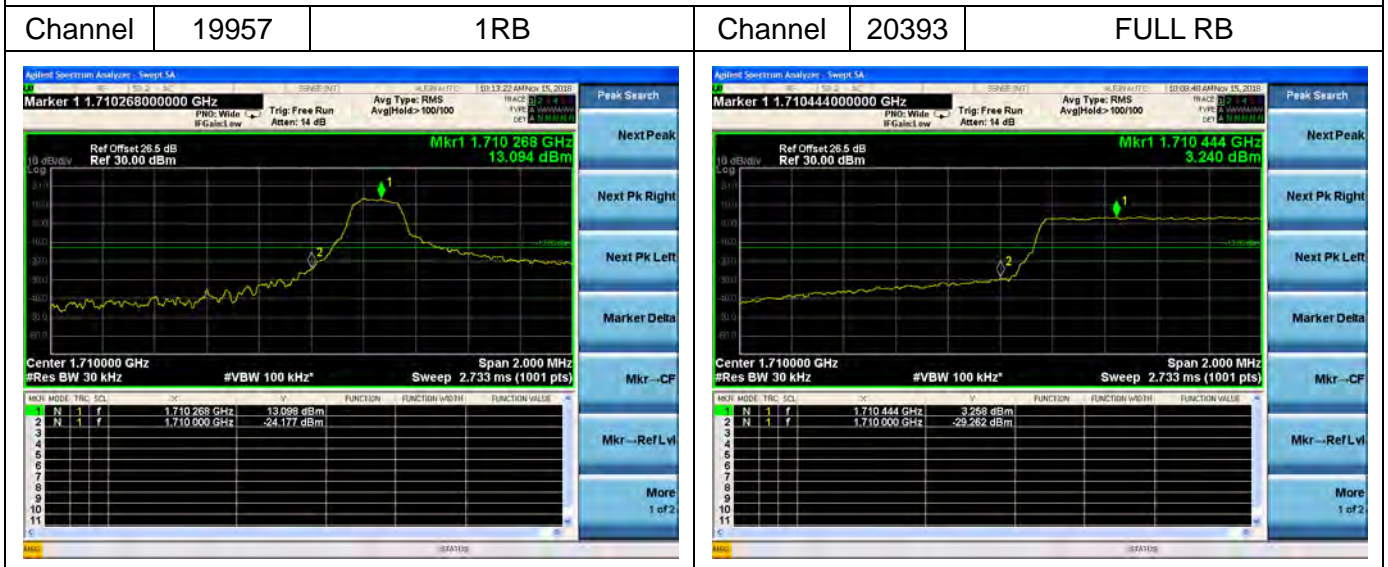


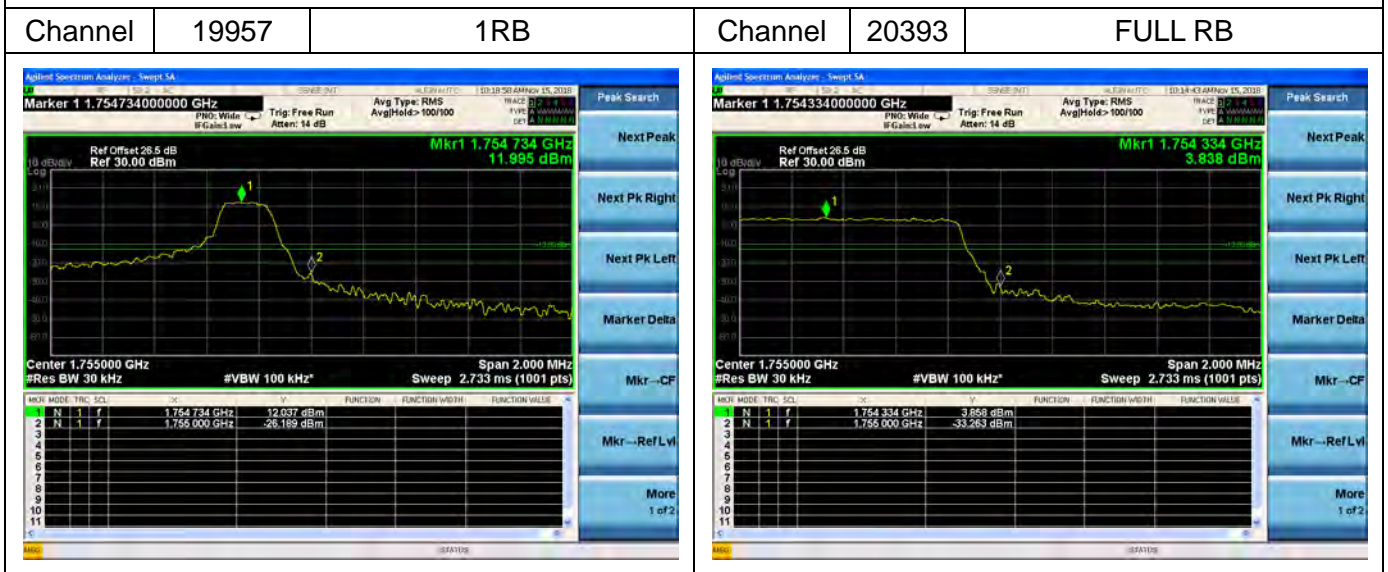


LTE Band 4

Channel Bandwidth: 1.4MHz



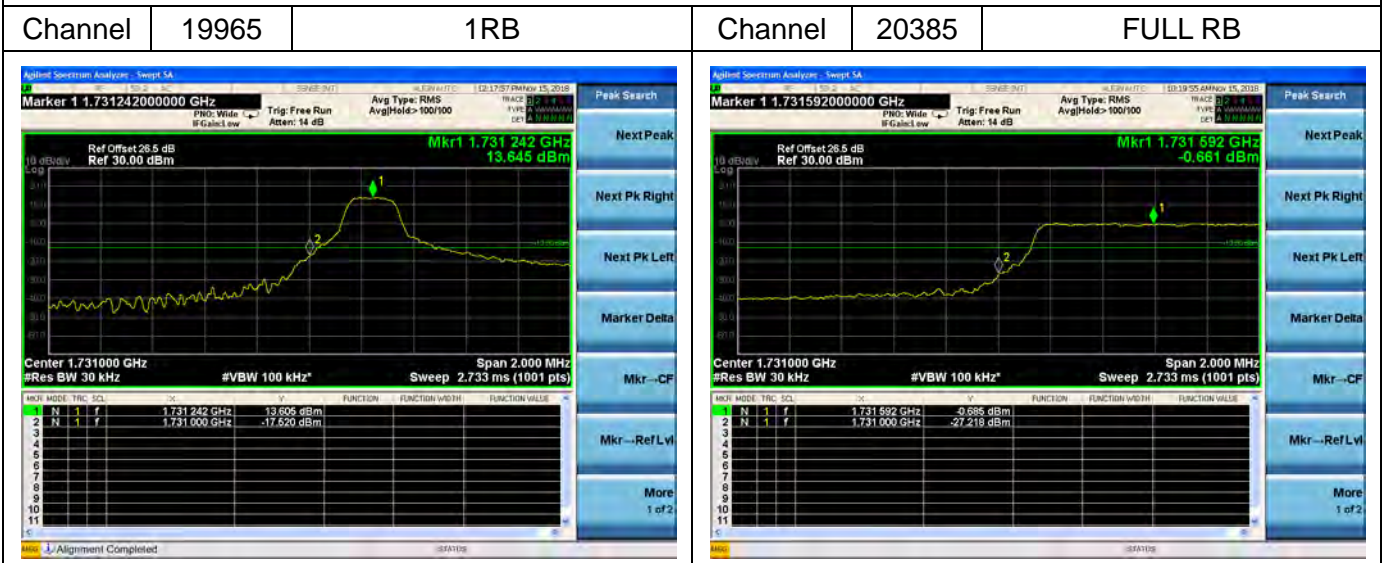
Channel Bandwidth: 1.4MHz



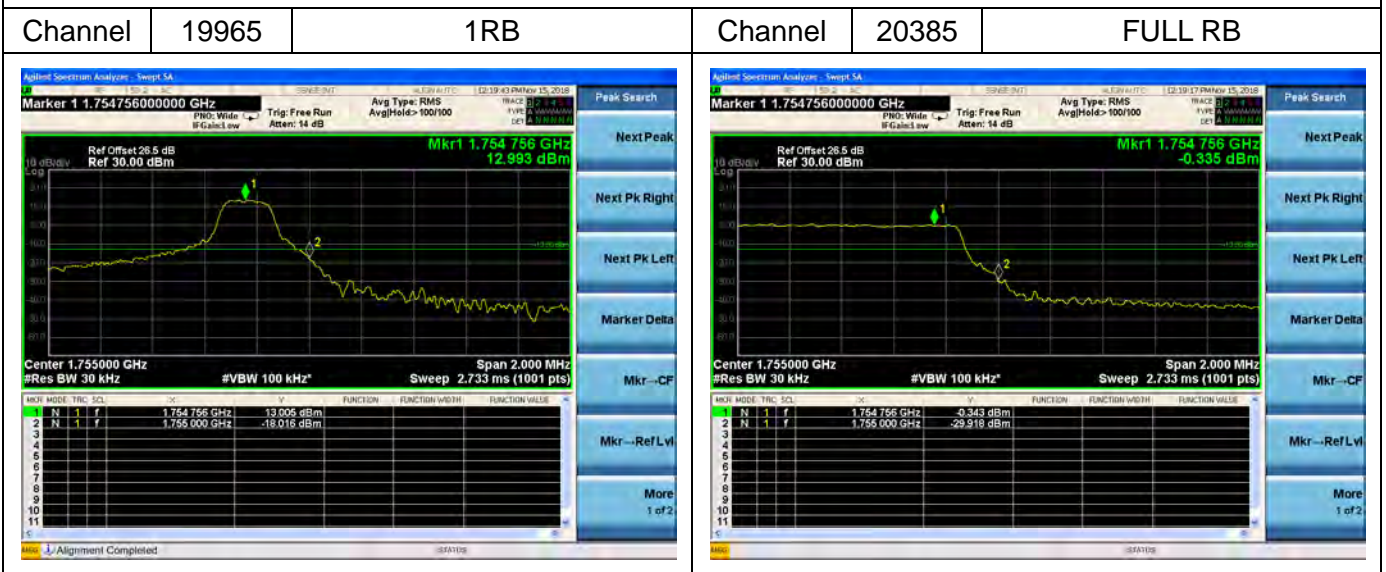


LTE Band 4

Channel Bandwidth: 3MHz



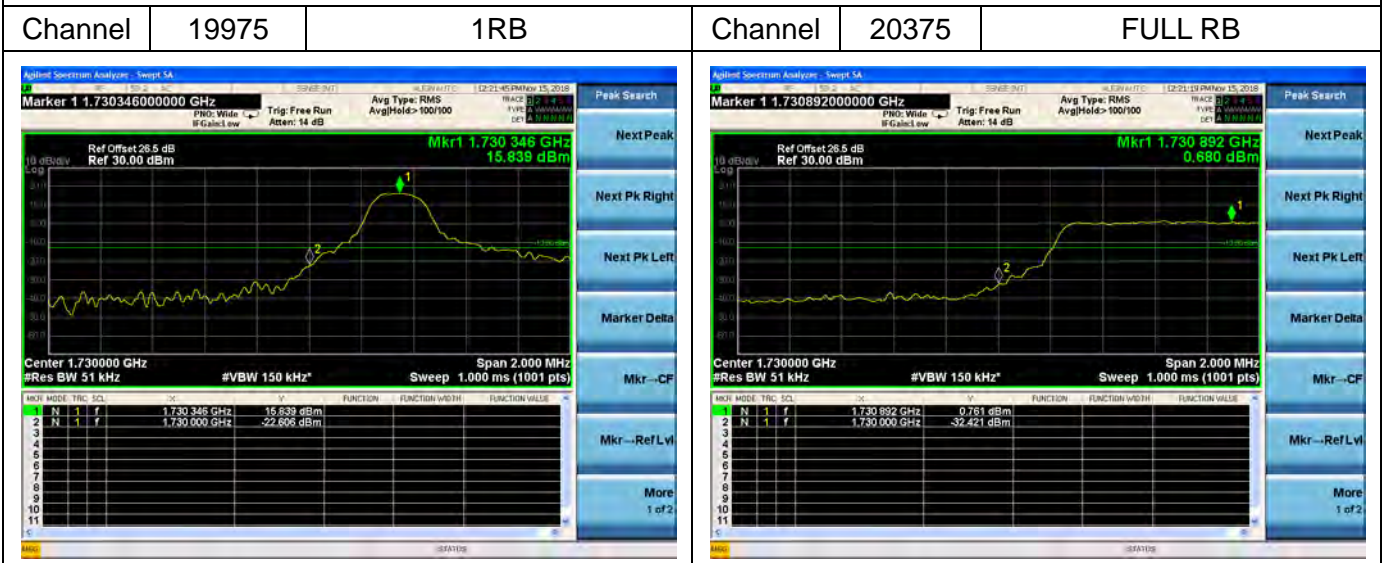
Channel Bandwidth: 3MHz



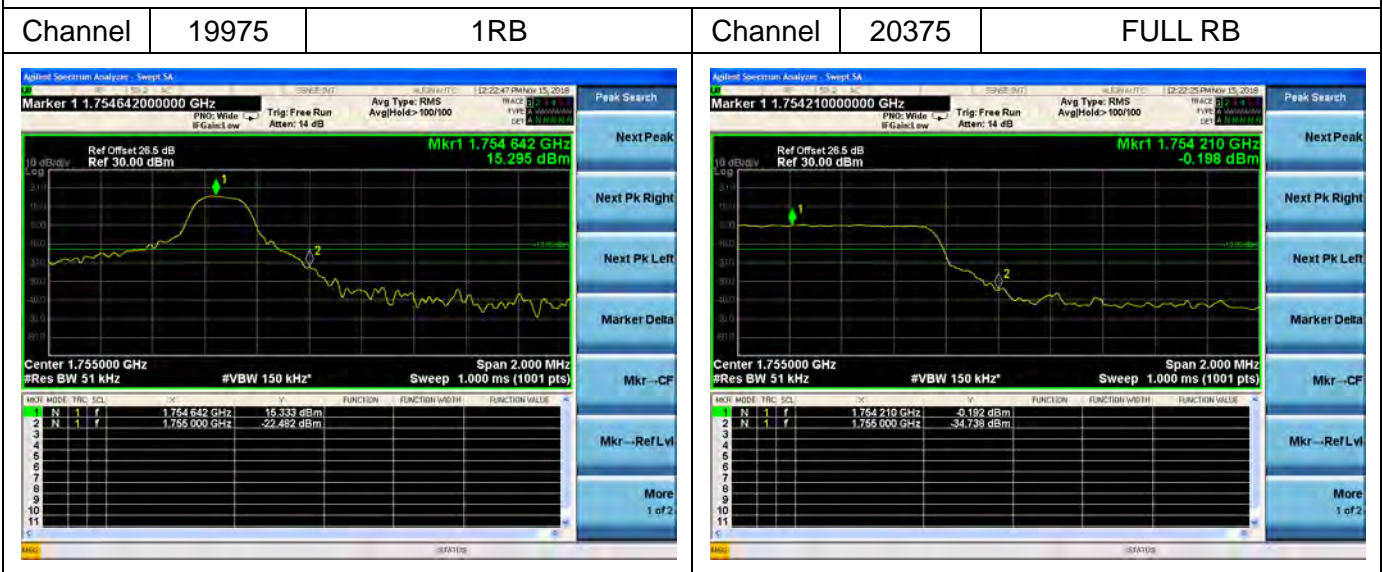


LTE Band 4

Channel Bandwidth: 5MHz



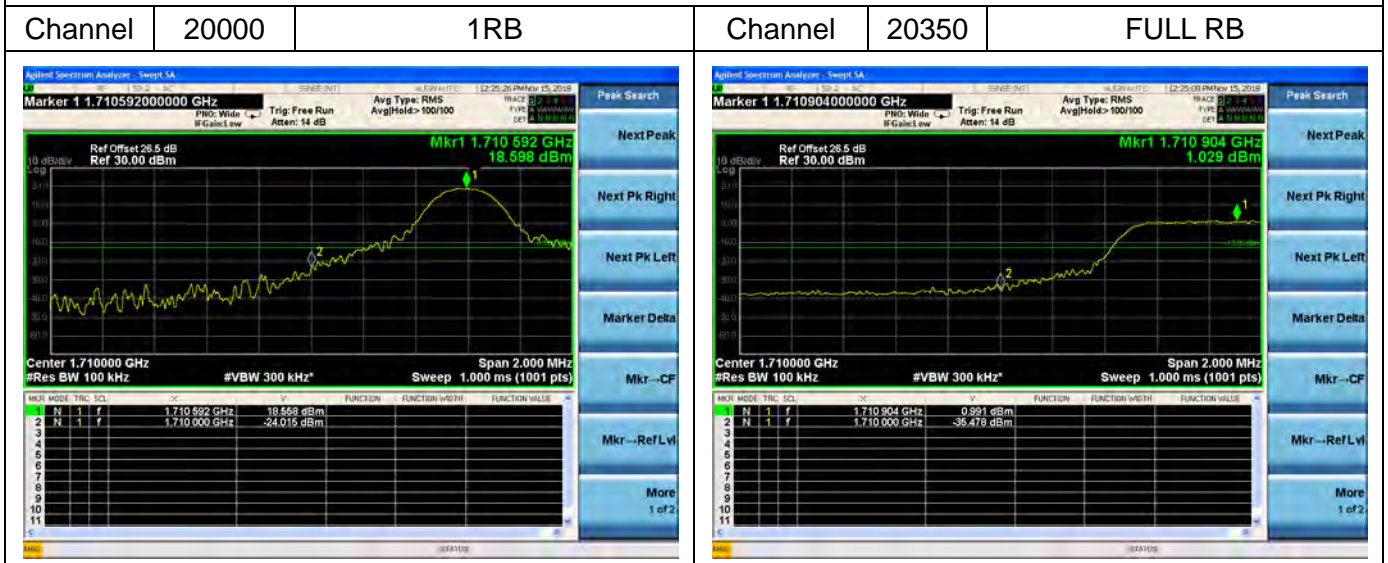
Channel Bandwidth: 5MHz



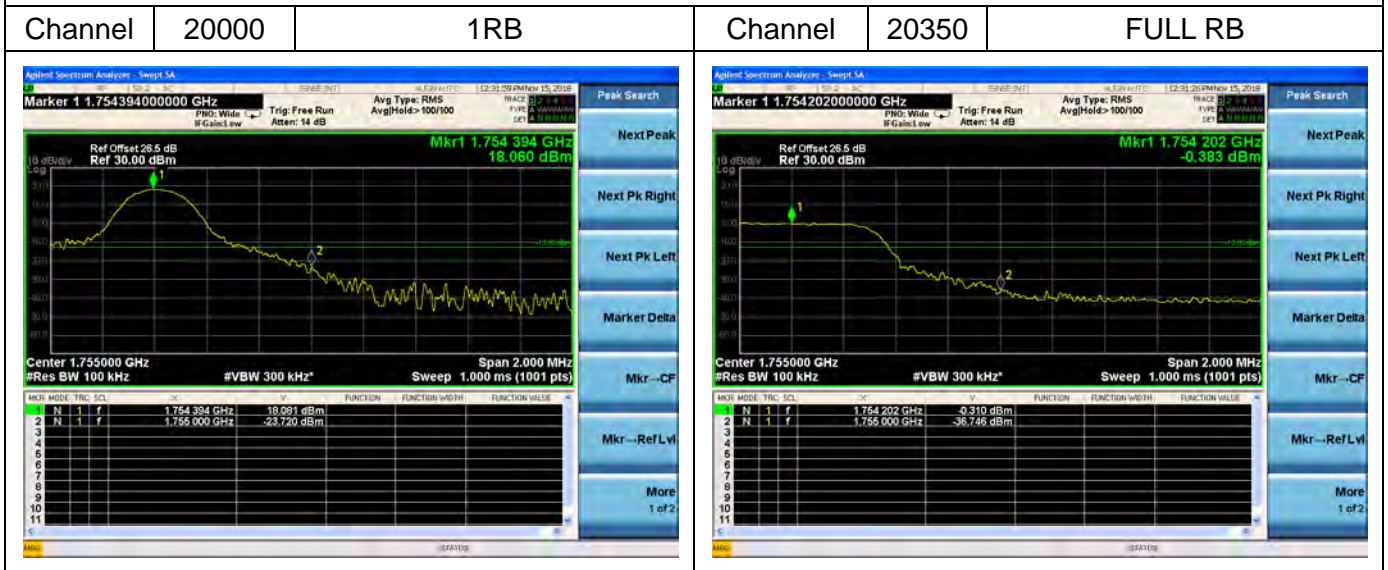


LTE Band 4

Channel Bandwidth: 10MHz



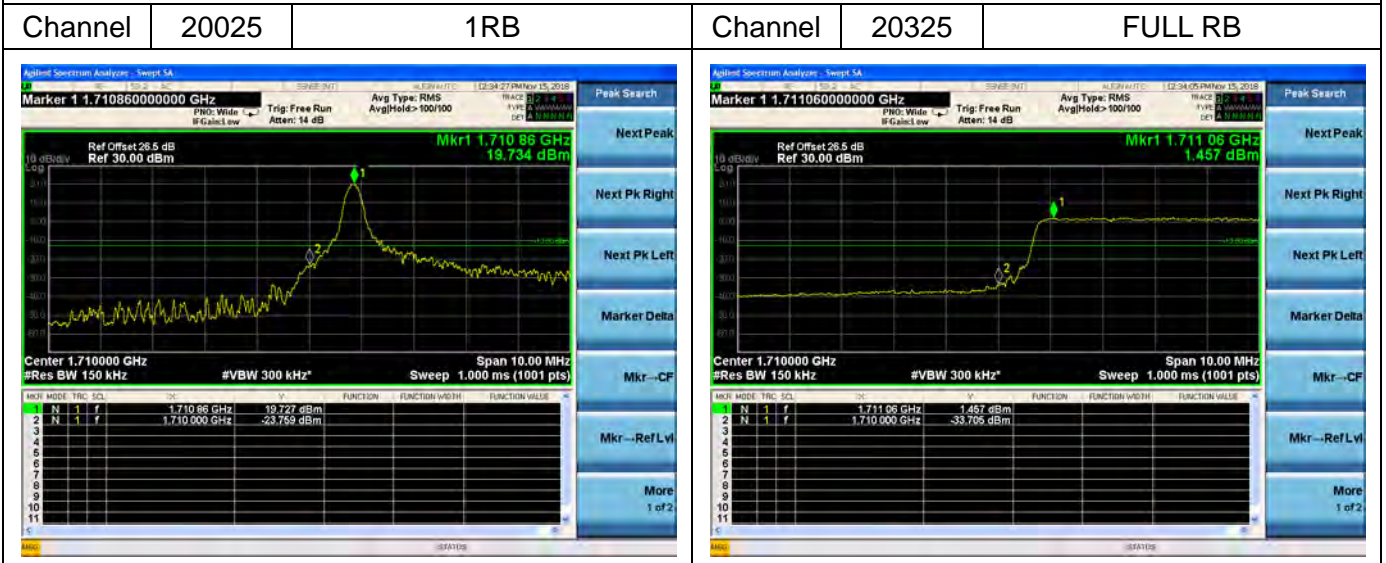
Channel Bandwidth: 10MHz



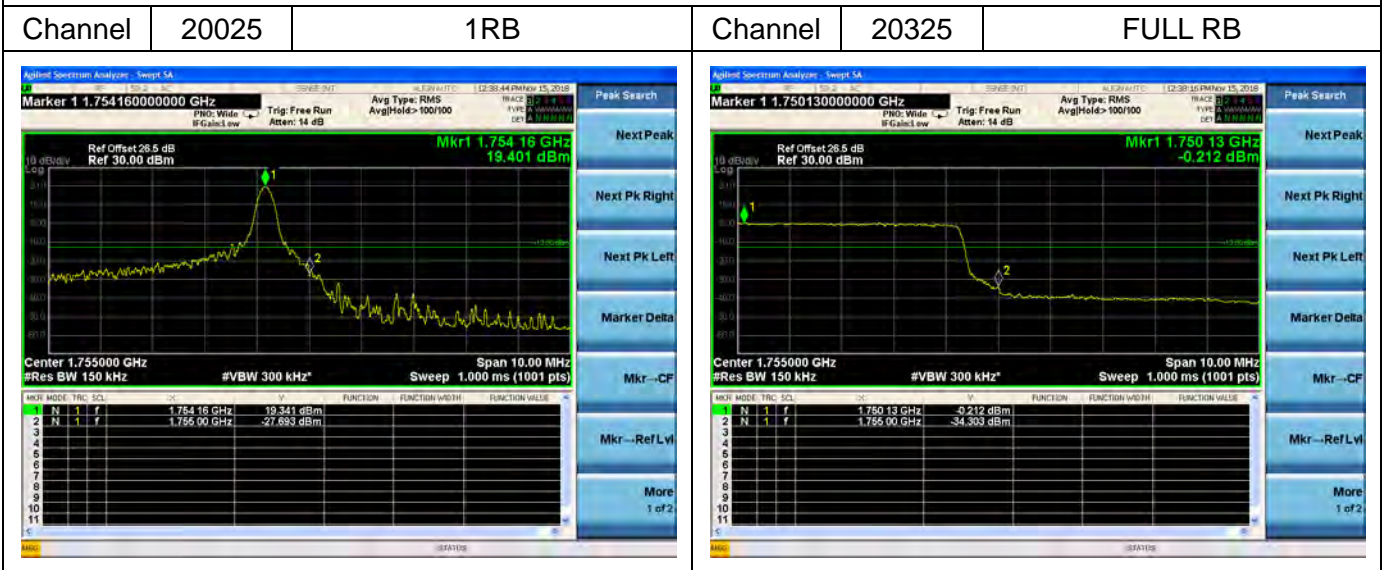


LTE Band 4

Channel Bandwidth: 15MHz



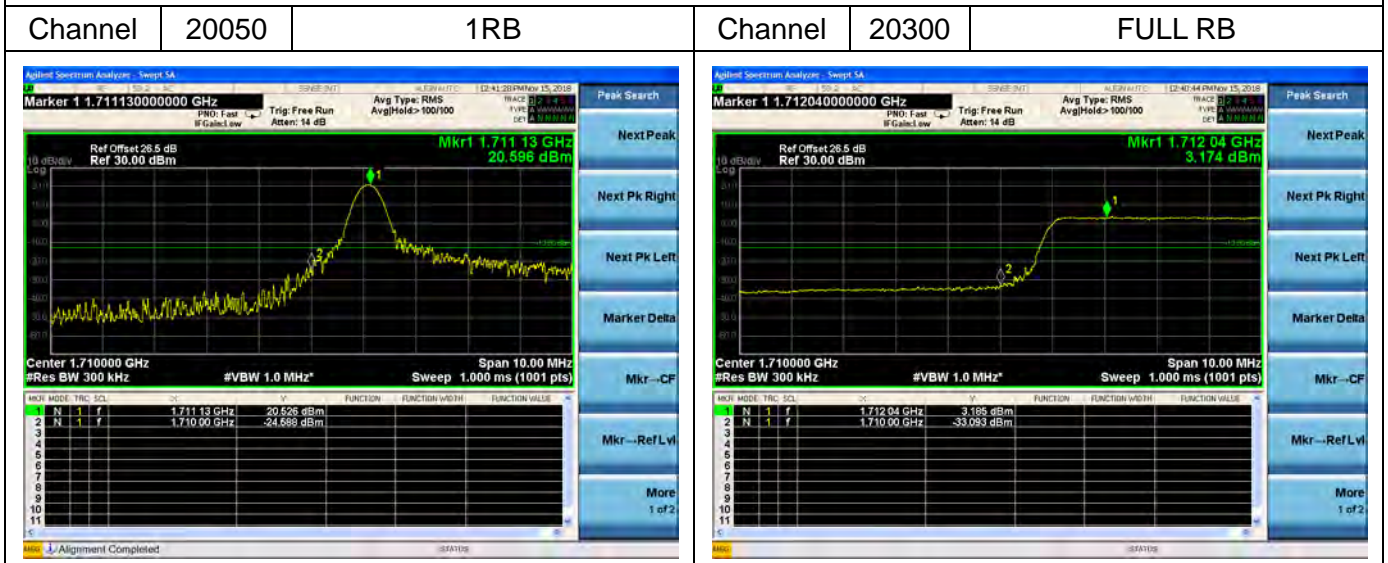
Channel Bandwidth: 15MHz



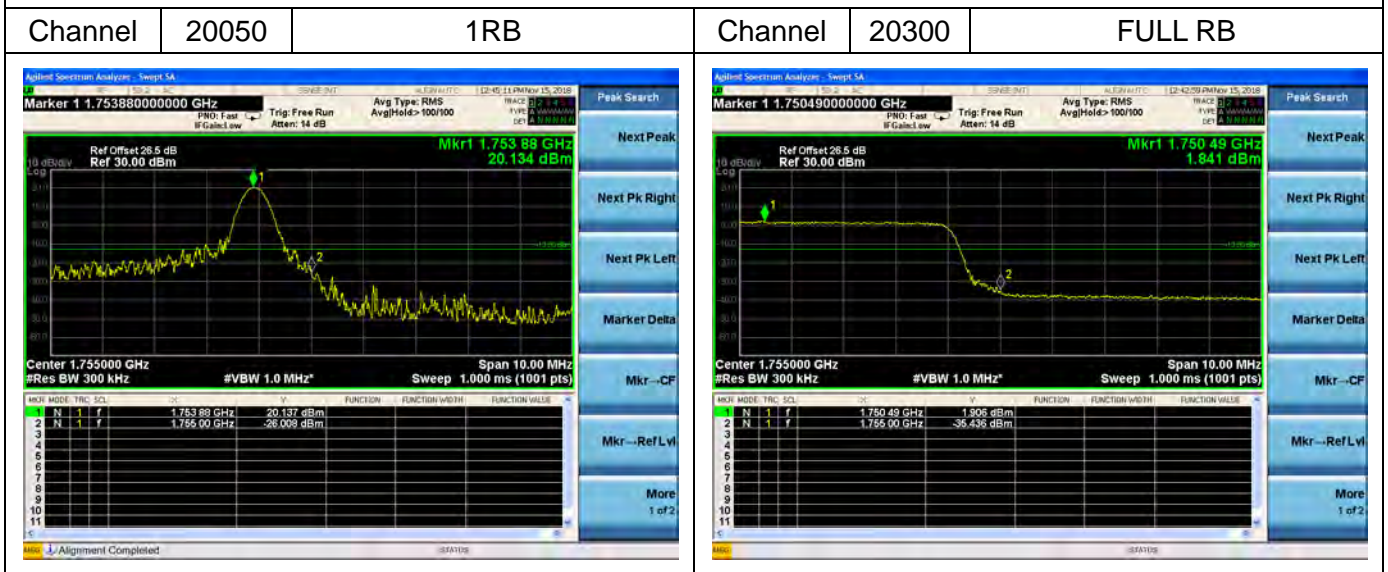


LTE Band 4

Channel Bandwidth: 20MHz



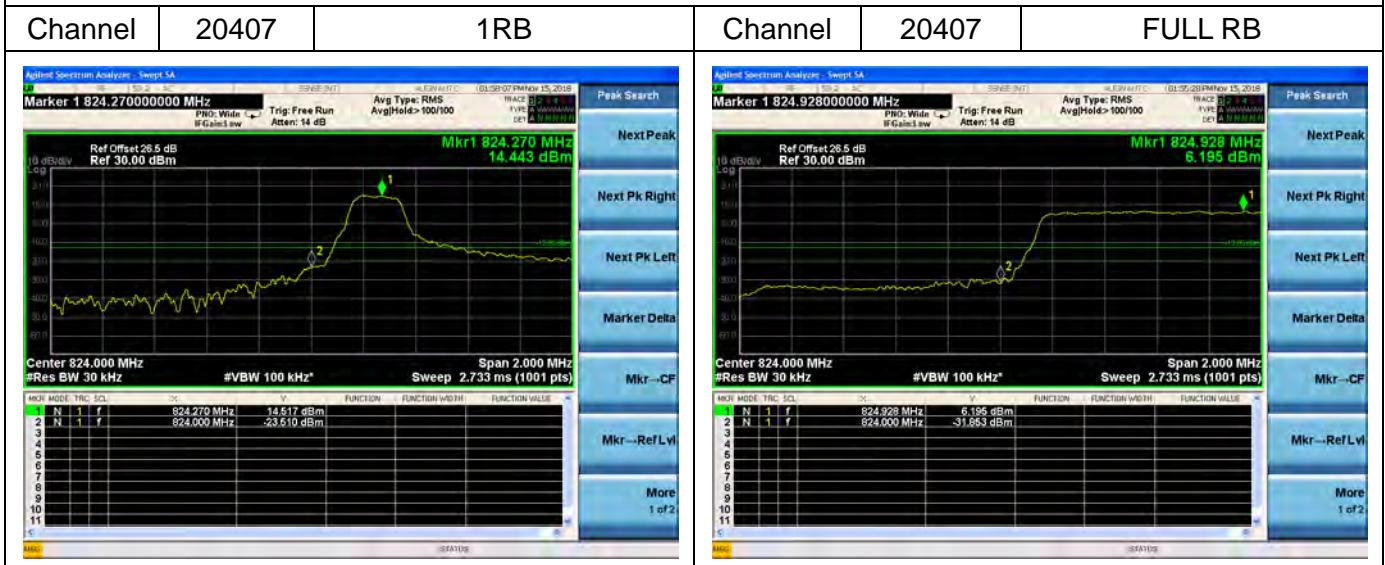
Channel Bandwidth: 20MHz



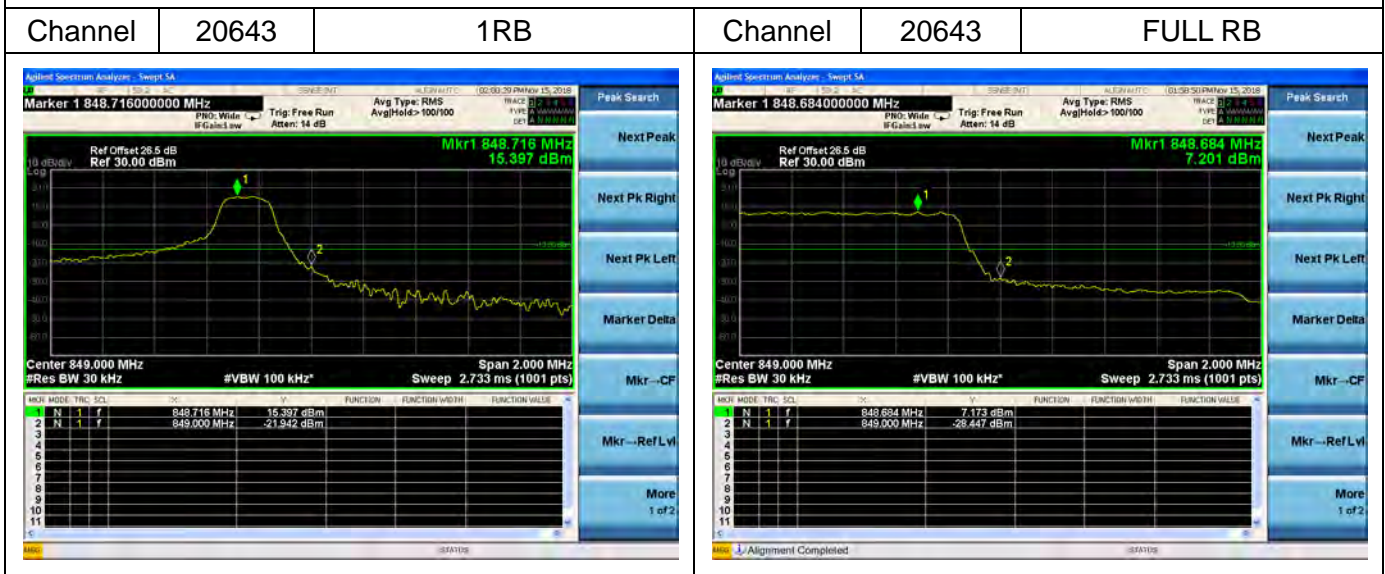


LTE Band 5

Channel Bandwidth: 1.4MHz



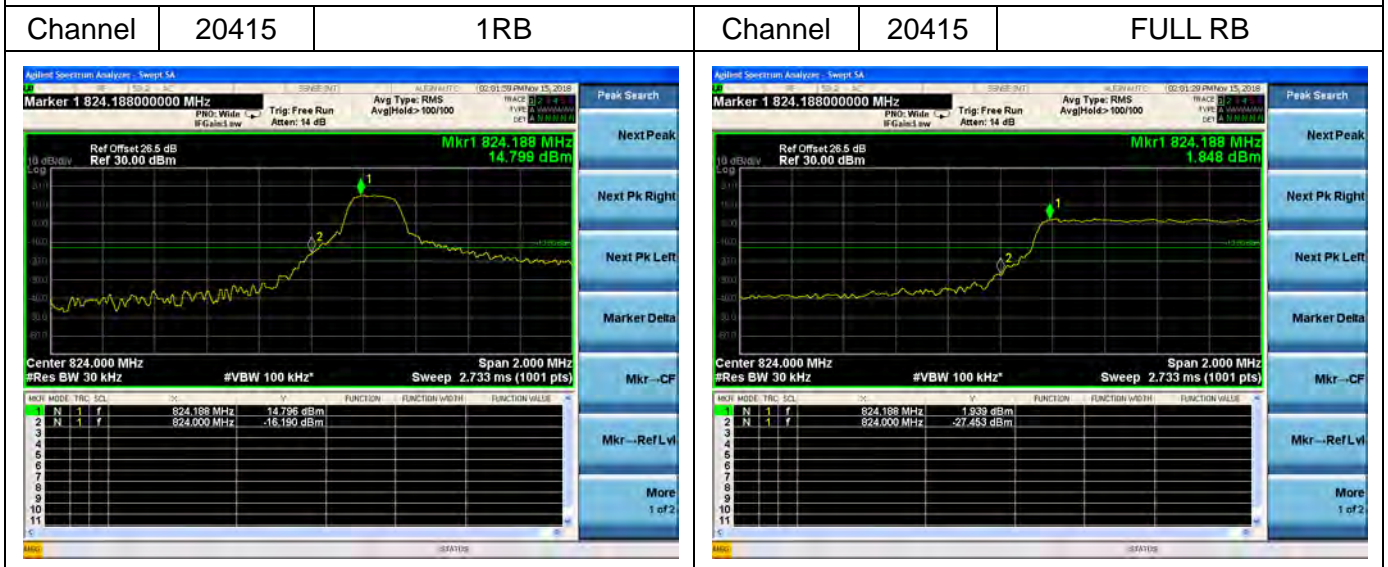
Channel Bandwidth: 1.4MHz



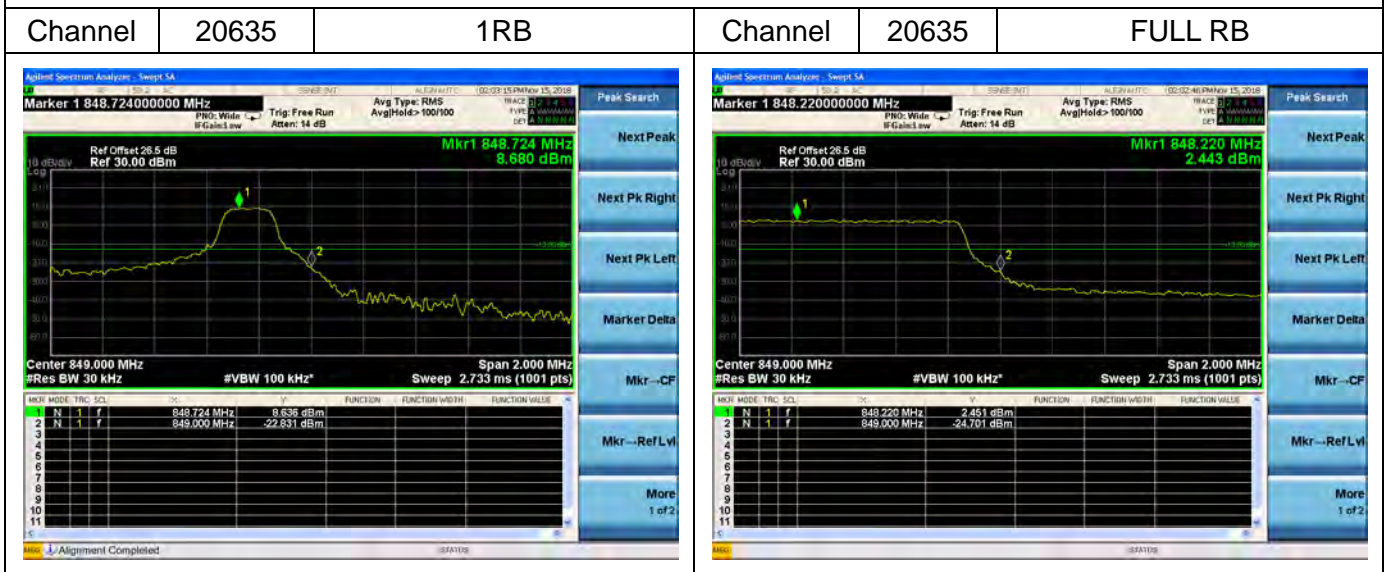


LTE Band 5

Channel Bandwidth: 3MHz



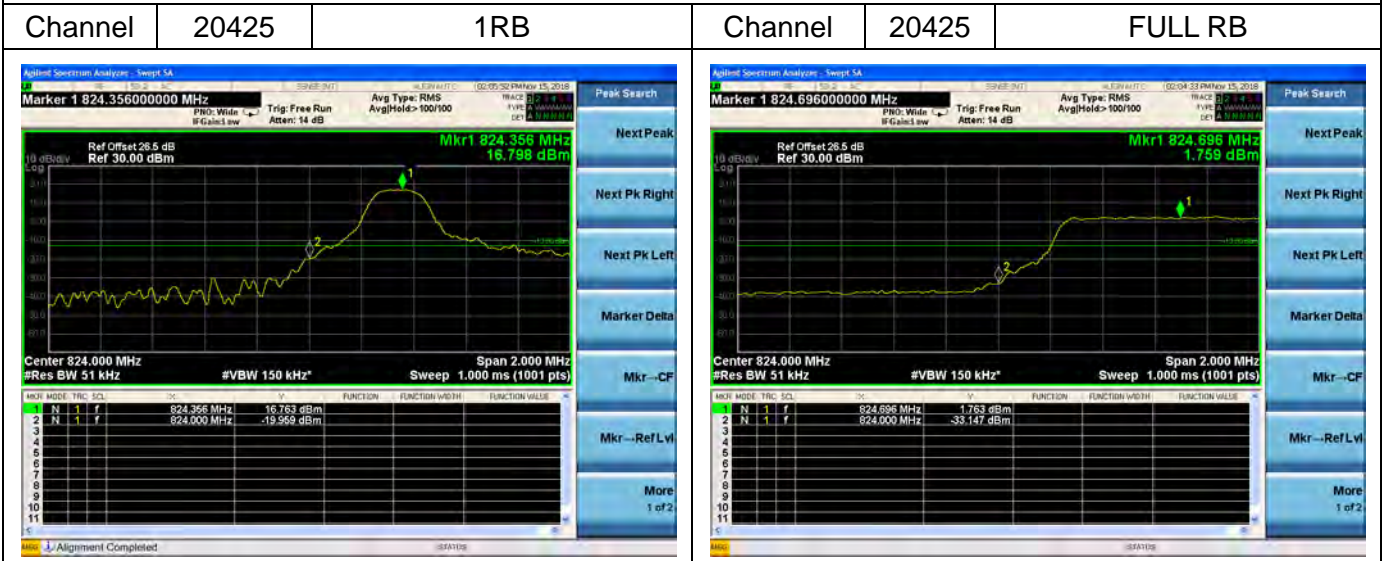
Channel Bandwidth: 3MHz



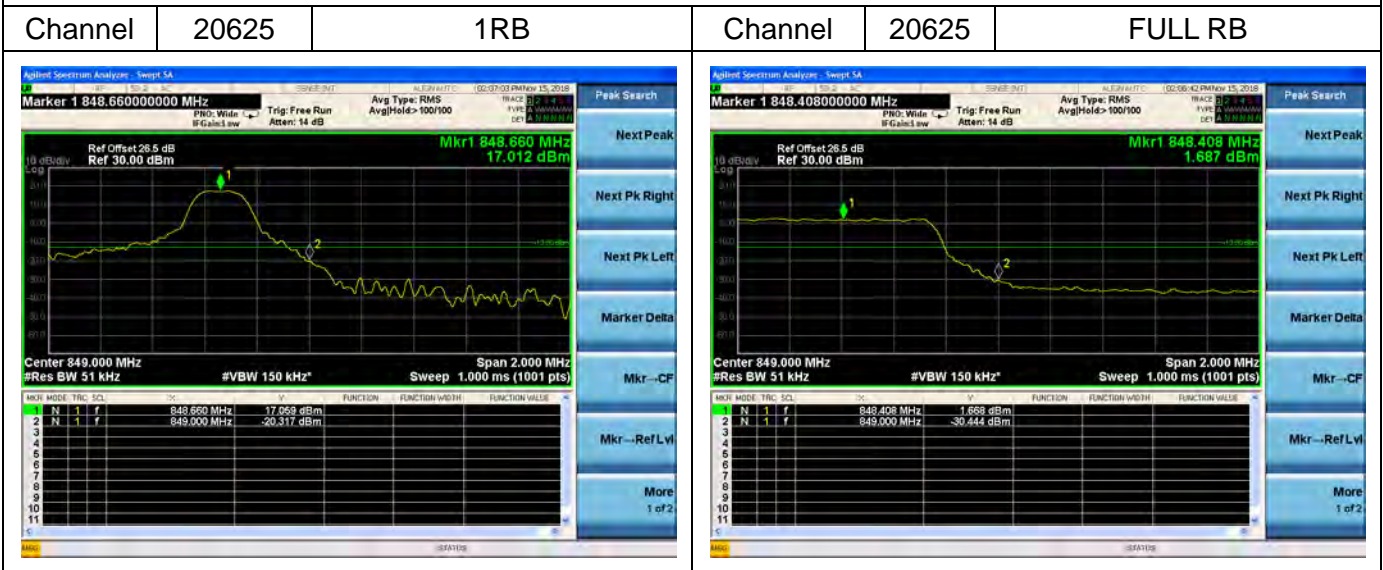


LTE Band 5

Channel Bandwidth: 5MHz



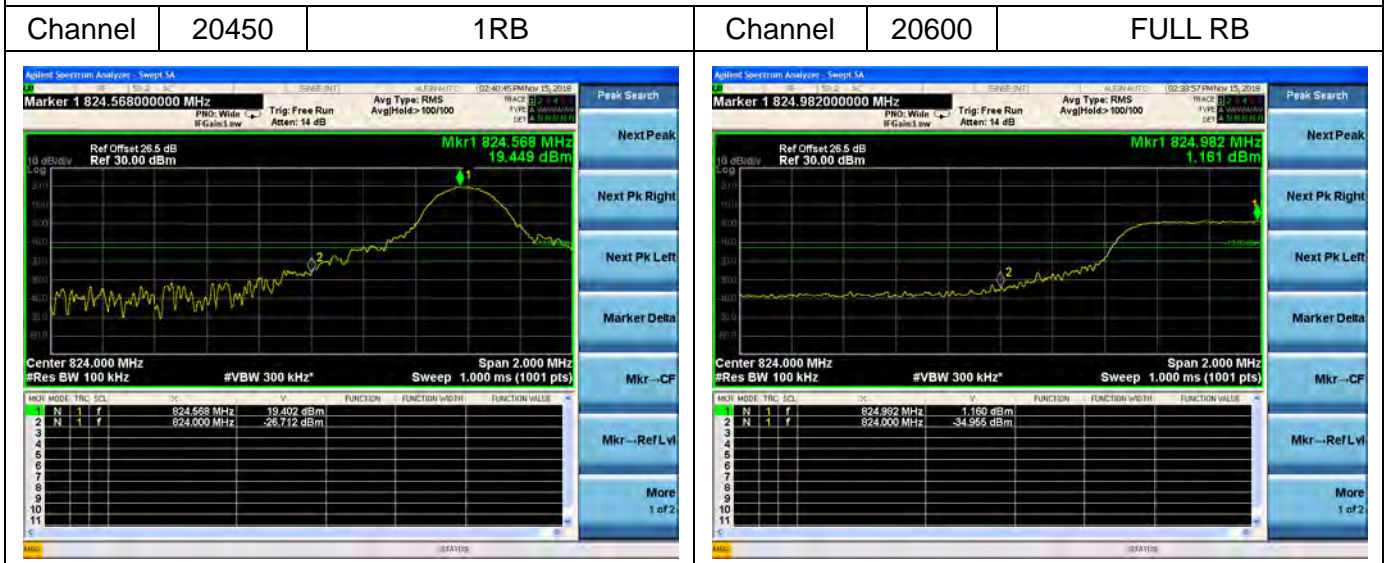
Channel Bandwidth: 5MHz



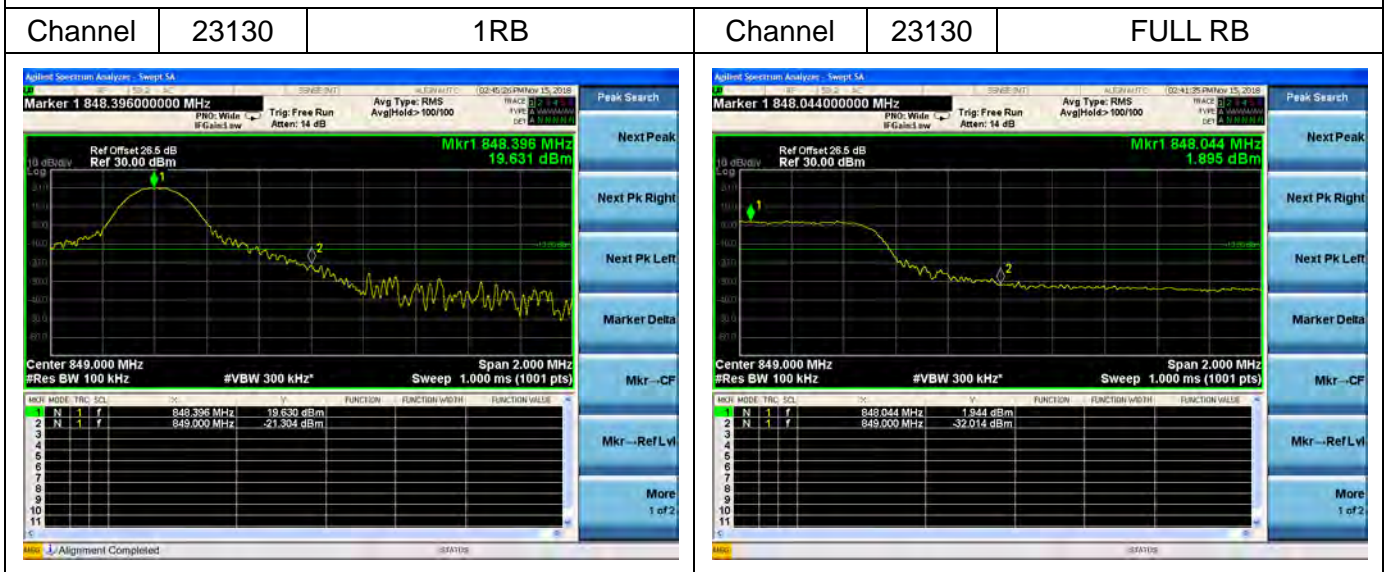


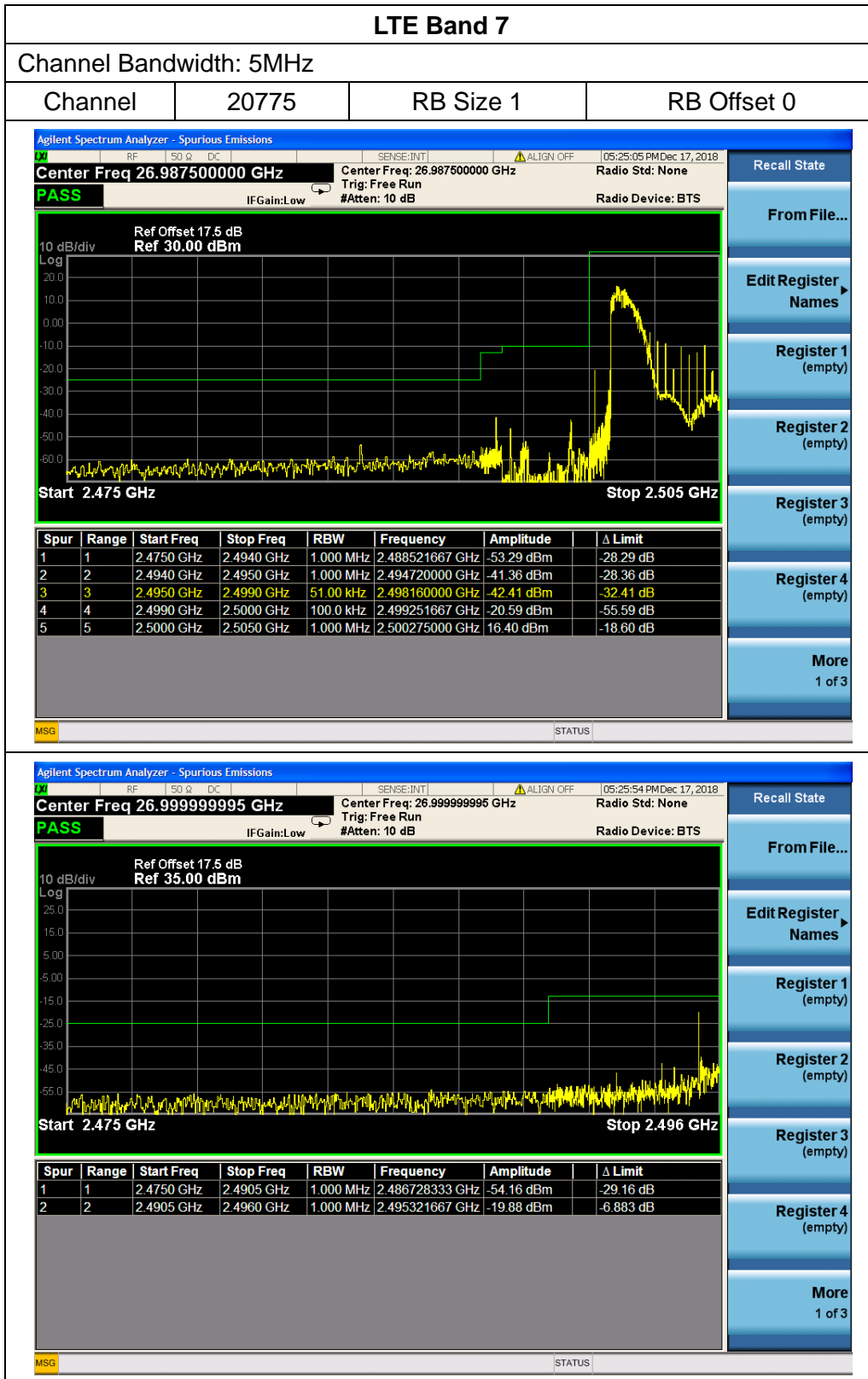
LTE Band 5

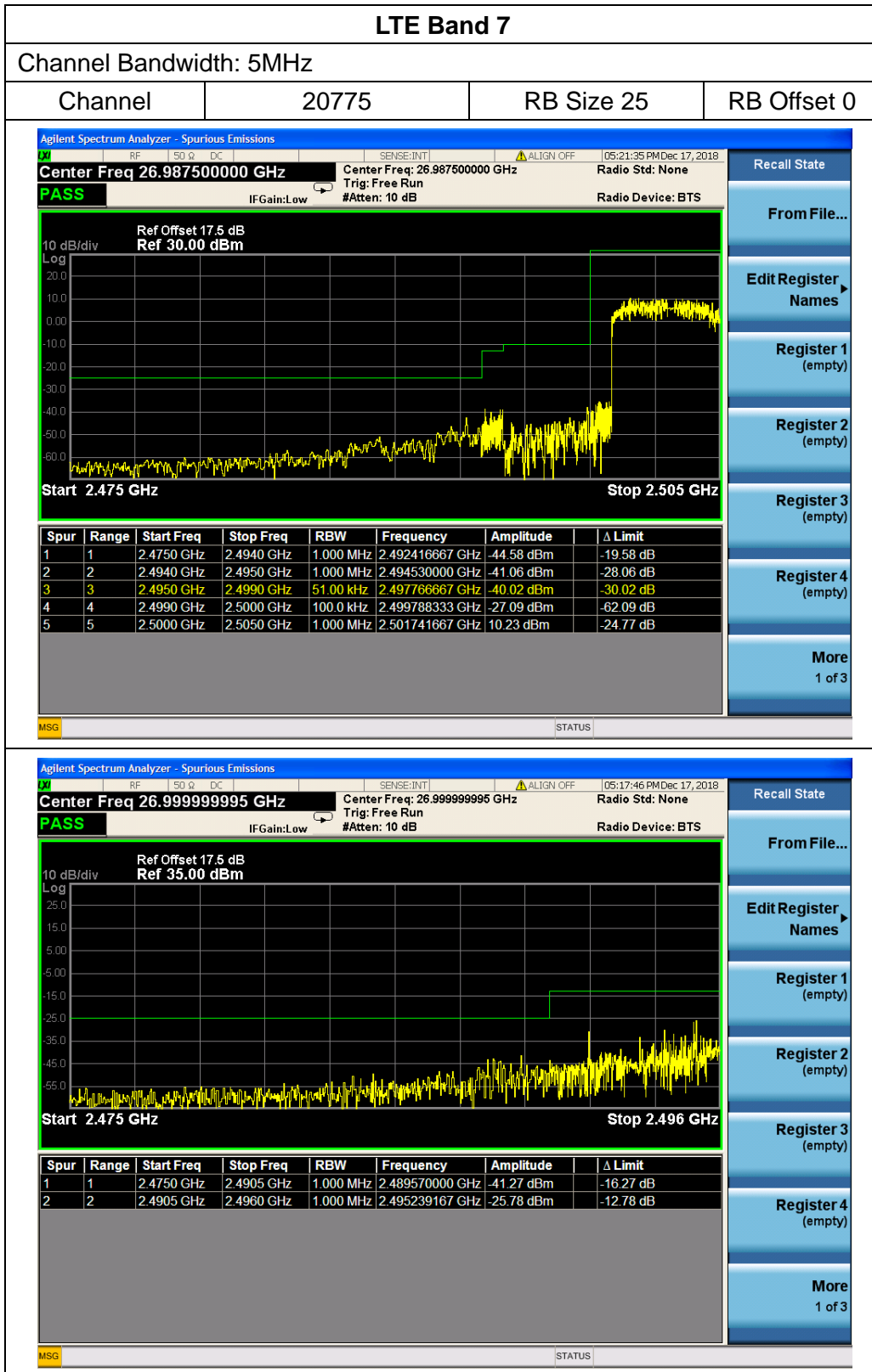
Channel Bandwidth: 10MHz



Channel Bandwidth: 10MHz









LTE Band 7

Channel Bandwidth: 5MHz

Channel	21425	RB Size 1	RB Offset 24
---------	-------	-----------	--------------

Agilent Spectrum Analyzer - Spurious Emissions

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None

Trig: Free Run #Atten: 10 dB Radio Device: BTS

IFGain:Low

Ref Offset 26.4 dB Ref 40.00 dBm

Start 2.565 GHz Stop 2.595 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	1.000 MHz	2.569658333 GHz	24.82 dBm	-5.185 dB
2	2	2.5700 GHz	2.5710 GHz	100.0 kHz	2.570315000 GHz	-11.79 dBm	-1.791 dB
3	3	2.5710 GHz	2.5750 GHz	51.00 kHz	2.572753333 GHz	-31.46 dBm	-21.46 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.576691667 GHz	-37.44 dBm	-24.44 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.585750000 GHz	-47.69 dBm	-22.69 dB

Channel	21425	RB Size 25	RB Offset 0
---------	-------	------------	-------------

Agilent Spectrum Analyzer - Spurious Emissions

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None

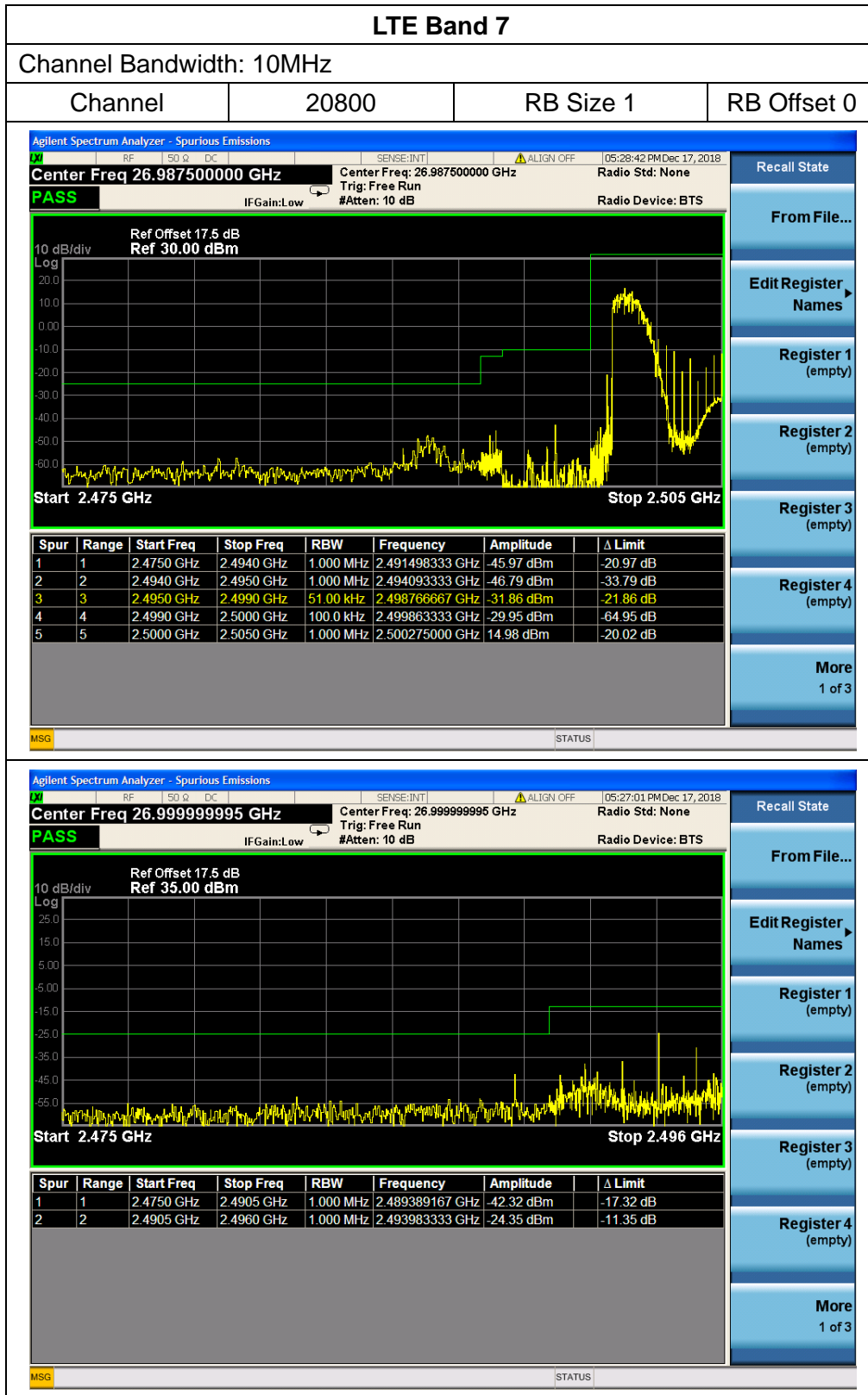
Trig: Free Run #Atten: 10 dB Radio Device: BTS

IFGain:Low

Ref Offset 26.4 dB Ref 40.00 dBm

Start 2.565 GHz Stop 2.595 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	1.000 MHz	2.568791667 GHz	17.14 dBm	-12.86 dB
2	2	2.5700 GHz	2.5710 GHz	100.0 kHz	2.570311667 GHz	-20.24 dBm	-10.24 dB
3	3	2.5710 GHz	2.5750 GHz	51.00 kHz	2.572673333 GHz	-33.87 dBm	-23.87 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.575966667 GHz	-31.87 dBm	-18.87 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.581025000 GHz	-40.92 dBm	-15.92 dB



Agilent Spectrum Analyzer - Spurious Emissions

RF 50 Ω DC SENSE:INT ALIGN OFF 05:27:01 PM Dec 17, 2018

Center Freq 26.999999995 GHz Center Freq: 26.999999995 GHz Radio Std: None

PASS IFGain:Low #Atten: 10 dB Radio Device: BTS

Ref Offset 17.5 dB
Ref 35.00 dBm

Start 2.475 GHz Stop 2.496 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.489389167 GHz	-42.32 dBm	-17.32 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.493983333 GHz	-24.35 dBm	-11.35 dB

Recall State

From File...

Edit Register Names

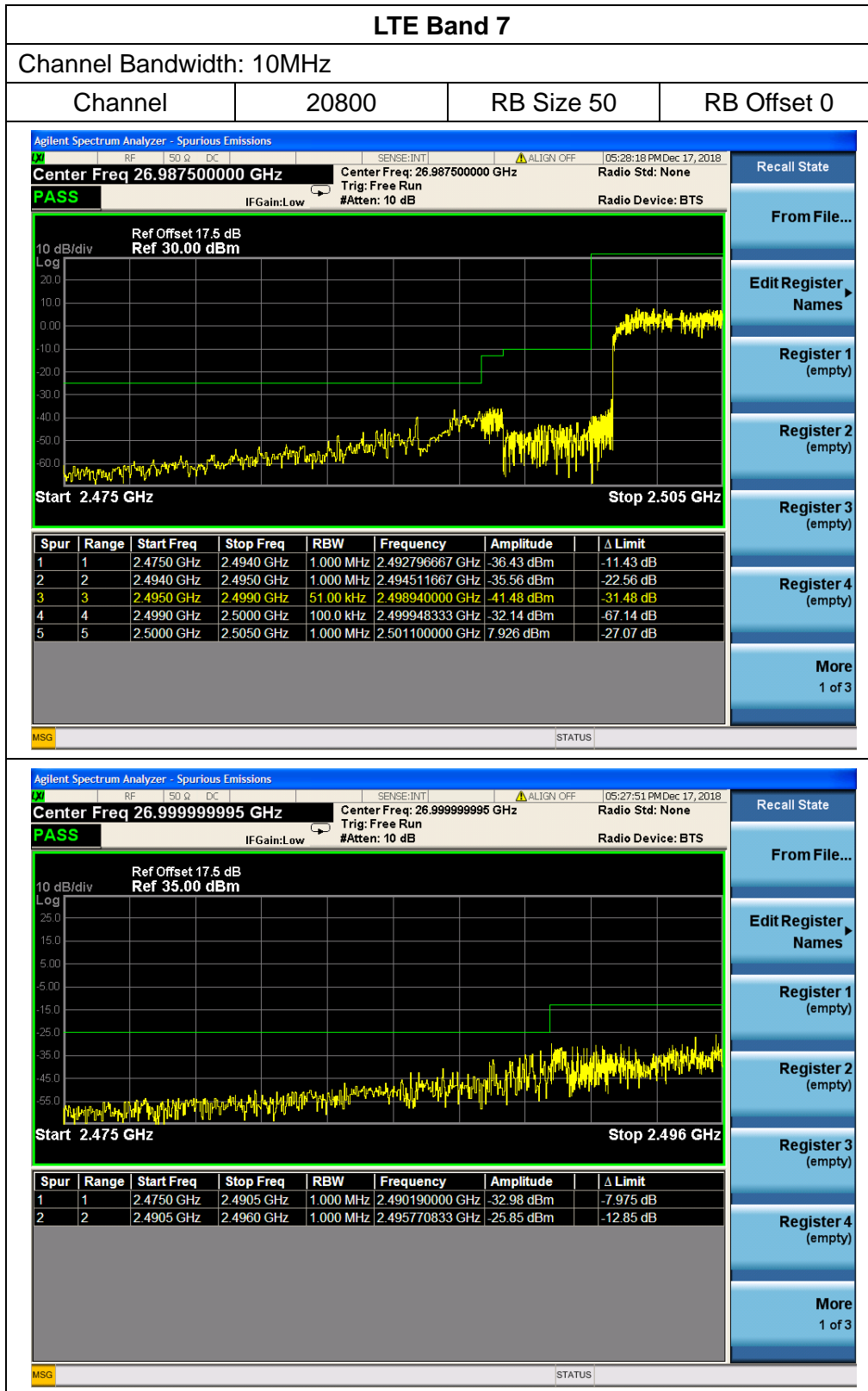
Register 1 (empty)

Register 2 (empty)

Register 3 (empty)

Register 4 (empty)

More
1 of 3



Agilent Spectrum Analyzer - Spurious Emissions

RF 50 Ω DC SENSE:INT ALIGN OFF 05:27:51 PM Dec 17, 2018

Center Freq 26.999999995 GHz Center Freq: 26.999999995 GHz Radio Std: None

PASS IFGain:Low #Atten: 10 dB Radio Device: BTS

Trig: Free Run

Ref Offset 17.5 dB
Ref 35.00 dBm

Start 2.475 GHz Stop 2.496 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490190000 GHz	-32.98 dBm	-7.975 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.495770833 GHz	-25.85 dBm	-12.85 dB

Recall State

From File...

Edit Register Names

Register 1 (empty)

Register 2 (empty)

Register 3 (empty)

Register 4 (empty)

More
1 of 3



LTE Band 7

Channel Bandwidth: 10MHz

Channel	21400	RB Size 1	RB Offset 49
---------	-------	-----------	--------------

Agilent Spectrum Analyzer - Spurious Emissions

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None

PASS IFGain:Low Trig: Free Run #Atten: 10 dB Radio Device: BTS

Ref Offset 26.4 dB
Ref 40.00 dBm

Start 2.565 GHz Stop 2.595 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	1.000 MHz	2.569700000 GHz	24.01 dBm	-5.987 dB
2	2	2.5700 GHz	2.5710 GHz	100.0 kHz	2.570256867 GHz	-13.26 dBm	-3.261 dB
3	3	2.5710 GHz	2.5750 GHz	51.00 kHz	2.572480000 GHz	-30.11 dBm	-20.11 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.577041667 GHz	-34.41 dBm	-21.41 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.582850000 GHz	-48.13 dBm	-23.13 dB

Channel	21400	RB Size 50	RB Offset 0
---------	-------	------------	-------------

Agilent Spectrum Analyzer - Spurious Emissions

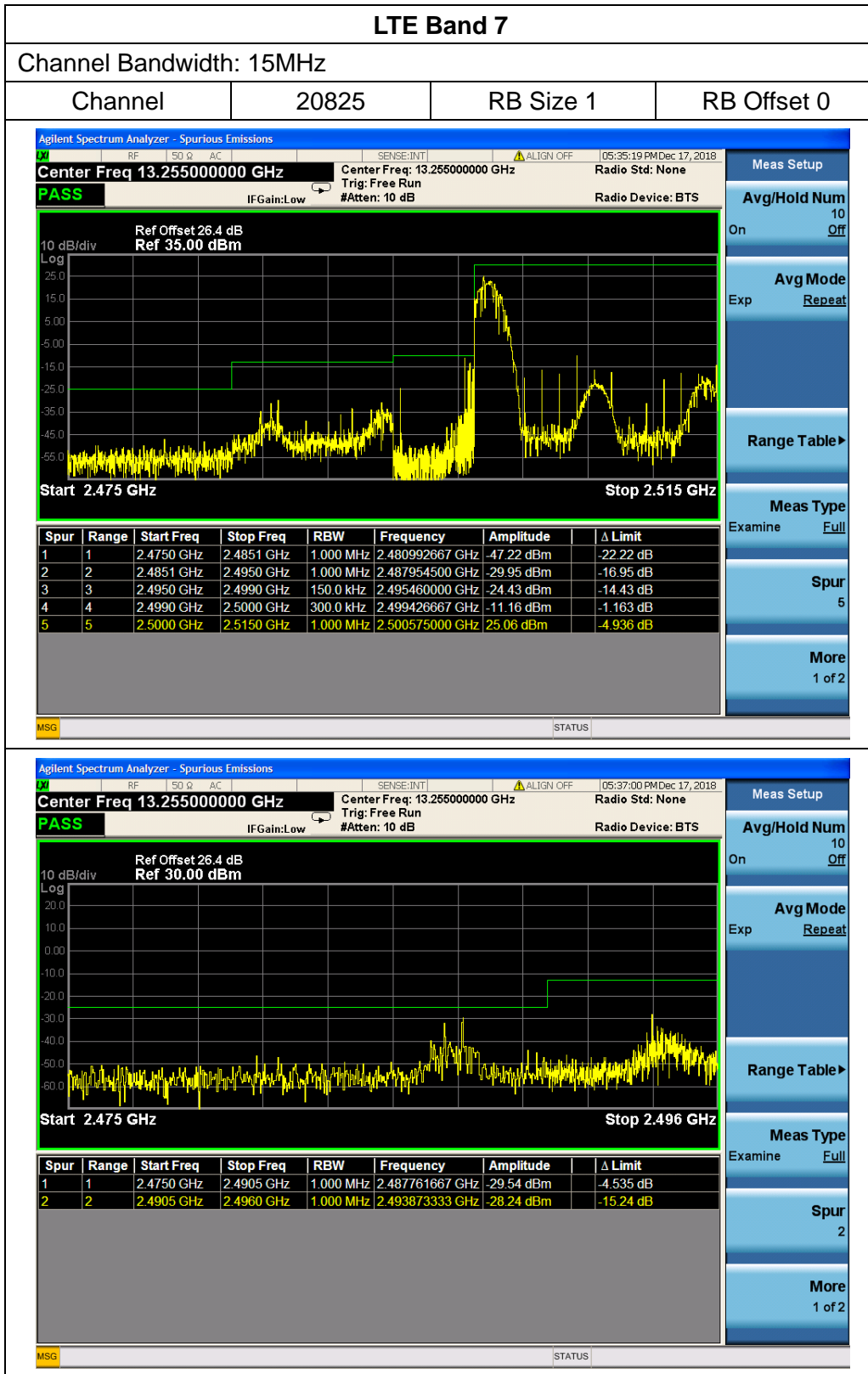
Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None

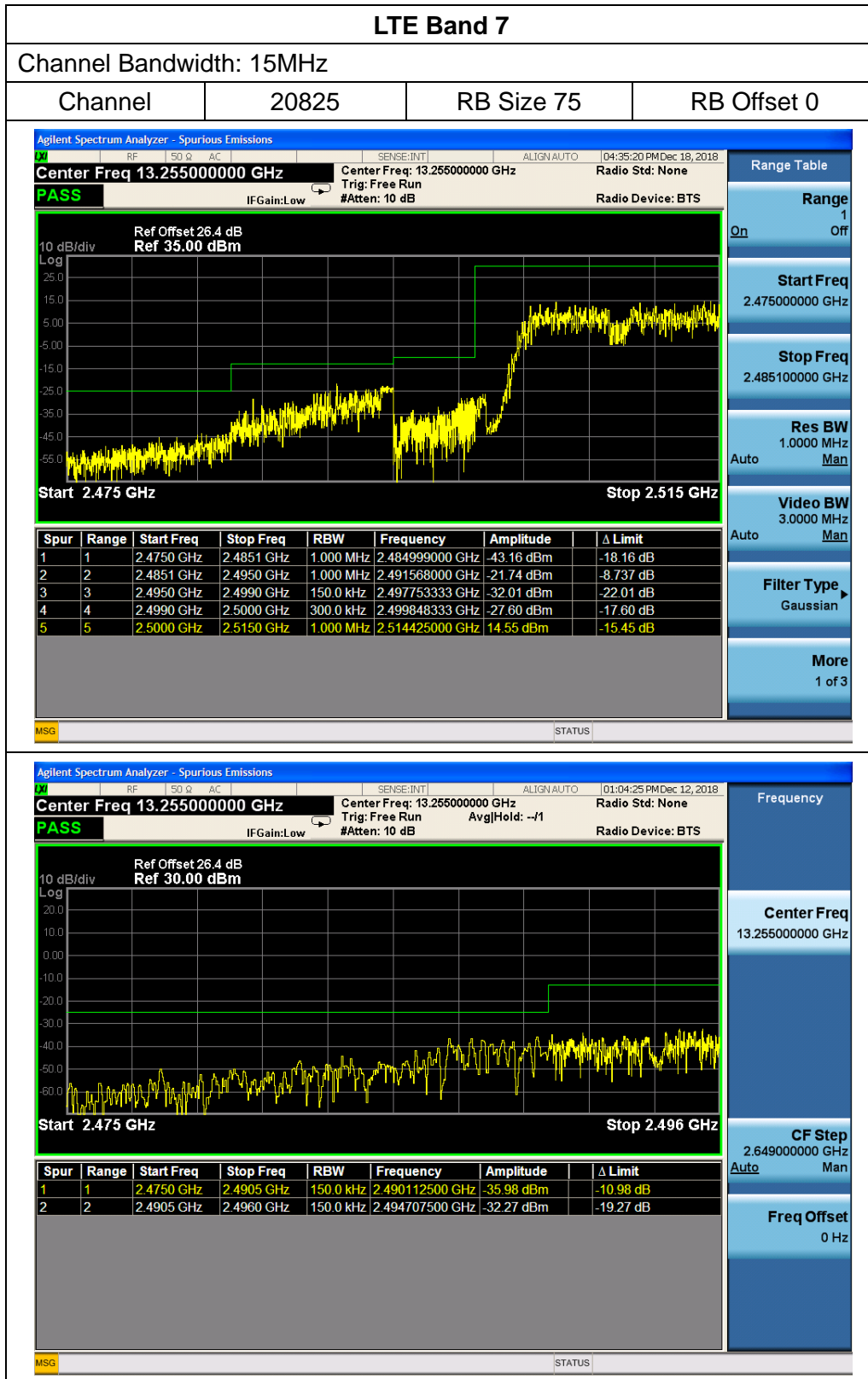
PASS IFGain:Low Trig: Free Run #Atten: 10 dB Radio Device: BTS

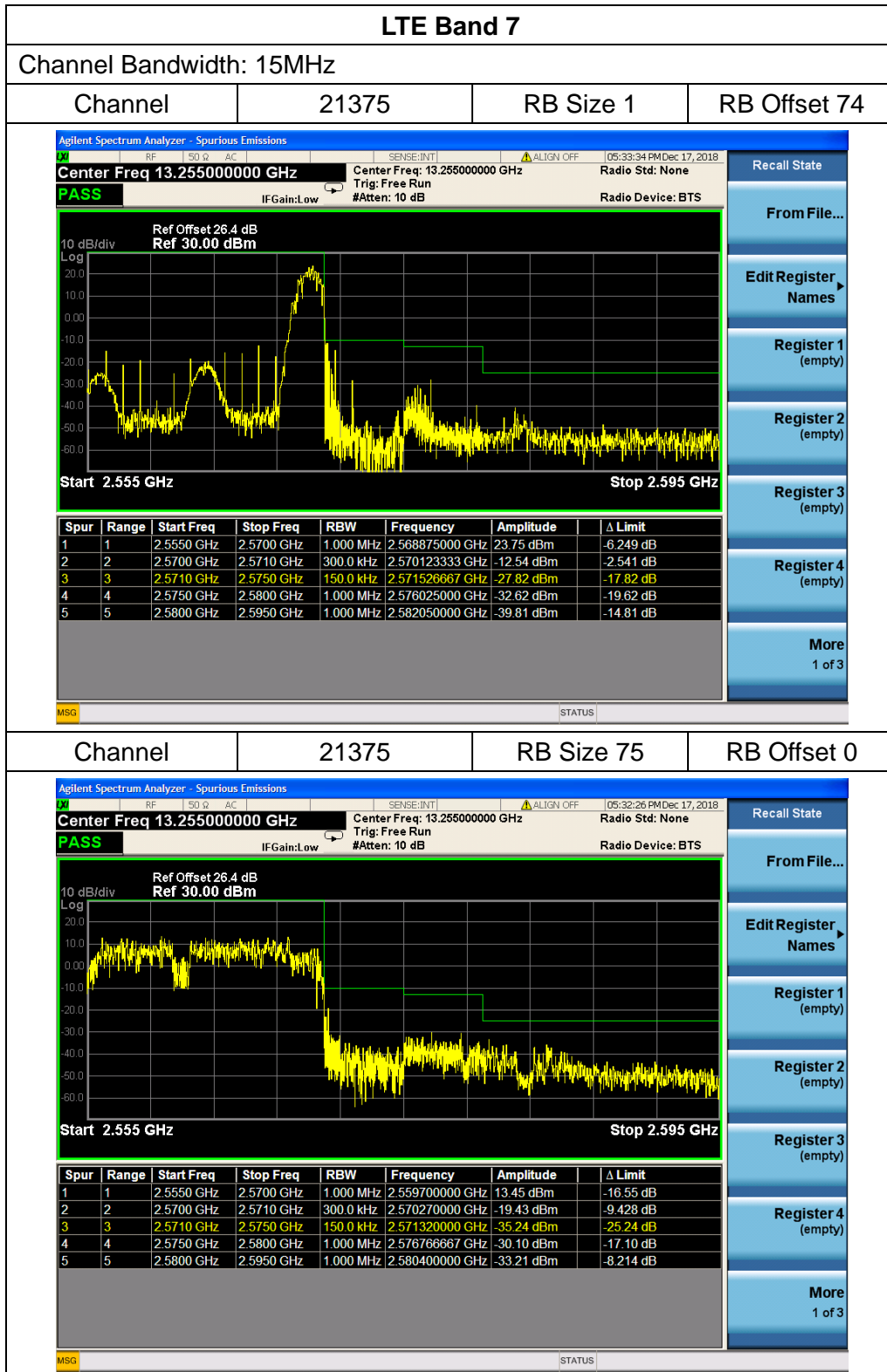
Ref Offset 26.4 dB
Ref 40.00 dBm

Start 2.565 GHz Stop 2.595 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	1.000 MHz	2.568400000 GHz	16.73 dBm	-13.27 dB
2	2	2.5700 GHz	2.5710 GHz	100.0 kHz	2.570131667 GHz	-23.17 dBm	-13.17 dB
3	3	2.5710 GHz	2.5750 GHz	51.00 kHz	2.571606667 GHz	-31.35 dBm	-21.35 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.577516667 GHz	-28.39 dBm	-13.39 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.580575000 GHz	-34.84 dBm	-9.837 dB









LTE Band 7

Channel Bandwidth: 20MHz

Channel	20850	RB Size 1	RB Offset 0
---------	-------	-----------	-------------

Agilent Spectrum Analyzer - Spurious Emissions

X RF 50 Ω AC SENSE:INT ALIGN OFF 05:39:06 PM Dec 17, 2018

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None
 Trig: Free Run
PASS IFGain:Low #Atten: 10 dB Radio Device: BTS

Ref Offset 26.4 dB
Ref 35.00 dBm

Start 2.475 GHz Stop 2.52 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4803 GHz	1.000 MHz	2.475609500 GHz	-48.84 dBm	-23.84 dB
2	2	2.4803 GHz	2.4950 GHz	1.000 MHz	2.492329500 GHz	-37.98 dBm	-24.98 dB
3	3	2.4950 GHz	2.4990 GHz	200.0 kHz	2.498420000 GHz	-20.51 dBm	-10.51 dB
4	4	2.4990 GHz	2.5000 GHz	430.0 kHz	2.499938333 GHz	-10.58 dBm	-0.583 dB
5	5	2.5000 GHz	2.5200 GHz	1.000 MHz	2.501133333 GHz	24.87 dBm	-5.133 dB

Recall State

From File...

Edit Register Names

Register 1 (empty)

Register 2 (empty)

Register 3 (empty)

Register 4 (empty)

More
1 of 3

Agilent Spectrum Analyzer - Spurious Emissions

X RF 50 Ω AC SENSE:INT ALIGN OFF 05:38:26 PM Dec 17, 2018

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None
 Trig: Free Run
PASS IFGain:Low #Atten: 10 dB Radio Device: BTS

Ref Offset 26.4 dB
Ref 30.00 dBm

Start 2.475 GHz Stop 2.496 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.482775833 GHz	-36.76 dBm	-11.76 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.491911667 GHz	-31.93 dBm	-18.93 dB

Meas Setup

Avg/Hold Num
On 10 Off

Avg Mode
Exp Repeat

Range Table ▶

Meas Type
Examine Full

Spur
2

More
1 of 2



LTE Band 7

Channel Bandwidth: 20MHz

Channel	20850	RB Size 100	RB Offset 0
---------	-------	-------------	-------------

Agilent Spectrum Analyzer - Spurious Emissions

RF 50 Ω AC
SENSE:INT
ALIGN OFF
05:39:22 PM Dec 17, 2018

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None
 Trig: Free Run
 #Atten: 10 dB Radio Device: BTS

PASS

IFGain:Low

Ref Offset 26.4 dB
Ref 35.00 dBm

Start 2.475 GHz Stop 2.52 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4803 GHz	1.000 MHz	2.479752333 GHz	-44.30 dBm	-19.30 dB
2	2	2.4803 GHz	2.4950 GHz	1.000 MHz	2.494412000 GHz	-26.60 dBm	-13.60 dB
3	3	2.4950 GHz	2.4990 GHz	200.0 kHz	2.497760000 GHz	-30.29 dBm	-20.29 dB
4	4	2.4990 GHz	2.5000 GHz	430.0 kHz	2.499881667 GHz	-13.66 dBm	-3.660 dB
5	5	2.5000 GHz	2.5200 GHz	1.000 MHz	2.512066667 GHz	12.31 dBm	-17.69 dB

Recall State

From File...

Edit Register Names

Register 1 (empty)

Register 2 (empty)

Register 3 (empty)

Register 4 (empty)

More
1 of 3

Agilent Spectrum Analyzer - Spurious Emissions

RF 50 Ω AC
SENSE:INT
ALIGN OFF
05:37:52 PM Dec 17, 2018

Center Freq 13.255000000 GHz Center Freq: 13.255000000 GHz Radio Std: None
 Trig: Free Run
 #Atten: 10 dB Radio Device: BTS

PASS

IFGain:Low

Ref Offset 26.4 dB
Ref 30.00 dBm

Start 2.475 GHz Stop 2.496 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490060833 GHz	-28.92 dBm	-3.916 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.493552500 GHz	-25.27 dBm	-12.27 dB

Meas Setup

Avg/Hold Num 10
On Off

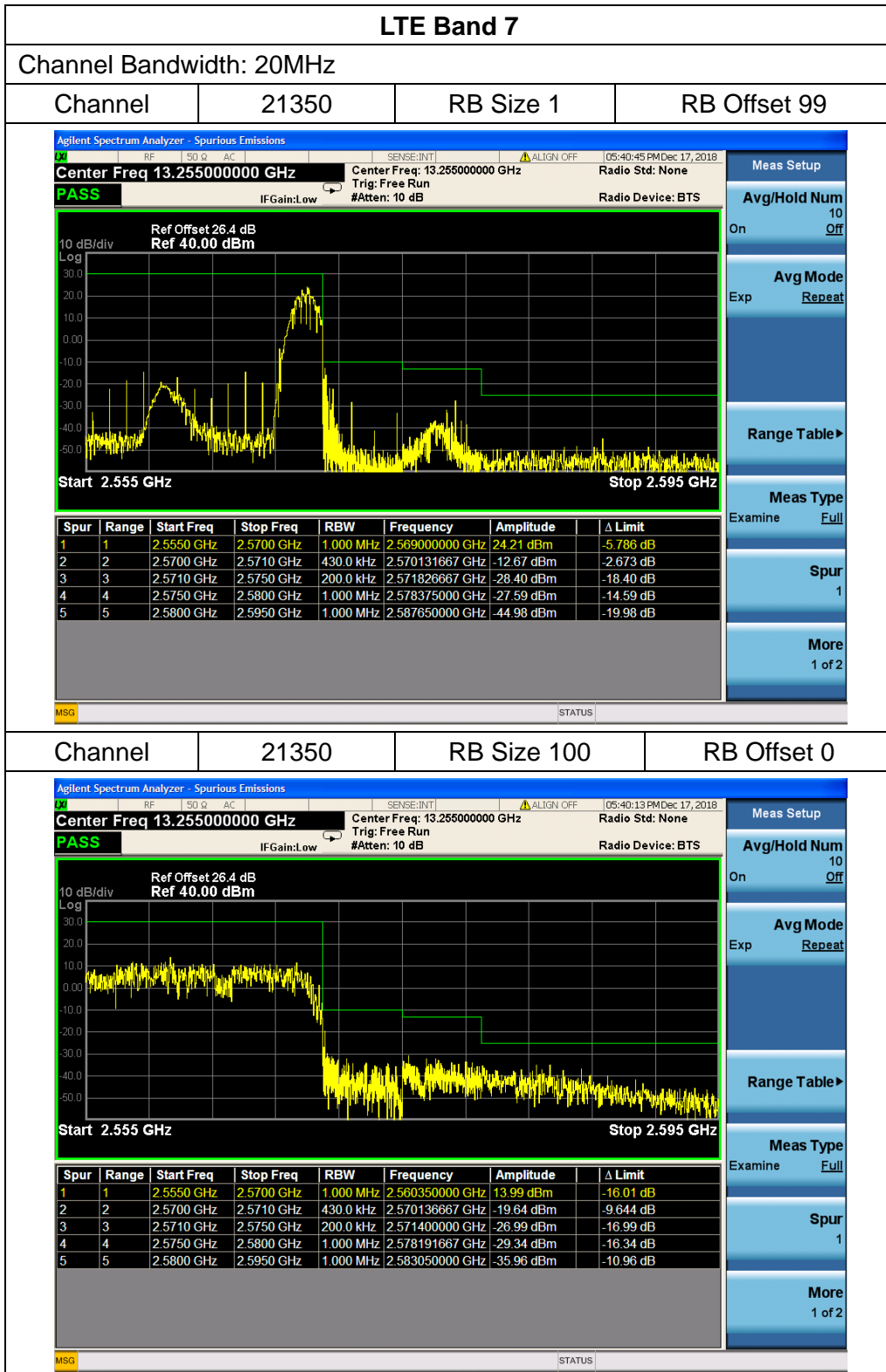
Avg Mode Exp Repeat

Range Table

Meas Type Examine Full

Spur 2

More
1 of 2



Agilent Spectrum Analyzer - Spurious Emissions
05:40:13 PM Dec 17, 2018

Center Freq 13.255000000 GHz
Center Freq: 13.255000000 GHz
Radio Std: None

PASS
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Radio Device: BTS

Ref Offset 26.4 dB
 Ref 40.00 dBm

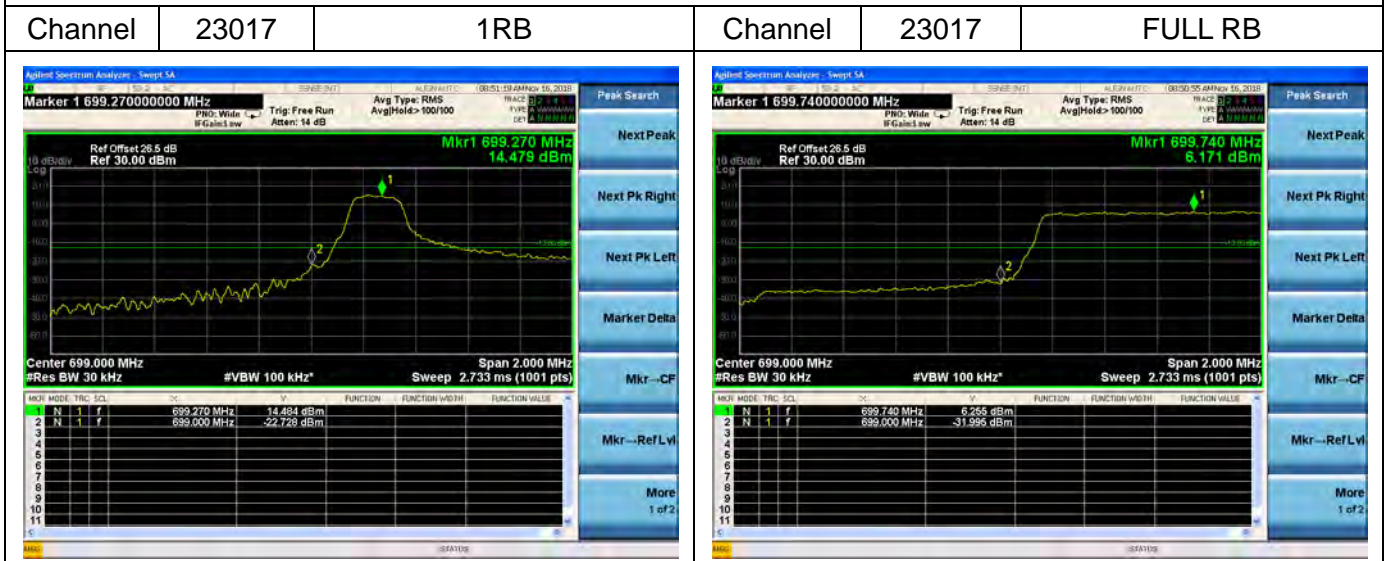
Start 2.555 GHz
Stop 2.595 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5550 GHz	2.5700 GHz	1.000 MHz	2.560350000 GHz	13.99 dBm	-16.01 dB
2	2	2.5700 GHz	2.5710 GHz	430.0 kHz	2.570136667 GHz	-19.64 dBm	-9.644 dB
3	3	2.5710 GHz	2.5750 GHz	200.0 kHz	2.571400000 GHz	-26.99 dBm	-16.99 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.578191667 GHz	-29.34 dBm	-16.34 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.583050000 GHz	-35.96 dBm	-10.96 dB

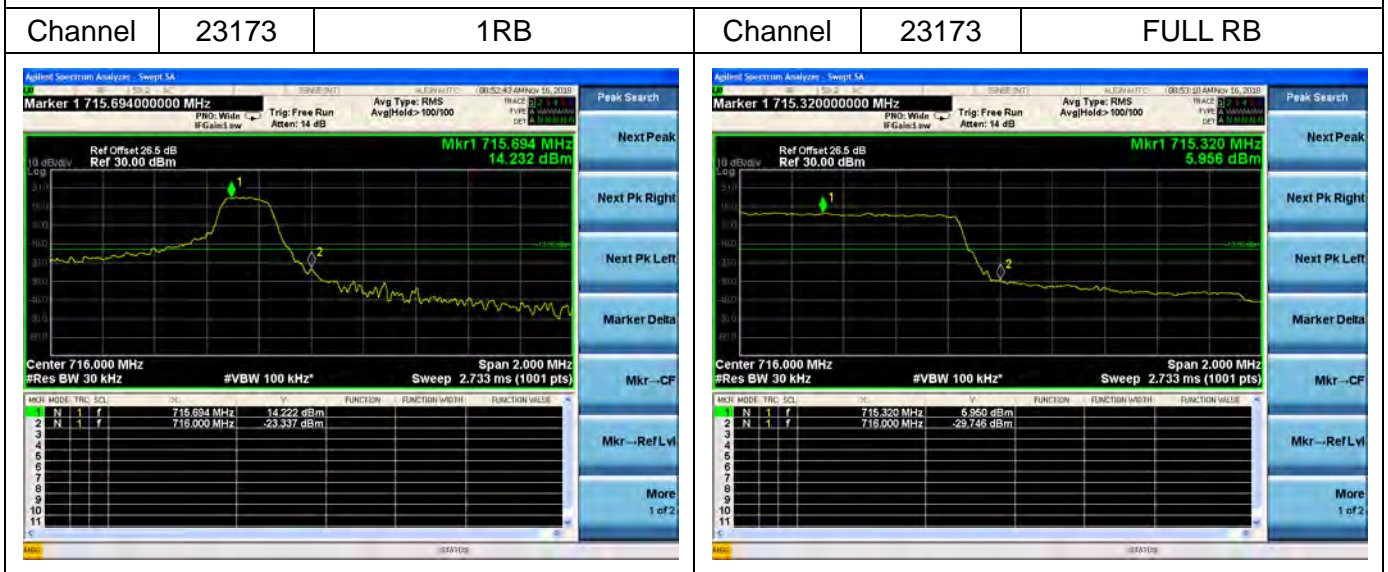


LTE Band 12

Channel Bandwidth: 1.4MHz



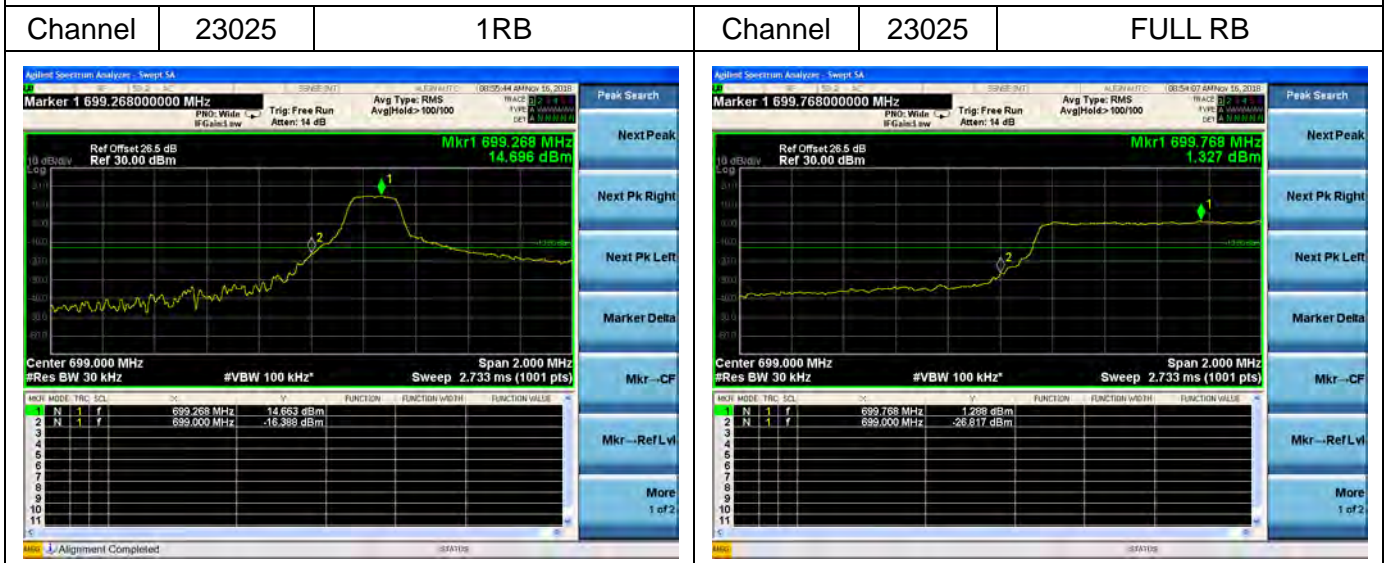
Channel Bandwidth: 1.4MHz



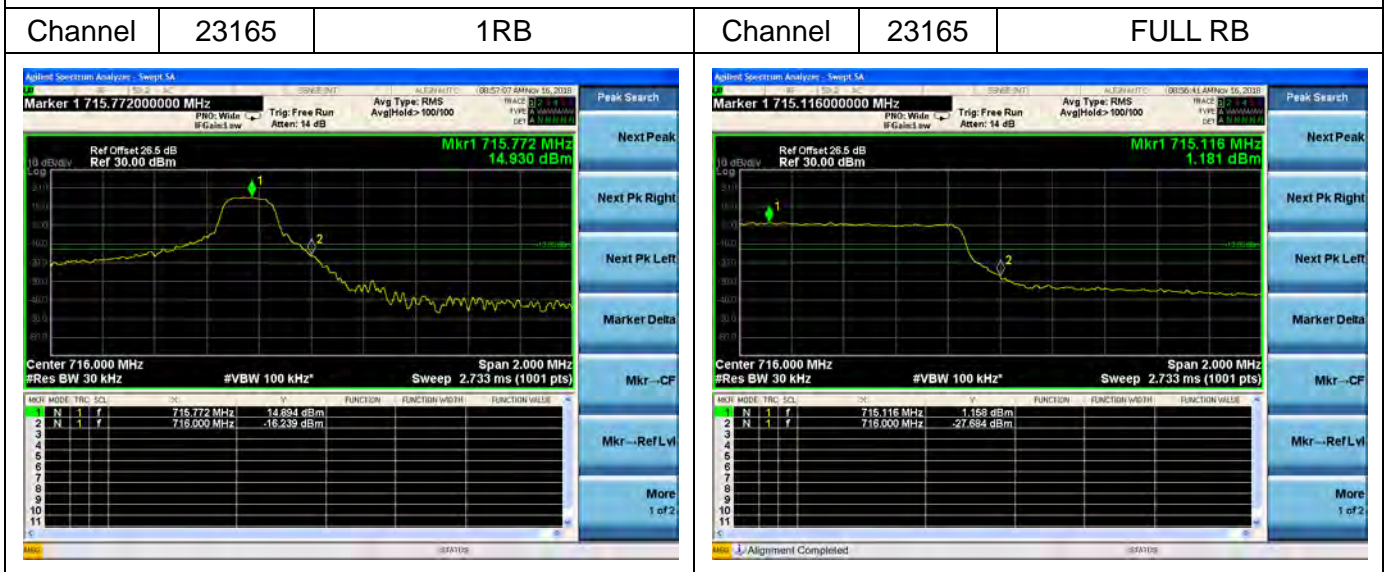


LTE Band 12

Channel Bandwidth: 3MHz



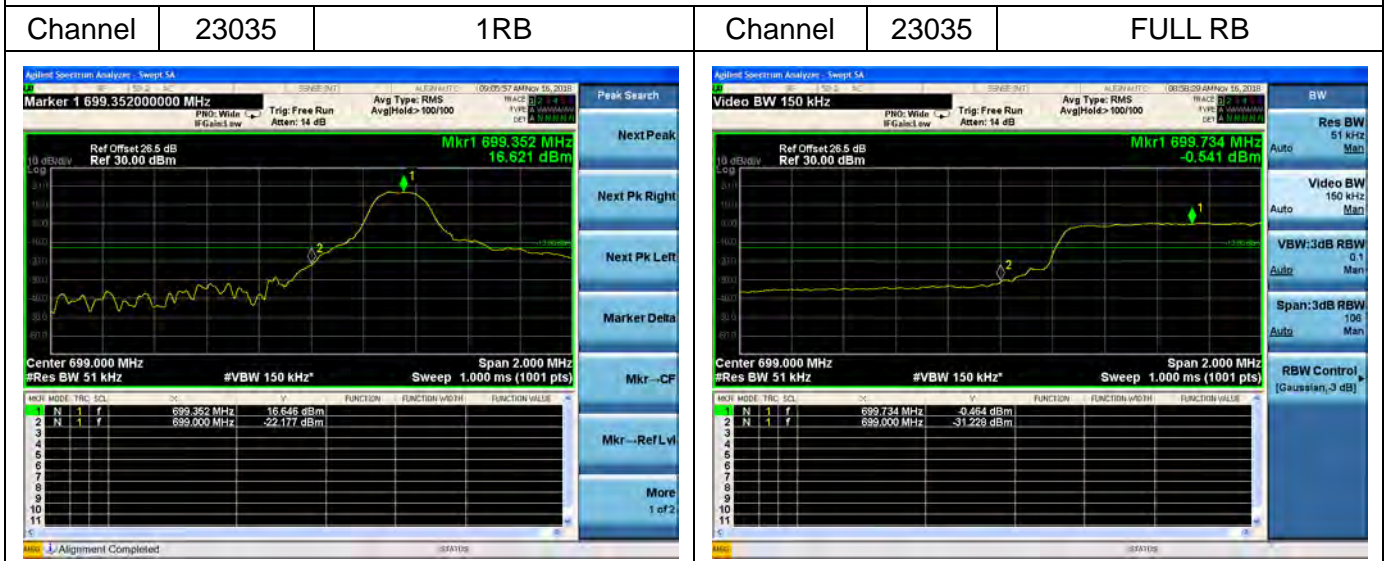
Channel Bandwidth: 3MHz



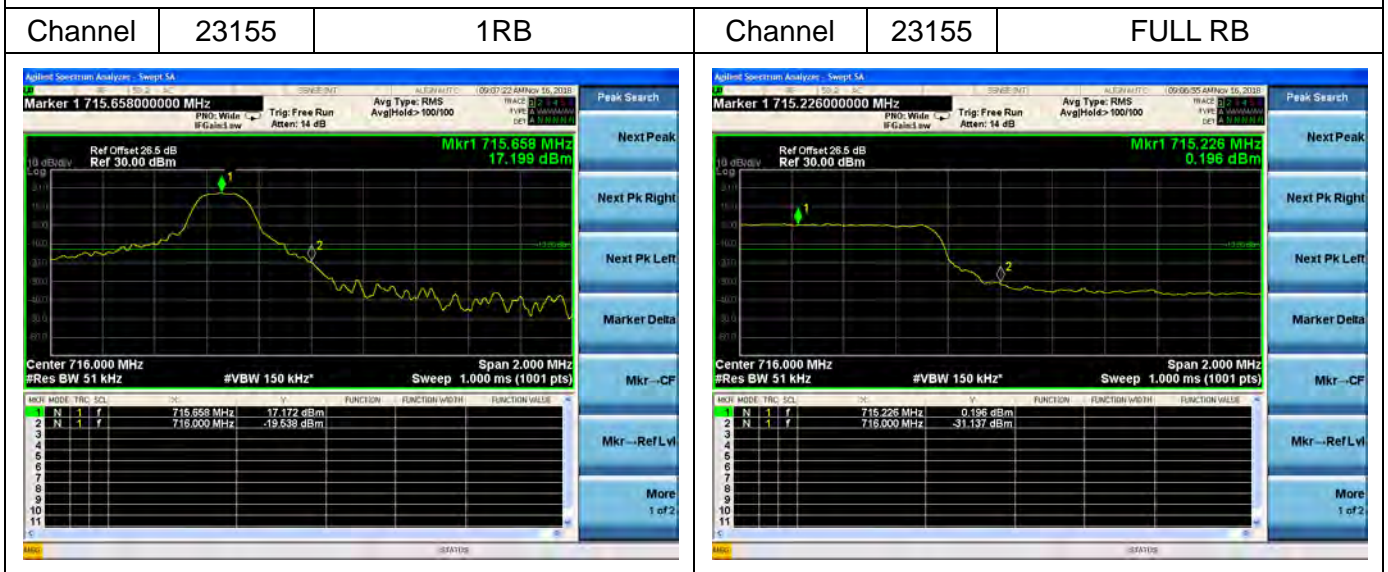


LTE Band 12

Channel Bandwidth: 5MHz



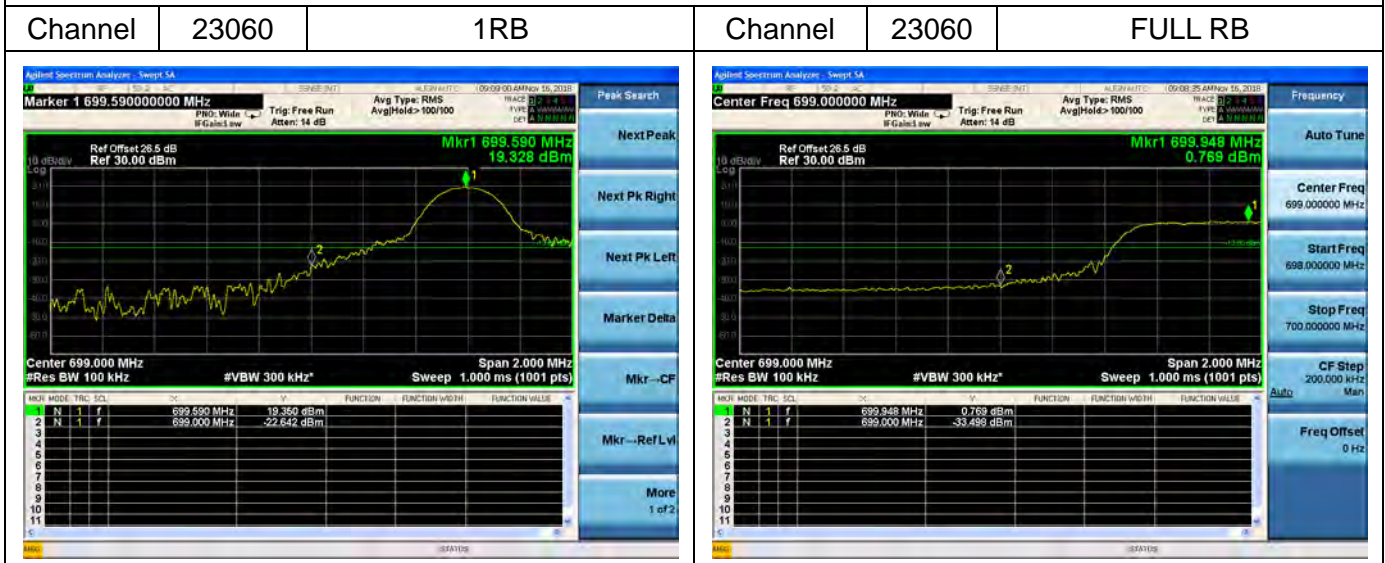
Channel Bandwidth: 5MHz



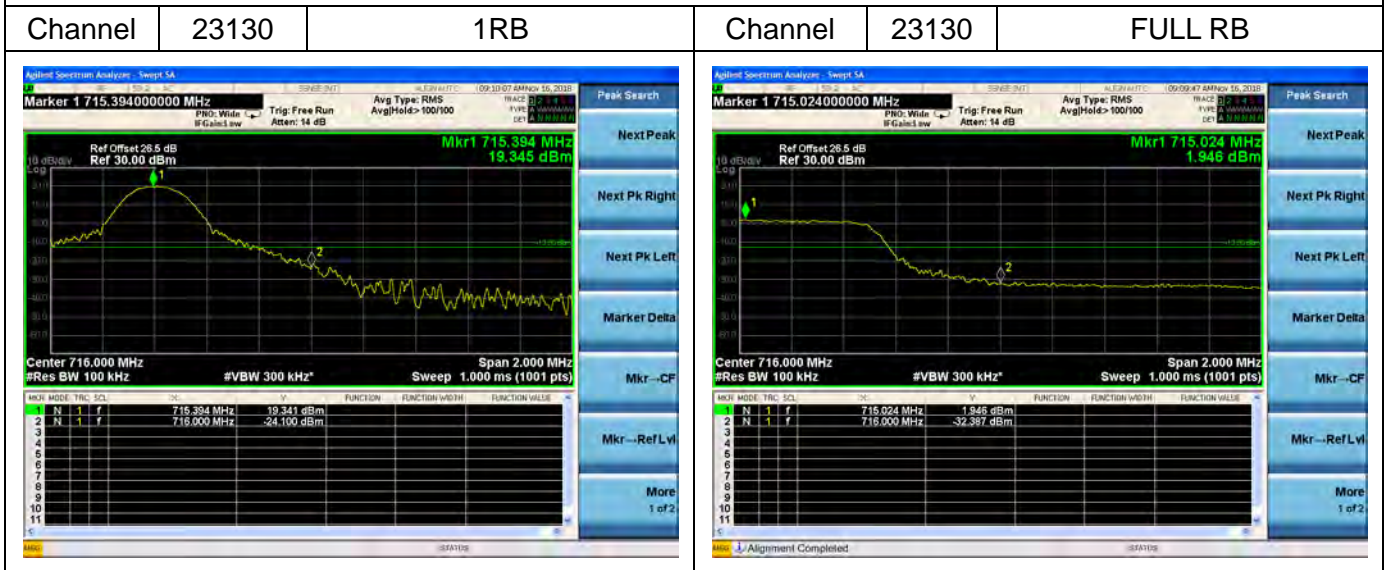


LTE Band 12

Channel Bandwidth: 10MHz



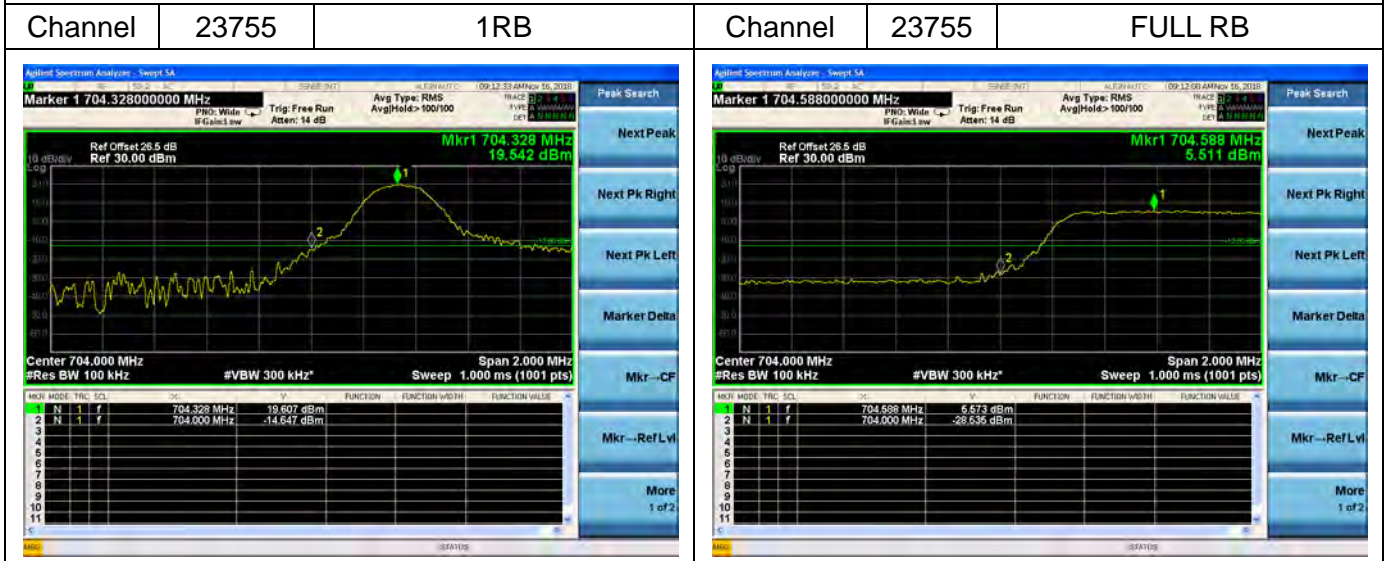
Channel Bandwidth: 10MHz



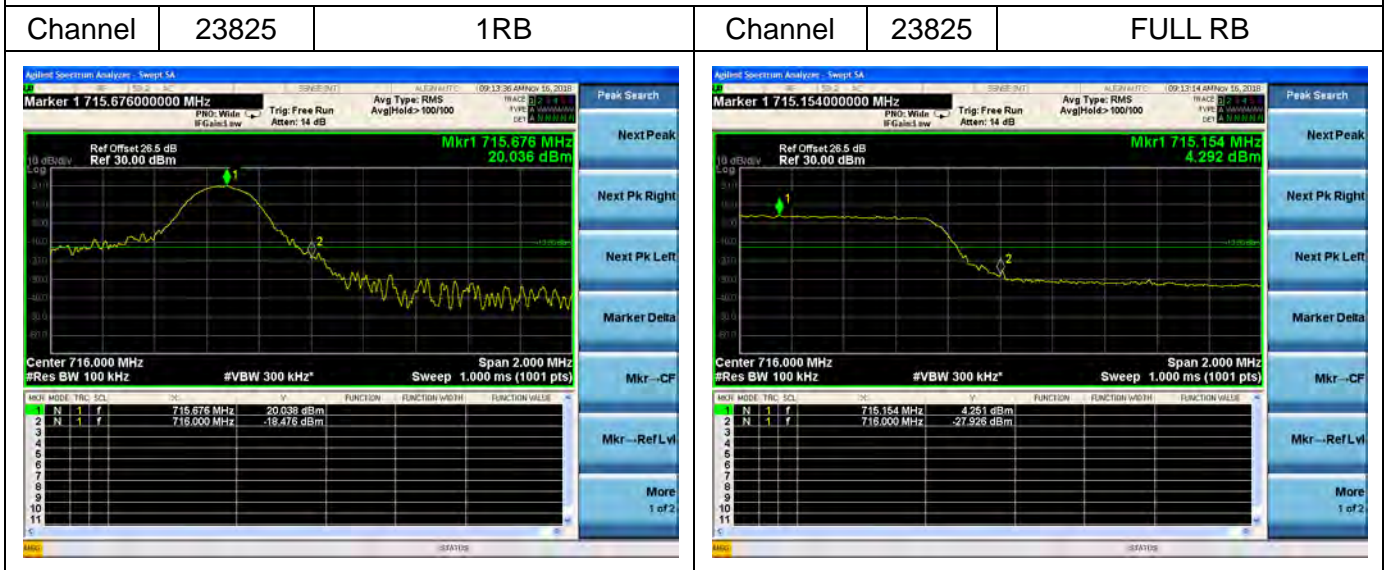


LTE Band 17

Channel Bandwidth: 5MHz



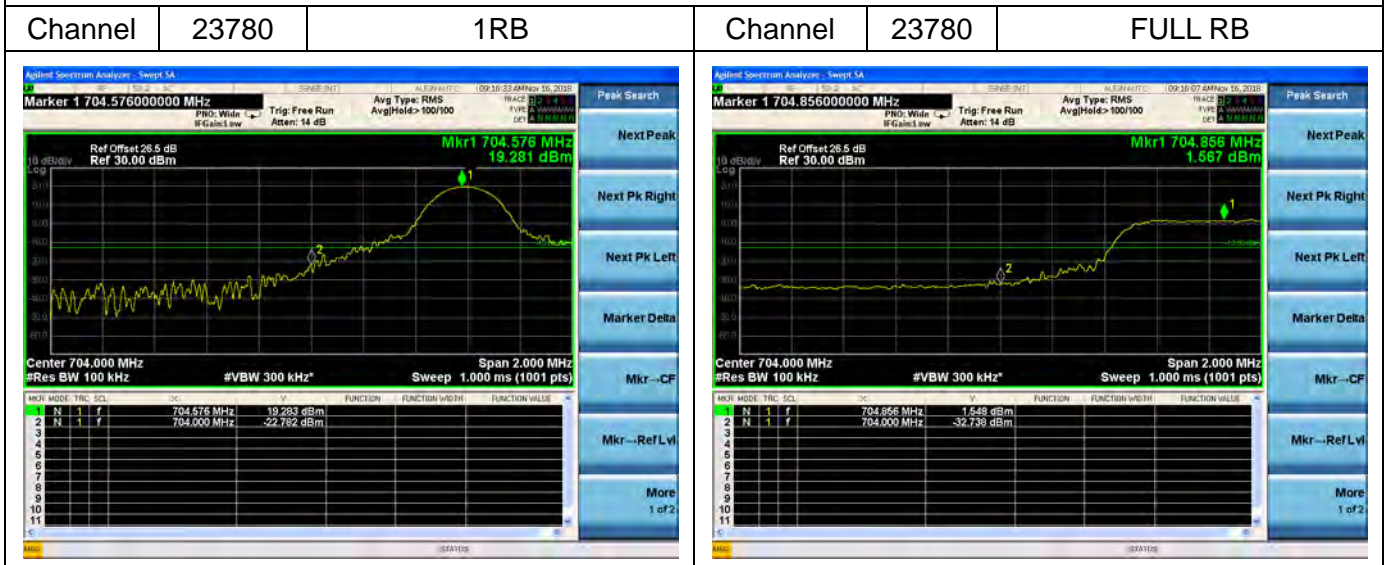
Channel Bandwidth: 5MHz



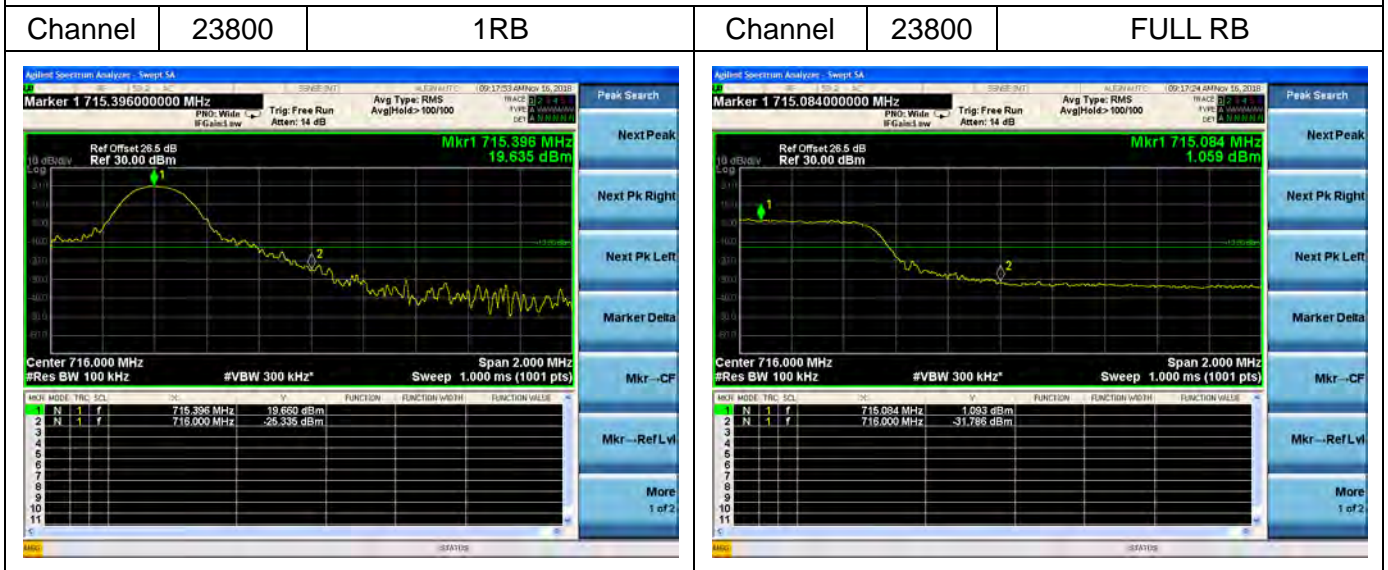


LTE Band 17

Channel Bandwidth: 10MHz



Channel Bandwidth: 10MHz



2.7. Radiated Spurious Emissions

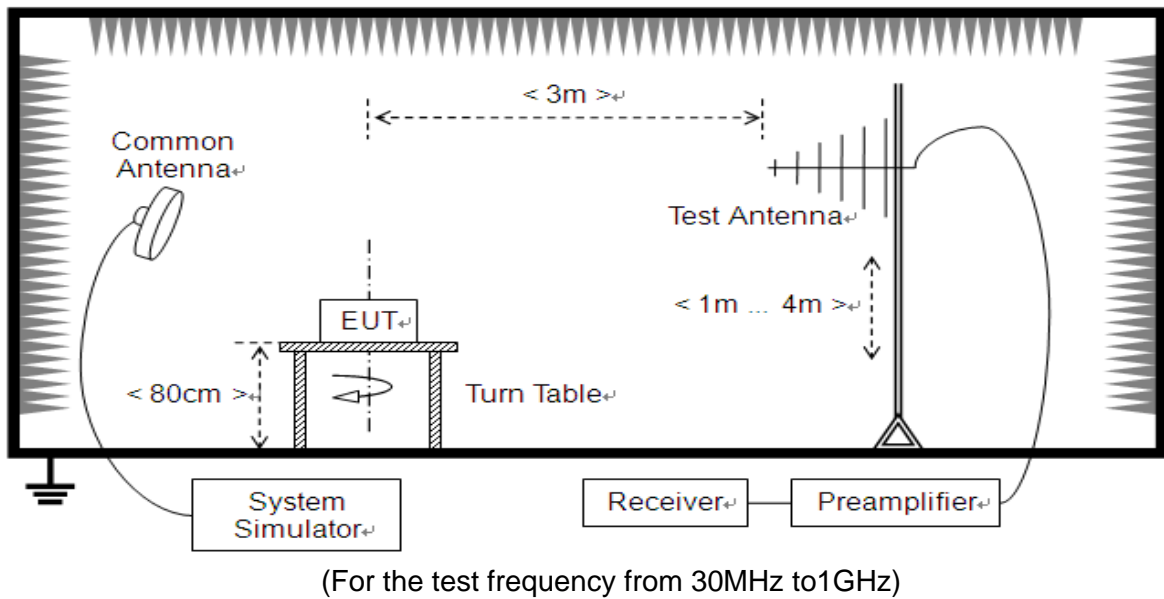
2.7.1. Requirement

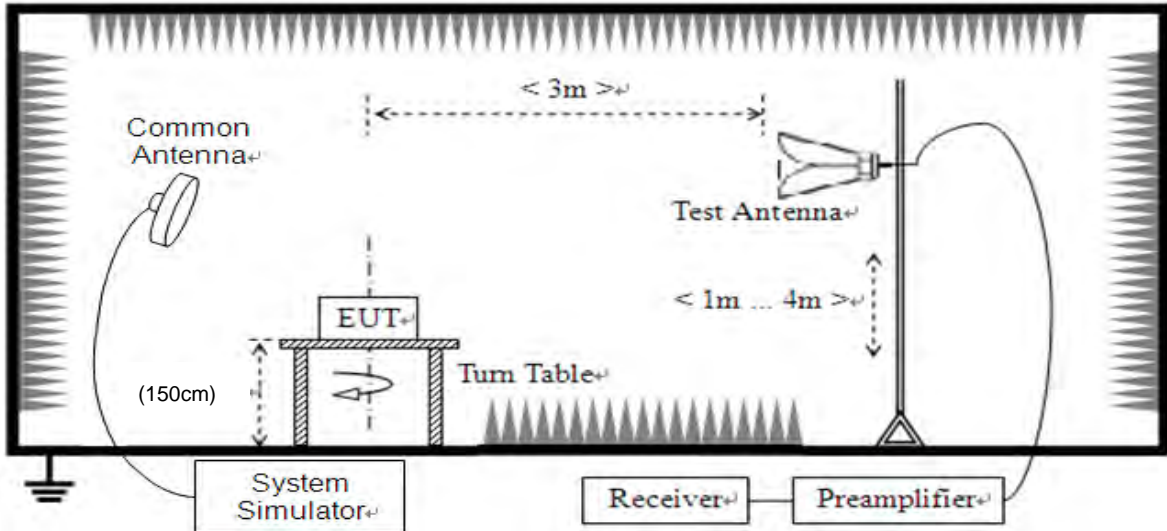
According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43+10*\log(P)$ dB. This calculated to be -13dBm.

Additional requirement for LTE Band 7:

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 $55 + 10 \log(P)$ dB. This calculated to be -25dBm.

2.7.2. Test Description





(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.7.3. Test procedure

KDB 971168 D01v03 Section 5.8 and ANSI/TIA-603-E-2016.



2.7.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. Test Antenna height is varied from 1m to 4m above the ground, and the Turn Table is actuated to turn from 0° to 360°, both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST_TX}} - P_{\text{SUBST_RX}} - L_{\text{SUBST_CABLES}} + G_{\text{SUBST_TX_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

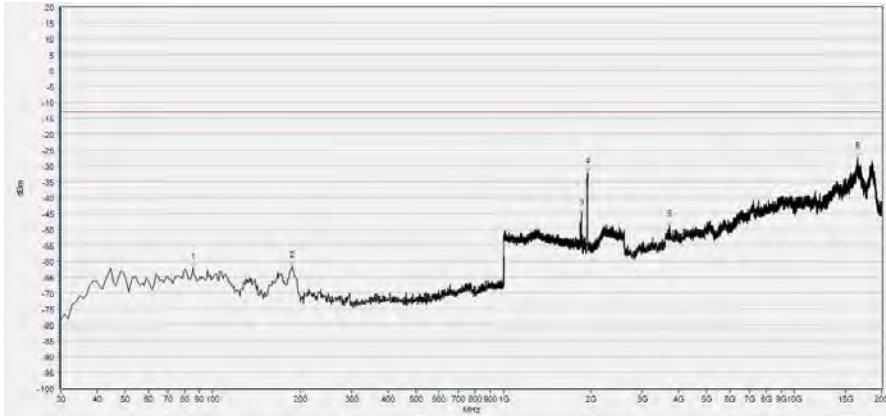
During the test, the data of A_{TOT} was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of A_{TOT} .

Note1: The power of the EUT transmitting frequency should be ignored.

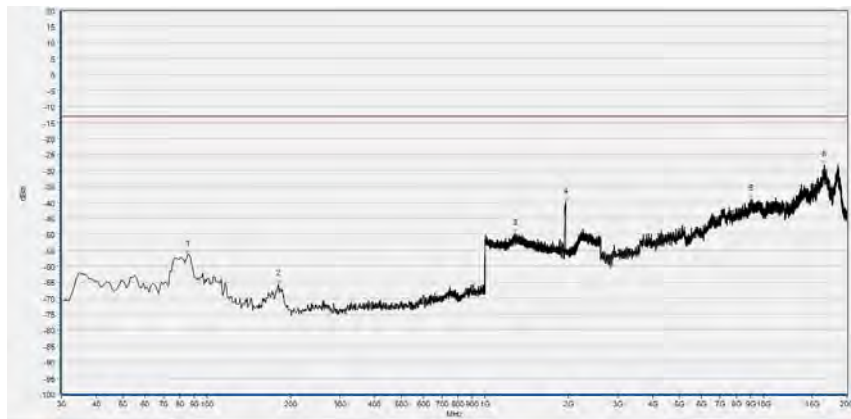
Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note3: All bandwidth and test channel were considered and evaluated respectively by performing full test for each band, only the worst cases were recorded in this test report.

LTE Band 2 20MHz BW, Low Channel, QPSK



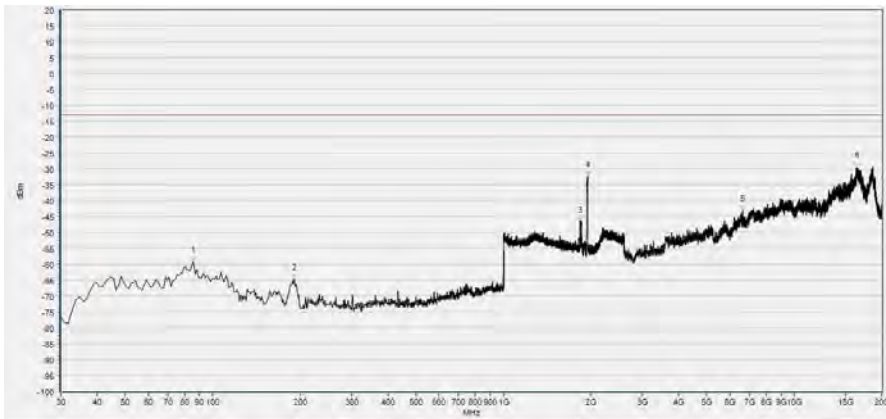
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-62.17	-13.00	Horizontal	PASS
2	187.140	-61.70	-13.00	Horizontal	PASS
3	1851.541	-45.28	-13.00	Horizontal	N/A
4	1942.457	-32.09	-13.00	Horizontal	N/A
5	3712.057	-48.93	-13.00	Horizontal	PASS
6	16535.334	-27.43	-13.00	Horizontal	PASS



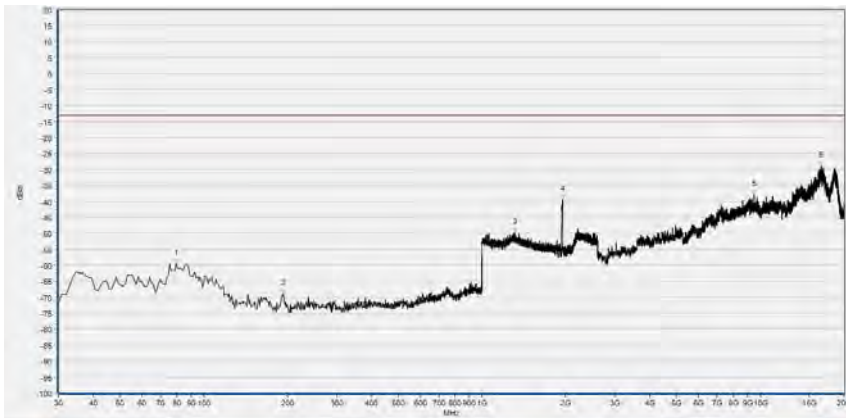
No.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	85.290	-56.39	-13.00	Vertical	PASS
2	181.320	-65.66	-13.00	Vertical	PASS
3	1281.072	-49.73	-13.00	Vertical	PASS
4	1948.219	-39.95	-13.00	Vertical	N/A
5	9019.785	-39.01	-13.00	Vertical	PASS
6	16539.407	-28.30	-13.00	Vertical	PASS



LTE Band 2 20MHz BW, Low Channel, 16QAM



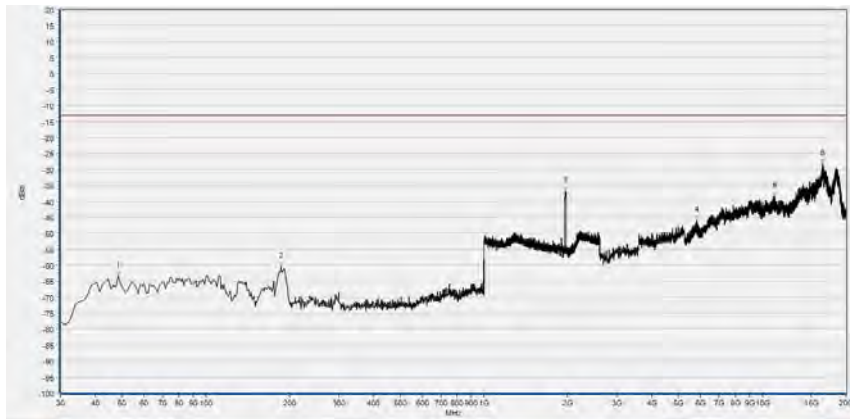
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-59.21	-13.00	Horizontal	PASS
2	191.020	-64.88	-13.00	Horizontal	PASS
3	1832.973	-46.74	-13.00	Horizontal	N/A
4	1943.737	-32.40	-13.00	Horizontal	N/A
5	6644.954	-43.10	-13.00	Horizontal	PASS
6	16445.717	-29.50	-13.00	Horizontal	PASS



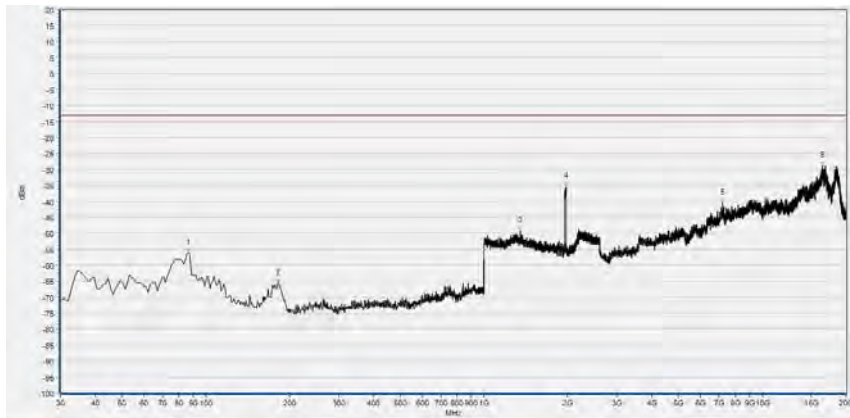
Num.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	79.470	-59.53	-13.00	Vertical	PASS
2	192.960	-68.99	-13.00	Vertical	PASS
3	1312.445	-49.63	-13.00	Vertical	PASS
4	1947.579	-39.50	-13.00	Vertical	N/A
5	9480.087	-37.97	-13.00	Vertical	PASS
6	16543.481	-28.85	-13.00	Vertical	PASS



LTE Band 2 20MHz BW, Mid Channel, QPSK

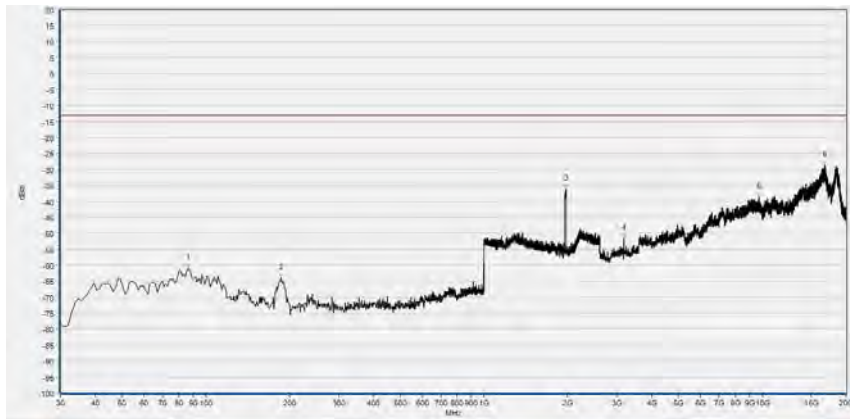


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	48.430	-63.42	-13.00	Horizontal	PASS
2	186.170	-60.45	-13.00	Horizontal	PASS
3	1961.665	-36.83	-13.00	Horizontal	N/A
4	5797.672	-45.99	-13.00	Horizontal	PASS
5	11080.960	-38.37	-13.00	Horizontal	PASS
6	16470.158	-28.34	-13.00	Horizontal	PASS

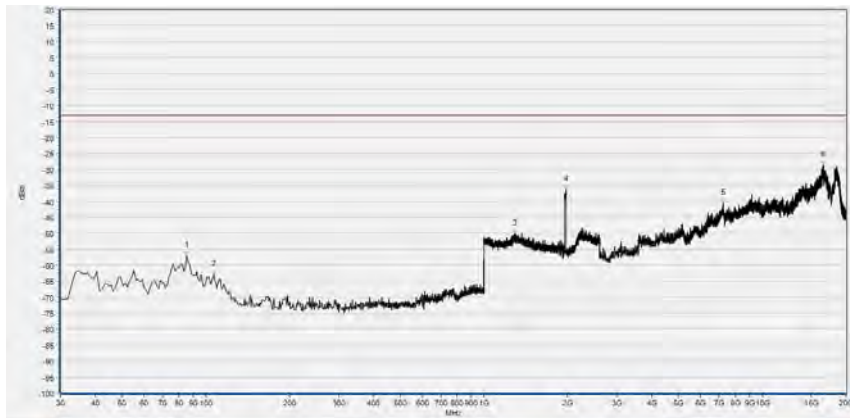


No.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	86.260	-56.20	-13.00	Vertical	PASS
2	182.290	-65.62	-13.00	Vertical	PASS
3	1348.940	-49.22	-13.00	Vertical	PASS
4	1966.146	-35.43	-13.00	Vertical	N/A
5	7211.166	-40.66	-13.00	Vertical	PASS
6	16498.672	-28.96	-13.00	Vertical	PASS

LTE Band 2 20MHz BW, Mid Channel, 16QAM

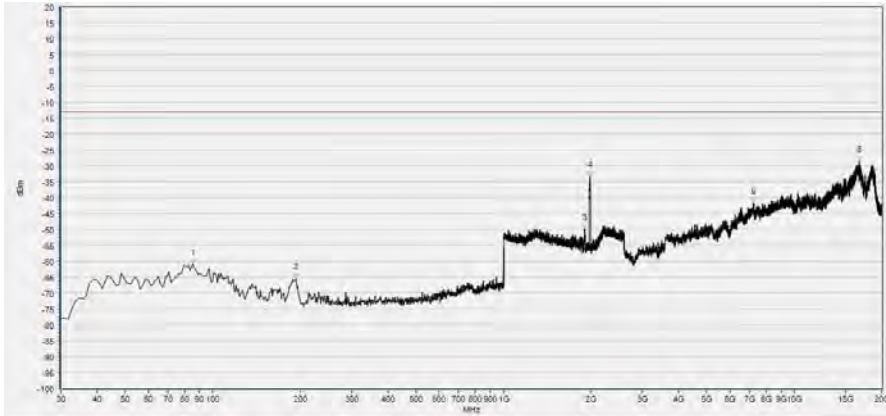


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.260	-61.00	-13.00	Horizontal	PASS
2	186.170	-64.09	-13.00	Horizontal	PASS
3	1967.427	-36.14	-13.00	Horizontal	N/A
4	3186.579	-51.71	-13.00	Horizontal	PASS
5	9720.422	-38.79	-13.00	Horizontal	PASS
6	16734.934	-28.76	-13.00	Horizontal	PASS

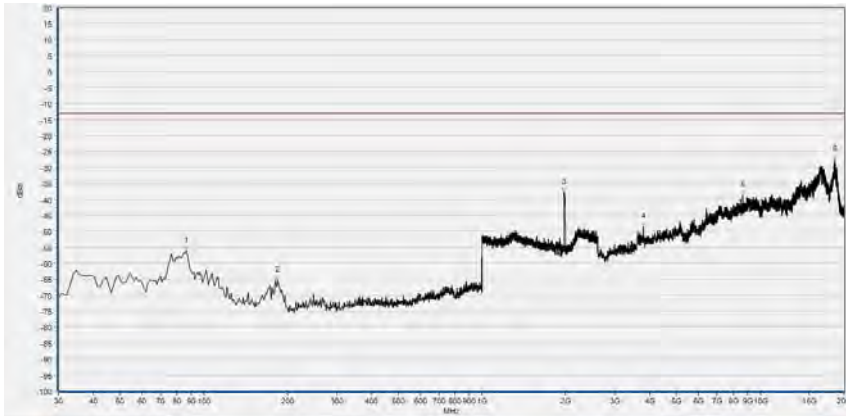


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-57.06	-13.00	Vertical	PASS
2	106.630	-62.91	-13.00	Vertical	PASS
3	1287.475	-50.13	-13.00	Vertical	PASS
4	1966.787	-36.20	-13.00	Vertical	N/A
5	7235.606	-40.46	-13.00	Vertical	PASS
6	16535.334	-28.70	-13.00	Vertical	PASS

LTE Band 2 20MHz BW, High Channel, QPSK

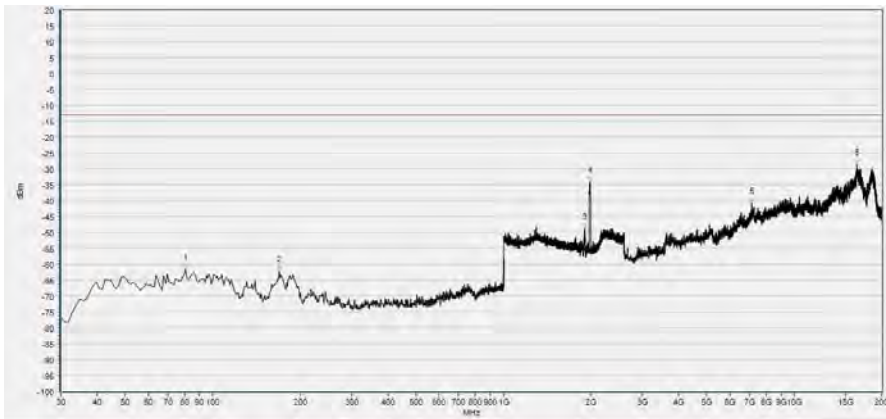


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-61.03	-13.00	Horizontal	PASS
2	192.960	-65.37	-13.00	Horizontal	PASS
3	1898.279	-49.93	-13.00	Horizontal	N/A
4	1985.354	-33.42	-13.00	Horizontal	N/A
5	7239.680	-41.71	-13.00	Horizontal	PASS
6	16759.374	-28.58	-13.00	Horizontal	PASS

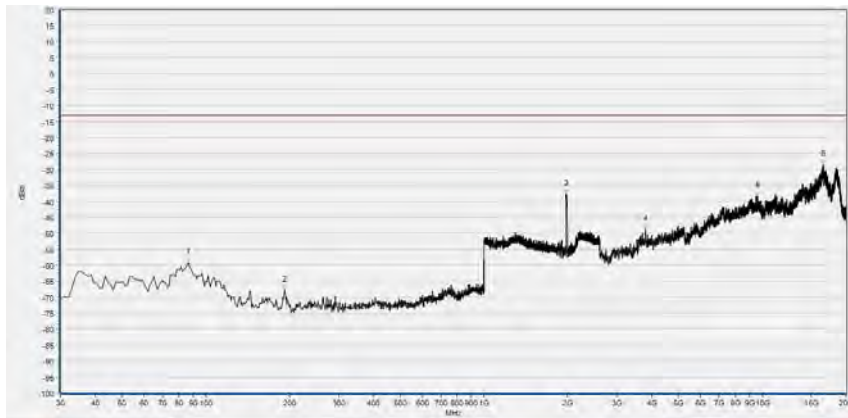


No.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	86.260	-56.23	-13.00	Vertical	PASS
2	184.230	-65.43	-13.00	Vertical	PASS
3	1973.189	-37.93	-13.00	Vertical	N/A
4	3797.600	-48.68	-13.00	Vertical	PASS
5	8624.659	-38.85	-13.00	Vertical	PASS
6	18572.068	-27.69	-13.00	Vertical	PASS

LTE Band 2 20MHz BW, High Channel, 16QAM

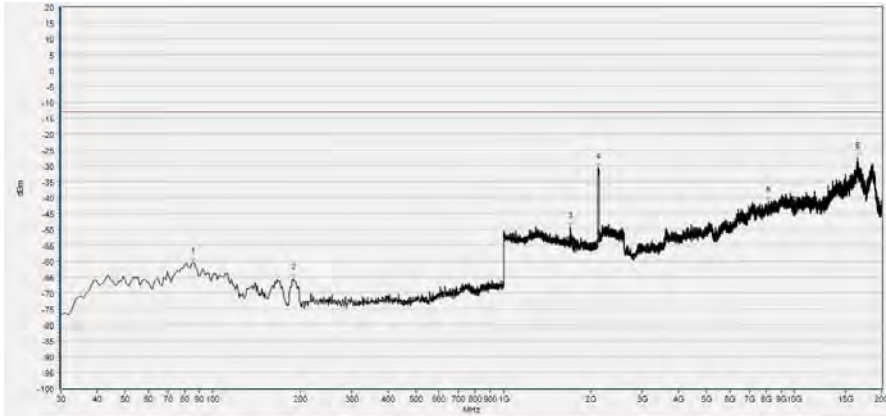


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	80.440	-61.60	-13.00	Horizontal	PASS
2	169.680	-62.07	-13.00	Horizontal	PASS
3	1898.920	-48.85	-13.00	Horizontal	N/A
4	1985.994	-34.17	-13.00	Horizontal	N/A
5	7158.211	-40.72	-13.00	Horizontal	PASS
6	16449.791	-28.54	-13.00	Horizontal	PASS

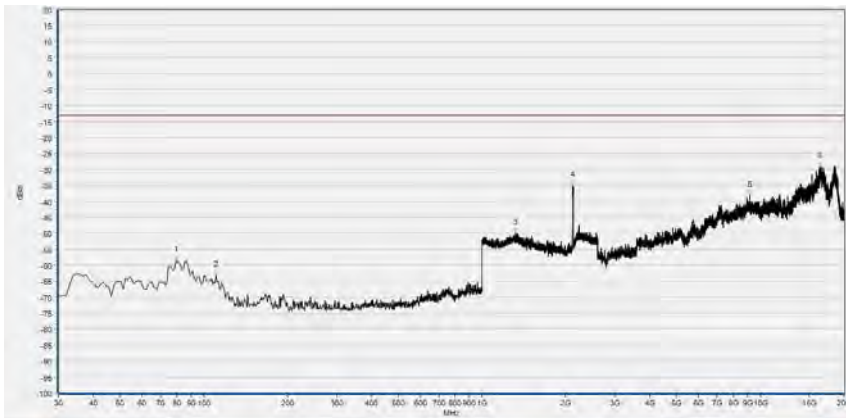


Num.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	86.260	-59.01	-13.00	Vertical	PASS
2	191.990	-67.76	-13.00	Vertical	PASS
3	1971.269	-37.65	-13.00	Vertical	N/A
4	3809.820	-48.82	-13.00	Vertical	PASS
5	9618.585	-38.34	-13.00	Vertical	PASS
6	16555.701	-28.54	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, Low Channel, QPSK

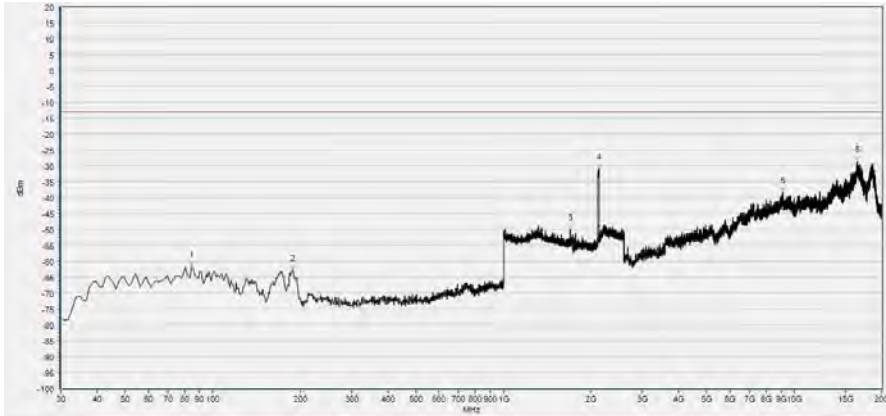


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.345	-60.50	-13.00	Horizontal	PASS
2	189.239	-65.57	-13.00	Horizontal	PASS
3	1693.147	-49.21	-13.00	Horizontal	N/A
4	2116.558	-30.82	-13.00	Horizontal	N/A
5	8148.625	-41.29	-13.00	Horizontal	PASS
6	16557.126	-27.39	-13.00	Horizontal	PASS

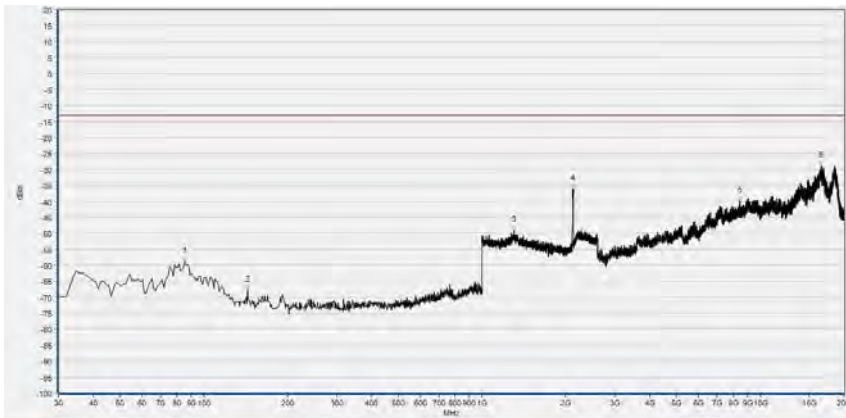


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	79.520	-58.54	-13.00	Vertical	PASS
2	110.591	-63.05	-13.00	Vertical	PASS
3	1320.160	-49.98	-13.00	Vertical	PASS
4	2122.161	-34.97	-13.00	Vertical	N/A
5	9143.491	-38.16	-13.00	Vertical	PASS
6	16397.600	-29.22	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, Low Channel, 16QAM

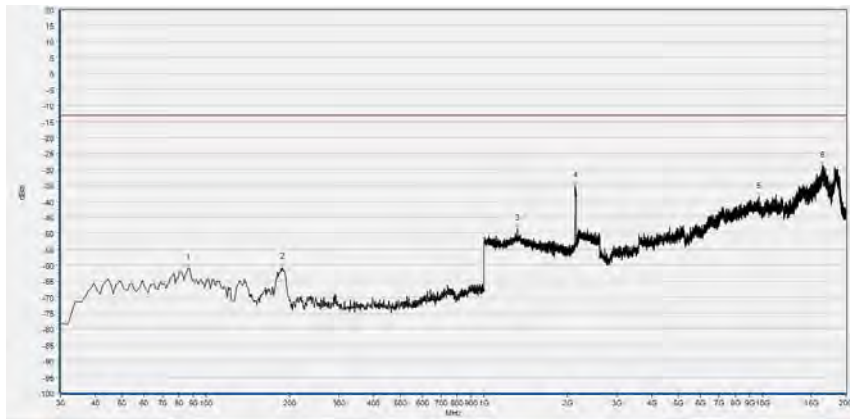


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	84.374	-61.65	-13.00	Horizontal	PASS
2	188.268	-62.96	-13.00	Horizontal	PASS
3	1693.147	-49.90	-13.00	Horizontal	PASS
4	2126.963	-30.97	-13.00	Horizontal	N/A
5	9102.884	-38.29	-13.00	Horizontal	PASS
6	16516.519	-28.55	-13.00	Horizontal	PASS

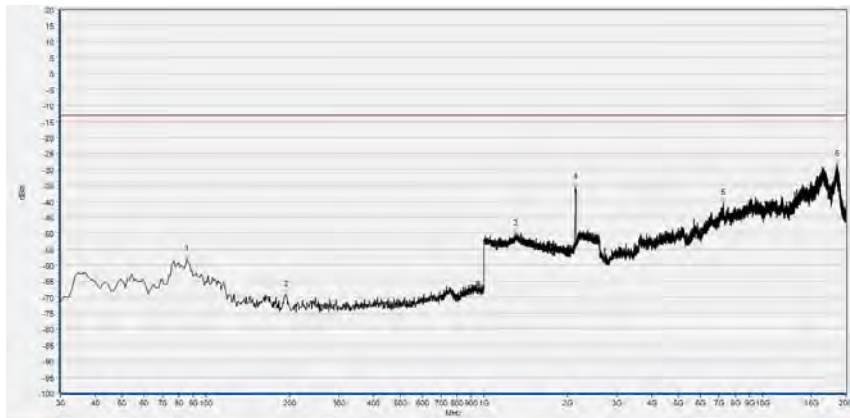


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.345	-58.90	-13.00	Vertical	PASS
2	143.604	-67.79	-13.00	Vertical	PASS
3	1302.551	-49.13	-13.00	Vertical	PASS
4	2111.756	-36.07	-13.00	Vertical	N/A
5	8456.076	-39.84	-13.00	Vertical	PASS
6	16507.818	-28.87	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, Mid Channel, QPSK

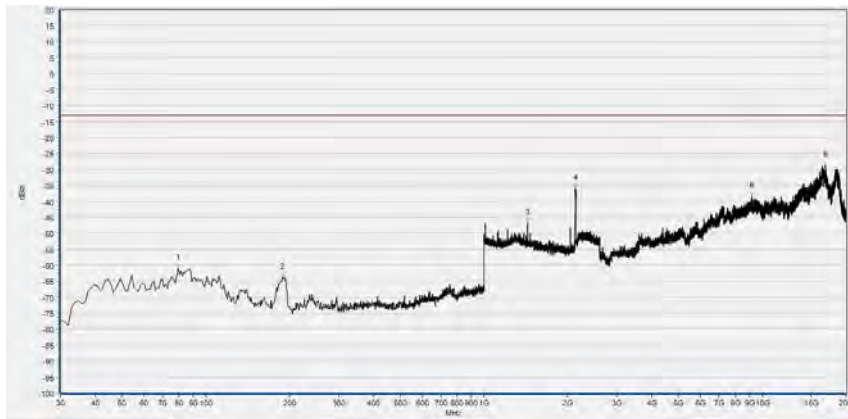


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.316	-60.97	-13.00	Horizontal	PASS
2	188.268	-60.71	-13.00	Horizontal	PASS
3	1316.158	-48.71	-13.00	Horizontal	PASS
4	2126.963	-35.23	-13.00	Horizontal	N/A
5	9706.184	-38.63	-13.00	Horizontal	PASS
6	16426.604	-29.02	-13.00	Horizontal	PASS

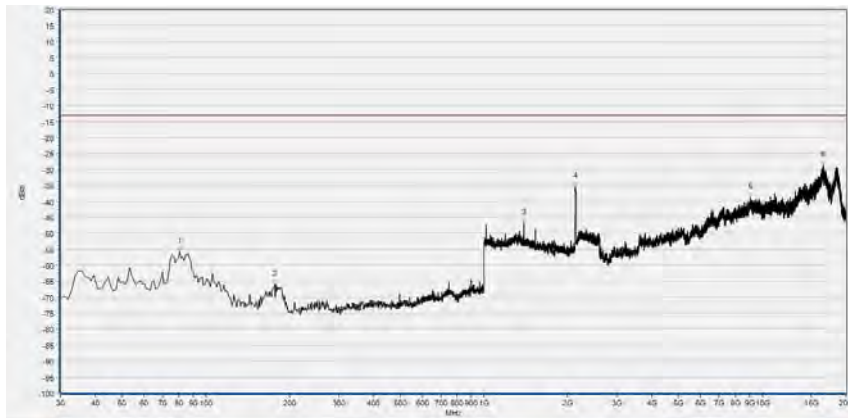


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.345	-58.12	-13.00	Vertical	PASS
2	194.094	-69.26	-13.00	Vertical	PASS
3	1295.348	-50.16	-13.00	Vertical	PASS
4	2130.965	-35.56	-13.00	Vertical	N/A
5	7255.276	-40.59	-13.00	Vertical	PASS
6	18538.156	-28.58	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, Mid Channel, 16QAM

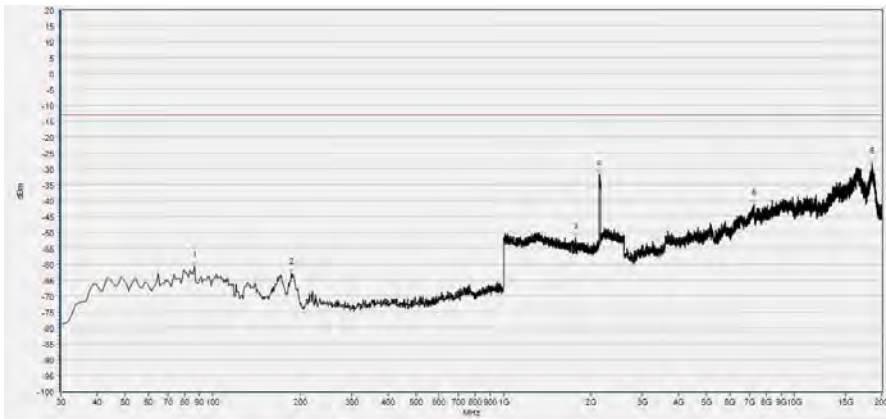


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	79.520	-60.81	-13.00	Horizontal	PASS
2	188.268	-63.82	-13.00	Horizontal	PASS
3	1436.218	-46.89	-13.00	Horizontal	PASS
4	2129.365	-35.83	-13.00	Horizontal	N/A
5	9152.192	-38.39	-13.00	Horizontal	PASS
6	16867.478	-28.76	-13.00	Horizontal	PASS

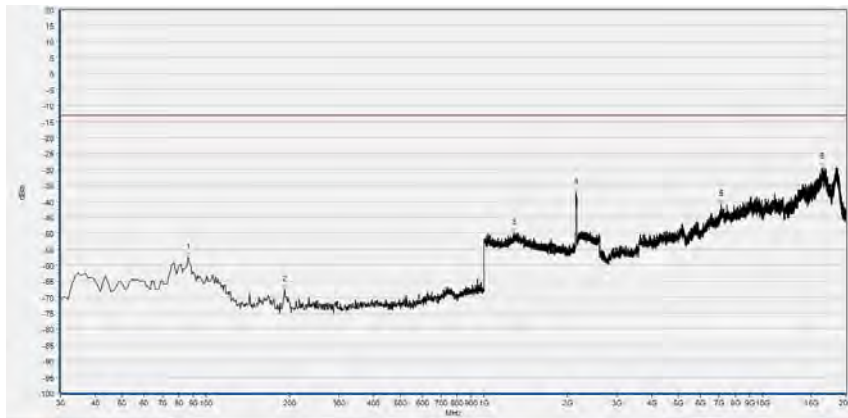


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	80.490	-55.86	-13.00	Vertical	PASS
2	176.617	-65.95	-13.00	Vertical	PASS
3	1392.996	-46.84	-13.00	Vertical	PASS
4	2130.165	-35.36	-13.00	Vertical	N/A
5	9039.073	-38.69	-13.00	Vertical	PASS
6	16525.221	-28.79	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, High Channel, QPSK

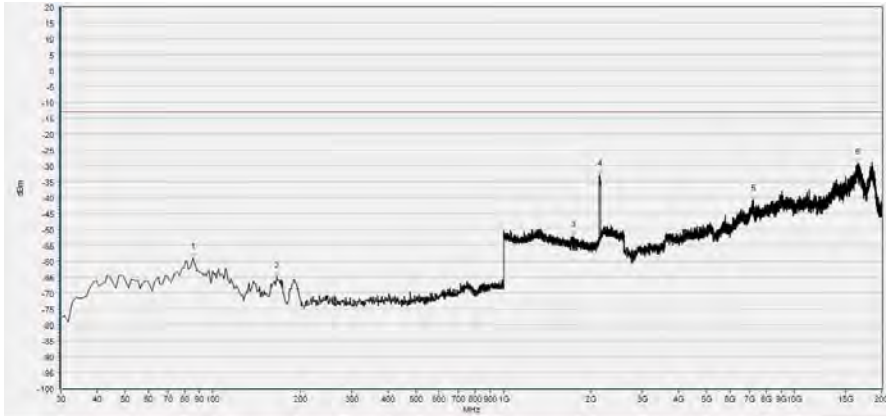


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.316	-60.78	-13.00	Horizontal	PASS
2	186.326	-62.92	-13.00	Horizontal	PASS
3	1773.187	-51.69	-13.00	Horizontal	PASS
4	2136.568	-31.81	-13.00	Horizontal	N/A
5	7258.176	-41.22	-13.00	Horizontal	PASS
6	18471.445	-28.16	-13.00	Horizontal	PASS

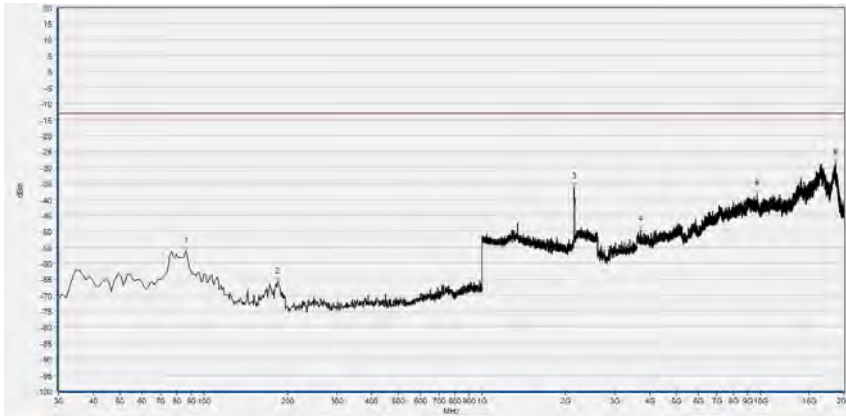


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.316	-57.56	-13.00	Vertical	PASS
2	192.152	-67.52	-13.00	Vertical	PASS
3	1278.539	-49.88	-13.00	Vertical	PASS
4	2139.770	-37.25	-13.00	Vertical	N/A
5	7101.550	-41.12	-13.00	Vertical	PASS
6	16368.595	-29.37	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, High Channel, 16QAM

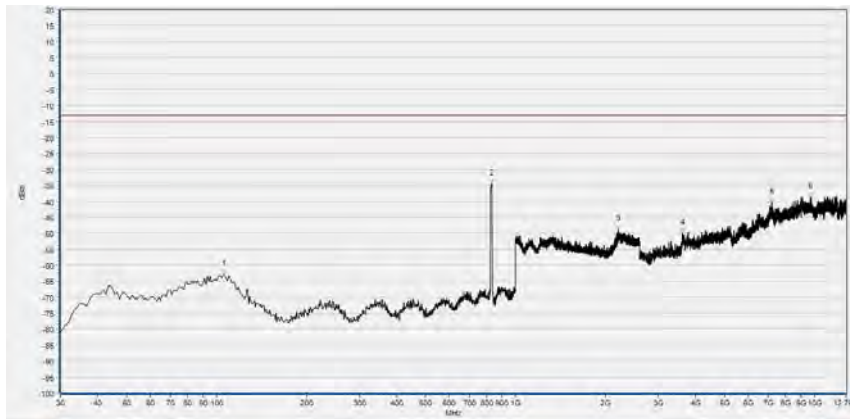


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.345	-58.96	-13.00	Horizontal	PASS
2	165.936	-65.10	-13.00	Horizontal	PASS
3	1737.169	-52.19	-13.00	Horizontal	PASS
4	2138.169	-32.92	-13.00	Horizontal	N/A
5	7246.574	-40.82	-13.00	Horizontal	PASS
6	16554.226	-29.33	-13.00	Horizontal	PASS

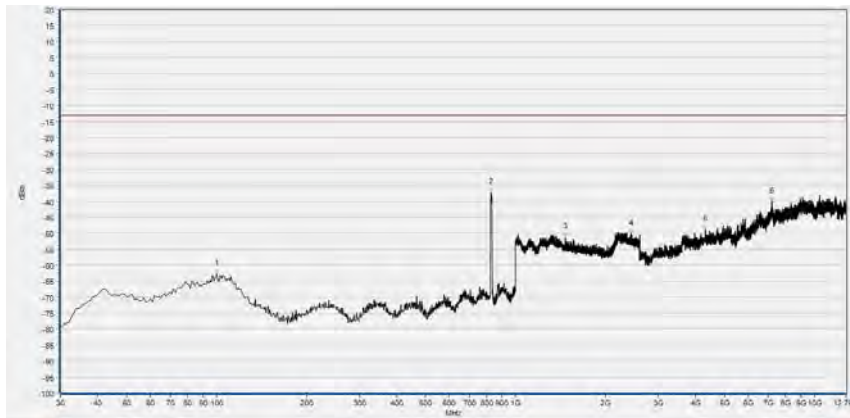


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.316	-56.24	-13.00	Vertical	PASS
2	184.384	-65.73	-13.00	Vertical	PASS
3	2136.568	-36.16	-13.00	Vertical	N/A
4	3707.985	-49.47	-13.00	Vertical	PASS
5	9714.886	-38.31	-13.00	Vertical	PASS
6	18578.763	-28.82	-13.00	Vertical	PASS

LTE Band 5 10MHz BW, Low Channel, QPSK



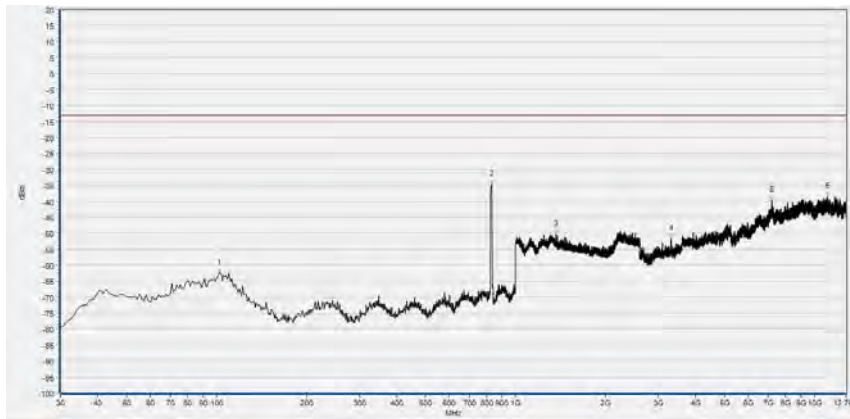
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	105.736	-62.98	-13.00	Horizontal	PASS
2	832.022	-34.62	-13.00	Horizontal	N/A
3	2199.333	-48.85	-13.00	Horizontal	PASS
4	3617.233	-50.03	-13.00	Horizontal	PASS
5	7180.596	-40.36	-13.00	Horizontal	PASS
6	9708.452	-38.84	-13.00	Horizontal	PASS



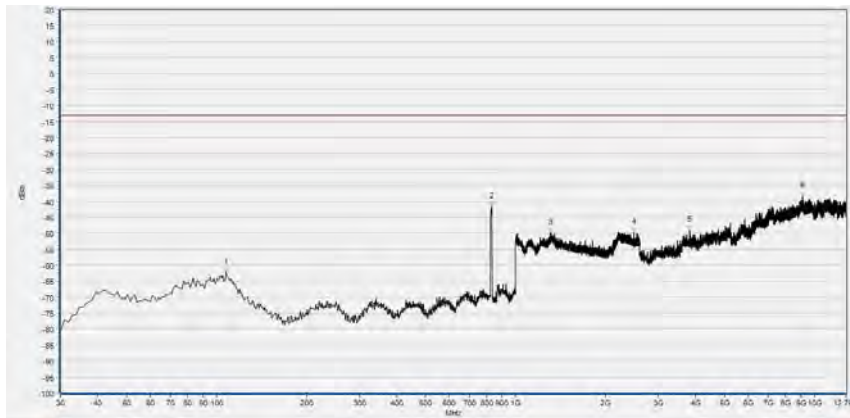
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.910	-62.65	-13.00	Vertical	PASS
2	829.109	-37.21	-13.00	Vertical	N/A
3	1470.557	-51.31	-13.00	Vertical	PASS
4	2436.746	-50.24	-13.00	Vertical	PASS
5	4311.632	-48.76	-13.00	Vertical	PASS
6	7200.900	-40.02	-13.00	Vertical	PASS



LTE Band 5 10MHz BW, Low Channel, 16QAM

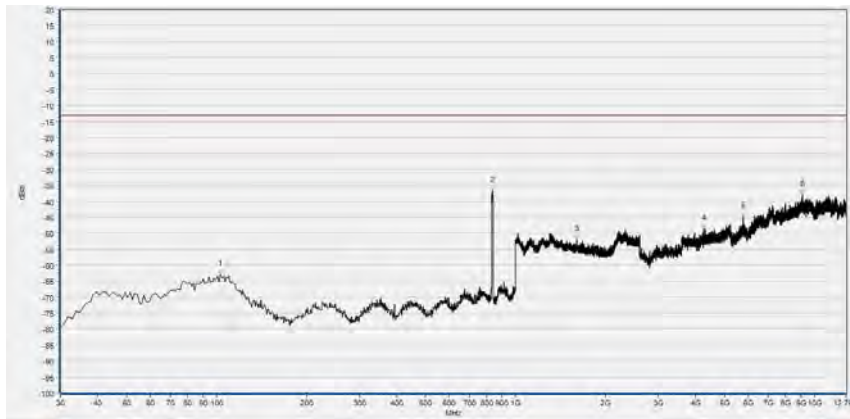


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	101.852	-62.48	-13.00	Horizontal	PASS
2	831.051	-34.64	-13.00	Horizontal	N/A
3	1368.123	-50.31	-13.00	Horizontal	PASS
4	3306.581	-51.66	-13.00	Horizontal	PASS
5	7182.627	-39.71	-13.00	Horizontal	PASS
6	11074.915	-38.54	-13.00	Horizontal	PASS

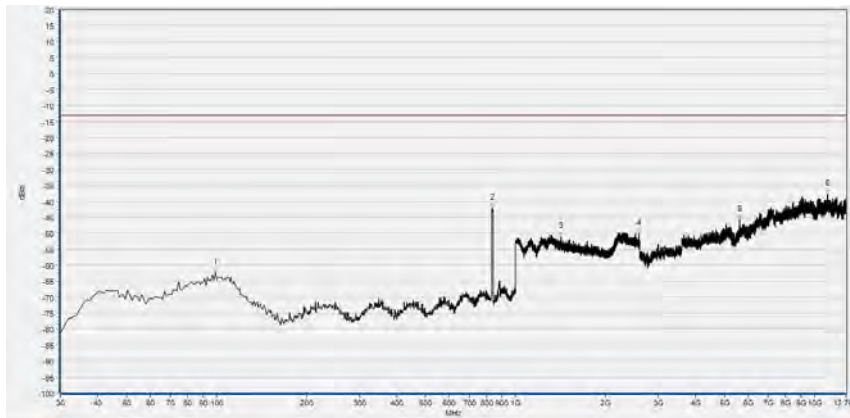


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	107.678	-62.13	-13.00	Vertical	PASS
2	831.051	-41.68	-13.00	Vertical	N/A
3	1304.101	-49.92	-13.00	Vertical	PASS
4	2487.963	-49.83	-13.00	Vertical	PASS
5	3816.213	-49.02	-13.00	Vertical	PASS
6	9109.482	-38.26	-13.00	Vertical	PASS

LTE Band 5 10MHz BW, Mid Channel, QPSK



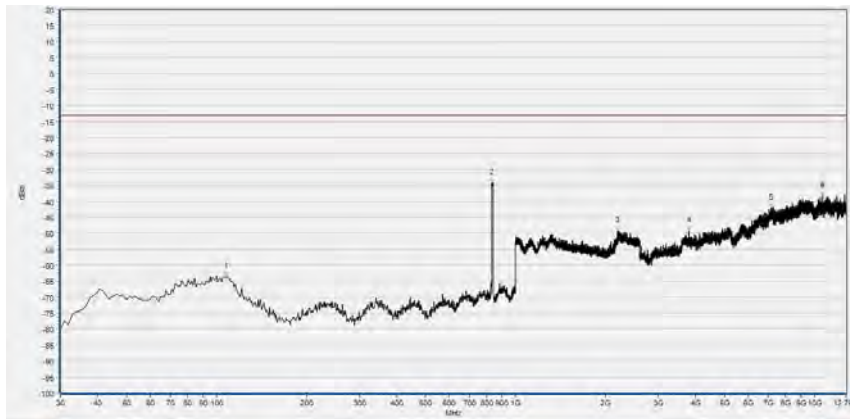
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	102.823	-63.01	-13.00	Horizontal	PASS
2	835.906	-36.85	-13.00	Horizontal	N/A
3	1601.801	-51.86	-13.00	Horizontal	PASS
4	4256.811	-48.50	-13.00	Horizontal	PASS
5	5777.586	-44.76	-13.00	Horizontal	PASS
6	9105.421	-37.96	-13.00	Horizontal	PASS



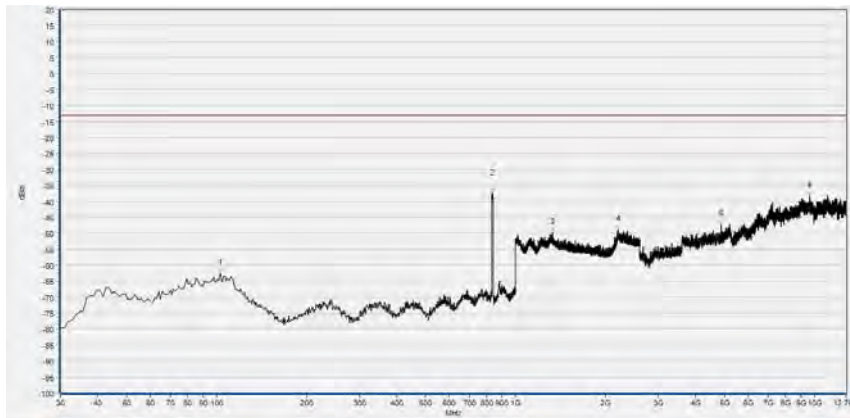
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	98.939	-62.25	-13.00	Vertical	PASS
2	834.935	-42.16	-13.00	Vertical	N/A
3	1416.672	-51.02	-13.00	Vertical	PASS
4	2586.662	-50.19	-13.00	Vertical	PASS
5	5602.971	-45.66	-13.00	Vertical	PASS
6	11056.641	-37.64	-13.00	Vertical	PASS



LTE Band 5 10MHz BW, Mid Channel, 16QAM

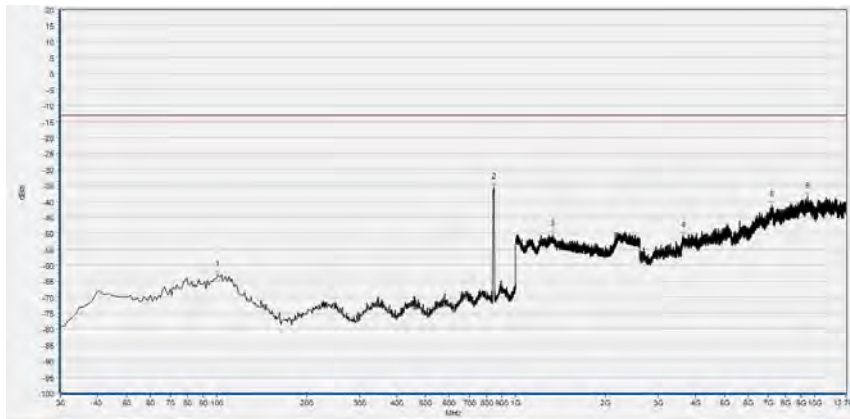


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	107.678	-63.65	-13.00	Horizontal	PASS
2	832.993	-34.29	-13.00	Horizontal	N/A
3	2191.330	-49.38	-13.00	Horizontal	PASS
4	3791.848	-49.29	-13.00	Horizontal	PASS
5	7150.140	-42.22	-13.00	Horizontal	PASS
6	10660.712	-38.42	-13.00	Horizontal	PASS

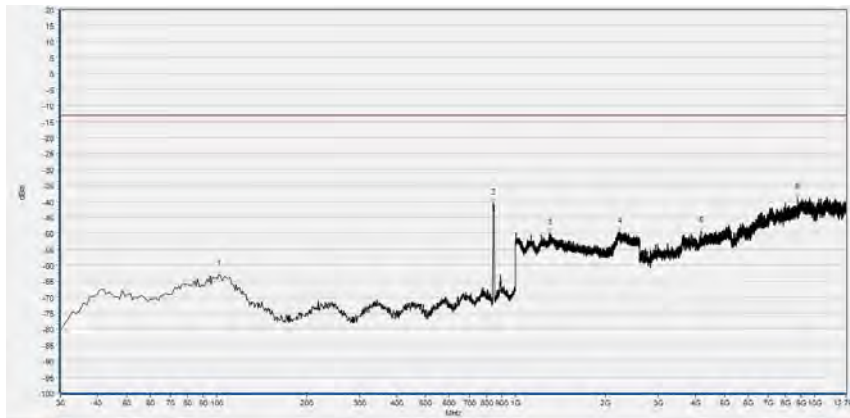


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	102.823	-62.46	-13.00	Vertical	PASS
2	837.848	-37.49	-13.00	Vertical	N/A
3	1331.844	-49.79	-13.00	Vertical	PASS
4	2204.135	-48.78	-13.00	Vertical	PASS
5	4863.903	-47.23	-13.00	Vertical	PASS
6	9610.992	-38.37	-13.00	Vertical	PASS

LTE Band 5 10MHz BW, High Channel, QPSK



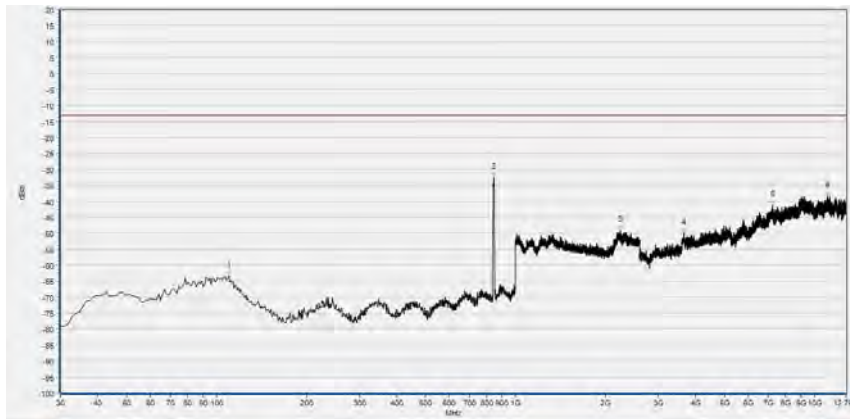
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	100.881	-63.19	-13.00	Horizontal	PASS
2	846.587	-35.61	-13.00	Horizontal	N/A
3	1330.777	-50.38	-13.00	Horizontal	PASS
4	3641.598	-50.76	-13.00	Horizontal	PASS
5	7200.900	-41.13	-13.00	Horizontal	PASS
6	9485.107	-38.61	-13.00	Horizontal	PASS



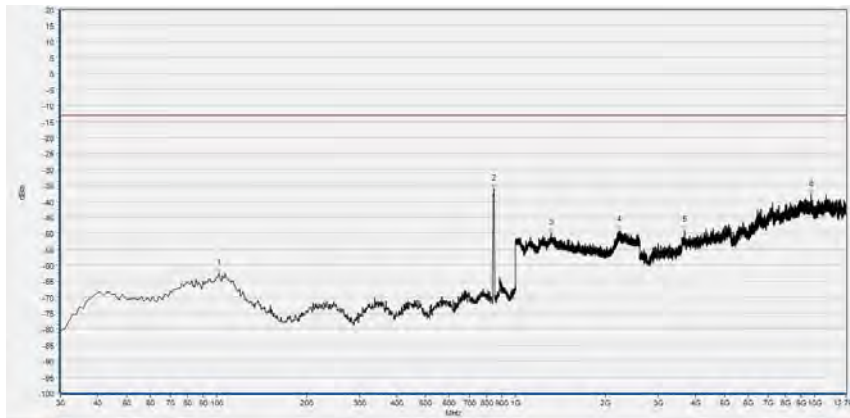
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	101.852	-62.81	-13.00	Vertical	PASS
2	842.703	-40.52	-13.00	Vertical	N/A
3	1300.900	-50.05	-13.00	Vertical	PASS
4	2224.942	-49.55	-13.00	Vertical	PASS
5	4165.443	-49.37	-13.00	Vertical	PASS
6	8772.434	-38.80	-13.00	Vertical	PASS



LTE Band 5 10MHz BW, High Channel, 16QAM

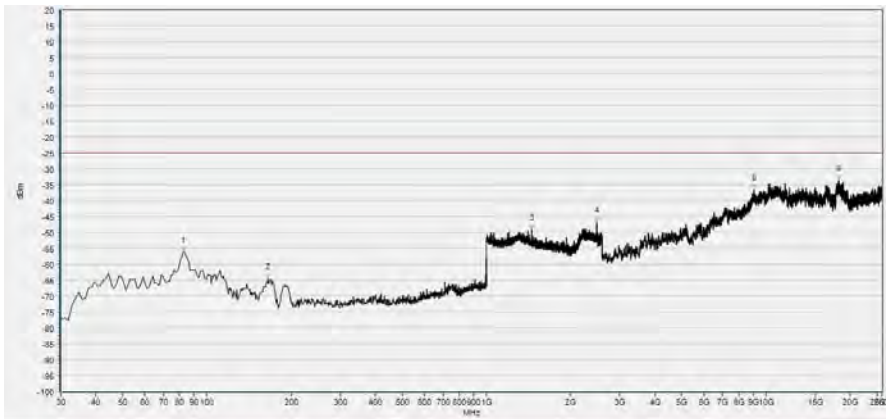


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	109.620	-63.43	-13.00	Horizontal	PASS
2	847.558	-32.55	-13.00	Horizontal	N/A
3	2238.279	-49.09	-13.00	Horizontal	PASS
4	3651.750	-49.83	-13.00	Horizontal	PASS
5	7249.630	-41.18	-13.00	Horizontal	PASS
6	11076.945	-38.31	-13.00	Horizontal	PASS

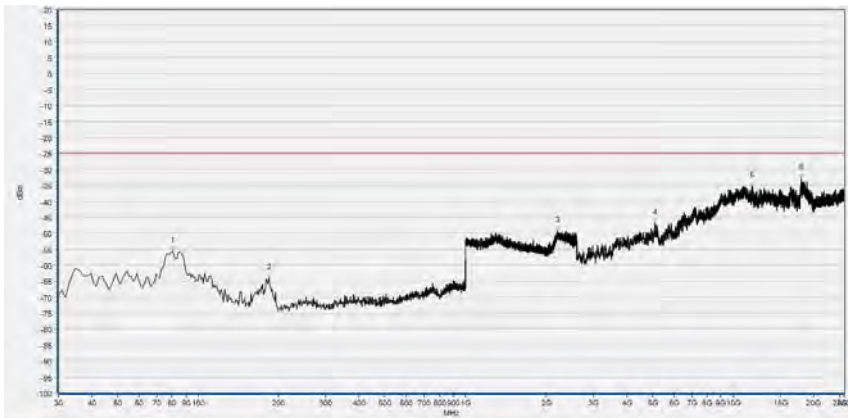


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	101.852	-62.55	-13.00	Vertical	PASS
2	846.587	-36.12	-13.00	Vertical	N/A
3	1315.305	-49.95	-13.00	Vertical	PASS
4	2213.738	-48.99	-13.00	Vertical	PASS
5	3667.994	-49.11	-13.00	Vertical	PASS
6	9757.181	-37.94	-13.00	Vertical	PASS

LTE Band 7 20MHz BW, Low Channel, QPSK



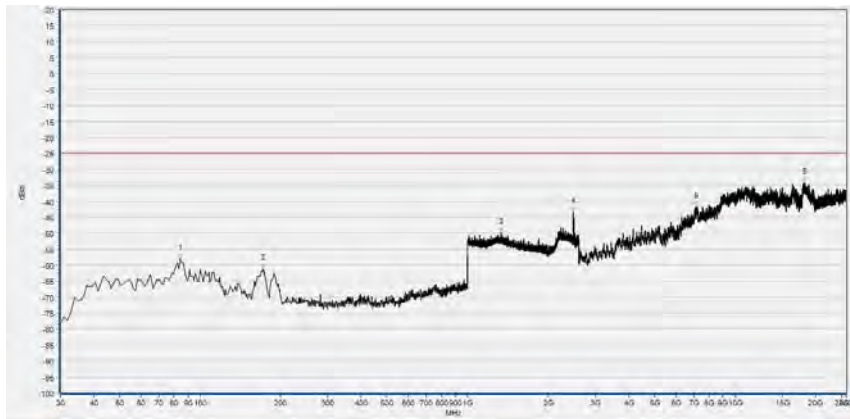
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	82.380	-56.22	-25.00	Horizontal	PASS
2	165.800	-64.63	-25.00	Horizontal	PASS
3	1452.661	-49.04	-25.00	Horizontal	PASS
4	2487.955	-46.69	-25.00	Horizontal	N/A
5	9076.596	-36.43	-25.00	Horizontal	PASS
6	18217.021	-33.66	-25.00	Horizontal	PASS



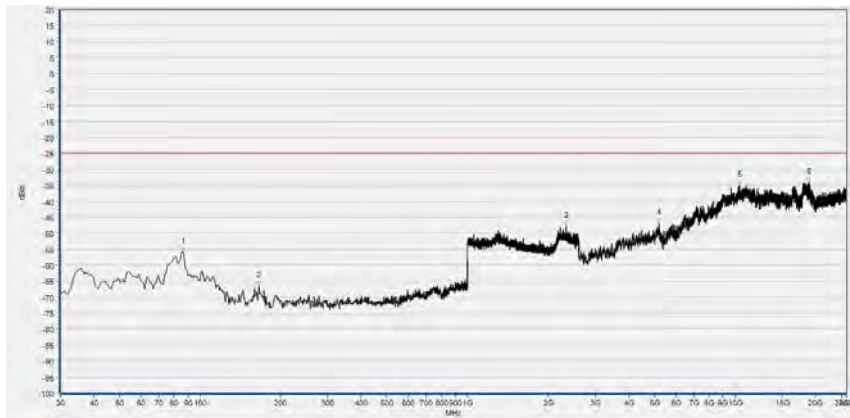
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	80.440	-55.52	-25.00	Vertical	PASS
2	184.230	-64.05	-25.00	Vertical	PASS
3	2201.761	-49.34	-25.00	Vertical	PASS
4	5106.383	-46.85	-25.00	Vertical	PASS
5	11744.681	-35.17	-25.00	Vertical	PASS
6	17982.979	-32.79	-25.00	Vertical	PASS



LTE Band 7 20MHz BW, Low Channel, 16QAM



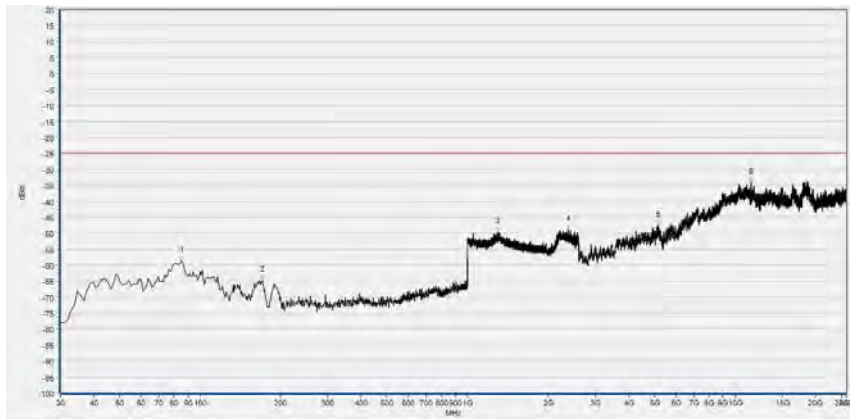
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	84.320	-58.04	-25.00	Horizontal	PASS
2	171.620	-61.23	-25.00	Horizontal	PASS
3	1331.653	-49.80	-25.00	Horizontal	PASS
4	2497.955	-43.18	-25.00	Horizontal	N/A
5	7157.447	-41.60	-25.00	Horizontal	PASS
6	18238.298	-34.18	-25.00	Horizontal	PASS



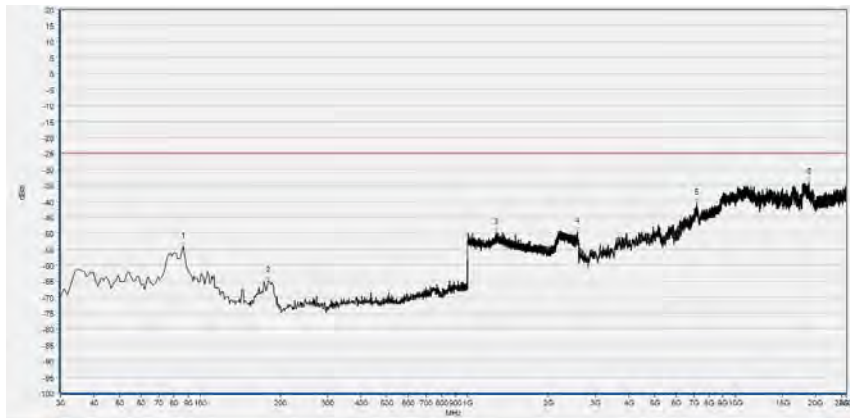
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.260	-55.67	-25.00	Vertical	PASS
2	165.800	-66.39	-25.00	Vertical	PASS
3	2330.452	-47.80	-25.00	Vertical	PASS
4	5195.745	-46.89	-25.00	Vertical	PASS
5	10408.511	-35.06	-25.00	Vertical	PASS
6	18876.596	-33.98	-25.00	Vertical	PASS



LTE Band 7 20MHz BW, Mid Channel, QPSK



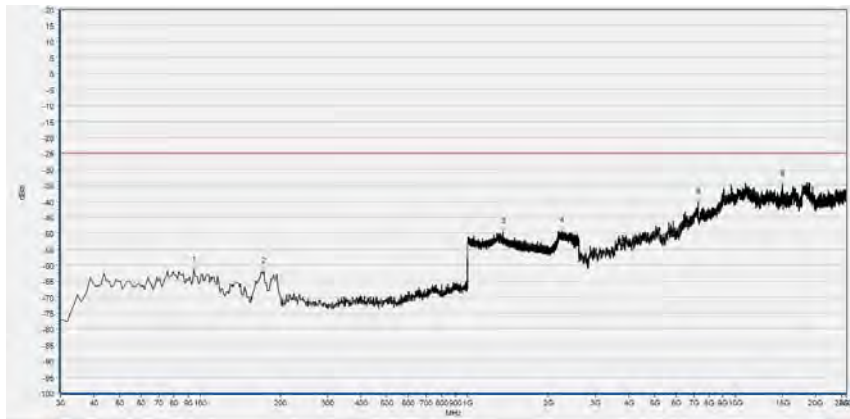
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-58.70	-25.00	Horizontal	PASS
2	170.650	-64.75	-25.00	Horizontal	PASS
3	1295.798	-49.42	-25.00	Horizontal	PASS
4	2377.831	-48.86	-25.00	Horizontal	PASS
5	5161.702	-47.53	-25.00	Horizontal	PASS
6	11489.362	-34.14	-25.00	Horizontal	PASS



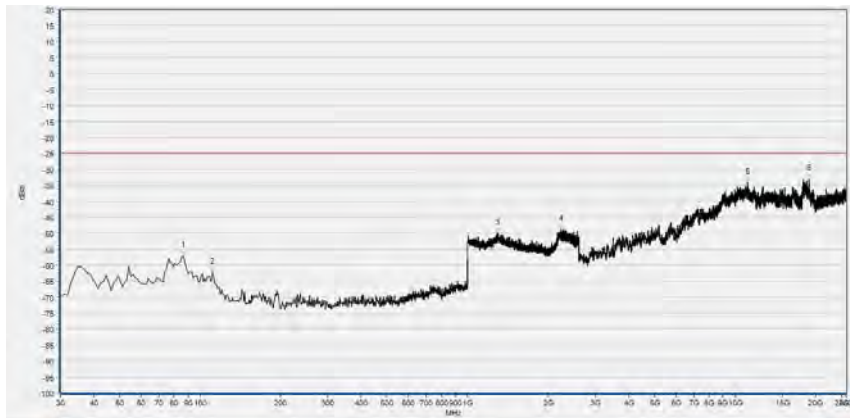
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.260	-54.16	-25.00	Vertical	PASS
2	179.380	-64.99	-25.00	Vertical	PASS
3	1278.511	-49.81	-25.00	Vertical	PASS
4	2573.749	-49.41	-25.00	Vertical	PASS
5	7182.979	-40.49	-25.00	Vertical	PASS
6	18829.787	-34.13	-25.00	Vertical	PASS



LTE Band 7 20MHz BW, Mid Channel, 16QAM

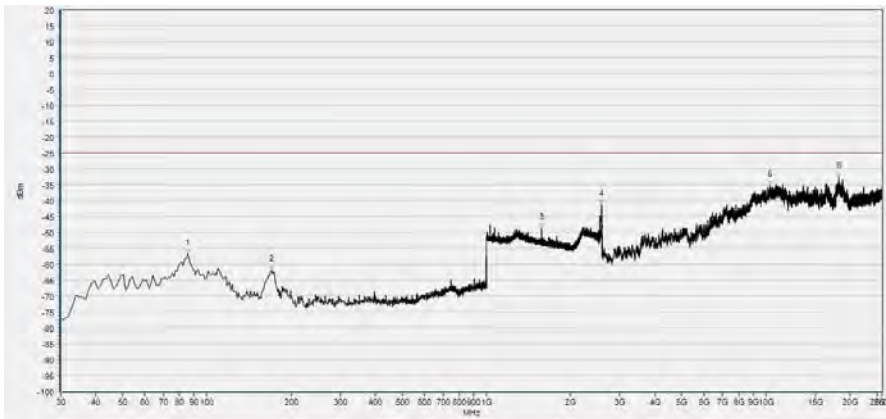


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	94.990	-61.65	-25.00	Horizontal	PASS
2	173.560	-62.06	-25.00	Horizontal	PASS
3	1354.702	-49.52	-25.00	Horizontal	PASS
4	2248.499	-49.24	-25.00	Horizontal	PASS
5	7268.085	-40.30	-25.00	Horizontal	PASS
6	15004.255	-34.86	-25.00	Horizontal	PASS

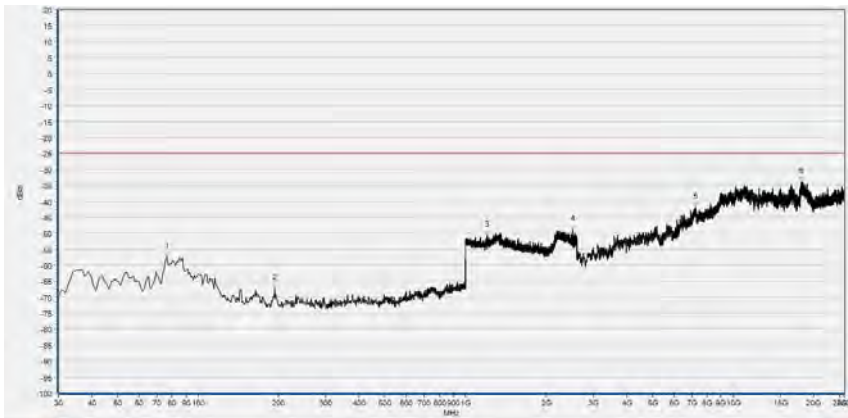


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	86.260	-57.19	-25.00	Vertical	PASS
2	111.480	-62.14	-25.00	Vertical	PASS
3	1295.158	-50.05	-25.00	Vertical	PASS
4	2230.572	-48.78	-25.00	Vertical	PASS
5	11148.936	-34.00	-25.00	Vertical	PASS
6	18859.574	-32.87	-25.00	Vertical	PASS

LTE Band 7 20MHz BW, High Channel, QPSK

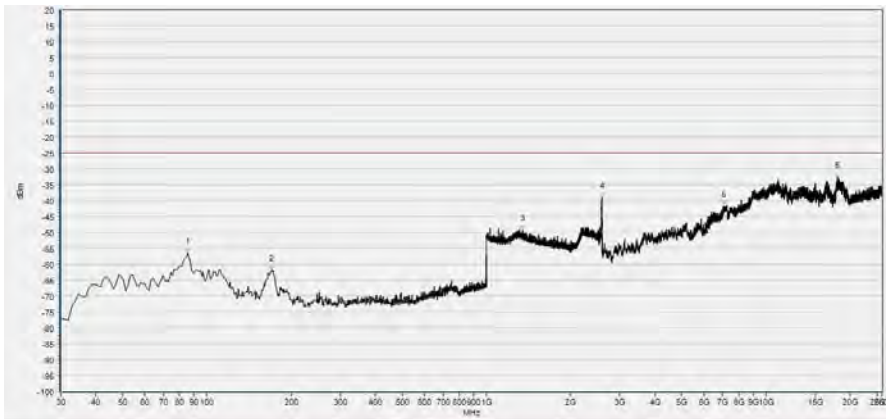


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-56.91	-25.00	Horizontal	PASS
2	170.650	-61.83	-25.00	Horizontal	PASS
3	1573.669	-48.89	-25.00	Horizontal	PASS
4	2585.914	-41.32	-25.00	Horizontal	N/A
5	10344.681	-35.21	-25.00	Horizontal	PASS
6	18204.255	-32.59	-25.00	Horizontal	PASS

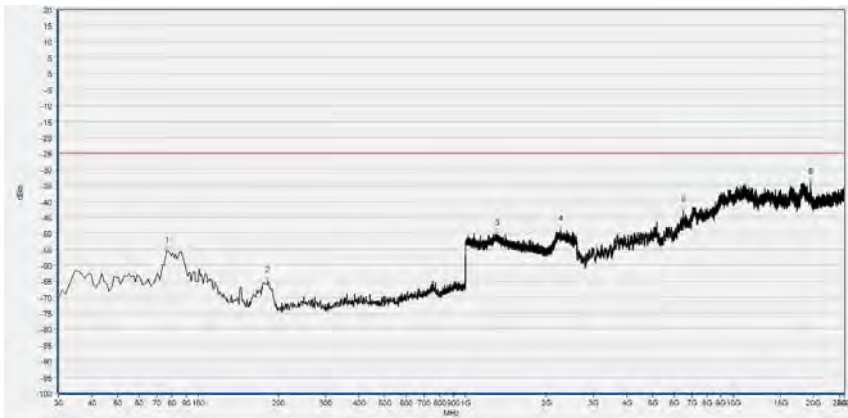


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	76.560	-57.33	-25.00	Vertical	PASS
2	192.960	-67.18	-25.00	Vertical	PASS
3	1201.681	-50.69	-25.00	Vertical	PASS
4	2507.163	-48.78	-25.00	Vertical	N/A
5	7255.319	-41.96	-25.00	Vertical	PASS
6	18029.787	-33.82	-25.00	Vertical	PASS

LTE Band 7 20MHz BW, High Channel, 16QAM



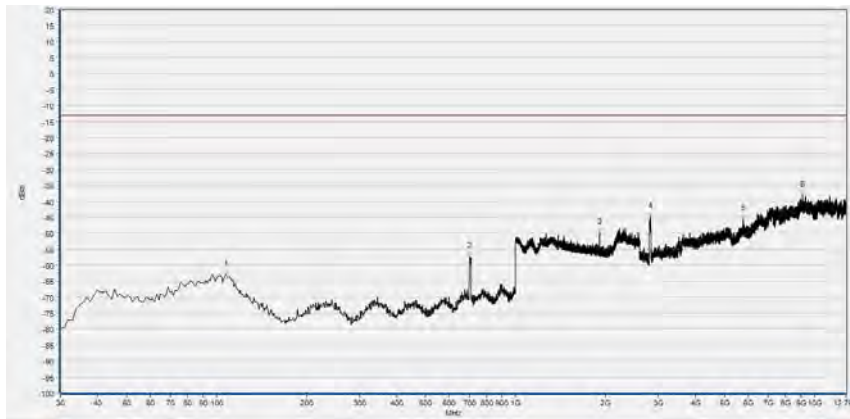
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	85.290	-56.39	-25.00	Horizontal	PASS
2	170.650	-61.99	-25.00	Horizontal	PASS
3	1347.019	-49.37	-25.00	Horizontal	PASS
4	2586.555	-39.08	-25.00	Horizontal	N/A
5	7093.617	-41.69	-25.00	Horizontal	PASS
6	17953.191	-32.60	-25.00	Horizontal	PASS



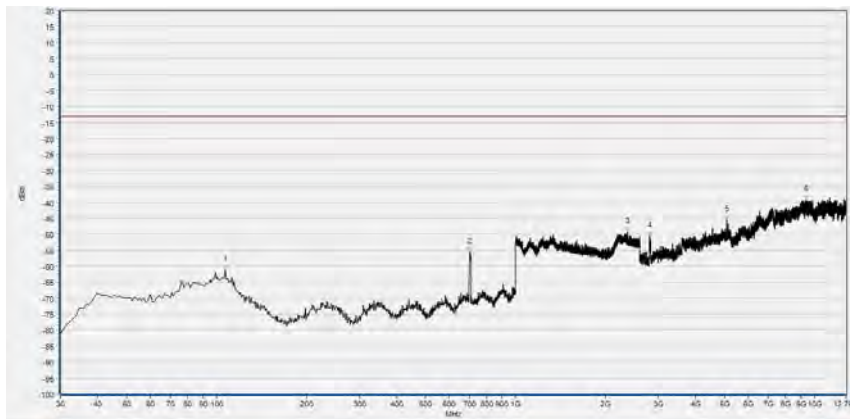
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	76.560	-55.51	-25.00	Vertical	PASS
2	182.290	-64.87	-25.00	Vertical	PASS
3	1309.244	-50.26	-25.00	Vertical	PASS
4	2256.823	-48.92	-25.00	Vertical	PASS
5	6523.404	-42.80	-25.00	Vertical	PASS
6	19502.128	-34.14	-25.00	Vertical	PASS



LTE Band 12 10MHz BW, Low Channel, QPSK

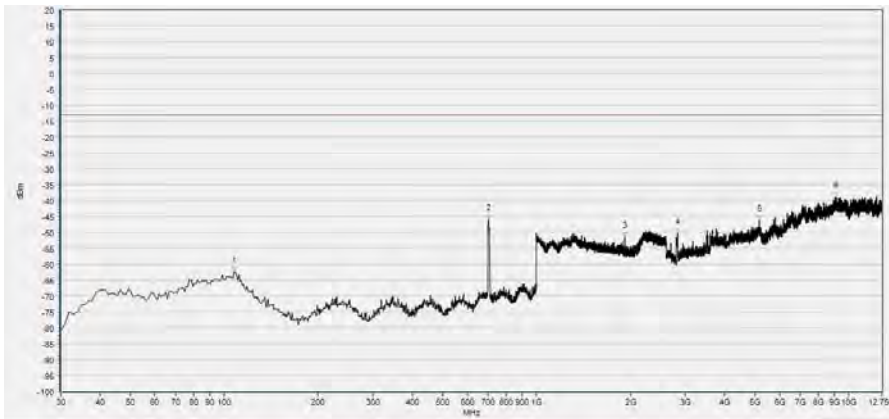


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	107.678	-62.87	-13.00	Horizontal	PASS
2	701.912	-57.28	-13.00	Horizontal	N/A
3	1913.371	-49.70	-13.00	Horizontal	PASS
4	2825.375	-44.85	-13.00	Horizontal	PASS
5	5779.616	-45.51	-13.00	Horizontal	PASS
6	9115.573	-38.06	-13.00	Horizontal	PASS

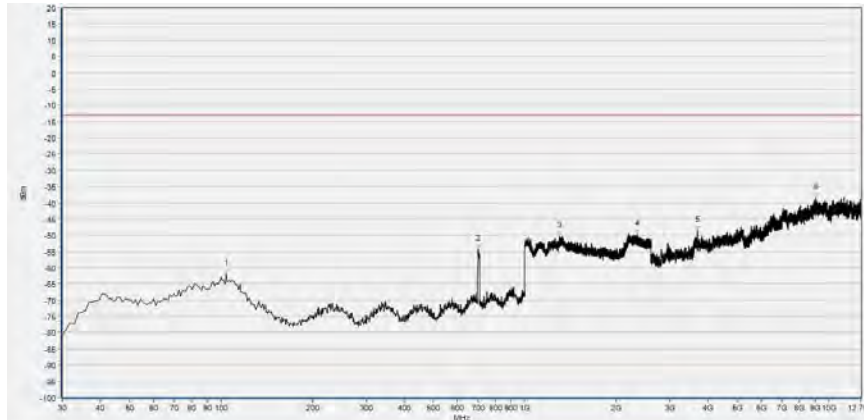


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	106.707	-61.17	-13.00	Vertical	PASS
2	701.912	-55.54	-13.00	Vertical	N/A
3	2366.322	-49.30	-13.00	Vertical	PASS
4	2807.101	-50.69	-13.00	Vertical	PASS
5	5091.308	-45.58	-13.00	Vertical	PASS
6	9371.404	-39.12	-13.00	Vertical	PASS

LTE Band 12 10MHz BW, Low Channel, 16QAM



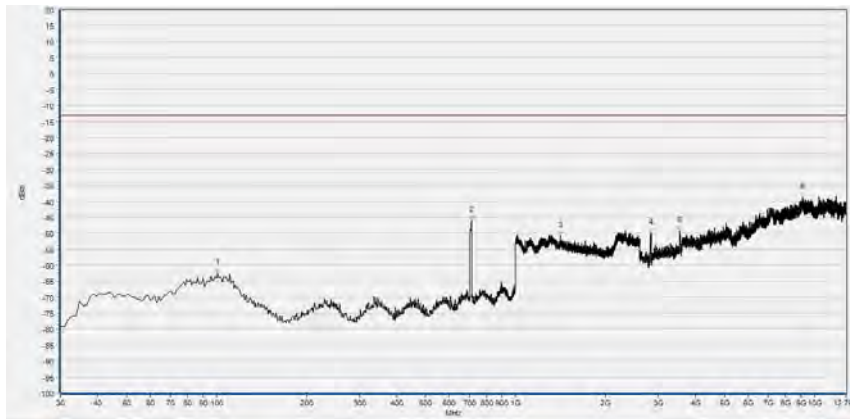
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	107.678	-62.48	-13.00	Horizontal	PASS
2	701.912	-46.06	-13.00	Horizontal	N/A
3	1918.173	-51.41	-13.00	Horizontal	PASS
4	2825.375	-50.24	-13.00	Horizontal	PASS
5	5156.281	-46.26	-13.00	Horizontal	PASS
6	9093.239	-38.73	-13.00	Horizontal	PASS



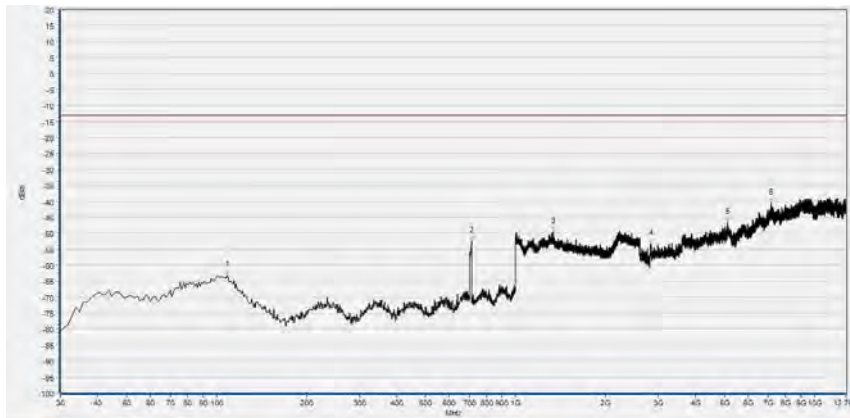
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	103.794	-62.07	-13.00	Vertical	PASS
2	700.941	-54.43	-13.00	Vertical	N/A
3	1300.900	-50.29	-13.00	Vertical	PASS
4	2336.445	-49.73	-13.00	Vertical	PASS
5	3698.450	-48.61	-13.00	Vertical	PASS
6	9079.026	-38.64	-13.00	Vertical	PASS



LTE Band 12 10MHz BW, Mid Channel, QPSK



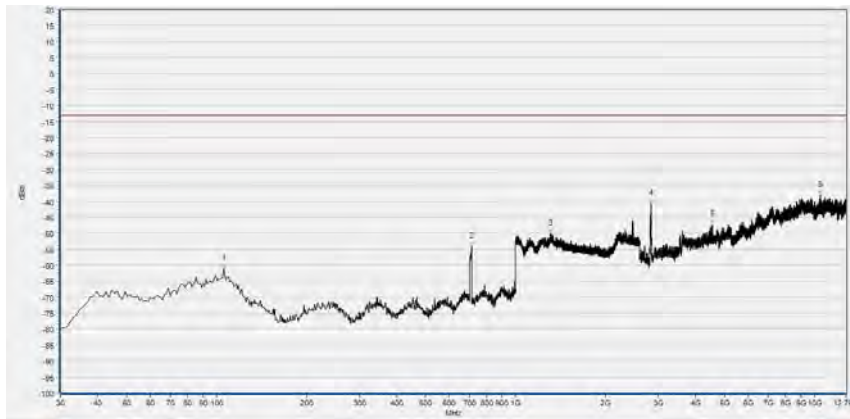
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	100.881	-62.43	-13.00	Horizontal	PASS
2	711.622	-46.00	-13.00	Horizontal	N/A
3	1413.471	-50.83	-13.00	Horizontal	PASS
4	2839.588	-49.98	-13.00	Horizontal	PASS
5	3540.078	-49.36	-13.00	Horizontal	PASS
6	9097.299	-38.83	-13.00	Horizontal	PASS



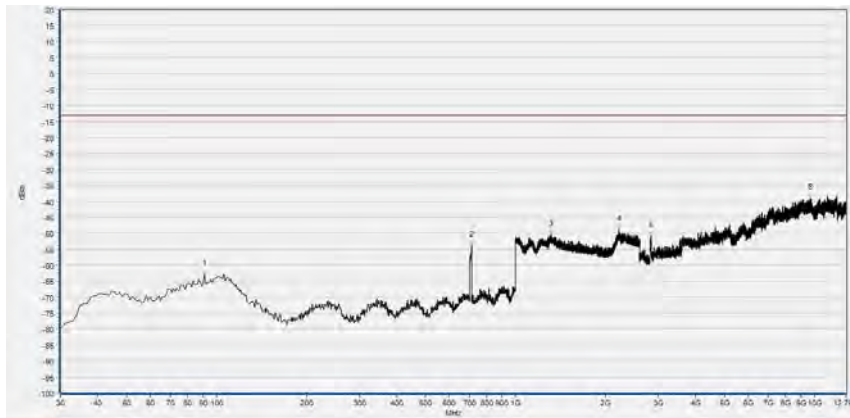
No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	108.649	-63.20	-13.00	Vertical	PASS
2	711.622	-52.37	-13.00	Vertical	N/A
3	1337.179	-49.57	-13.00	Vertical	PASS
4	2839.588	-53.31	-13.00	Vertical	PASS
5	5115.673	-46.61	-13.00	Vertical	PASS
6	7154.201	-40.59	-13.00	Vertical	PASS



LTE Band 12 10MHz BW, Mid Channel, 16QAM

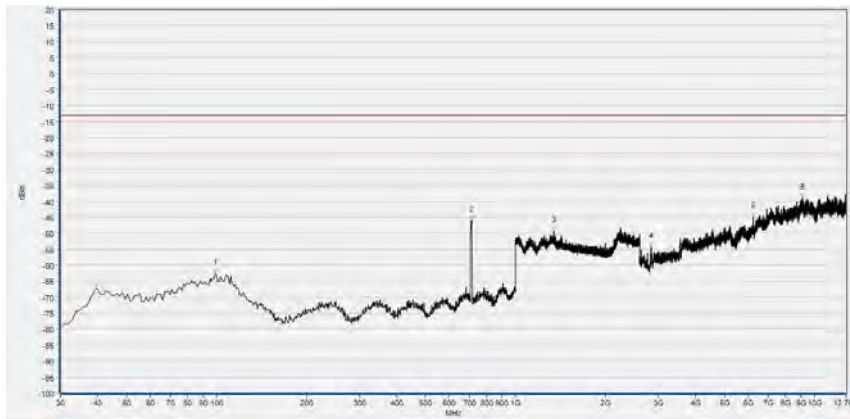


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	105.736	-61.10	-13.00	Horizontal	PASS
2	711.622	-54.12	-13.00	Horizontal	N/A
3	1307.836	-50.27	-13.00	Horizontal	PASS
4	2839.588	-40.86	-13.00	Horizontal	PASS
5	4557.311	-47.21	-13.00	Horizontal	PASS
6	10433.307	-38.13	-13.00	Horizontal	PASS

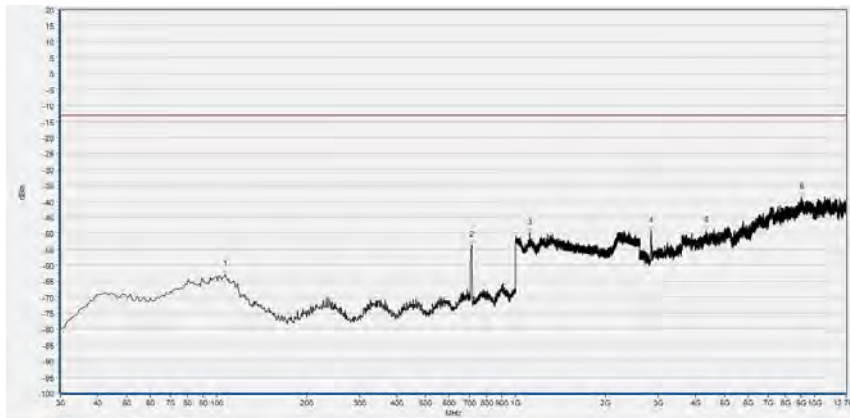


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	91.171	-62.86	-13.00	Vertical	PASS
2	711.622	-53.75	-13.00	Vertical	N/A
3	1314.772	-50.43	-13.00	Vertical	PASS
4	2213.204	-48.78	-13.00	Vertical	PASS
5	2839.588	-50.76	-13.00	Vertical	PASS
6	9706.421	-38.93	-13.00	Vertical	PASS

LTE Band 12 10MHz BW, High Channel, QPSK

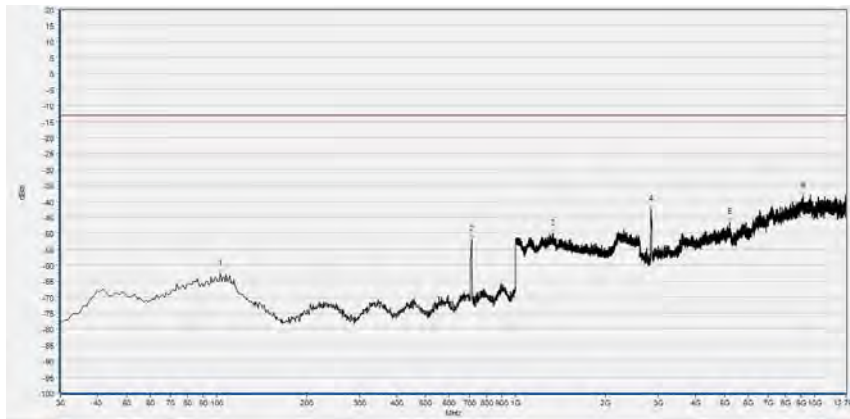


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	98.939	-62.39	-13.00	Horizontal	PASS
2	711.622	-45.86	-13.00	Horizontal	N/A
3	1340.914	-49.32	-13.00	Horizontal	PASS
4	2837.558	-54.15	-13.00	Horizontal	PASS
5	6238.488	-44.80	-13.00	Horizontal	PASS
6	9109.482	-39.01	-13.00	Horizontal	PASS

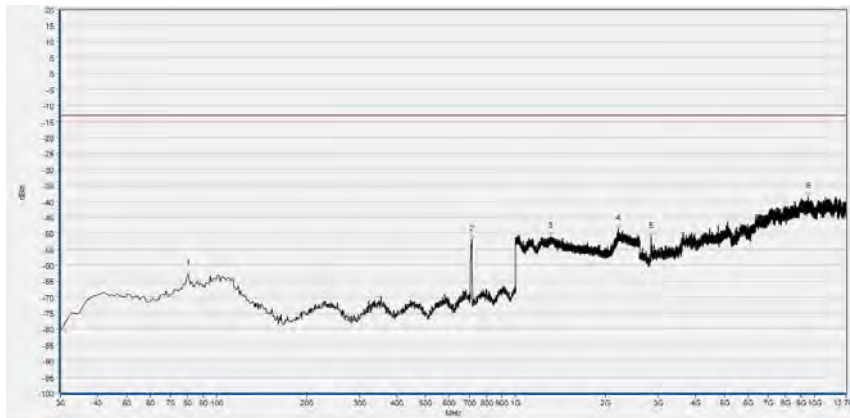


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	106.707	-62.98	-13.00	Vertical	PASS
2	713.564	-53.73	-13.00	Vertical	N/A
3	1114.171	-50.00	-13.00	Vertical	PASS
4	2843.649	-49.29	-13.00	Vertical	PASS
5	4327.876	-49.34	-13.00	Vertical	PASS
6	9040.448	-38.77	-13.00	Vertical	PASS

LTE Band 12 10MHz BW, High Channel, 16QAM

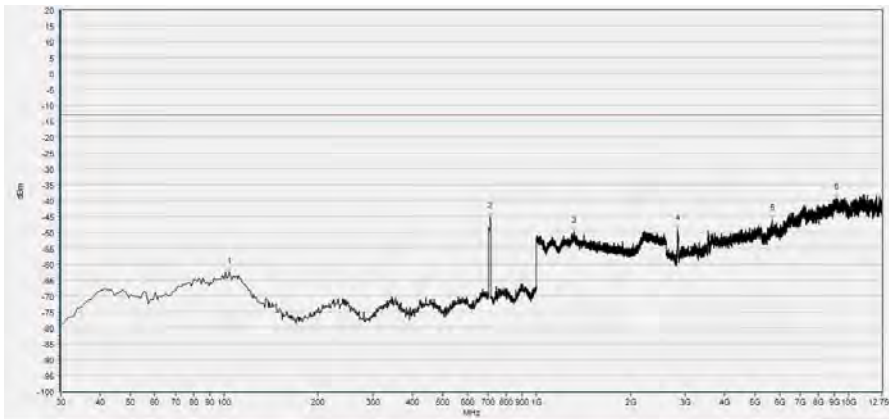


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	102.823	-62.75	-13.00	Horizontal	PASS
2	712.593	-51.91	-13.00	Horizontal	N/A
3	1327.576	-50.16	-13.00	Horizontal	PASS
4	2843.649	-42.61	-13.00	Horizontal	PASS
5	5196.889	-46.57	-13.00	Horizontal	PASS
6	9154.151	-38.26	-13.00	Horizontal	PASS

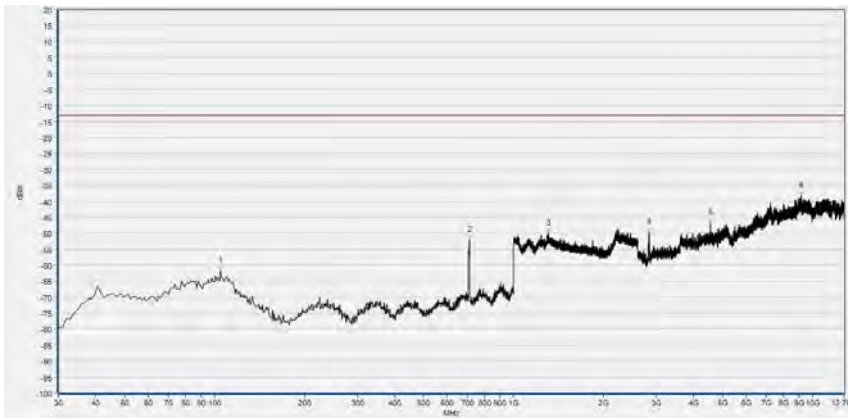


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	80.490	-62.96	-13.00	Vertical	PASS
2	712.593	-52.04	-13.00	Vertical	N/A
3	1306.235	-51.12	-13.00	Vertical	PASS
4	2203.068	-48.65	-13.00	Vertical	PASS
5	2843.649	-51.02	-13.00	Vertical	PASS
6	9543.989	-38.54	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Low Channel, QPSK

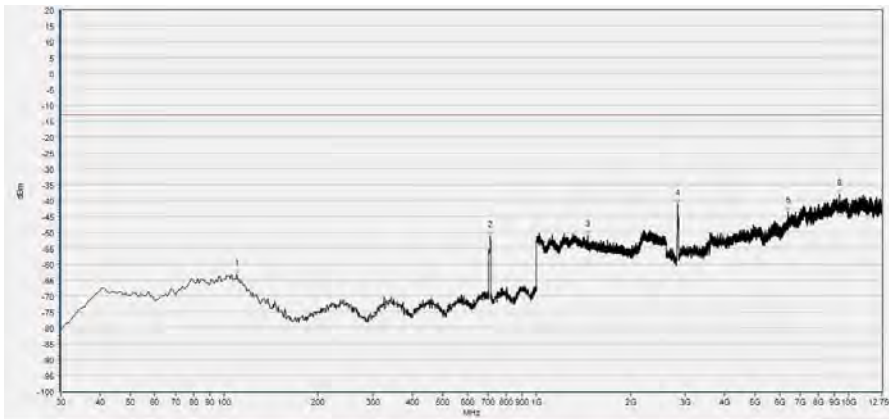


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	103.794	-62.52	-13.00	Horizontal	PASS
2	710.651	-45.27	-13.00	Horizontal	N/A
3	1318.506	-49.82	-13.00	Horizontal	PASS
4	2835.527	-49.13	-13.00	Horizontal	PASS
5	5694.339	-46.04	-13.00	Horizontal	PASS
6	9141.968	-39.36	-13.00	Horizontal	PASS

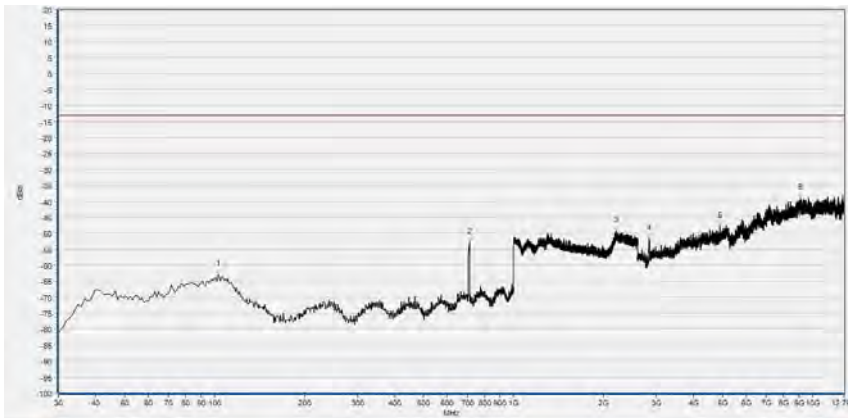


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	104.765	-61.83	-13.00	Vertical	PASS
2	711.622	-52.19	-13.00	Vertical	N/A
3	1304.101	-50.07	-13.00	Vertical	PASS
4	2835.527	-49.73	-13.00	Vertical	PASS
5	4557.311	-46.79	-13.00	Vertical	PASS
6	9162.272	-38.43	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Low Channel, 16QAM

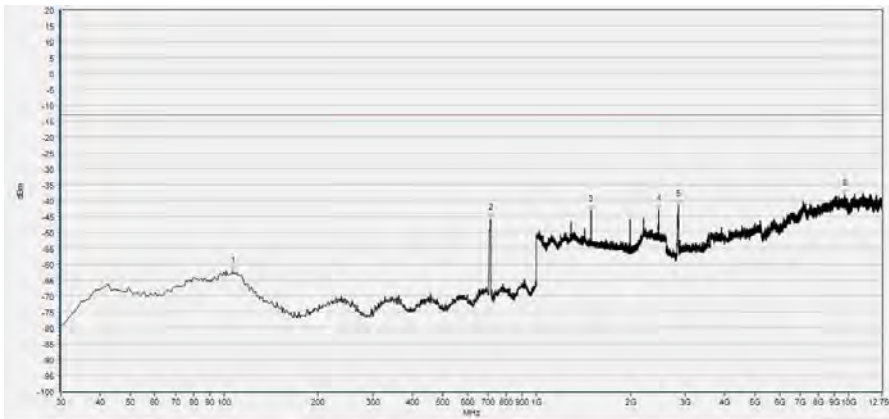


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	109.620	-63.41	-13.00	Horizontal	PASS
2	711.622	-51.07	-13.00	Horizontal	N/A
3	1460.954	-50.99	-13.00	Horizontal	PASS
4	2835.527	-41.11	-13.00	Horizontal	PASS
5	6392.799	-43.57	-13.00	Horizontal	PASS
6	9336.887	-38.15	-13.00	Horizontal	PASS

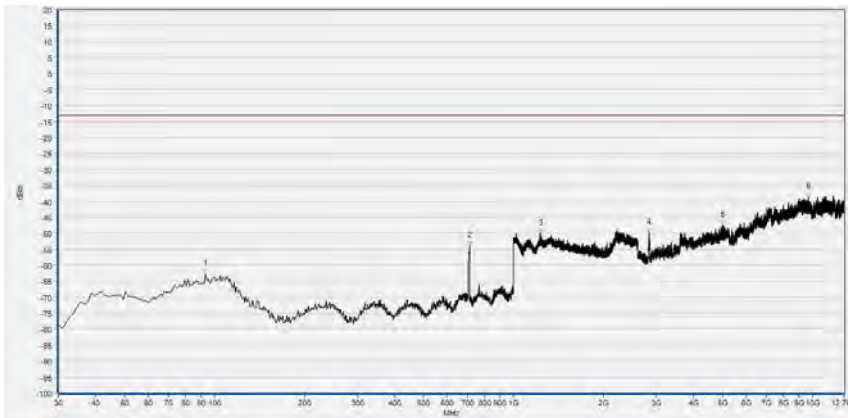


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	102.823	-62.94	-13.00	Vertical	PASS
2	711.622	-52.86	-13.00	Vertical	N/A
3	2204.135	-49.30	-13.00	Vertical	PASS
4	2835.527	-51.68	-13.00	Vertical	PASS
5	4894.359	-47.74	-13.00	Vertical	PASS
6	9119.634	-38.89	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Mid Channel, QPSK

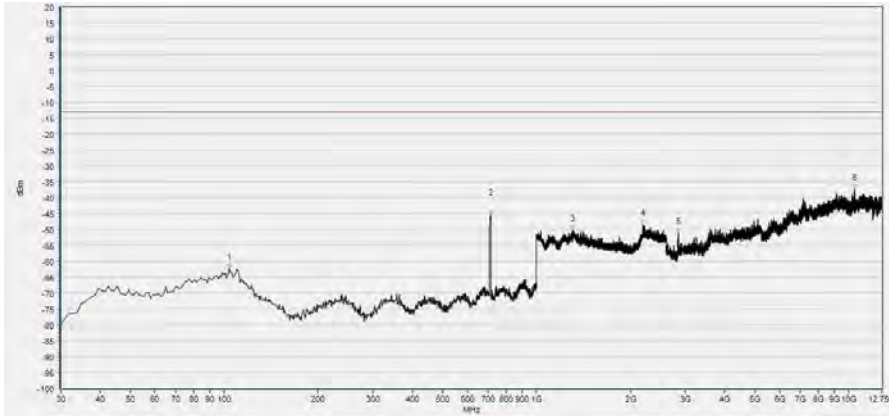


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	106.707	-62.49	-13.00	Horizontal	PASS
2	713.564	-45.67	-13.00	Horizontal	N/A
3	1495.632	-43.07	-13.00	Horizontal	PASS
4	2463.955	-42.93	-13.00	Horizontal	PASS
5	2839.588	-41.39	-13.00	Horizontal	PASS
6	9718.604	-38.06	-13.00	Horizontal	PASS

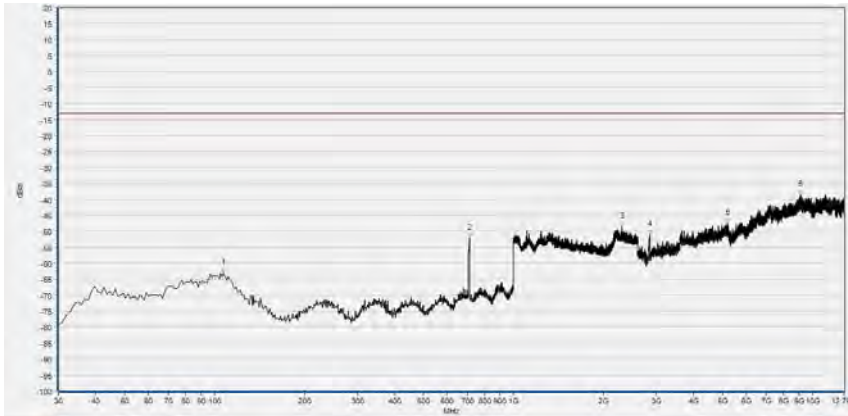


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	93.113	-62.58	-13.00	Vertical	PASS
2	712.593	-53.86	-13.00	Vertical	N/A
3	1227.276	-50.27	-13.00	Vertical	PASS
4	2839.588	-49.88	-13.00	Vertical	PASS
5	4995.879	-47.45	-13.00	Vertical	PASS
6	9694.239	-38.69	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, Mid Channel, 16QAM

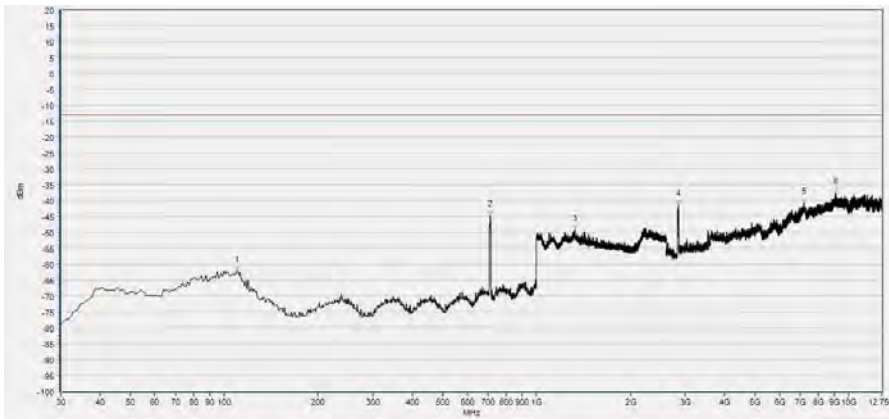


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	103.794	-62.33	-13.00	Horizontal	PASS
2	713.564	-45.38	-13.00	Horizontal	N/A
3	1306.769	-50.12	-13.00	Horizontal	PASS
4	2193.998	-48.67	-13.00	Horizontal	PASS
5	2843.649	-51.19	-13.00	Horizontal	PASS
6	10425.185	-37.36	-13.00	Horizontal	PASS

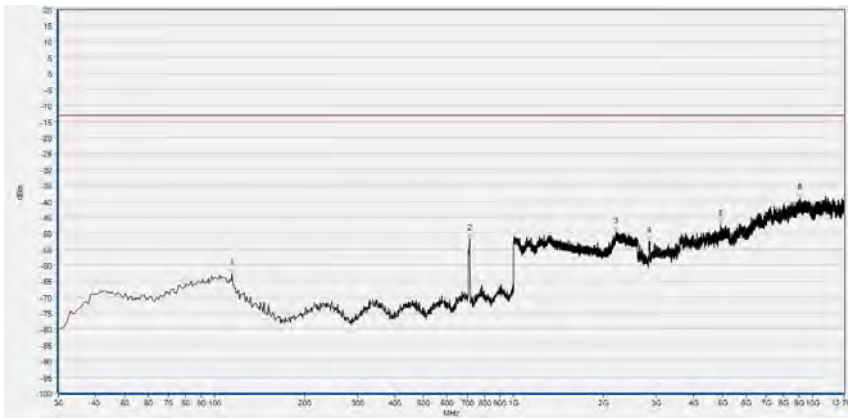


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	106.707	-63.22	-13.00	Vertical	PASS
2	711.622	-52.13	-13.00	Vertical	N/A
3	2298.033	-48.69	-13.00	Vertical	PASS
4	2849.740	-51.07	-13.00	Vertical	PASS
5	5186.737	-47.50	-13.00	Vertical	PASS
6	9091.208	-38.62	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, High Channel, QPSK

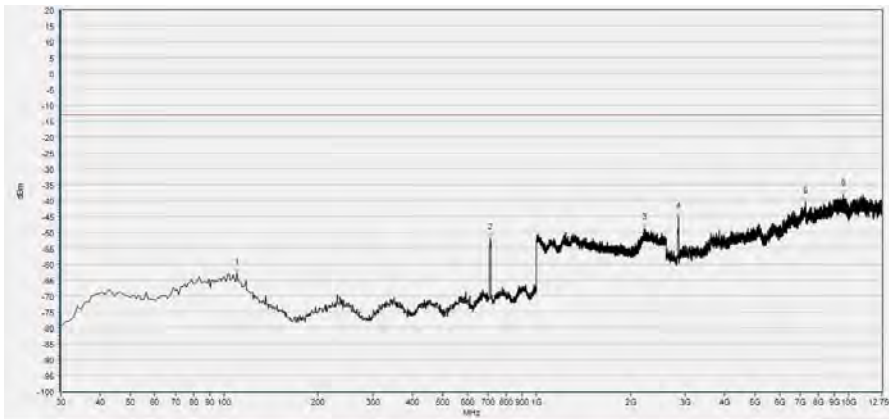


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	109.620	-62.14	-13.00	Horizontal	PASS
2	712.593	-44.72	-13.00	Horizontal	N/A
3	1325.442	-49.39	-13.00	Horizontal	PASS
4	2843.649	-41.34	-13.00	Horizontal	PASS
5	7168.414	-40.68	-13.00	Horizontal	PASS
6	9097.299	-37.58	-13.00	Horizontal	PASS

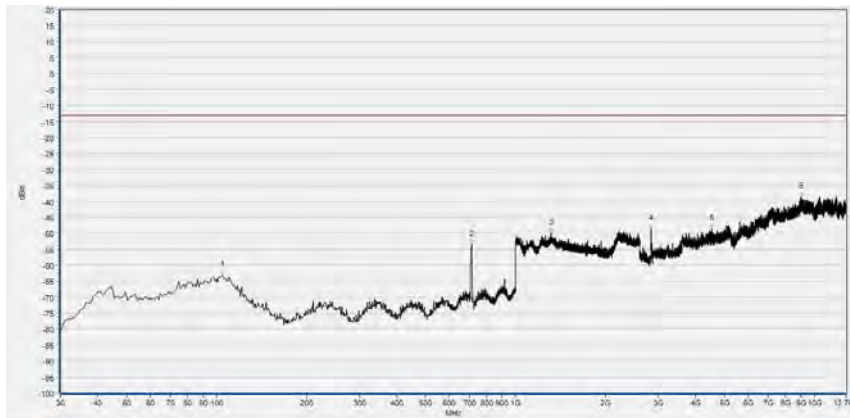


No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	114.474	-62.64	-13.00	Vertical	PASS
2	712.593	-51.80	-13.00	Vertical	N/A
3	2199.333	-49.59	-13.00	Vertical	PASS
4	2843.649	-52.31	-13.00	Vertical	PASS
5	4934.967	-47.36	-13.00	Vertical	PASS
6	9066.843	-39.00	-13.00	Vertical	PASS

LTE Band 17 10MHz BW, High Channel, 16QAM



No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	109.620	-62.87	-13.00	Horizontal	PASS
2	712.593	-51.95	-13.00	Horizontal	N/A
3	2213.738	-48.91	-13.00	Horizontal	PASS
4	2843.649	-45.17	-13.00	Horizontal	PASS
5	7282.116	-40.38	-13.00	Horizontal	PASS
6	9613.023	-38.20	-13.00	Horizontal	PASS



No.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	104.765	-63.04	-13.00	Vertical	PASS
2	711.622	-53.48	-13.00	Vertical	N/A
3	1313.171	-49.99	-13.00	Vertical	PASS
4	2843.649	-48.63	-13.00	Vertical	PASS
5	4541.068	-48.71	-13.00	Vertical	PASS
6	9012.022	-38.64	-13.00	Vertical	PASS



Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test items	Uncertainty
Output Power	± 2.22 dB
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	± 2.77 dB
Band Edge	± 2.77 dB
Equivalent Isotropic Radiated Power	± 2.22 dB
Radiated Spurious Emissions	± 6 dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Power Splitter	NW521	1506A	Weinschel	2018.04.17	2019.04.16
Attenuator 1	(N/A.)	10dB	Resnet	2018.04.17	2019.04.16
Attenuator 2	(N/A.)	3dB	Resnet	2018.04.17	2019.04.16
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2017.12.03	2018.12.02
USB Power Sensor	MY54210011	U2021XA	Agilent	2018.04.17	2019.04.16
System Simulator	152038	CMW500	R&S	2018.05.08	2019.05.07
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial cable	CB02	RF02	Morlab	N/A	N/A
SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	(N/A)	HUT705P	CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD	2018.04.17	2019.04.16

4.2 Auxiliary Test Equipment

Equipment Name	Model No.	Brand Name	Manufacturer	Cal.Date	Cal. Due
Computer	T430i	Think Pad	Lenovo	N/A	N/A

**4.3 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
System Simulator	152038	CMW500	R&S	2018.08.04	2019.08.03
Receiver	MY54130016	N9038A	Agilent	2018.05.18	2019.05.17
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2018.03.03	2019.03.02
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2018.08.06	2019.08.05
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2018.08.02	2019.08.01
Coaxial cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
1-18GHz pre-Amplifier	MA02	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
18-26.5GHz pre-Amplifier	MA03	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
Anechoic Chamber	N/A	9m*6m*6m	CRT	2017.11.19	2020.11.18

————— END OF REPORT —————