	V
8662.5	-71.0	0.9	11.2	-60.7	V
10395.0	-72.7	0.7	12.2	-61.2	V
12127.5	-71.8	0.6	12.2	-60.2	V

Test Data (3MHz bandwidth 20384 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3506.8	-67.6	7.0	8.9	-65.7	V
5260.2	-68.4	5.0	9.9	-63.5	V
7013.6	-72.2	1.2	11.9	-61.5	V
8767.0	-70.6	1.2	11.2	-60.6	V
10520.4	-72.8	0.6	12.2	-61.2	V
12273.8	-72.1	0.3	12.2	-60.2	V

Test Data (3MHz bandwidth 20384 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3506.8	-67.4	7.0	8.9	-65.5	V
5260.2	-68.2	5.0	9.9	-63.3	V

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7013.6	-71.2	1.2	11.9	-60.5	V
8767.0	-70.7	1.2	11.2	-60.7	V
10520.4	-72.3	0.6	12.2	-60.7	V
12273.8	-72.1	0.3	12.2	-60.2	V

Test Data (5MHz bandwidth 19975 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3425.0	-67.6	6.9	8.9	-65.6	V
5137.5	-66.3	6.3	9.9	-62.7	V
6850.0	-73.7	0.8	11.9	-62.6	V
8562.5	-71.4	0.9	11.2	-61.1	V
10275.0	-72.9	0.5	12.0	-61.4	V
11987.5	-72.1	0.4	12.2	-60.3	V

Test Data (5MHz bandwidth 19975 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3425.0	-68.4	6.9	8.9	-66.4	V
5137.5	-66.8	6.3	9.9	-63.2	V
6850.0	-74.0	0.8	11.9	-62.9	V
8562.5	-72.0	0.9	11.2	-61.7	V
10275.0	-72.9	0.5	12.0	-61.4	V
11987.5	-71.7	0.4	12.2	-59.9	V

Test Data (5MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-67.6	6.9	8.9	-65.6	V
5197.5	-66.8	5.8	9.9	-62.7	V

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6930.0	-73.6	0.9	11.9	-62.6	V
8662.5	-71.4	0.9	11.2	-61.1	V
10395.0	-73.0	0.7	12.2	-61.5	V
12127.5	-71.9	0.6	12.2	-60.3	V

Test Data (5MHz bandwidth 20175 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-66.6	6.9	8.9	-64.6	V
5197.5	-68.0	5.8	9.9	-63.9	V
6930.0	-73.8	0.9	11.9	-62.8	V
8662.5	-71.6	0.9	11.2	-61.3	V
10395.0	-72.4	0.7	12.2	-60.9	V
12127.5	-72.2	0.6	12.2	-60.6	V

Test Data (5MHz bandwidth 20374 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3504.8	-67.7	7.0	8.9	-65.8	V
5257.2	-68.9	5.0	9.9	-64.0	V
7009.6	-72.7	1.2	11.9	-62.0	V
8762.0	-71.0	1.2	11.2	-61.0	V
10514.4	-72.3	0.6	12.2	-60.7	V
12266.8	-71.9	0.4	12.2	-60.1	V

Test Data (5MHz bandwidth 20374 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3504.8	-67.8	7.0	8.9	-65.9	V
5257.2	-68.7	5.0	9.9	-63.8	V

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7009.6	-72.1	1.2	11.9	-61.4	V
8762.0	-71.6	1.2	11.2	-61.6	V
10514.4	-73.2	0.6	12.2	-61.6	V
12266.8	-71.9	0.4	12.2	-60.1	V

Test Data (10MHz bandwidth 20000 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3430.0	-68.4	6.9	8.9	-66.4	V
5145.0	-67.3	6.3	9.9	-63.7	V
6860.0	-73.1	0.8	11.9	-62.0	V
8575.0	-71.5	0.9	11.2	-61.2	V
10290.0	-72.6	0.5	12.0	-61.1	V
12005.0	-72.0	0.4	12.2	-60.2	V

Test Data (10MHz bandwidth 20000 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3430.0	-68.1	6.9	8.9	-66.1	V
5145.0	-66.3	6.3	9.9	-62.7	V
6860.0	-73.7	0.8	11.9	-62.6	V
8575.0	-71.4	0.9	11.2	-61.1	V
10290.0	-72.2	0.5	12.0	-60.7	V
12005.0	-72.5	0.4	12.2	-60.7	V

Test Data (10MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-68.4	6.9	8.9	-66.4	V
5197.5	-67.8	5.8	9.9	-63.7	V

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6930.0	-73.0	0.9	11.9	-62.0	V
8662.5	-71.6	0.9	11.2	-61.3	V
10395.0	-72.7	0.7	12.2	-61.2	V
12127.5	-71.8	0.6	12.2	-60.2	V

Test Data (10MHz bandwidth 20175 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-65.3	6.9	8.9	-63.3	V
5197.5	-67.0	5.8	9.9	-62.9	V
6930.0	-73.6	0.9	11.9	-62.6	V
8662.5	-72.1	0.9	11.2	-61.8	V
10395.0	-72.9	0.7	12.2	-61.4	V
12127.5	-72.5	0.6	12.2	-60.9	V

Test Data (10MHz bandwidth 20349 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.8	-67.6	7.0	8.9	-65.7	V
5249.7	-68.3	5.0	9.9	-63.4	V
6999.6	-72.6	0.9	11.9	-61.6	V
8749.5	-70.2	1.2	11.2	-60.2	V
10499.4	-72.4	0.6	12.2	-60.8	V
12249.3	-71.6	0.3	12.2	-59.7	V

Test Data (10MHz bandwidth 20349 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.8	-67.8	7.0	8.9	-65.9	V
5249.7	-68.9	5.0	9.9	-64.0	V

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6999.6	-73.3	0.9	11.9	-62.3	V
8749.5	-71.7	1.2	11.2	-61.7	V
10499.4	-72.3	0.6	12.2	-60.7	V
12249.3	-71.9	0.3	12.2	-60.0	V

Test Data (15MHz bandwidth 20025 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3435.0	-67.9	6.9	8.9	-65.9	V
5152.5	-67.2	6.3	9.9	-63.6	V
6870.0	-71.9	0.8	11.9	-60.8	V
8587.5	-71.9	0.9	11.2	-61.6	V
10305.0	-73.7	0.7	12.2	-62.2	V
12022.5	-72.2	0.6	12.2	-60.6	V

Test Data (15MHz bandwidth 20025 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3435.0	-68.3	6.9	8.9	-66.3	V
5152.5	-67.2	6.3	9.9	-63.6	V
6870.0	-72.9	0.8	11.9	-61.8	V
8587.5	-72.4	0.9	11.2	-62.1	V
10305.0	-73.8	0.7	12.2	-62.3	V
12022.5	-72.3	0.6	12.2	-60.7	V

Test Data (15MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-67.9	6.9	8.9	-65.9	V
5197.5	-67.2	5.8	9.9	-63.1	V

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6930.0	-71.9	0.9	11.9	-60.9	V
8662.5	-71.9	0.9	11.2	-61.6	V
10395.0	-73.7	0.7	12.2	-62.2	V
12127.5	-72.2	0.6	12.2	-60.6	V

Test Data (15MHz bandwidth 20175 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-66.4	6.9	8.9	-64.4	V
5197.5	-68.0	5.8	9.9	-63.9	V
6930.0	-73.7	0.9	11.9	-62.7	V
8662.5	-72.5	0.9	11.2	-62.2	V
10395.0	-73.4	0.7	12.2	-61.9	V
12127.5	-72.6	0.6	12.2	-61.0	V

Test Data (15MHz bandwidth 20324 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3494.8	-68.0	7.0	8.9	-66.1	V
5242.2	-68.5	5.0	9.9	-63.6	V
6989.6	-72.3	1.2	11.9	-61.6	V
8737.0	-70.4	1.2	11.2	-60.4	V
10484.4	-73.1	0.3	12.2	-61.2	V
12231.8	-71.9	0.3	12.2	-60.0	V

Test Data (15MHz bandwidth 20324 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3494.8	-67.7	7.0	8.9	-65.8	V
5242.2	-68.1	5.0	9.9	-63.2	V

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6989.6	-73.3	1.2	11.9	-62.6	V
8737.0	-71.3	1.2	11.2	-61.3	V
10484.4	-73.4	0.3	12.2	-61.5	V
12231.8	-72.3	0.3	12.2	-60.4	V

Test Data (20MHz bandwidth 20050 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3440.0	-68.0	6.9	8.9	-66.0	V
5160.0	-66.9	6.3	9.9	-63.3	V
6880.0	-73.4	0.8	11.9	-62.3	V
8600.0	-71.9	0.9	11.2	-61.6	V
10320.0	-72.8	0.7	12.2	-61.3	V
12040.0	-72.4	0.6	12.2	-60.8	V

Test Data (20MHz bandwidth 20050 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3440.0	-67.9	6.9	8.9	-65.9	V
5160.0	-66.7	6.3	9.9	-63.1	V
6880.0	-73.6	0.8	11.9	-62.5	V
8600.0	-70.8	0.9	11.2	-60.5	V
10320.0	-73.2	0.7	12.2	-61.7	V
12040.0	-73.1	0.6	12.2	-61.5	V

Test Data (20MHz bandwidth 20175 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-68.0	6.9	8.9	-66.0	V
5197.5	-67.4	5.8	9.9	-63.3	V

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6930.0	-73.4	0.9	11.9	-62.4	V
8662.5	-71.9	0.9	11.2	-61.6	V
10395.0	-72.8	0.7	12.2	-61.3	V
12127.5	-72.7	0.6	12.2	-61.1	V

Test Data (20MHz bandwidth 20175 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3465.0	-67.7	6.9	8.9	-65.7	V
5197.5	-68.1	5.8	9.9	-64.0	V
6930.0	-73.8	0.9	11.9	-62.8	V
8662.5	-71.6	0.9	11.2	-61.3	V
10395.0	-72.4	0.7	12.2	-60.9	V
12127.5	-72.0	0.6	12.2	-60.4	V

Test Data (20MHz bandwidth 20299 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3489.8	-67.7	7.0	8.9	-65.8	V
5234.7	-68.4	5.0	9.9	-63.5	V
6979.6	-73.7	0.9	11.9	-62.7	V
8724.5	-70.1	1.2	11.2	-60.1	V
10469.4	-71.9	0.3	12.2	-60.0	V
12214.3	-71.9	0.3	12.2	-60.0	V

Test Data (20MHz bandwidth 20299 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3489.8	-68.0	7.0	8.9	-66.1	V
5234.7	-68.7	5.0	9.9	-63.8	V

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6979.6	-73.6	0.9	11.9	-62.6	V
8724.5	-71.3	1.2	11.2	-61.3	V
10469.4	-72.8	0.3	12.2	-60.9	V
12214.3	-72.3	0.3	12.2	-60.4	V

#### **5.4.9 LTE B5 Radiated Spurious Emission Results**

Test Data (1.4MHz bandwidth 20407 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1649.4	-63.0	4.7	7.3	-60.4	Н
2474.1	-62.7	6.0	6.8	-61.9	Н
3298.8	-67.7	6.7	8.9	-65.5	V
4123.5	-65.4	7.6	9.2	-63.8	V
4948.2	-64.4	7.7	9.9	-62.2	V
5772.9	-72.9	1.4	10.5	-63.8	V

#### Test Data (1.4MHz bandwidth 20407 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1649.4	-61.8	4.7	7.3	-59.2	Н
2474.1	-63.3	6.0	6.8	-62.5	Н
3298.8	-67.3	6.7	8.9	-65.1	V
4123.5	-65.8	7.6	9.2	-64.2	V
4948.2	-64.6	7.7	9.9	-62.4	V
5772.9	-72.0	1.4	10.5	-62.9	V

#### Test Data (1.4MHz bandwidth 20525 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
1673.0	-64.7	4.7	7.3	-62.1	Н
2509.5	-47.2	5.9	6.7	-46.4	Н
3346.0	-67.9	6.8	8.9	-65.8	V
4182.5	-65.0	7.8	9.2	-63.6	V
5019.0	-65.0	7.5	9.9	-62.6	V
5855.5	-72.8	1.1	10.5	-63.4	V

#### Test Data (1.4MHz bandwidth 20525 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-66.3	4.7	7.3	-63.7	Н
2509.5	-46.0	5.9	6.7	-45.2	Н
3346.0	-68.2	6.8	8.9	-66.1	V
4182.5	-66.3	7.8	9.2	-64.9	V
5019.0	-66.1	7.5	9.9	-63.7	V
5855.5	-71.9	1.1	10.5	-62.5	V

#### Test Data (1.4MHz bandwidth 20642 QPSK Mode)

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Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]		
1696.4	-68.7	4.8	7.9	-65.6	Н		
2544.6	-64.7	5.9	6.9	-63.7	Н		
3392.8	-68.1	6.9	8.9	-66.1	V		
4241.0	-65.5	7.8	9.2	-64.1	V		
5089.2	-66.5	6.8	9.9	-63.4	V		
5937.4	-72.3	1.4	10.9	-62.8	V		

#### Test Data (1.4MHz bandwidth 20642 16QAM Mode)

Frequency Generator	Cable loss	Antenna	Spurious	Antenna
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[MHz]	output power(Pg) [dBm]	[dB]	Gain [dB]	Emission Power (Pd) [dBm]	Polarization [H/V]
1696.4	-69.1	4.8	7.9	-66.0	Н
2544.6	-66.3	5.9	6.9	-65.3	Н
3392.8	-67.7	6.9	8.9	-65.7	V
4241.0	-65.5	7.8	9.2	-64.1	V
5089.2	-66.5	6.8	9.9	-63.4	V
5937.4	-71.9	1.4	10.9	-62.4	V

#### Test Data (3MHz bandwidth 20415 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1651.0	-63.8	4.8	7.3	-61.3	Н
2476.5	-61.4	5.9	6.6	-60.7	Н
3302.0	-67.8	6.8	8.9	-65.7	V
4127.5	-65.6	7.6	9.2	-64.0	V
4953.0	-64.7	7.7	9.9	-62.5	V
5778.5	-71.0	1.4	10.5	-61.9	V

#### Test Data (3MHz bandwidth 20415 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1651.0	-62.9	4.8	7.3	-60.4	Н
2476.5	-60.8	5.9	6.6	-60.1	Н
3302.0	-67.6	6.8	8.9	-65.5	V
4127.5	-66.2	7.6	9.2	-64.6	V
4953.0	-64.6	7.7	9.9	-62.4	V
5778.5	-73.4	1.4	10.5	-64.3	V

Test Data (3MHz bandwidth 20525 QPSK Mode)

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Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-64.8	4.7	7.3	-62.2	Н
2509.5	-47.1	5.9	6.7	-46.3	Н
3346.0	63.5	6.8	8.9	65.6	V
4182.5	-64.6	7.8	9.2	-63.2	V
5019.0	-65.9	7.5	9.9	-63.5	V
5855.5	-72.0	1.1	10.5	-62.6	V

#### Test Data (3MHz bandwidth 2052516QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-65.7	4.7	7.3	-63.1	Н
2509.5	-48.0	5.9	6.7	-47.2	Н
3346.0	-66.6	6.8	8.9	-64.5	V
4182.5	-65.8	7.8	9.2	-64.4	V
5019.0	-64.7	7.5	9.9	-62.3	V
5855.5	-72.7	1.1	10.5	-63.3	V

#### Test Data (3MHz bandwidth 20634 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1694.8	-68.5	4.8	8.0	-65.3	Н
2542.2	-65.7	5.9	6.9	-64.7	Н
3389.6	-68.1	6.9	8.9	-66.1	V
4237.0	-65.3	7.8	9.2	-63.9	V
5084.4	-66.4	6.8	9.9	-63.3	V
5931.8	-72.0	1.4	10.9	-62.5	V

Test Data (3MHz bandwidth 20634 16QAM Mode)

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Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1694.8	-67.5	4.8	8.0	-64.3	Н
2542.2	-64.6	5.9	6.9	-63.6	Н
3389.6	-68.0	6.9	8.9	-66.0	V
4237.0	-65.8	7.8	9.2	-64.4	V
5084.4	-66.2	6.8	9.9	-63.1	V
5931.8	-72.7	1.4	10.9	-63.2	V

#### Test Data (5MHz bandwidth 20425 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1653.0	-63.7	4.8	7.3	-61.2	Н
2479.5	-61.3	5.9	6.6	-60.6	Н
3306.0	-67.2	6.8	8.9	-65.1	V
4132.5	-66.8	7.6	9.2	-65.2	V
4959.0	-64.8	7.5	9.9	-62.4	V
5785.5	-73.0	1.4	10.5	-63.9	V

#### Test Data (5MHz bandwidth 20425 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1653.0	-63.2	4.8	7.3	-60.7	Н
2479.5	-60.8	5.9	6.6	-60.1	Н
3306.0	-67.8	6.8	8.9	-65.7	V
4132.5	-66.3	7.6	9.2	-64.7	V
4959.0	-65.3	7.5	9.9	-62.9	V
5785.5	-72.3	1.4	10.5	-63.2	V

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Test Data (5MHz bandwidth 20525 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-63.4	4.7	7.3	-60.8	Н
2509.5	-45.0	5.9	6.7	-44.2	Н
3346.0	-67.6	6.8	8.9	-65.5	V
4182.5	-65.9	7.8	9.2	-64.5	V
5019.0	-66.6	7.5	9.9	-64.2	V
5855.5	-72.1	1.1	10.5	-+62.7	V

#### Test Data (5MHz bandwidth 20525 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-63.8	4.7	7.3	-61.2	Н
2509.5	-46.9	5.9	6.7	-46.1	Н
3346.0	-67.7	6.8	8.9	-65.6	V
4182.5	-67.2	7.8	9.2	-65.8	V
5019.0	-67.3	7.5	9.9	-64.9	V
5855.5	-71.5	1.1	10.5	-62.1	V

#### Test Data (5MHz bandwidth 20624 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1692.8	-67.3	4.8	8.0	-64.1	Н
2539.2	-64.3	5.9	6.9	-63.3	Н
3385.6	-68.4	6.9	8.9	-66.4	V
4232.0	-65.7	7.8	9.2	-64.3	V
5078.4	-66.1	6.8	9.9	-63.0	V

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5924.8	-72.9	1.4	10.9	-63.4	V

Test Data (5MHz bandwidth 20624 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1692.8	-67.8	4.8	8.0	-64.6	Н
2539.2	-64.1	5.9	6.9	-63.1	Н
3385.6	-67.8	6.9	8.9	-65.8	V
4232.0	-65.4	7.8	9.2	-64.0	V
5078.4	-66.3	6.8	9.9	-63.2	V
5924.8	-72.0	1.4	10.9	-62.5	V

Test Data (10MHz bandwidth 20450 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.0	-64.9	4.8	7.6	-62.1	Н
2487.0	-61.4	5.9	6.6	-60.7	Н
3316.0	-67.3	6.8	8.9	-65.2	V
4145.0	-65.3	7.6	9.2	-63.7	V
4974.0	-66.2	7.5	9.9	-63.8	V
5803.0	-72.8	1.4	10.9	-63.3	V

#### Test Data (10MHz bandwidth 20450 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.0	-64.4	4.8	7.6	-61.6	Н
2487.0	-61.4	5.9	6.6	-60.7	Н
3316.0	-67.1	6.8	8.9	-65.0	V
4145.0	-66.4	7.6	9.2	-64.8	V

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4974.0	-66.3	7.5	9.9	-63.9	V
5803.0	-73.3	1.4	10.9	-63.8	V

Test Data (10MHz bandwidth 20525 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-64.5	4.7	7.3	-61.9	Н
2509.5	-46.1	5.9	6.7	-45.3	Н
3346.0	-67.4	6.8	8.9	-65.3	V
4182.5	-65.4	7.8	9.2	-64.0	V
5019.0	-66.3	7.5	9.9	-63.9	V
5855.5	-72.5	1.1	10.5	-63.1	V

Test Data (10MHz bandwidth 20525 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.0	-65.9	4.7	7.3	-63.3	Н
2509.5	-48.7	5.9	6.7	-47.9	Н
3346.0	-67.7	6.8	8.9	-65.6	V
4182.5	-65.8	7.8	9.2	-64.4	V
5019.0	-65.0	7.5	9.9	-62.6	V
5855.5	-73.4	1.1	10.5	-64.0	V

#### Test Data (10MHz bandwidth 20599 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1687.8	-64.4	4.8	8.1	-61.1	Н
2531.7	-61.1	5.9	6.9	-60.1	Н
3375.6	-68.6	6.8	8.9	-66.5	V

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4219.5	-65.3	7.8	9.2	-63.9	V
5063.4	-66.6	7.1	9.9	-63.8	V
5907.3	-73	1.4	10.9	-63.5	V

Test Data (10MHz bandwidth 20599 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1687.8	-65.4	4.8	8.1	-62.1	Н
2531.7	-61.8	5.9	6.9	-60.8	Н
3375.6	-68.1	6.8	8.9	-66.0	V
4219.5	-65.9	7.8	9.2	-64.5	V
5063.4	-66.3	7.1	9.9	-63.5	V
5907.3	-72.4	1.4	10.9	-62.9	V

#### **5.4.10 LTE B28 Radiated Spurious Emission Results**

Test Data (3MHz bandwidth 27210 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1409.0	-66.8	4.4	7.8	-63.4	Н
2113.5	-64.3	5.4	8.1	-61.6	Н
2818.0	-59.4	6.3	7.5	-58.2	Н
3522.5	-66.5	7.0	8.9	-64.6	V
4227.0	-64.9	7.8	9.5	-63.2	V
4931.5	-65.0	7.7	9.9	-62.8	V

Test Data (3MHz bandwidth 27210 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1409.0	-66.3	4.4	7.8	-62.9	Н

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2113.5	-64.2	5.4	8.1	-61.5	Н
2818.0	-61.5	6.3	7.5	-60.3	Н
3522.5	-65.5	7.0	8.9	-63.6	V
4227.0	-64.6	7.8	9.5	-62.9	V
4931.5	-64.0	7.7	9.9	-61.8	V

Test Data (3MHz bandwidth 27435 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-66.4	4.4	8.4	-62.4	Н
2175.5	-56.8	5.4	6.6	-55.6	Н
2902.0	-68.4	6.4	7.6	-67.2	Н
3627.5	-66.6	7.2	8.9	-64.9	V
4353.0	-65.3	7.8	9.5	-63.6	V
5078.5	-67.0	6.8	9.9	-63.9	V

Test Data (3MHz bandwidth 27435 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-67.4	4.4	8.4	-63.4	Н
2175.5	-55.6	5.4	6.6	-54.4	Н
2902.0	-69.8	6.4	7.6	-68.6	Н
3627.5	-65.5	7.2	8.9	-63.8	V
4353.0	-66.2	7.8	9.5	-64.5	V
5078.5	-66.8	6.8	9.9	-63.7	V

Test Data (3MHz bandwidth 27644 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1492.8	-67.0	4.5	9.1	-62.4	Н

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2239.2	-56.6	5.6	6.6	-55.6	Н
2985.6	-66.7	6.5	6.0	-67.2	Н
3732.0	-66.5	7.3	8.9	-64.9	V
4478.4	-65.1	8.0	9.5	-63.6	V
5224.8	-68.8	5.0	9.9	-63.9	V

Test Data (3MHz bandwidth 27644 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1492.8	-65.1	4.5	9.1	-60.5	Н
2239.2	-65.8	5.6	6.6	-64.8	Н
2985.6	-68.9	6.5	6.0	-69.4	Н
3732.0	-66.9	7.3	8.9	-65.3	V
4478.4	-64.2	8.0	9.5	-62.7	V
5224.8	-69.1	5.0	9.9	-64.2	V

Test Data (5MHz bandwidth 27235 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1411.0	-66.1	4.4	8.3	-62.2	Н
2116.5	-66.5	5.4	8.1	-63.8	Н
2822.0	-66.9	6.3	7.5	-65.7	Н
3527.5	-67.5	7.0	8.9	-65.6	V
4233.0	-65.6	7.8	9.2	-64.2	V
4938.5	-64.3	7.7	9.9	-62.1	V

Test Data (5MHz bandwidth 27235 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1411.0	-68.6	4.4	8.3	-64.7	Н

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2116.5	-69.0	5.4	8.1	-66.3	Н
2822.0	-67.9	6.3	7.5	-66.7	Н
3527.5	-68.1	7.0	8.9	-66.2	V
4233.0	-65.1	7.8	9.2	-63.7	V
4938.5	-65.0	7.7	9.9	-62.8	V

Test Data (5MHz bandwidth 27435 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-66.7	4.4	8.4	-62.7	Н
2175.5	-57.3	5.4	6.6	-56.1	Н
2902.0	-68.1	6.4	7.6	-66.9	Н
3627.5	-65.2	7.2	8.9	-63.5	V
4353.0	-64.9	7.8	9.5	-63.2	V
5078.5	-67.2	6.8	9.9	-64.1	V

Test Data (5MHz bandwidth 27435 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-67.0	4.4	8.4	-63.0	Н
2175.5	-55.5	5.4	6.6	-54.3	Н
2902.0	-69.4	6.4	7.6	-68.2	Н
3627.5	-67.7	7.2	8.9	-66.0	V
4353.0	-66.5	7.8	9.5	-64.8	V
5078.5	-64.5	6.8	9.9	-61.4	V

Test Data (5MHz bandwidth 27634 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1490.8	-67.9	4.5	9.2	-63.2	Н

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2236.2	-63.4	5.6	6.6	-62.4	Н
2981.6	-61.0	6.5	6.0	-61.5	Н
3727.0	-67.5	7.3	8.9	-65.9	V
4472.4	-65.3	8.0	9.5	-63.8	V
5217.8	-68.7	5.0	9.9	-63.8	V

Test Data (5MHz bandwidth 27634 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1490.8	-68.1	4.5	9.2	-63.4	Н
2236.2	-64.2	5.6	6.6	-63.2	Н
2981.6	-62.0	6.5	6.0	-62.5	Н
3727.0	-66.3	7.3	8.9	-64.7	V
4472.4	-64.0	8.0	9.5	-62.5	V
5217.8	-68.1	5.0	9.9	-63.2	V

Test Data (10MHz bandwidth 27260 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1416.0	-71.6	4.4	8.3	-67.7	Н
2124.0	-68.1	5.4	8.1	-65.4	Н
2832.0	-66.4	6.3	7.6	-65.1	Н
3540.0	-67.5	7.0	8.9	-65.6	V
4248.0	-65.3	7.8	9.2	-63.9	V
4956.0	-65.2	7.7	9.9	-63.0	V

Test Data (10MHz bandwidth 27260 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1416.0	-71.2	4.4	8.3	-67.3	Н

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2124.0	-68.8	5.4	8.1	-66.1	Н
2832.0	-67.1	6.3	7.6	-65.8	Н
3540.0	-67.6	7.0	8.9	-65.7	V
4248.0	-64.5	7.8	9.2	-63.1	V
4956.0	-64.7	7.7	9.9	-62.5	V

Test Data (10MHz bandwidth 27435 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-68.2	4.4	8.4	-64.2	Н
2175.5	-55.8	5.4	6.6	-54.6	Н
2902.0	-68.2	6.4	7.6	-67.0	Н
3627.5	-65.9	7.2	8.9	-64.2	V
4353.0	-64.0	7.8	9.5	-62.3	V
5078.5	-66.1	6.8	9.9	-63.0	V

Test Data (10MHz bandwidth 27435 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-67.1	4.4	8.4	-63.1	Н
2175.5	-56.9	5.4	6.6	-55.7	Н
2902.0	-68.7	6.4	7.6	-67.5	Н
3627.5	-67.3	7.2	8.9	-65.6	V
4353.0	-65.6	7.8	9.5	-63.9	V
5078.5	-66.1	6.8	9.9	-63.0	V

Test Data (10MHz bandwidth 27600 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1485.8	-69.1	4.5	9.1	-64.5	Н

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2228.7	-64.8	5.6	6.3	-64.1	Н
2971.6	-63.0	6.5	6.0	-63.5	Н
3714.5	-66.2	7.2	8.9	-64.5	V
4457.4	-65.3	8.0	9.5	-63.8	V
5200.3	-68.0	5.8	9.9	-63.9	V

Test Data (10MHz bandwidth 27600 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1485.8	-69.7	4.5	9.1	-65.1	Н
2228.7	-64.6	5.6	6.3	-63.9	Н
2971.6	-63.7	6.5	6.0	-64.2	Н
3714.5	-66.4	7.2	8.9	-64.7	V
4457.4	-64.7	8.0	9.5	-63.2	V
5200.3	-68.0	5.8	9.9	-63.9	V

Test Data (15MHz bandwidth 27285 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1421.0	-69.4	4.4	8.3	-65.5	V
2131.5	-66.7	5.4	7.5	-64.6	Н
2842.0	-66.0	6.3	8.2	-64.1	Н
3552.5	-67.2	7.0	8.9	-65.3	V
4263.0	-65.6	7.8	9.2	-64.2	V
4973.5	-66.1	7.5	9.9	-63.7	V

Test Data (15MHz bandwidth 27285 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1421.0	-70.4	4.4	8.3	-66.5	V

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2131.5	-67.7	5.4	7.5	-65.6	Н
2842.0	-67.1	6.3	8.2	-65.2	Н
3552.5	-67.8	7.0	8.9	-65.9	V
4263.0	-65.1	7.8	9.2	-63.7	V
4973.5	-65.1	7.5	9.9	-62.7	V

Test Data (15MHz bandwidth 27435 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-67.4	4.4	8.4	-63.4	V
2175.5	-57.4	5.4	6.6	-56.2	Н
2902.0	-69.5	6.4	7.6	-68.3	Н
3627.5	-67.1	7.2	8.9	-65.4	V
4353.0	-65.2	7.8	9.5	-63.5	V
5078.5	-65.6	6.8	9.9	-62.5	V

Test Data (15MHz bandwidth 27435 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-69.0	4.4	8.4	-65.0	V
2175.5	-76.4	5.4	6.6	-75.2	Н
2902.0	-64.4	6.4	7.6	-63.2	Н
3627.5	-65.8	7.2	8.9	-64.1	V
4353.0	-65.7	7.8	9.5	-64.0	V
5078.5	-66.7	6.8	9.9	-63.6	V

Test Data (15MHz bandwidth 27584 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1480.8	-70.0	4.5	9.1	-65.4	V

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2221.2	-65.6	5.6	6.3	-64.9	Н
2961.6	-65.2	6.5	6.4	-65.3	V
3702.0	-67.1	7.2	8.9	-65.4	V
4442.4	-63.9	8.0	9.5	-62.4	V
5182.8	-67.5	5.8	9.9	-63.4	V

Test Data (15MHz bandwidth 27584 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1480.8	-68.2	4.5	9.1	-63.6	V
2221.2	-64.2	5.6	6.3	-63.5	Н
2961.6	-64.0	6.5	6.4	-64.1	V
3702.0	-66.6	7.2	8.9	-64.9	V
4442.4	-65.9	8.0	9.5	-64.4	V
5182.8	-67.7	5.8	9.9	-63.6	V

Test Data (20MHz bandwidth 27310 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1426.0	-69.5	4.4	8.3	-65.6	Н
2139.0	-66.1	5.4	7.0	-64.5	Н
2852.0	-66.0	6.4	8.1	-64.3	Н
3565.0	-67.7	7.0	8.9	-65.8	V
4278.0	-65.9	7.8	9.5	-64.2	V
4991.0	-64.5	7.5	9.9	-62.1	V

Test Data (20MHz bandwidth 27310 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1426.0	-69.0	4.4	8.3	-65.1	Н

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2139.0	-65.8	5.4	7.0	-64.2	Н
2852.0	-65.4	6.4	8.1	-63.7	Н
3565.0	-67.6	7.0	8.9	-65.7	V
4278.0	-64.8	7.8	9.5	-63.1	V
4991.0	-65.0	7.5	9.9	-62.6	V

Test Data (20MHz bandwidth 27435 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-65.5	4.4	8.4	-61.5	V
2175.5	-74.3	5.4	6.6	-73.1	Н
2902.0	-70.6	6.4	7.6	-69.4	Н
3627.5	-66.0	7.2	8.9	-64.3	V
4353.0	-65.1	7.8	9.5	-63.4	V
5078.5	-67.3	6.8	9.9	-64.2	V

Test Data (20MHz bandwidth 27435 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1451.0	-67.2	4.4	8.4	-63.2	V
2175.5	-73.6	5.4	6.6	-72.4	Н
2902.0	-70.3	6.4	7.6	-69.1	Н
3627.5	-67.8	7.2	8.9	-66.1	V
4353.0	-64.1	7.8	9.5	-62.4	V
5078.5	-66.9	6.8	9.9	-63.8	V

Test Data (20MHz bandwidth 27559 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1475.8	-71.3	4.5	9.1	-66.7	Н

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2213.7	-65.0	5.6	6.3	-64.3	Н
2951.6	-64.6	6.3	6.8	-64.1	Н
3689.5	-67.0	7.2	8.9	-65.3	V
4427.4	-65.0	8.1	9.5	-63.6	V
5165.3	-66.8	6.3	9.9	-63.2	V

Test Data (20MHz bandwidth 27559 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1475.8	-70.7	4.5	9.1	-66.1	Н
2213.7	-65.8	5.6	6.3	-65.1	Н
2951.6	-65.3	6.3	6.8	-64.8	Н
3689.5	-67.1	7.2	8.9	-65.4	V
4427.4	-64.9	8.1	9.5	-63.5	V
5165.3	-67.3	6.3	9.9	-63.7	V

#### **5.4.11 LTE B66 Radiated Spurious Emission Results**

Test Data (1.4MHz bandwidth 131979 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3421.4	-61.9	6.9	8.9	-59.9	Н
5132.1	-63.8	6.3	9.9	-60.2	V
6842.8	-71.4	0.8	11.9	-60.3	V
8553.5	-70.0	0.9	11.2	-59.7	V
10264.2	-71.7	0.7	12.0	-60.4	V
11974.9	-71.1	0.4	12.2	-59.3	V

Test Data (1.4MHz bandwidth 131979 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3421.4	-62.4	6.9	8.9	-60.4	Н
5132.1	-64.5	6.3	9.9	-60.9	V
6842.8	-71.5	0.8	11.9	-60.4	V
8553.5	-69.4	0.9	11.2	-59.1	V
10264.2	-70.9	0.7	12.0	-59.6	V
11974.9	-71.9	0.4	12.2	-60.1	V

#### Test Data (1.4MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-65.8	7.0	8.9	-63.9	V
5235.0	-53.9	5.0	9.9	-49.0	V
6980.0	-64.3	1.0	11.9	-53.4	V
8725.0	-62.7	1.2	11.2	-52.7	V
10470.0	-63.7	0.3	12.2	-51.8	V
12215.0	-62.7	0.3	12.3	-50.7	V

#### Test Data (1.4MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-65.0	7.0	8.9	-63.1	V
5235.0	-55.1	5.0	9.9	-50.2	V
6980.0	-64.5	1.0	11.9	-53.6	V
8725.0	-61.7	1.2	11.2	-51.7	V
10470.0	-63.4	0.3	12.2	-51.5	V
12215.0	-62.8	0.3	12.3	-50.8	V

#### Test Data (1.4MHz bandwidth 132664 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]		
3558.4	-63.2	7.0	8.9	-61.3	Н		
5337.6	-66.8	4.1	10.5	-60.4	V		
7116.8	-71.5	0.9	11.9	-60.5	V		
8896.0	-71.6	1.2	11.5	-61.3	V		
10675.2	-72.1	0.8	12.2	-60.7	V		
12454.4	-72.6	0.4	12.3	-60.7	V		

#### Test Data (1.4MHz bandwidth 132664 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3558.4	-62.4	7.0	8.9	-60.5	Н
5337.6	-68.2	4.1	10.5	-61.8	V
7116.8	-72.8	0.9	11.9	-61.8	V
8896.0	-72.4	1.2	11.5	-62.1	V
10675.2	-72.5	0.8	12.2	-61.1	V
12454.4	-72.4	0.4	12.3	-60.5	V

#### Test Data (3MHz bandwidth 131987 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3423.0	-64.4	6.9	8.9	-62.4	Н
5134.5	-64.5	6.3	9.9	-60.9	V
6846.5	-73.2	0.8	11.9	-62.1	V
8557.5	-71.8	0.9	11.2	-61.5	V
10269.0	-71.6	0.5	12.0	-60.1	V
11980.5	-72.2	0.4	12.2	-60.4	V

#### Test Data (3MHz bandwidth 131987 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]	
3423.0	-65.2	6.9	8.9	-63.2	Н	
5134.5	-64.5	6.3	9.9	-60.9	V	
6846.5	-73.4	0.8	11.9	-62.3	V	
8557.5	-72.2	0.9	11.2	-61.9	V	
10269.0	-73.0	0.5	12.0	-61.5	V	
11980.5	-72.4	0.4	12.2	-60.6	V	

### Test Data (3MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-64.0	7.0	8.9	-62.1	V
5235.0	-66.4	5.0	9.9	-61.5	V
6980.0	-73.3	1.0	11.9	-62.4	V
8725.0	-70.7	1.2	11.2	-60.7	V
10470.0	-72.3	0.3	12.2	-60.4	V
12215.0	-72.6	0.3	12.3	-60.6	V

### Test Data (3MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-44.3	7.0	8.9	-42.4	V
5235.0	-65.7	5.0	9.9	-60.8	V
6980.0	-73.1	1.0	11.9	-62.2	V
8725.0	-74.4	1.2	11.2	-64.4	V
10470.0	-71.9	0.3	12.2	-60.0	V
12215.0	-72.3	0.3	12.3	-60.3	V

### Test Data (3MHz bandwidth 132656 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]	
3556.8	-64.5	7.0	8.9	-62.6	Н	
5335.2	-68.0	4.1	10.5	-61.6	V	
7113.6	-71.7	0.9	11.9	-60.7	V	
8892.0	-71.7	1.2	11.5	-61.4	V	
10670.4	-72.2	0.8	12.2	-60.8	V	
12448.8	-72.4	0.4	12.3	-60.5	V	

### Test Data (3MHz bandwidth 132656 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3556.8	-65.0	7.0	8.9	-63.1	Н
5335.2	-67.7	4.1	10.5	-61.3	V
7113.6	-71.3	0.9	11.9	-60.3	V
8892.0	-71.8	1.2	11.5	-61.5	V
10670.4	-71.2	0.8	12.2	-59.8	V
12448.8	-72.5	0.4	12.3	-60.6	V

### Test Data (5MHz bandwidth 131997 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3425.0	-65.8	6.9	8.9	-63.8	Н
5137.5	-64.9	6.3	9.9	-61.3	V
6850.0	-71.6	0.8	11.9	-60.5	V
8562.5	-71.8	0.9	11.2	-61.5	V
10275.0	-72.7	0.5	12.0	-61.2	V
11987.5	-72.3	0.4	12.2	-60.5	V

### Test Data (5MHz bandwidth 131997 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]		
3425.0	-65.6	6.9	8.9	-63.6	Н		
5137.5	-65.7	6.3	9.9	-62.1	V		
6850.0	-73.7	0.8	11.9	-62.6	V		
8562.5	-72.1	0.9	11.2	-61.8	V		
10275.0	-73.2	0.5	12.0	-61.7	V		
11987.5	-72.0	0.4	12.2	-60.2	V		

### Test Data (5MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-68.1	7.0	8.9	-66.2	V
5235.0	-69.4	5.0	9.9	-64.5	V
6980.0	-73.8	1.0	11.9	-62.9	V
8725.0	-71.0	1.2	11.2	-61.0	V
10470.0	-72.8	0.3	12.2	-60.9	V
12215.0	-72.2	0.3	12.3	-60.2	V

### Test Data (5MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-46.5	7.0	8.9	-44.6	V
5235.0	-65.7	5.0	9.9	-60.8	V
6980.0	-73.2	1.0	11.9	-62.3	V
8725.0	-71.4	1.2	11.2	-61.4	V
10470.0	-73.0	0.3	12.2	-61.1	V
12215.0	-72.4	0.3	12.3	-60.4	V

#### Test Data (5MHz bandwidth 132646 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]		
3554.8	-65.5	7.0	8.9	-63.6	Н		
5332.2	-68.6	4.1	10.5	-62.2	V		
7109.6	-72.0	0.9	11.9	-61.0	V		
8887.0	-71.8	1.2	11.5	-61.5	V		
10664.4	-71.7	0.8	12.2	-60.3	V		
12441.8	-72.4	0.4	12.3	-60.5	V		

### Test Data (5MHz bandwidth 132646 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3554.8	-65.1	7.0	8.9	-63.2	Н
5332.2	-69.7	4.1	10.5	-63.3	V
7109.6	-72.3	0.9	11.9	-61.3	V
8887.0	-71.4	1.2	11.5	-61.1	V
10664.4	-71.9	0.8	12.2	-60.5	V
12441.8	-72.3	0.4	12.3	-60.4	V

#### Test Data (10MHz bandwidth 132022 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3430.0	-62.1	6.9	8.9	-60.1	Н
5145.0	-66.1	6.3	9.9	-62.5	V
6860.0	-72.3	0.8	11.9	-61.2	V
8575.0	-71.8	0.9	11.2	-61.5	V
10290.0	-72.9	0.5	12.2	-61.2	V
12005.0	-72.7	0.4	12.2	-60.9	V

### Test Data (10MHz bandwidth 132022 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3430.0	-64.7	6.9	8.9	-62.7	Н
5145.0	-65.9	6.3	9.9	-62.3	V
6860.0	-73.0	0.8	11.9	-61.9	V
8575.0	-71.6	0.9	11.2	-61.3	V
10290.0	-73.9	0.5	12.2	-62.2	V
12005.0	-72.4	0.4	12.2	-60.6	V

### Test Data (10MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-67.8	7.0	8.9	-65.9	V
5235.0	-67.8	5.0	9.9	-62.9	V
6980.0	-73.5	1.0	11.9	-62.6	V
8725.0	-72.2	1.2	11.2	-62.2	V
10470.0	-72.9	0.3	12.2	-61.0	V
12215.0	-72.8	0.3	12.3	-60.8	V

#### Test Data (10MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-53.4	7.0	8.9	-51.5	V
5235.0	-67.3	5.0	9.9	-62.4	V
6980.0	-72.4	1.0	11.9	-61.5	V
8725.0	-71.4	1.2	11.2	-61.4	V
10470.0	-72.7	0.3	12.2	-60.8	V
12215.0	-71.8	0.3	12.3	-59.8	V

### Test Data (10MHz bandwidth 132621 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3549.8	-63.4	7.0	8.9	-61.5	Н
5324.7	-69.3	4.1	10.5	-62.9	V
7099.6	-72.2	1.1	11.9	-61.4	V
8874.5	-71.9	1.2	11.5	-61.6	V
10649.4	-72.7	0.8	12.2	-61.3	V
12424.3	-72.2	0.4	12.3	-60.3	V

### Test Data (10MHz bandwidth 132621 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3549.8	-63.9	7.0	8.9	-62.0	Н
5324.7	-69.1	4.1	10.5	-62.7	V
7099.6	-72.6	1.1	11.9	-61.8	V
8874.5	-71.5	1.2	11.5	-61.2	V
10649.4	-72.0	0.8	12.2	-60.6	V
12424.3	-72.7	0.4	12.3	-60.8	V

### Test Data (15MHz bandwidth 132047 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3435.0	-68.3	6.9	8.9	-66.3	V
5152.5	-66.7	6.3	9.9	-63.1	V
6870.0	-72.8	0.8	11.9	-61.7	V
8587.5	-72.1	0.9	11.2	-61.8	V
10305.0	-72.8	0.7	12.2	-61.3	V
12022.5	-72.0	0.6	12.2	-60.4	V

### Test Data (15MHz bandwidth 132047 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

Report No.:B19W50074-WWAN\_Rev3

	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3435.0	-67.3	6.9	8.9	-65.3	V
5152.5	-67.1	6.3	9.9	-63.5	V
6870.0	-74	0.8	11.9	-62.9	V
8587.5	-72.2	0.9	11.2	-61.9	V
10305.0	-73.3	0.7	12.2	-61.8	V
12022.5	-72.7	0.6	12.2	-61.1	V

### Test Data (15MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-67.6	7.0	8.9	-65.7	V
5235.0	-69.1	5.0	9.9	-64.2	V
6980.0	-73.4	1.0	11.9	-62.5	V
8725.0	-70.9	1.2	11.2	-60.9	V
10470.0	-72.2	0.3	12.2	-60.3	V
12215.0	-72.6	0.3	12.3	-60.6	V

### Test Data (15MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-68.1	7.0	8.9	-66.2	V
5235.0	-68.0	5.0	9.9	-63.1	V
6980.0	-73.0	1.0	11.9	-62.1	V
8725.0	-72.0	1.2	11.2	-62.0	V
10470.0	-74.0	0.3	12.2	-62.1	V
12215.0	-72.3	0.3	12.3	-60.3	V

#### Test Data (15MHz bandwidth 132597 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3545.0	-68.0	7.0	8.9	-66.1	V
5317.5	-70.1	4.1	10.5	-63.7	V
7090.0	-73.2	1.1	11.9	-62.4	V
8862.5	-70.7	1.2	11.5	-60.4	V
10635.0	-71.8	0.8	12.2	-60.4	V
12407.5	-72.0	0.5	12.3	-60.2	V

### Test Data (15MHz bandwidth 132597 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3545.0	-68.4	7.0	8.9	-66.5	V
5317.5	-69.8	4.1	10.5	-63.4	V
7090.0	-71.3	1.1	11.9	-60.5	V
8862.5	-71.6	1.2	11.5	-61.3	V
10635.0	-72.8	0.8	12.2	-61.4	V
12407.5	-71.3	0.5	12.3	-59.5	V

#### Test Data (20MHz bandwidth 132072 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3440.0	-67.7	6.9	8.9	-65.7	V
5160.0	-66.2	6.3	9.9	-62.6	V
6880.0	-73.9	0.8	11.9	-62.8	V
8600.0	-71.3	0.9	11.2	-61.0	V
10320.0	-73.2	0.7	12.2	-61.7	V
12040.0	-72.7	0.6	12.2	-61.1	V

### Test Data (20MHz bandwidth 132072 16QAM Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3440.0	-67.8	6.9	8.9	-65.8	V
5160.0	-67	6.3	9.9	-63.4	V
6880.0	-73.7	0.8	11.9	-62.6	V
8600.0	-71.9	0.9	11.2	-61.6	V
10320.0	-72.7	0.7	12.2	-61.2	V
12040.0	-72.9	0.6	12.2	-61.3	V

### Test Data (20MHz bandwidth 132322 QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-68.2	7.0	8.9	-66.3	V
5235.0	-69.6	5.0	9.9	-64.7	V
6980.0	-73.7	1.0	11.9	-62.8	V
8725.0	-70.8	1.2	11.2	-60.8	V
10470.0	-72.6	0.3	12.2	-60.7	V
12215.0	-71.7	0.3	12.3	-59.7	V

### Test Data (20MHz bandwidth 132322 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3490.0	-67.6	7.0	8.9	-65.7	V
5235.0	-68.0	5.0	9.9	-63.1	V
6980.0	-73.1	1.0	11.9	-62.2	V
8725.0	-71.6	1.2	11.2	-61.6	V
10470.0	-72.2	0.3	12.2	-60.3	V
12215.0	-72.1	0.3	12.3	-60.1	V

### Test Data (20MHz bandwidth 132571 QPSK Mode)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[MHz]	output	[dB]	Gain [dB]	Emission	Polarization

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	power(Pg) [dBm]			Power (Pd) [dBm]	[H/V]
3539.8	-67.3	7.0	8.9	-65.4	V
5309.7	-69.1	4.7	10.5	-63.3	V
7079.6	-71.7	1.1	11.9	-60.9	V
8849.5	-71.0	1.2	11.5	-60.7	V
10619.4	-72.2	0.8	12.2	-60.8	V
12389.3	-72.0	0.2	12.3	-59.9	V

### Test Data (20MHz bandwidth 132571 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3539.8	-67.3	7.0	8.9	-65.4	V
5309.7	-69.4	4.7	10.5	-63.6	V
7079.6	-71.7	1.1	11.9	-60.9	V
8849.5	-71	1.2	11.5	-60.7	V
10619.4	-72.9	0.8	12.2	-61.5	V
12389.3	-71.9	0.2	12.3	-59.8	V

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### 5.5 Band Edge

Specifications:	FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15 °C-35 °C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

#### **Limit Level Construction:**

According to Part 22.917 (a), i.e., 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.

According to Part 24.238 (a), i.e., 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:  $P(dBm) - (43 + 10 \log(P))$  dB= -13dBm.

#### According to Part 27.53(h):

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 Bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10(P) dB.

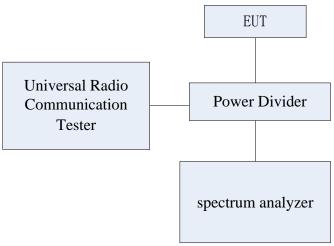
#### According to Part 27.53(g):

For operations in the 600 MHz Band and the 698-746 MHz Band, the power of any emission outside a 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, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution Bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz Bands immediately outside and adjacent to a licensee's frequency block, a resolution Bandwidth of at least 30 kHz may be employed.

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#### **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.



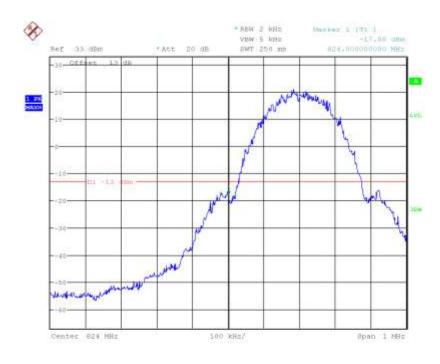
#### **Test Method:**

- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The lost 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:** In the graphical result description (X, Y), X represents the number of RB, Y represents the RB offset.

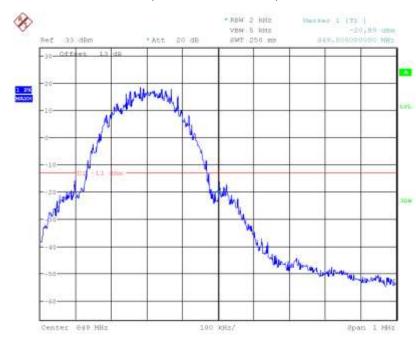
## Report No.:B19W50074-WWAN\_Rev3

### 5.5.1 GSM850 Band Edge Results



Date: 14.MAR.2019 04:50:50

GMSK; Cellular low channel, below 824 MHz

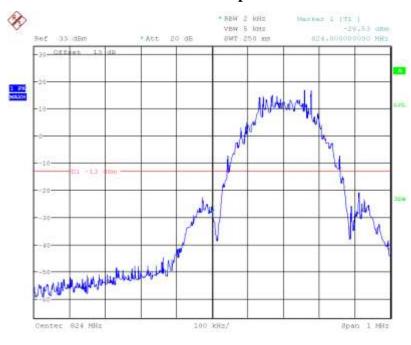


Date: 14,MAR,2019 04:51:58

GMSK; Cellular high channel, above 849 MHz

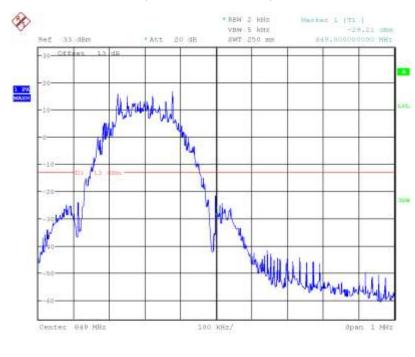
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 04:55:43

8PSK; Cellular low channel, below 824 MHz

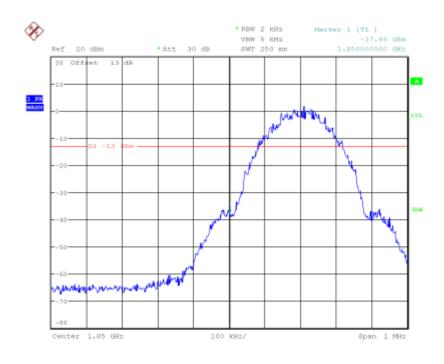


Date: 14, MAR. 2019 04:56:37

8PSK; Cellular high channel, above 849 MHz

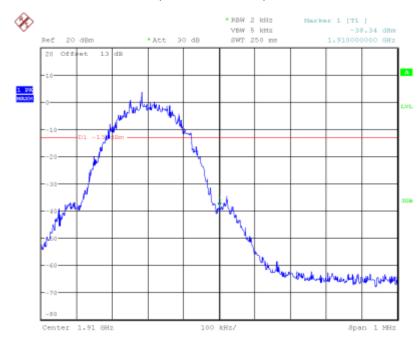
## Report No.:B19W50074-WWAN\_Rev3

### 5.5.2 PCS1900 Band Edge Results



Date: 14.MAR.2019 05:10:58

GMSK; PCS low channel, below 1850 MHz

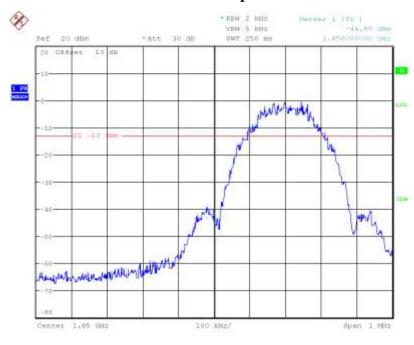


Date: 14.MAR.2019 05:11:51

GMSK; PCS high channel, above 1910 MHz

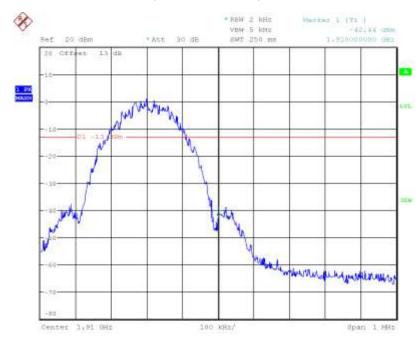
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

### Report No.:B19W50074-WWAN\_Rev3



Date: 14.MAR.2019 05:13:58

8PSK; PCS low channel, below 1850 MHz

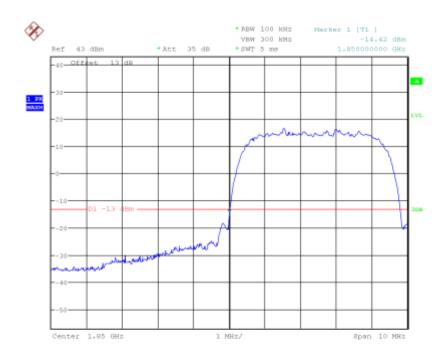


Date: 14,MAR.2019 05:13:119

8PSK; PCS high channel, above 1910 MHz

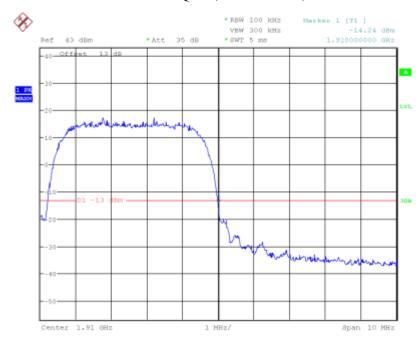
## Report No.:B19W50074-WWAN\_Rev3

### 5.5.3 WCDMA B2 Band Edge Results



Date: 12.MAR.2019 10:20:06

#### WCDMA Band 2 QPSK, Low Channel, Below 1850MHz

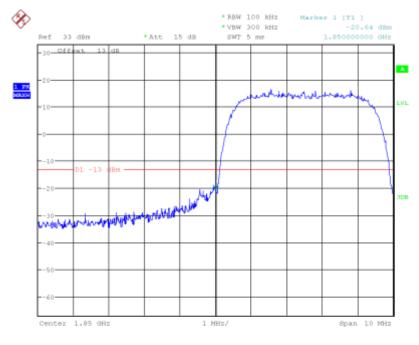


Date: 12.MAR.2019 10:21:01

WCDMA Band 2 QPSK, High Channel, Above 1910MHz

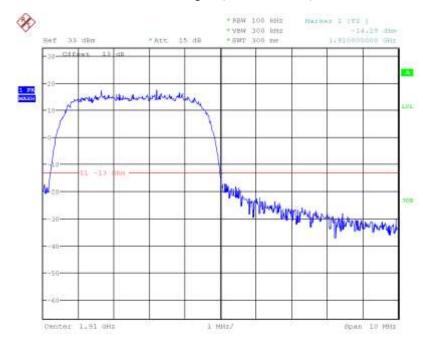
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

## Report No.:B19W50074-WWAN\_Rev3



Date: 16.APR.2019 06:16:42

#### WCDMA Band 2 16QAM, Low Channel, Below 1850MHz

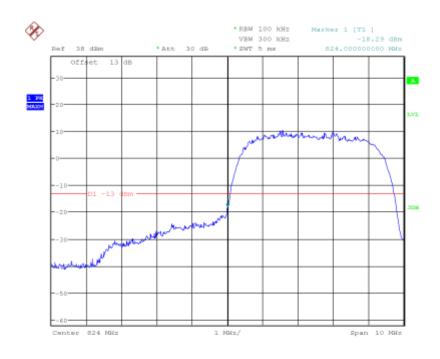


Date: 16.APR.2019 06:18:45

WCDMA Band 2 16QAM, High Channel, Above 1910MHz

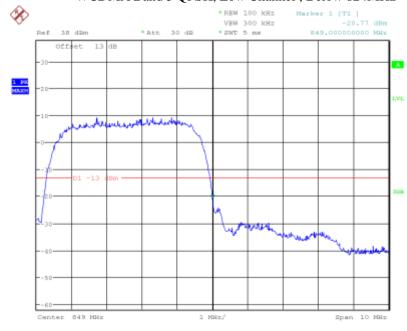
### Report No.:B19W50074-WWAN\_Rev3

### 5.5.4 WCDMA B5 Band Edge Results



Date: 12.MAR.2019 10:40:25

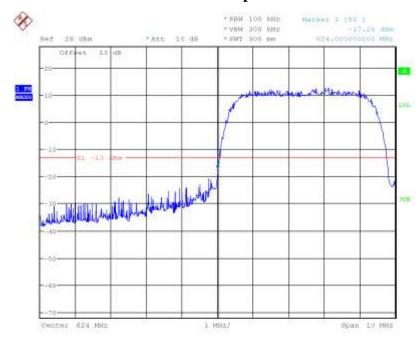
#### WCDMA Band 5 QPSK, Low Channel, Below 824MHz



Date: 12.MAR.2019 10:41:14

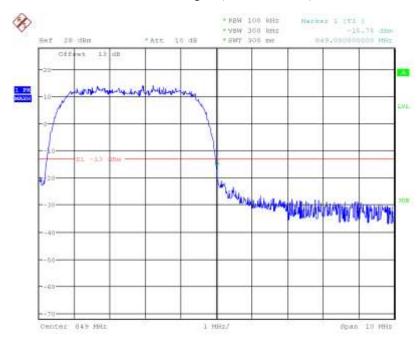
WCDMA Band 5 QPSK, High Channel , Above 849MHz

### Report No.:B19W50074-WWAN\_Rev3



Date: 16.APR.2019: 06:30:04

#### WCDMA Band 5 16QAM, Low Channel, Below 824MHz

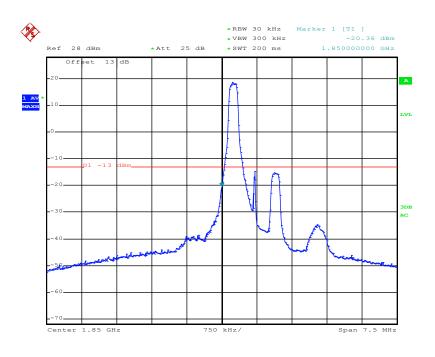


Date: 16.APR.2019 06:30:56

WCDMA Band 5 16QAM, High Channel, Above 849MHz

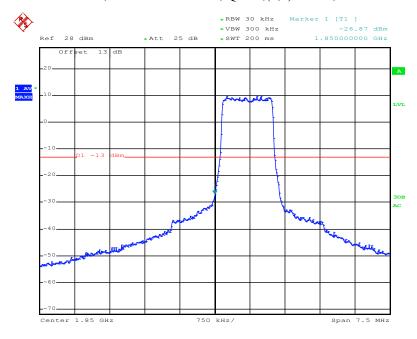
### Report No.:B19W50074-WWAN\_Rev3

### 5.5.5 LTE B2 Band Edge Results



Date: 12.MAR.2019 06:57:38

LTE Band2, 1.4MHz bandwidth, QPSK,(1,0) Mode, Below 1850MHz

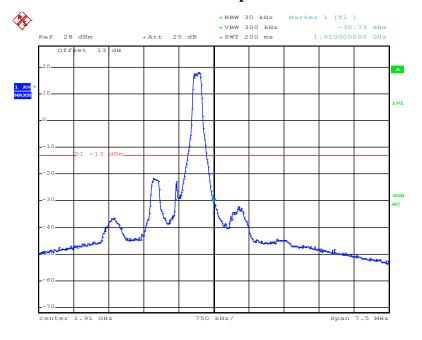


Date: 12.MAR.2019 06:59:03

LTE Band2, 1.4MHz bandwidth, QPSK,(6,0) Mode, Below 1850MHz

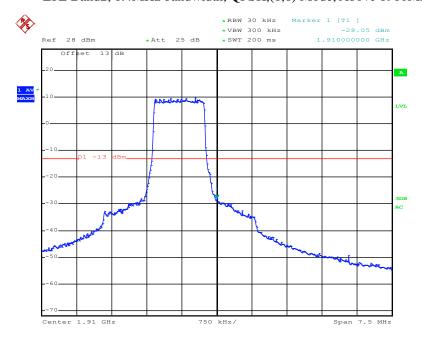
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336 Tel: 0086-23-88069965 FAX: 0086-23-88608777

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:01:40

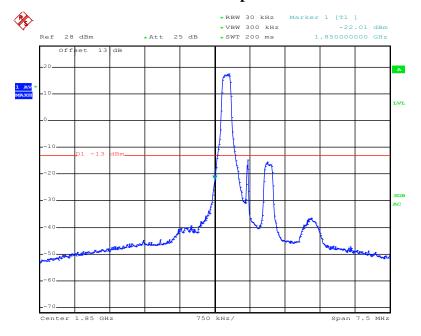
LTE Band2, 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 1910MHz



Date: 12.MAR.2019 07:02:23

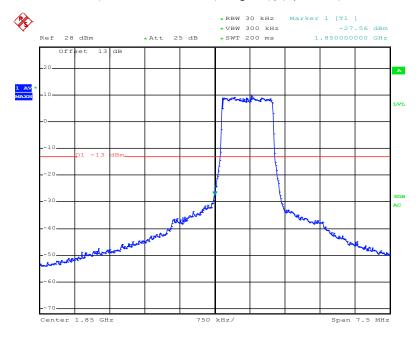
LTE Band2, 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 1910MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:08:37

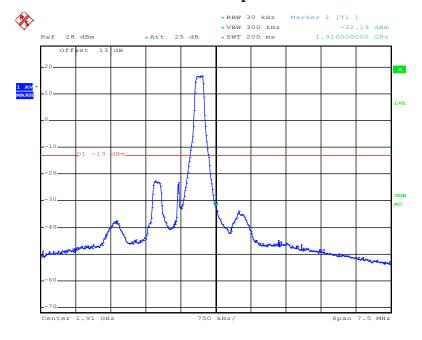
LTE Band2, 1.4MHz bandwidth, 16QAM,(1,0) Mode, Below 1850MHz



Date: 12.MAR.2019 07:09:59

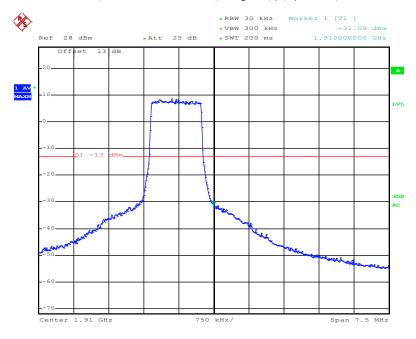
LTE Band2, 1.4MHz bandwidth, 16QAM,(6,0) Mode, Below 1850MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:06:30

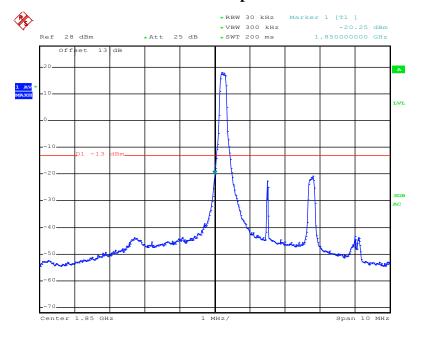
LTE Band2, 1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 1910MHz



Date: 12.MAR.2019 07:05:32

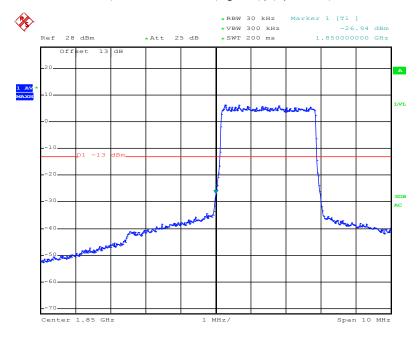
LTE Band2, 1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 1910MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:11:46

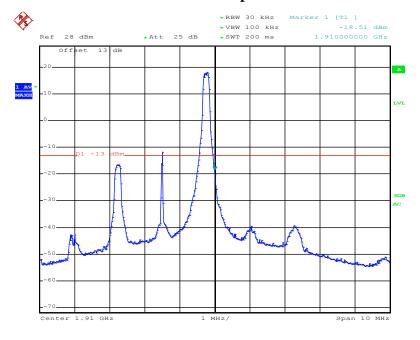
LTE Band2, 3MHz bandwidth, QPSK,(1,0) Mode, Below 1850MHz



Date: 12.MAR.2019 07:12:13

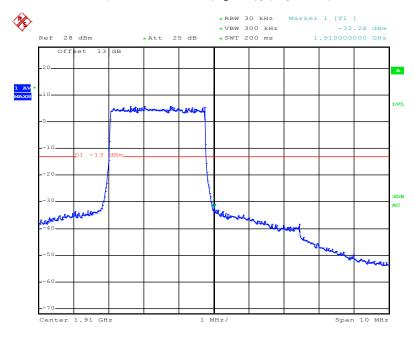
LTE Band2, 3MHz bandwidth, QPSK,(15,0) Mode, Below 1850MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:20:37

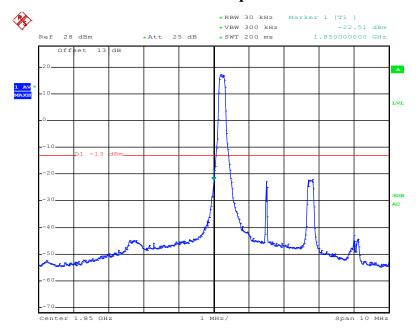
LTE Band2, 3MHz bandwidth, QPSK,(1,15) Mode, Above 1910MHz



Date: 12.MAR.2019 07:14:15

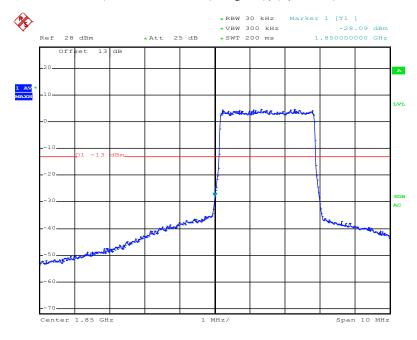
LTE Band2, 3MHz bandwidth, QPSK,(15,0) Mode, Above 1910MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:15:41

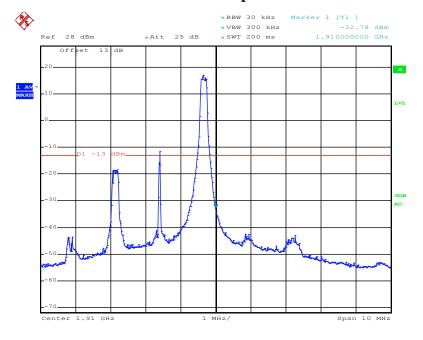
LTE Band2, 3MHz bandwidth, 16QAM,(1,0) Mode, Below 1850MHz



Date: 12.MAR.2019 07:16:12

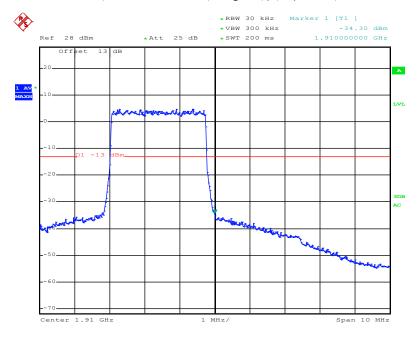
LTE Band2, 3MHz bandwidth, 16QAM,(15,0) Mode, Below 1850MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:17:08

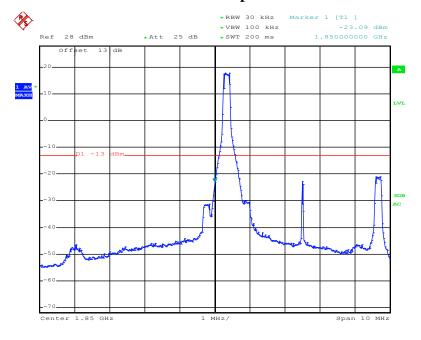
#### LTE Band2, 3MHz bandwidth, 16QAM,(1,15) Mode, Above 1910MHz



Date: 12.MAR.2019 07:17:37

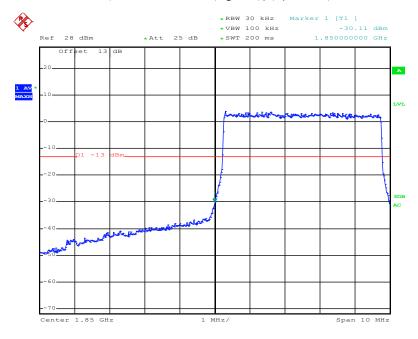
LTE Band2, 3MHz bandwidth, 16QAM,(15,0) Mode, Above 1910MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:25:36

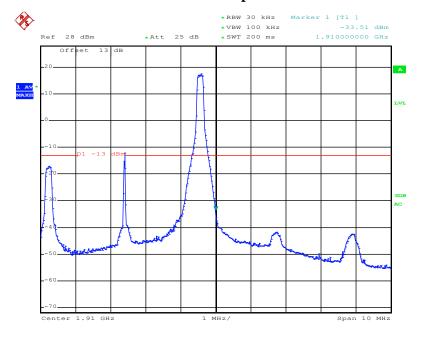
LTE Band2, 5MHz bandwidth, QPSK,(1,0) Mode, Below 1850MHz



Date: 12.MAR.2019 07:26:16

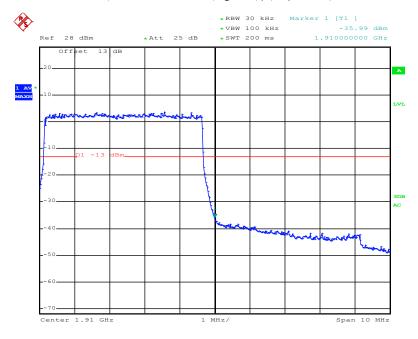
LTE Band2, 5MHz bandwidth, QPSK,(25,0) Mode, Below 1850MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:27:25

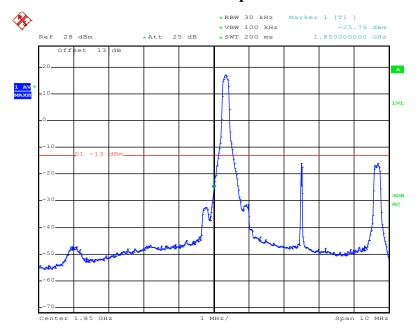
LTE Band2, 5MHz bandwidth, QPSK,(1,25) Mode, Above 1910MHz



Date: 12.MAR.2019 07:28:27

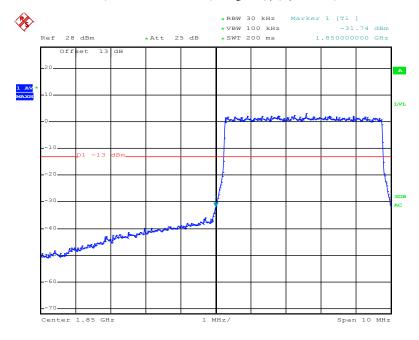
LTE Band2, 5MHz bandwidth, QPSK,(25,0) Mode, Above 1910MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:29:19

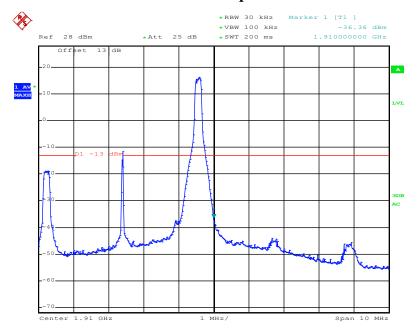
#### LTE Band2, 5MHz bandwidth, 16QAM,(1,0) Mode, Below 1850MHz



Date: 12.MAR.2019 07:29:50

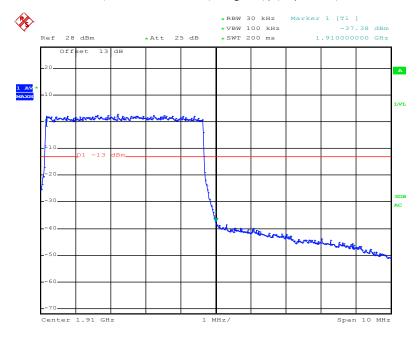
LTE Band2, 5MHz bandwidth, 16QAM,(25,0) Mode, Below 1850MHz

## Report No.:B19W50074-WWAN\_Rev3



Date: 12.MAR.2019 07:31:05

#### LTE Band2, 5MHz bandwidth, 16QAM,(1,25) Mode, Above 1910MHz



Date: 12.MAR.2019 07:31:36

LTE Band2, 5MHz bandwidth, 16QAM,(25,0) Mode, Above 1910MHz