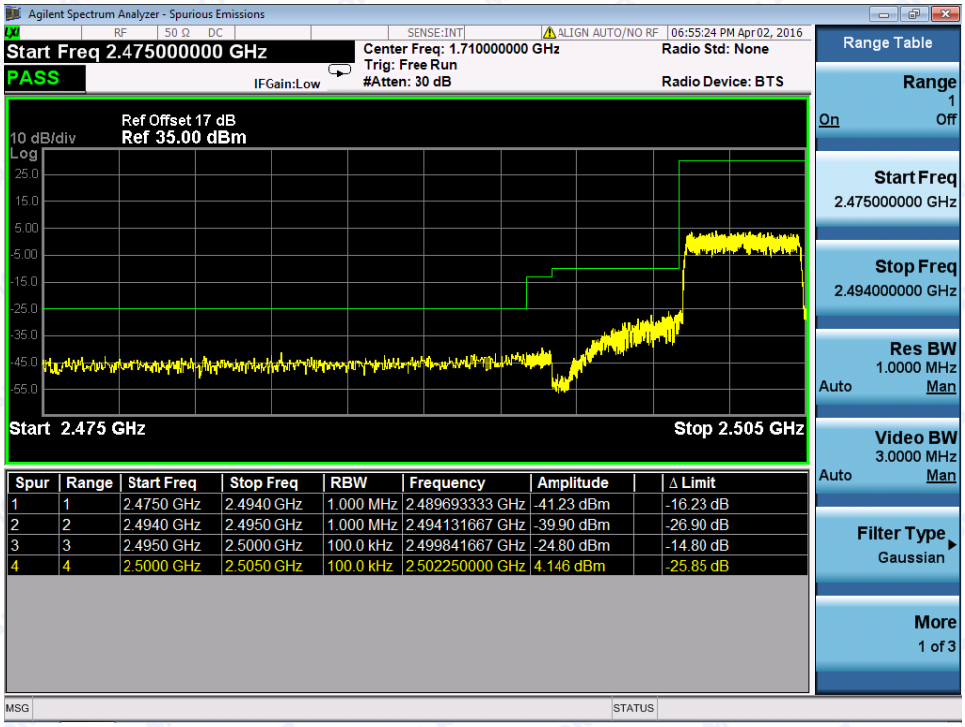
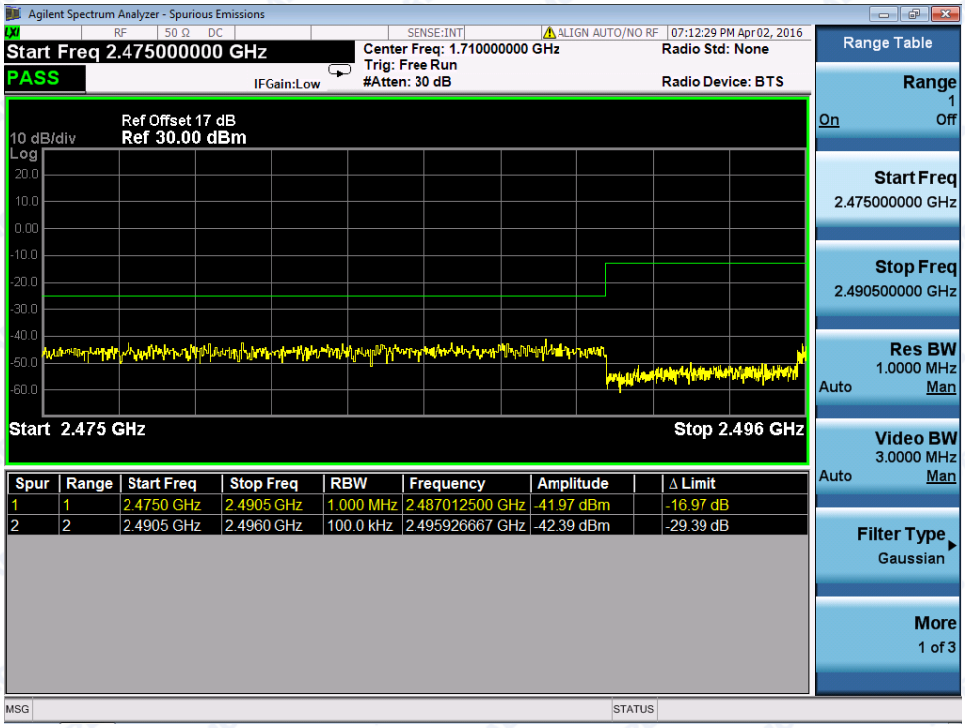
LTE Band 7			
Channel Bandwidth: 5MHz X=5.240MHz			
Channel	20775	RB Size 25	RB Offset 0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4940 GHz	1.000 MHz	2.489693333 GHz	-41.23 dBm	-16.23 dB
2	2	2.4940 GHz	2.4950 GHz	1.000 MHz	2.494131667 GHz	-39.90 dBm	-26.90 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.499841667 GHz	-24.80 dBm	-14.80 dB
4	4	2.5000 GHz	2.5050 GHz	100.0 kHz	2.502250000 GHz	4.146 dBm	-25.85 dB

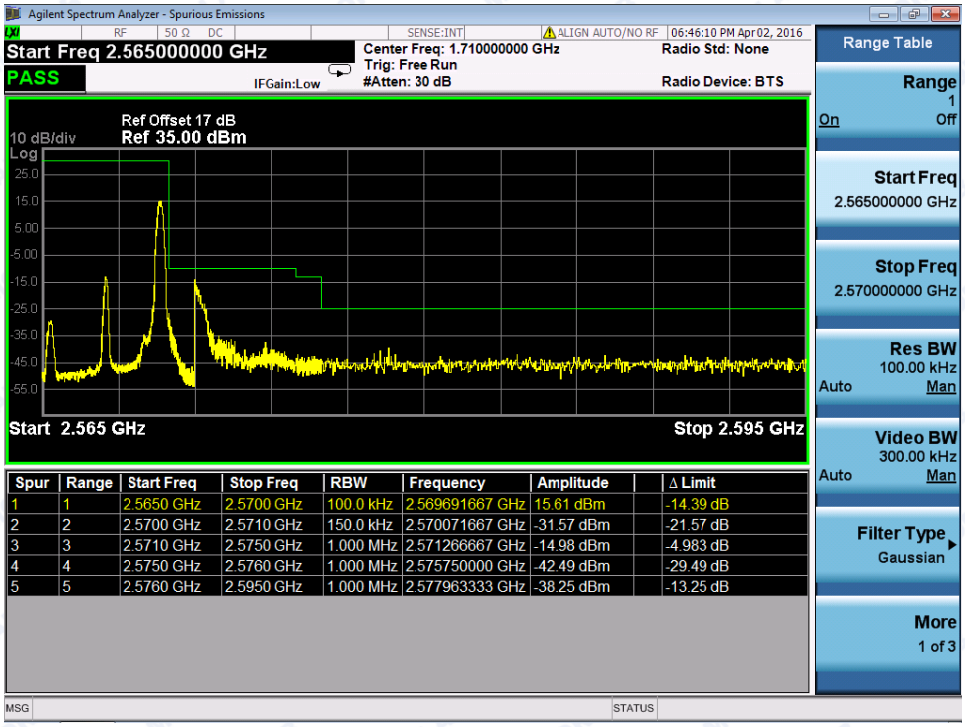


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.487012500 GHz	-41.97 dBm	-16.97 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.495926667 GHz	-42.39 dBm	-29.39 dB

LTE Band 7

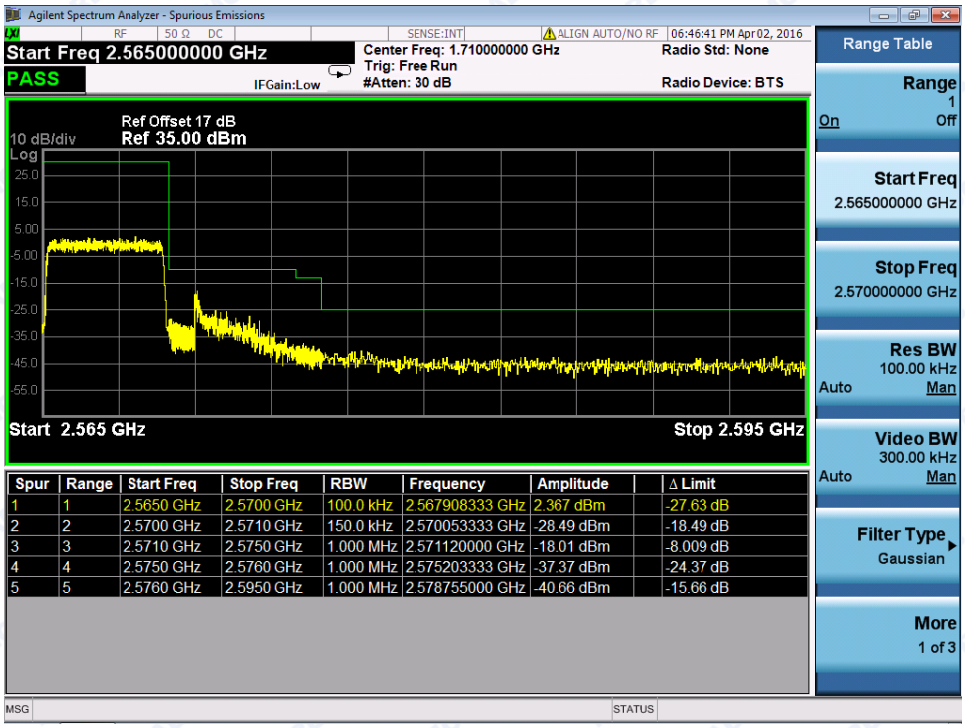
Channel Bandwidth: 5MHz X=5.394MHz

Channel	21425	RB Size 1	RB Offset 24



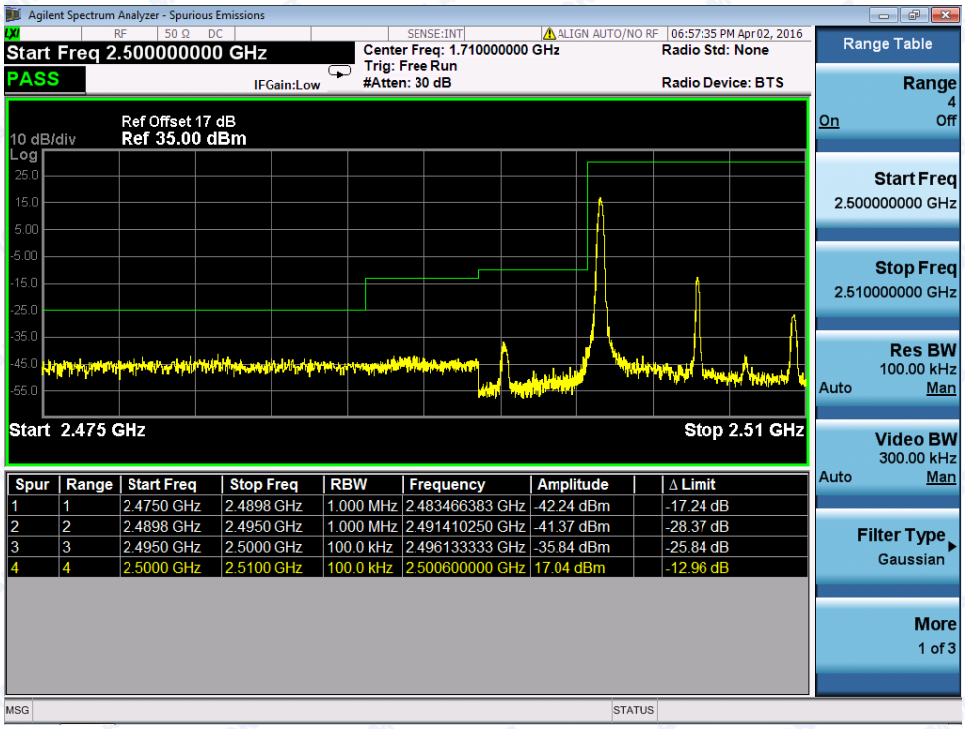
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	100.0 kHz	2.569691667 GHz	15.61 dBm	-14.39 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570071667 GHz	-31.57 dBm	-21.57 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571266667 GHz	-14.98 dBm	-4.983 dB
4	4	2.5750 GHz	2.5760 GHz	1.000 MHz	2.575750000 GHz	-42.49 dBm	-29.49 dB
5	5	2.5760 GHz	2.5950 GHz	1.000 MHz	2.577963333 GHz	-38.25 dBm	-13.25 dB

Channel	21425	RB Size 25	RB Offset 0

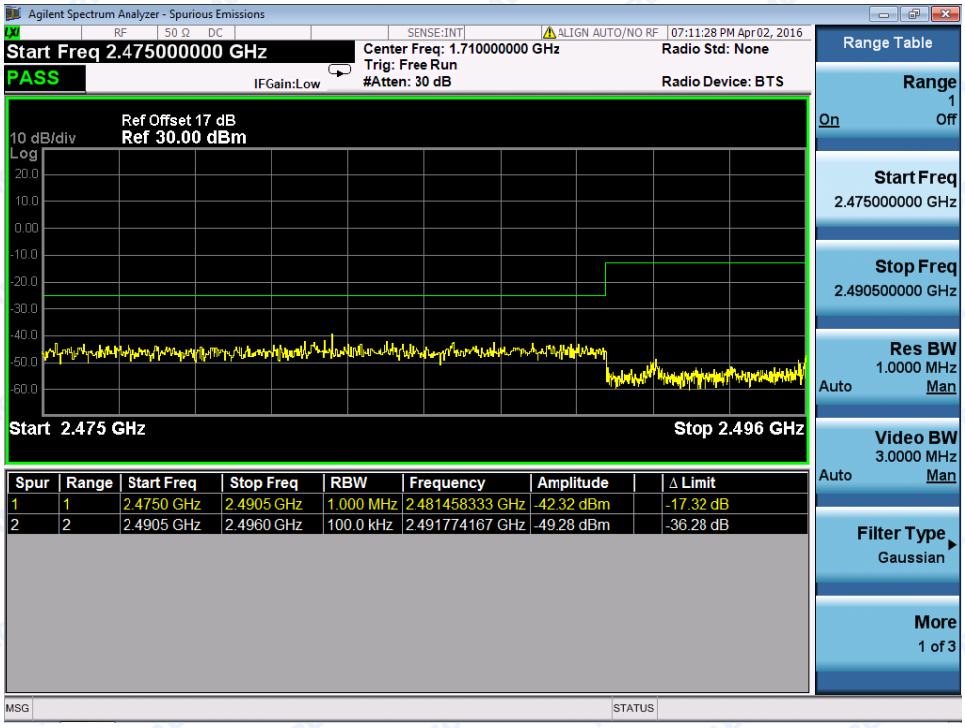


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5650 GHz	2.5700 GHz	100.0 kHz	2.567908333 GHz	2.367 dBm	-27.63 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570053333 GHz	-28.49 dBm	-18.49 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571120000 GHz	-18.01 dBm	-8.009 dB
4	4	2.5750 GHz	2.5760 GHz	1.000 MHz	2.575203333 GHz	-37.37 dBm	-24.37 dB
5	5	2.5760 GHz	2.5950 GHz	1.000 MHz	2.578755000 GHz	-40.66 dBm	-15.66 dB

LTE Band 7			
Channel Bandwidth: 10MHz X=10.19MHz			
Channel	20800	RB Size 1	RB Offset 0

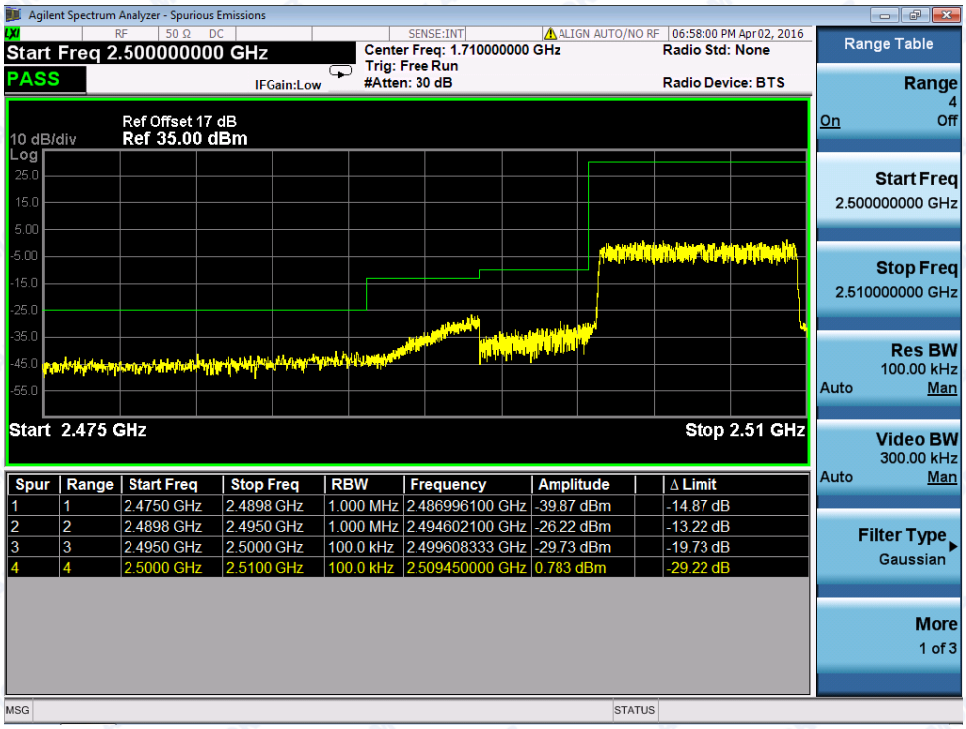


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4898 GHz	1.000 MHz	2.483466383 GHz	-42.24 dBm	-17.24 dB
2	2	2.4898 GHz	2.4950 GHz	1.000 MHz	2.491410250 GHz	-41.37 dBm	-28.37 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.496133333 GHz	-35.84 dBm	-25.84 dB
4	4	2.5000 GHz	2.5100 GHz	100.0 kHz	2.500600000 GHz	17.04 dBm	-12.96 dB

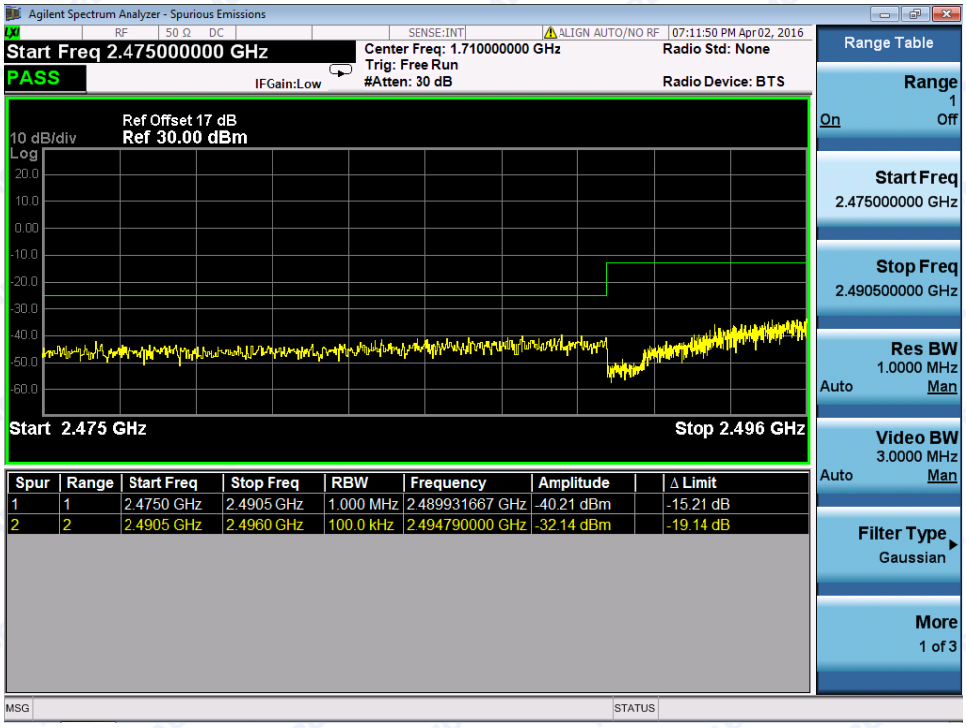


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.481458333 GHz	-42.32 dBm	-17.32 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.491774167 GHz	-49.28 dBm	-36.28 dB

LTE Band 7			
Channel Bandwidth: 10MHz X=10.19MHz			
Channel	20800	RB Size 50	RB Offset 0

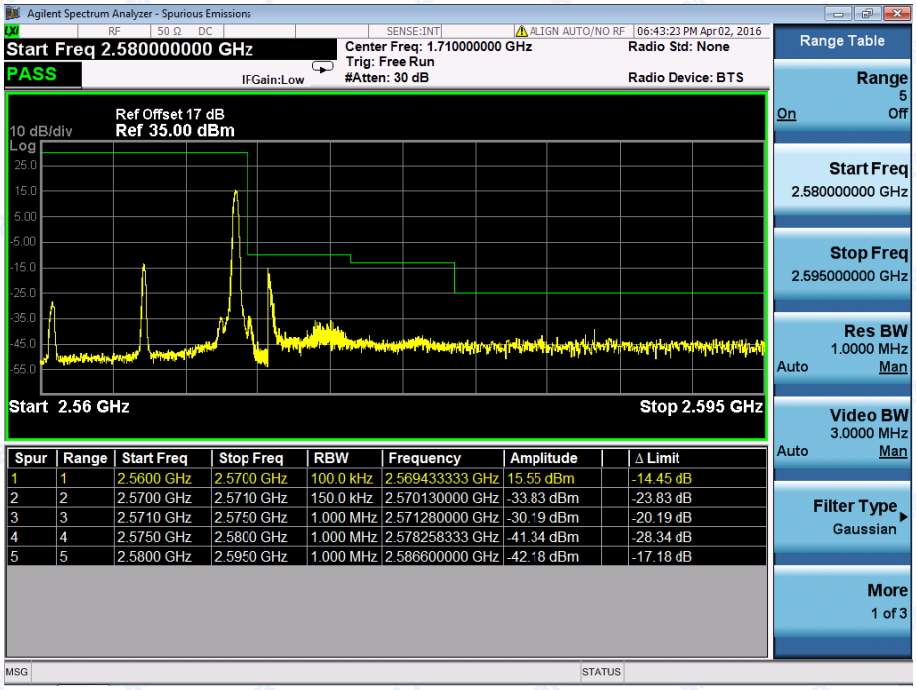


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4898 GHz	1.000 MHz	2.486996100 GHz	-39.87 dBm	-14.87 dB
2	2	2.4898 GHz	2.4950 GHz	1.000 MHz	2.494602100 GHz	-26.22 dBm	-13.22 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.499608333 GHz	-29.73 dBm	-19.73 dB
4	4	2.5000 GHz	2.5100 GHz	100.0 kHz	2.509450000 GHz	0.783 dBm	-29.22 dB



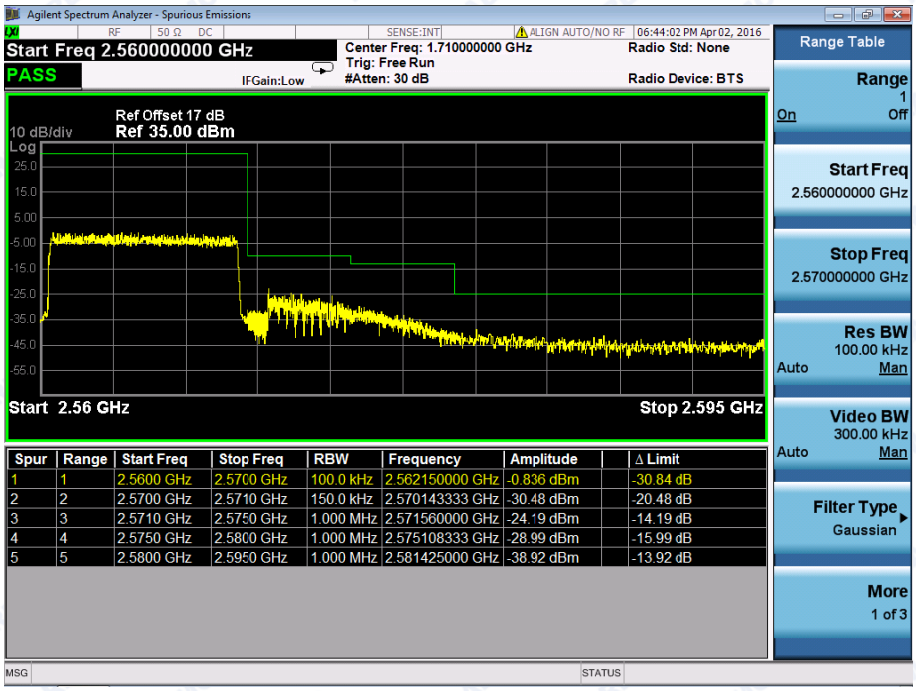
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.489931667 GHz	-40.21 dBm	-15.21 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.494790000 GHz	-32.14 dBm	-19.14 dB

LTE Band 7			
Channel Bandwidth: 10MHz X=10.10MHz			
Channel	21400	RB Size 1	RB Offset 49



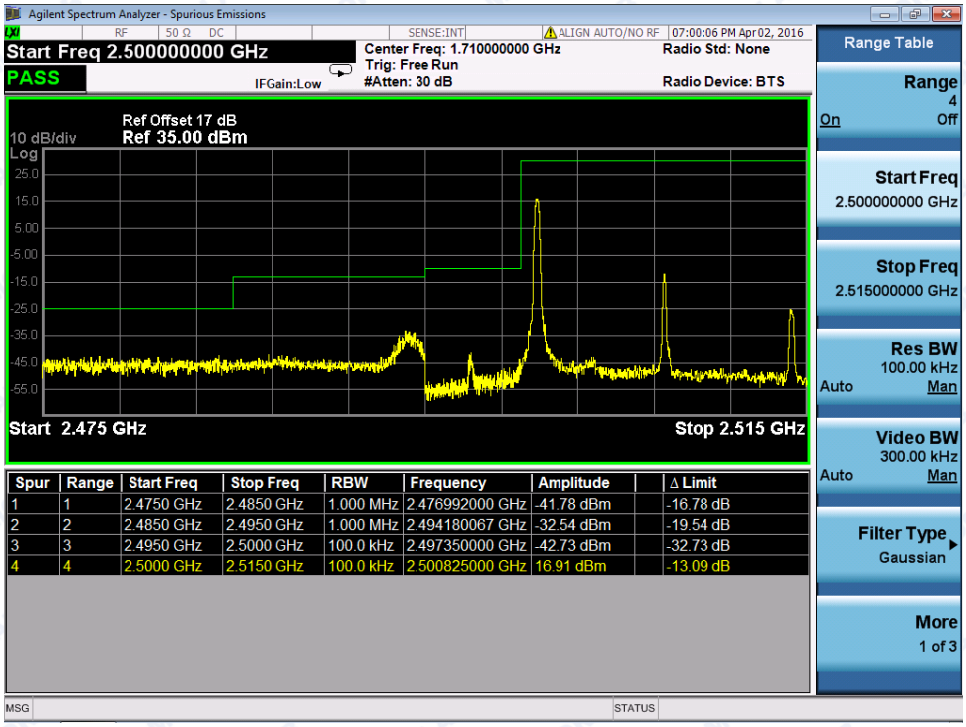
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5600 GHz	2.5700 GHz	100.0 kHz	2.569433333 GHz	15.55 dBm	-14.45 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570130000 GHz	-33.83 dBm	-23.83 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571280000 GHz	-30.19 dBm	-20.19 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.578258333 GHz	-41.34 dBm	-28.34 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.586600000 GHz	-42.18 dBm	-17.18 dB

Channel	21400	RB Size 50	RB Offset 0

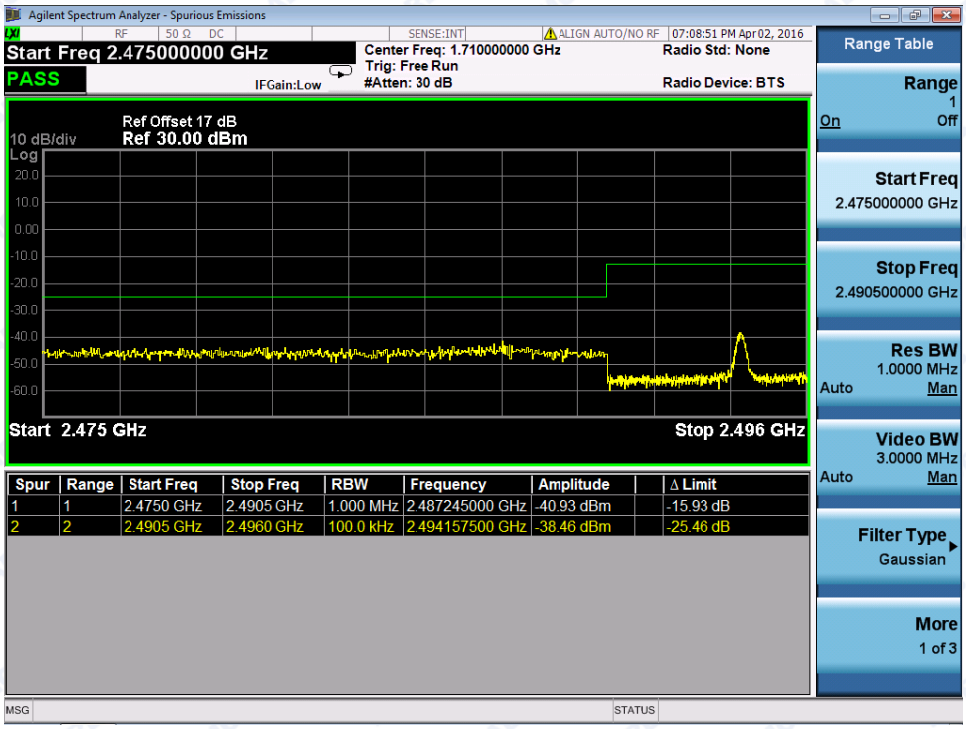


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5600 GHz	2.5700 GHz	100.0 kHz	2.562150000 GHz	-0.836 dBm	-30.84 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570143333 GHz	-30.48 dBm	-20.48 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571560000 GHz	-24.19 dBm	-14.19 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.575108333 GHz	-28.99 dBm	-15.99 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.581425000 GHz	-38.92 dBm	-13.92 dB

LTE Band 7			
Channel Bandwidth: 15MHz X=15.04MHz			
Channel	20825	RB Size 1	RB Offset 0

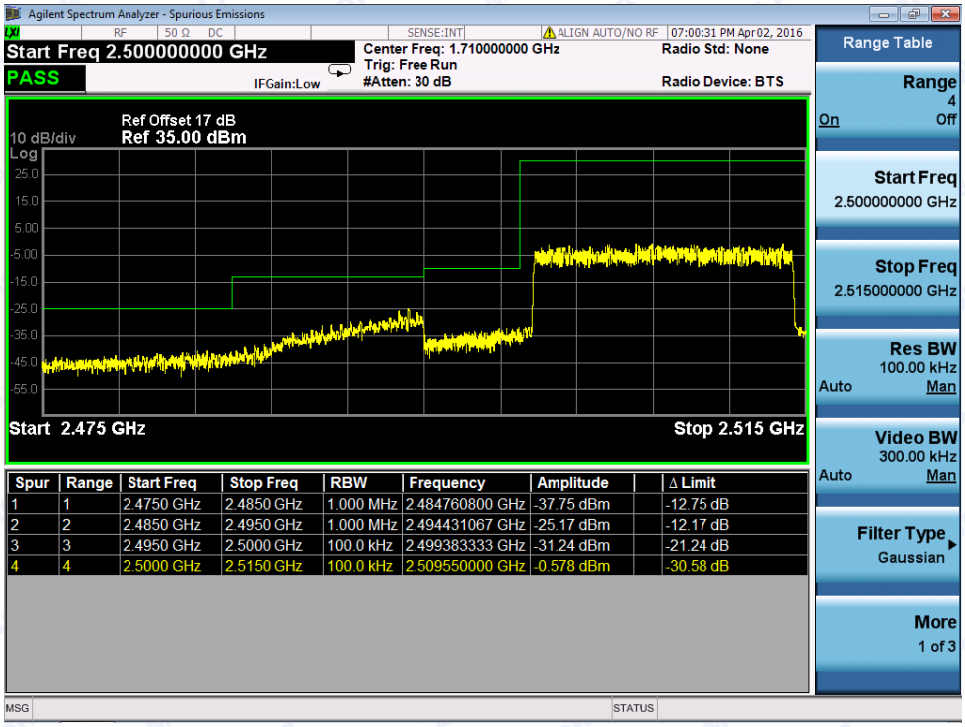


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.4750 GHz	2.4850 GHz	1.000 MHz	2.476992000 GHz	-41.78 dBm		-16.78 dB
2	2	2.4850 GHz	2.4950 GHz	1.000 MHz	2.494180067 GHz	-32.54 dBm		-19.54 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.497350000 GHz	-42.73 dBm		-32.73 dB
4	4	2.5000 GHz	2.5150 GHz	100.0 kHz	2.500825000 GHz	16.91 dBm		-13.09 dB

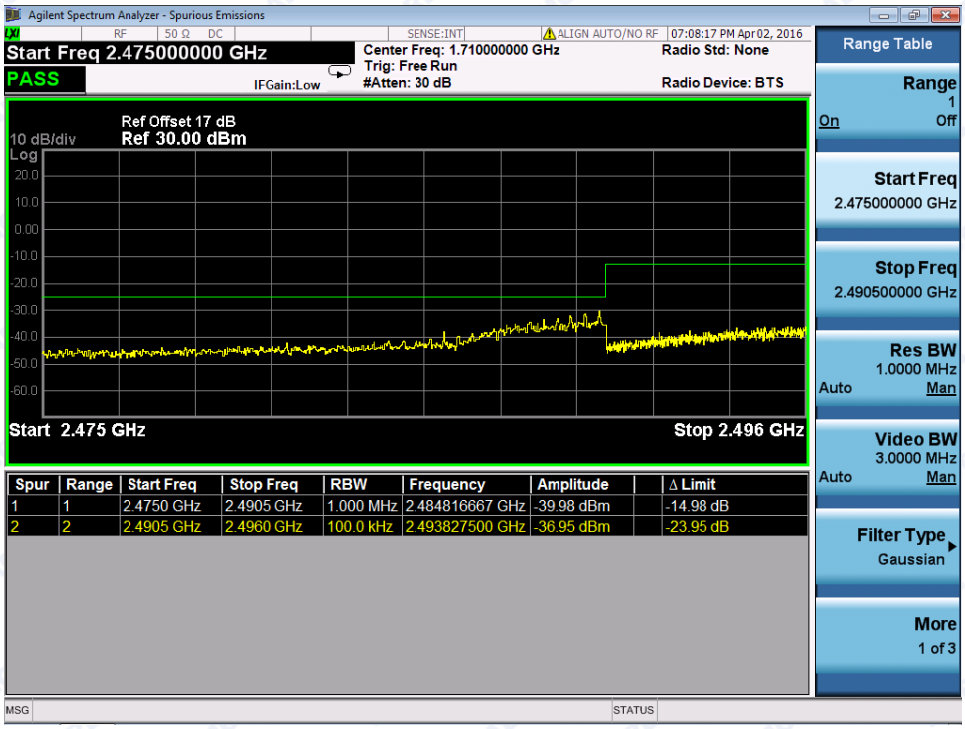


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.487245000 GHz	-40.93 dBm		-15.93 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.494157500 GHz	-38.46 dBm		-25.46 dB

LTE Band 7			
Channel Bandwidth: 15MHz X=15.04MHz			
Channel	20825	RB Size 75	RB Offset 0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.4750 GHz	2.4850 GHz	1.000 MHz	2.484760800 GHz	-37.75 dBm		-12.75 dB
2	2	2.4850 GHz	2.4950 GHz	1.000 MHz	2.494431067 GHz	-25.17 dBm		-12.17 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.499383333 GHz	-31.24 dBm		-21.24 dB
4	4	2.5000 GHz	2.5150 GHz	100.0 kHz	2.509550000 GHz	-0.578 dBm		-30.58 dB

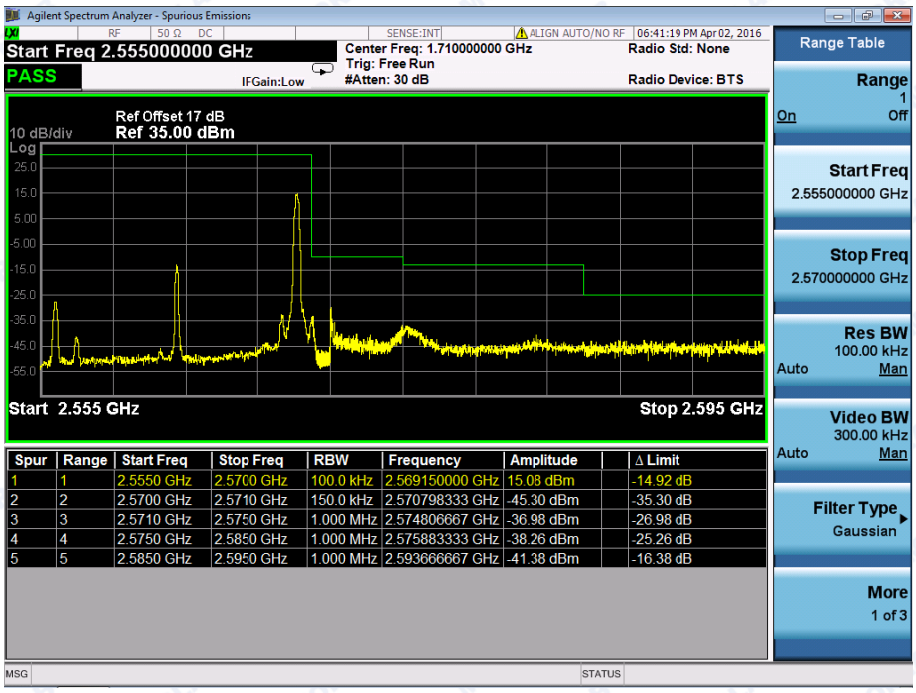


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.484816667 GHz	-39.98 dBm		-14.98 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.493827500 GHz	-36.95 dBm		-23.95 dB

LTE Band 7

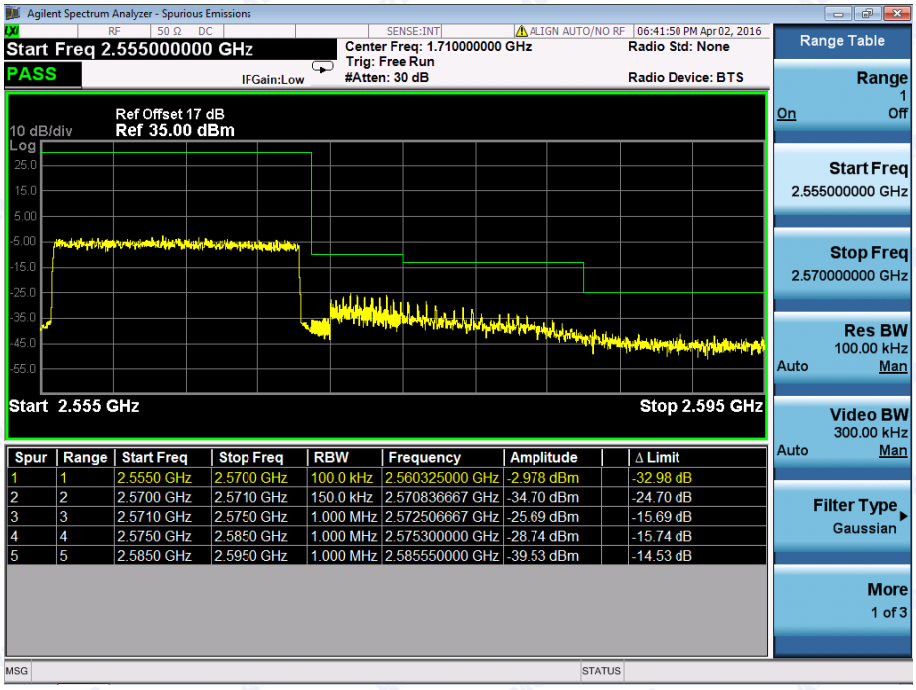
Channel Bandwidth: 15MHz X=15.52MHz

Channel	21375	RB Size 1	RB Offset 74



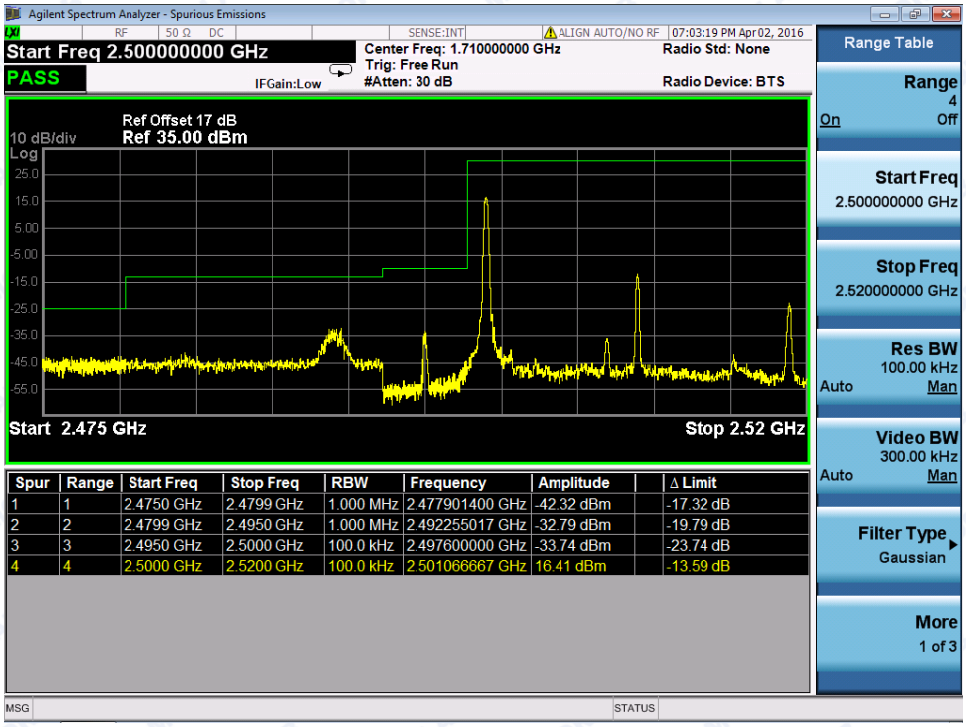
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5550 GHz	2.5700 GHz	100.0 kHz	2.569150000 GHz	15.08 dBm	-14.92 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570798333 GHz	-45.30 dBm	-35.30 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.574806667 GHz	-36.98 dBm	-26.98 dB
4	4	2.5750 GHz	2.5850 GHz	1.000 MHz	2.575883333 GHz	-38.26 dBm	-25.26 dB
5	5	2.5850 GHz	2.5950 GHz	1.000 MHz	2.593666667 GHz	-41.38 dBm	-16.38 dB

Channel	21375	RB Size 75	RB Offset 0

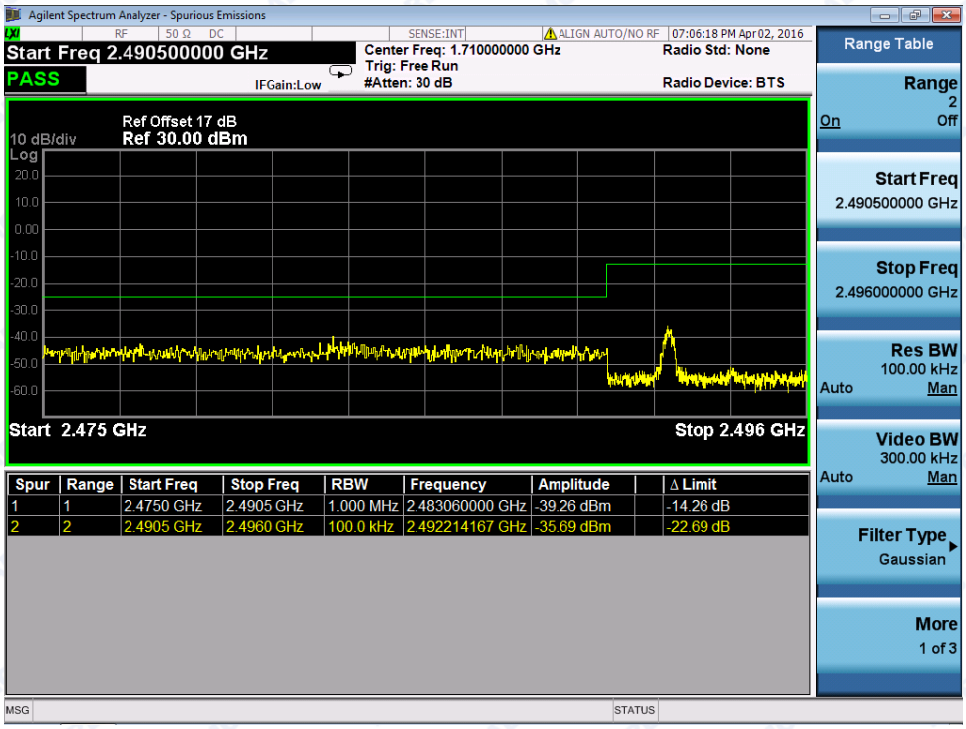


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5550 GHz	2.5700 GHz	100.0 kHz	2.560325000 GHz	-2.978 dBm	-32.98 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570836667 GHz	-34.70 dBm	-24.70 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.572506667 GHz	-25.69 dBm	-15.69 dB
4	4	2.5750 GHz	2.5850 GHz	1.000 MHz	2.575300000 GHz	-28.74 dBm	-15.74 dB
5	5	2.5850 GHz	2.5950 GHz	1.000 MHz	2.585550000 GHz	-39.53 dBm	-14.53 dB

LTE Band 7			
Channel Bandwidth: 20MHz X=20.11MHz			
Channel	20850	RB Size 1	RB Offset 0

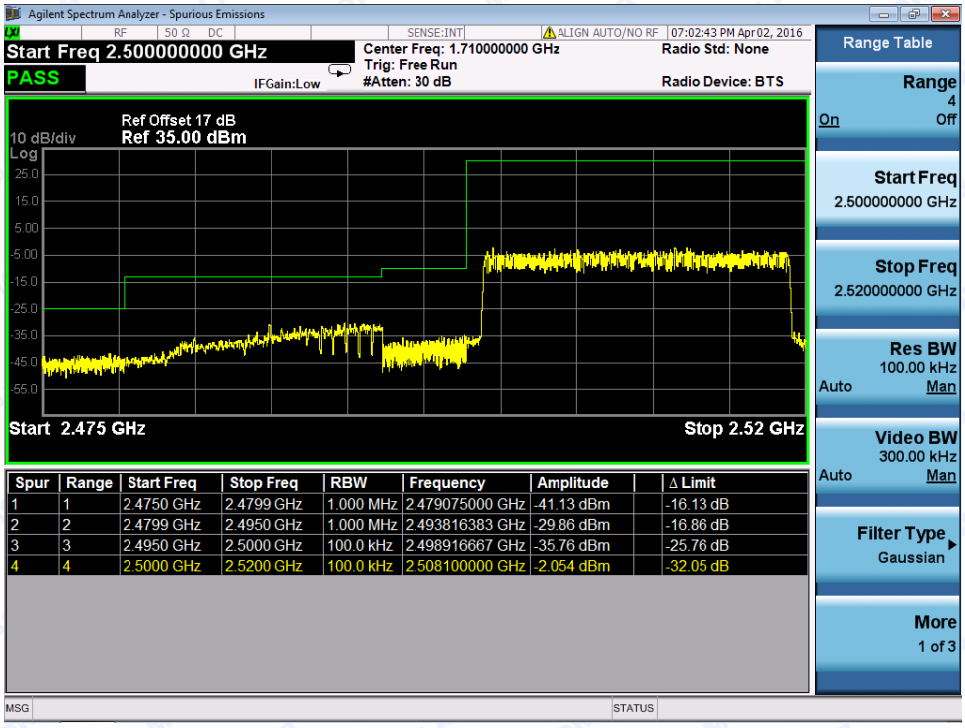


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4799 GHz	1.000 MHz	2.477901400 GHz	-42.32 dBm	-17.32 dB
2	2	2.4799 GHz	2.4950 GHz	1.000 MHz	2.492255017 GHz	-32.79 dBm	-19.79 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.497600000 GHz	-33.74 dBm	-23.74 dB
4	4	2.5000 GHz	2.5200 GHz	100.0 kHz	2.501066667 GHz	16.41 dBm	-13.59 dB

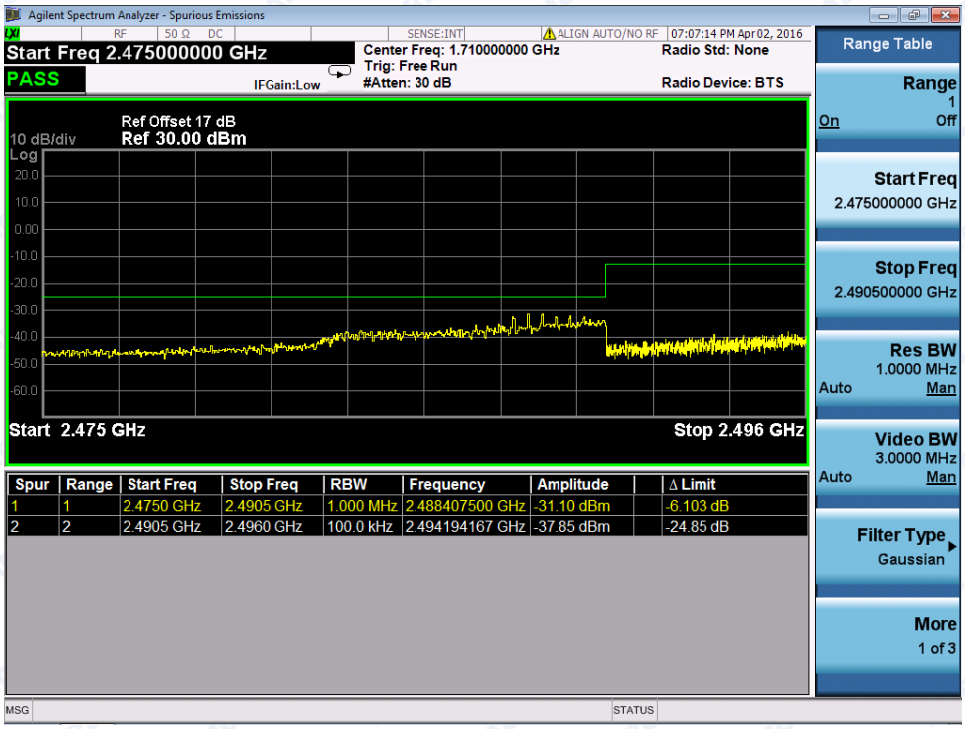


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.483060000 GHz	-39.26 dBm	-14.26 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.492214167 GHz	-35.69 dBm	-22.69 dB

LTE Band 7			
Channel Bandwidth: 20MHz X=20.11MHz			
Channel	20850	RB Size 100	RB Offset 0

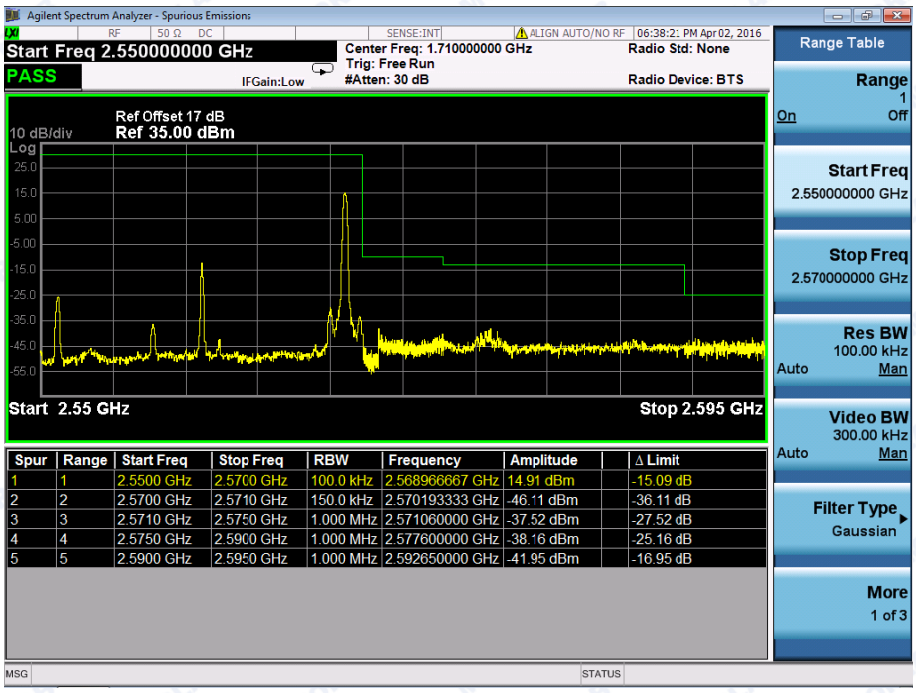


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4799 GHz	1.000 MHz	2.479075000 GHz	-41.13 dBm	-16.13 dB
2	2	2.4799 GHz	2.4950 GHz	1.000 MHz	2.493816383 GHz	-29.86 dBm	-16.86 dB
3	3	2.4950 GHz	2.5000 GHz	100.0 kHz	2.498916667 GHz	-35.76 dBm	-25.76 dB
4	4	2.5000 GHz	2.5200 GHz	100.0 kHz	2.508100000 GHz	-2.054 dBm	-32.05 dB



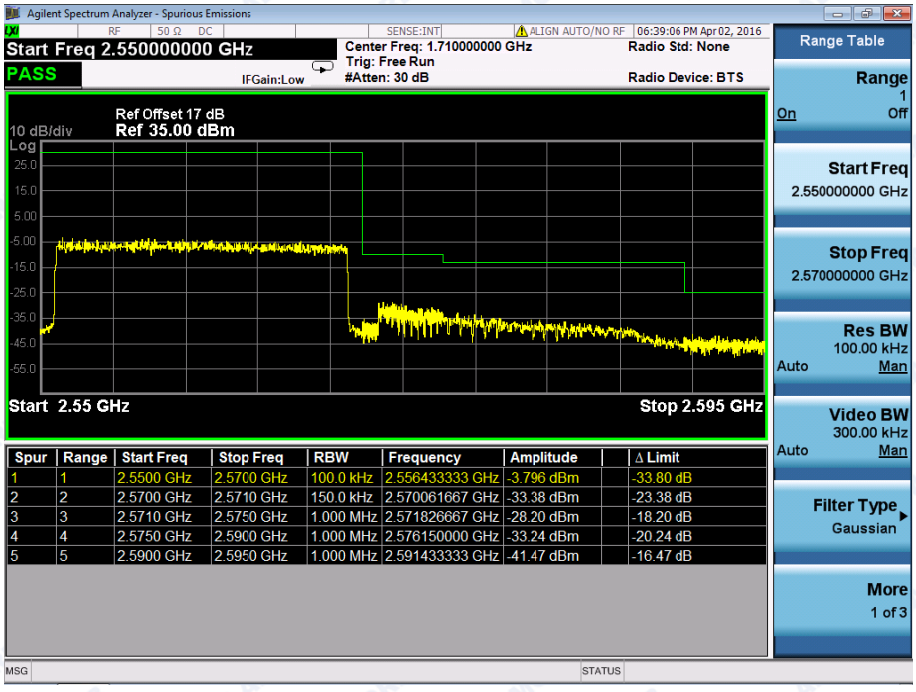
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.488407500 GHz	-31.10 dBm	-6.103 dB
2	2	2.4905 GHz	2.4960 GHz	100.0 kHz	2.494194167 GHz	-37.85 dBm	-24.85 dB

LTE Band 7			
Channel Bandwidth: 20MHz X=19.95MHz			
Channel	21350	RB Size 1	RB Offset 99



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5500 GHz	2.5700 GHz	100.0 kHz	2.568966667 GHz	14.91 dBm	-15.09 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570193333 GHz	-46.11 dBm	-36.11 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571060000 GHz	-37.52 dBm	-27.52 dB
4	4	2.5750 GHz	2.5900 GHz	1.000 MHz	2.577600000 GHz	-38.16 dBm	-25.16 dB
5	5	2.5900 GHz	2.5950 GHz	1.000 MHz	2.592650000 GHz	-41.95 dBm	-16.95 dB

Channel	21350	RB Size 100	RB Offset 0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5500 GHz	2.5700 GHz	100.0 kHz	2.556433333 GHz	-3.796 dBm	-33.80 dB
2	2	2.5700 GHz	2.5710 GHz	150.0 kHz	2.570061667 GHz	-33.38 dBm	-23.38 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571826667 GHz	-28.20 dBm	-18.20 dB
4	4	2.5750 GHz	2.5900 GHz	1.000 MHz	2.576150000 GHz	-33.24 dBm	-20.24 dB
5	5	2.5900 GHz	2.5950 GHz	1.000 MHz	2.591433333 GHz	-41.47 dBm	-16.47 dB

2.7 Transmitter Radiated Power (EIRP/ERP)

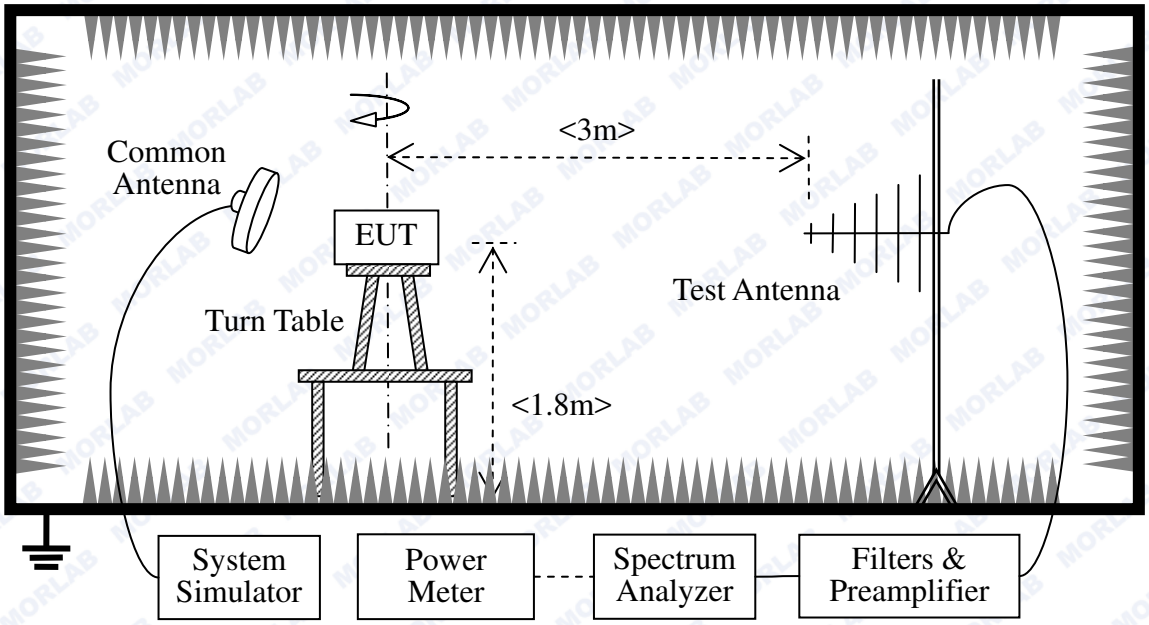
2.7.1 Requirement

According to FCC section 27.50 (d), fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat EIRP.

Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts ERP.

2.7.2 Test Description

Test Setup:



The EUT, which is powered by the PC, 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.

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) or a Horn one (used for above 3GHz), and it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Rohde& Schwarz	CMW500	1201.0002k50/ 124534/wk	2016.03.02	2017.03.01
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2016.03.02	2017.03.01
Spectrum Analyzer	Agilent	E4445A	MY44200685	2016.03.02	2017.03.01
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2016.03.02	2017.03.01
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2016.03.02	2017.03.01
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2016.03.02	2017.03.01

2.7.3 Test Result

The EUT was verified under all configurations (RB size and offset) and the worst case radiated power reported for each modulation/channel bandwidth.

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

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

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

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

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST_TX_ANT}$ 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}.

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	20MHz	L 18700	1860	QPSK	1	0	23.35
					100	0	22.75
				16-QAM	1	0	23.14
					100	0	22.62
		M 18900	1880	QPSK	1	0	23.55
					100	0	22.84
				16-QAM	1	0	23.45
					100	0	22.93
		H 19100	1900	QPSK	1	0	23.61
					100	0	22.81
				16-QAM	1	0	23.28
					100	0	22.74
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	15MHz	L 18675	1857.5	QPSK	1	0	22.53
					75	0	22.62
				16-QAM	1	0	22.17
					75	0	22.29
		M 18900	1880	QPSK	1	0	22.51
					75	0	22.91
				16-QAM	1	0	22.46
					75	0	23.08
		H 19125	1902.5	QPSK	1	0	22.42
					75	0	22.71
				16-QAM	1	0	22.17
					75	0	22.67
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	10MHz	L 18650	1855	QPSK	1	0	22.71
					50	0	22.65
				16-QAM	1	0	22.43
					50	0	22.54
		M 18900	1880	QPSK	1	0	22.61
					50	0	23.07
				16-QAM	1	0	22.57
					50	0	23.18
		H 19150	1905	QPSK	1	0	23.14
					50	0	23.28
				16-QAM	1	0	22.36
					50	0	23.34

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	5MHz	L 18625	1852.5	QPSK	1	0	22.46
					25	0	22.71
				16-QAM	1	0	22.85
					25	0	22.77
		M 18900	1880	QPSK	1	0	23.48
					25	0	23.15
				16-QAM	1	0	22.31
					25	0	23.05
		H 19175	1907.5	QPSK	1	0	23.43
					25	0	22.95
				16-QAM	1	0	22.75
					25	0	23.11
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	3MHz	L 18615	1851.5	QPSK	1	0	23.13
					15	0	22.96
				16-QAM	1	0	23.12
					15	0	22.91
		M 18900	1880	QPSK	1	0	23.24
					15	0	22.89
				16-QAM	1	0	23.24
					15	0	23.24
		H 19185	1908.5	QPSK	1	0	23.45
					15	0	23.24
				16-QAM	1	0	23.84
					15	0	23.41
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 2	1.4MHz	L 18607	1850.7	QPSK	1	0	23.15
					6	0	22.81
				16-QAM	1	0	22.84
					6	0	22.78
		18900	1880	QPSK	1	0	23.59
					6	0	23.14
				16-QAM	1	0	22.96
					6	0	23.56
		H 19193	1909.3	QPSK	1	0	23.71
					6	0	23.48
				16-QAM	1	0	23.35
					6	0	23.36

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	20MHz	L 20050	1720.0	QPSK	1	0	23.21
					100	0	22.16
				16-QAM	1	0	22.35
					100	0	21.67
		M 20175	1732.5	QPSK	1	0	23.86
					100	0	22.35
				16-QAM	1	0	23.55
					100	0	22.08
		H 20300	1745.0	QPSK	1	0	22.61
					100	0	21.11
				16-QAM	1	0	22.85
					100	0	21.36
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	15MHz	L 20025	1717.5	QPSK	1	0	21.85
					75	0	22.62
				16-QAM	1	0	22.74
					75	0	22.08
		M 20175	1732.5	QPSK	1	0	22.06
					75	0	22.18
				16-QAM	1	0	22.09
					75	0	21.95
		H 20325	1747.5	QPSK	1	0	21.87
					75	0	22.15
				16-QAM	1	0	23.12
					75	0	21.62
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	10MHz	L 20000	1715.0	QPSK	1	0	23.28
					50	0	22.72
				16-QAM	1	0	22.91
					50	0	22.24
		M 20175	1732.5	QPSK	1	0	23.27
					50	0	24.85
				16-QAM	1	0	22.26
					50	0	22.52
		H 20350	1750.0	QPSK	1	0	23.39
					50	0	22.84
				16-QAM	1	0	22.76
					50	0	22.41

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	5MHz	L 19975	1712.5	QPSK	1	0	22.93
					25	0	22.84
				16-QAM	1	0	22.96
					25	0	22.14
		M 20175	1732.5	QPSK	1	0	23.28
					25	0	22.66
				16-QAM	1	0	22.24
					25	0	22.35
		H 20375	1752.5	QPSK	1	0	23.02
					25	0	22.64
				16-QAM	1	0	23.05
					25	0	22.21
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	3MHz	L 19965	1711.5	QPSK	1	0	23.24
					15	0	22.68
				16-QAM	1	0	22.84
					15	0	22.35
		M 20175	1732.5	QPSK	1	0	22.98
					15	0	22.78
				16-QAM	1	0	22.92
					15	0	22.65
		H 20385	1753.5	QPSK	1	0	23.18
					15	0	22.74
				16-QAM	1	0	22.53
					15	0	22.27
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 4	1.4MHz	L 19957	1710.7	QPSK	1	0	22.95
					6	0	22.68
				16-QAM	1	0	22.84
					6	0	22.18
		M 20175	1732.5	QPSK	1	0	23.35
					6	0	22.91
				16-QAM	1	0	22.85
					6	0	22.68
		H 20393	1754.3	QPSK	1	0	22.36
					6	0	22.87
				16-QAM	1	0	22.81
					6	0	22.66

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 7	20MHz	L 20850	2510	QPSK	1	0	23.38
					100	0	23.04
				16-QAM	1	0	23.34
					100	0	22.61
		M 21100	2535	QPSK	1	0	23.72
					100	0	23.69
				16-QAM	1	0	23.28
					100	0	23.34
		H 21350	2560	QPSK	1	0	23.17
					100	0	22.68
				16-QAM	1	0	23.16
					100	0	22.24
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 7	15MHz	L 20825	2507.5	QPSK	1	0	23.06
					75	0	23.52
				16-QAM	1	0	23.67
					75	0	22.94
		M 21100	2535	QPSK	1	0	23.16
					75	0	23.63
				16-QAM	1	0	24.12
					75	0	23.26
		H 21375	2562.5	QPSK	1	0	22.36
					75	0	22.28
				16-QAM	1	0	23.37
					75	0	22.76
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
					RB Size	RB Offset	(dBm)
LTE Band 7	10MHz	L 20800	2505	QPSK	1	0	22.58
					50	0	22.41
				16-QAM	1	0	23.14
					50	0	22.62
		M 21100	2535	QPSK	1	0	23.63
					50	0	23.37
				16-QAM	1	0	22.89
					50	0	22.52
		H 21400	2565	QPSK	1	0	22.96
					50	0	22.75
				16-QAM	1	0	22.82
					50	0	22.69

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP (dBm)
					RB Size	RB Offset	
LTE Band 7	5MHz	L 20775	2502.5	QPSK	1	0	23.62
					25	0	23.34
				16-QAM	1	0	23.95
					25	0	23.82
		M 21100	2535	QPSK	1	0	23.93
					25	0	23.71
				16-QAM	1	0	23.23
					25	0	23.28
		H 21425	2567.5	QPSK	1	0	23.37
					25	0	22.98
				16-QAM	1	0	23.54
					25	0	22.72

2.8 Radiated Spurious Emissions

2.8.1 Requirement

According to FCC section 2.1053 and section 27.53(g), 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.

2.8.2 Test Description

See section 2.7.2 of this report.

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

2.8.3 Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and 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.

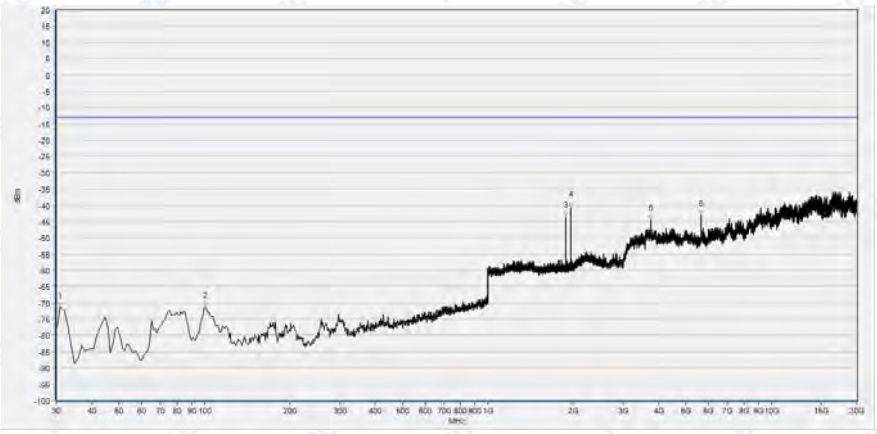
Test Plots for the Whole Measurement Frequency Range:

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.

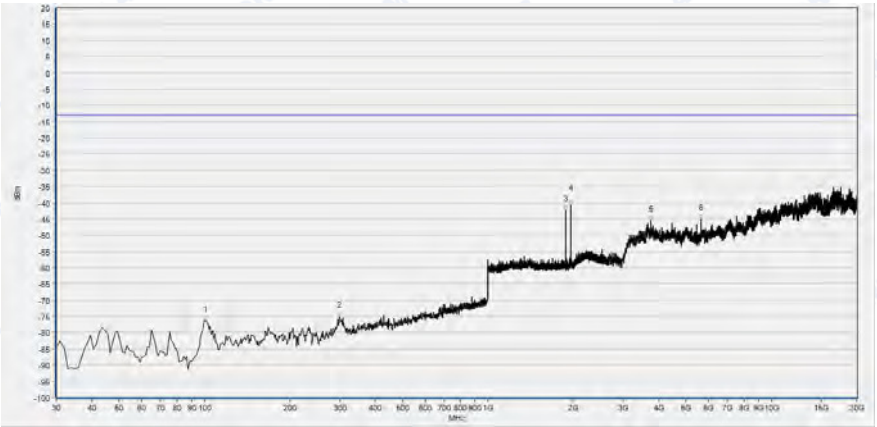
LTE Band 2 1.4MHz BW, Mid Channel, QPSK

Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	101.780	-76.31	-13.00	Horizontal	PASS
2	299.660	-74.44	-13.00	Horizontal	PASS
3	1880.352	-42.25	-13.00	Horizontal	PASS
4	1961.024	-39.87	-13.00	Horizontal	PASS
5	3761.266	-43.85	-13.00	Horizontal	PASS
6	5640.807	-44.29	-13.00	Horizontal	PASS

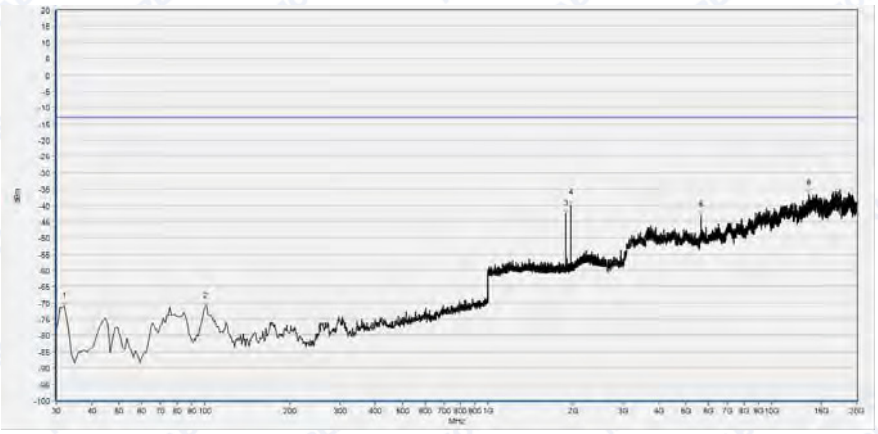


Num.	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	30.970	-71.48	-13.00	Vertical	PASS
2	100.810	-71.19	-13.00	Vertical	PASS
3	1880.352	-43.46	-13.00	Vertical	PASS
4	1961.024	-40.82	-13.00	Vertical	PASS
5	3761.266	-44.25	-13.00	Vertical	PASS
6	5640.807	-42.92	-13.00	Vertical	PASS

LTE Band 2 1.4MHz BW, Mid Channel, 16QAM

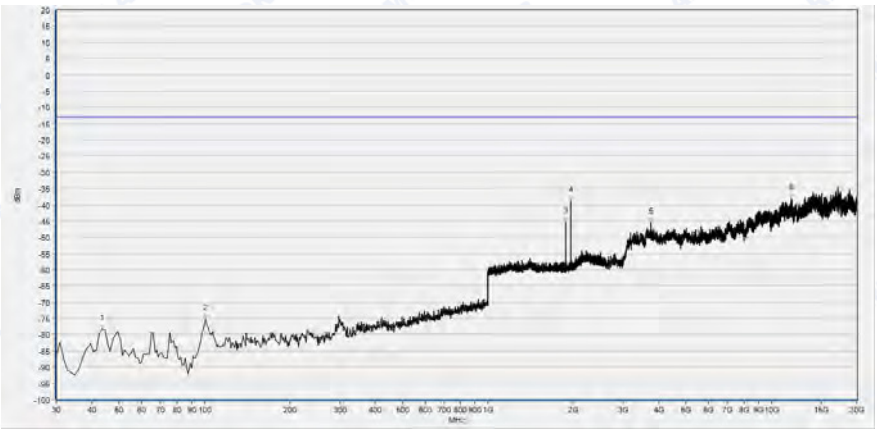


Num	Freq(MHz)	Peak	limit PK	Antenna	Verdict
1	100.810	-76.28	-13.00	Horizontal	PASS
2	299.660	-75.07	-13.00	Horizontal	PASS
3	1880.352	-42.38	-13.00	Horizontal	PASS
4	1960.384	-40.77	-13.00	Horizontal	PASS
5	3761.266	-45.57	-13.00	Horizontal	PASS
6	5640.807	-44.96	-13.00	Horizontal	PASS

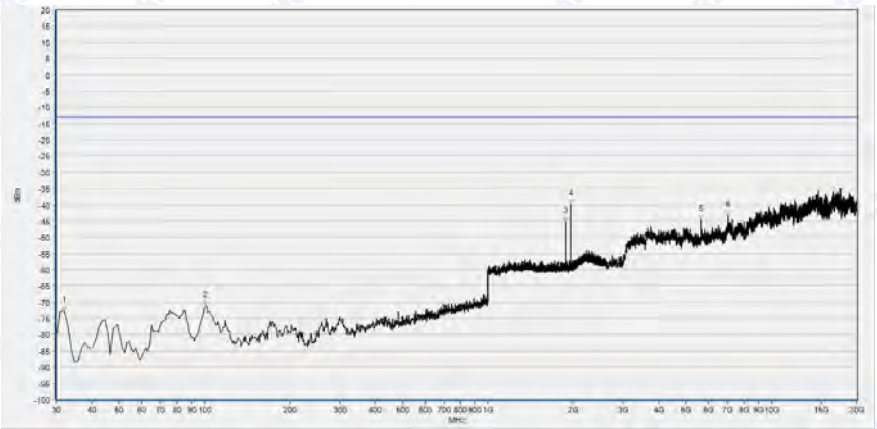


Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	31.940	-71.27	-13.00	Vertical	PASS
2	100.810	-71.28	-13.00	Vertical	PASS
3	1880.352	-42.70	-13.00	Vertical	PASS
4	1960.384	-40.05	-13.00	Vertical	PASS
5	5640.807	-43.27	-13.00	Vertical	PASS
6	13570.322	-36.46	-13.00	Vertical	PASS

LTE Band 2 3MHz BW, Mid Channel, QPSK

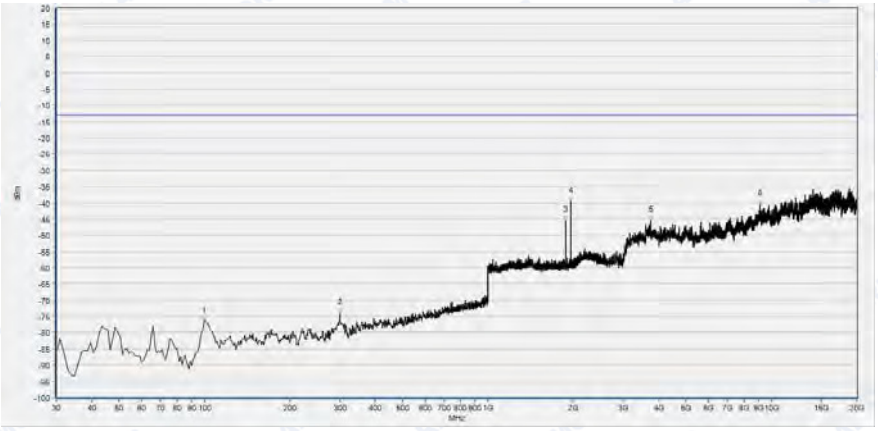


Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	43.580	-78.25	-13.00	Horizontal	PASS
2	100.810	-75.15	-13.00	Horizontal	PASS
3	1879.712	-45.28	-13.00	Horizontal	PASS
4	1959.744	-38.68	-13.00	Horizontal	PASS
5	3761.266	-45.54	-13.00	Horizontal	PASS
6	11747.736	-38.13	-13.00	Horizontal	PASS

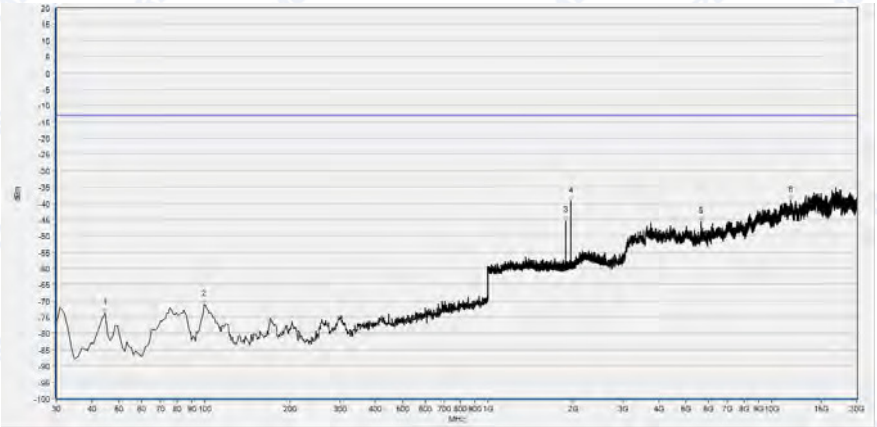


Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	31.940	-72.71	-13.00	Vertical	PASS
2	100.810	-71.26	-13.00	Vertical	PASS
3	1879.712	-45.20	-13.00	Vertical	PASS
4	1959.744	-39.79	-13.00	Vertical	PASS
5	5640.807	-44.66	-13.00	Vertical	PASS
6	7033.061	-43.13	-13.00	Vertical	PASS

LTE Band 2 3MHz BW, Mid Channel, 16QAM



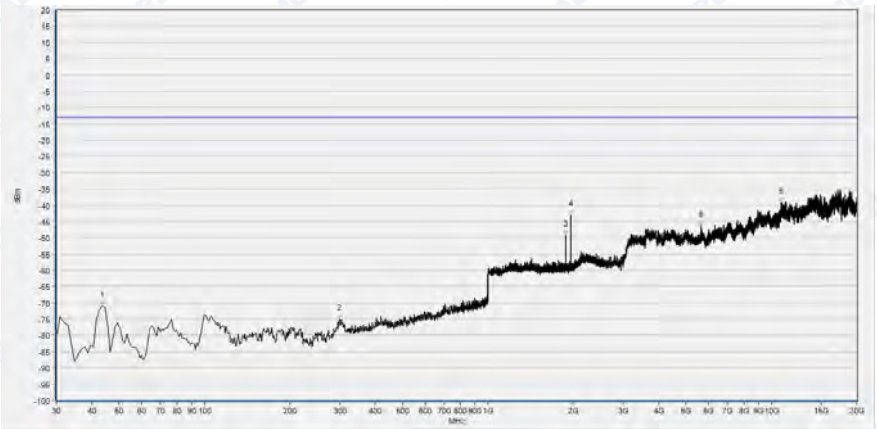
Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-76.44	-13.00	Horizontal	PASS
2	300.630	-74.17	-13.00	Horizontal	PASS
3	1879.712	-45.58	-13.00	Horizontal	PASS
4	1959.744	-39.61	-13.00	Horizontal	PASS
5	3761.266	-45.46	-13.00	Horizontal	PASS
6	9096.127	-40.49	-13.00	Horizontal	PASS



Num.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-73.86	-13.00	Vertical	PASS
2	99.840	-71.16	-13.00	Vertical	PASS
3	1880.352	-45.54	-13.00	Vertical	PASS
4	1959.744	-39.43	-13.00	Vertical	PASS
5	5643.972	-45.62	-13.00	Vertical	PASS
6	11706.601	-39.27	-13.00	Vertical	PASS

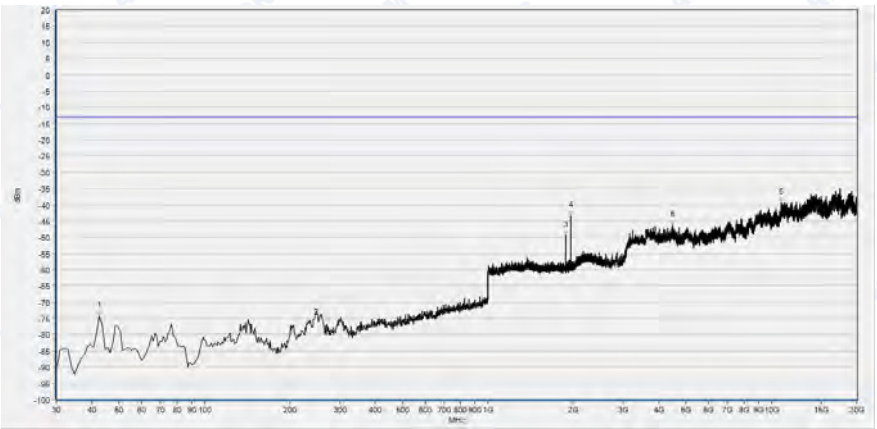
LTE Band 2 5MHz BW, Mid Channel, QPSK

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	141.550	-74.11	-13.00	Horizontal	PASS
2	253.100	-71.72	-13.00	Horizontal	PASS
3	1879.072	-49.82	-13.00	Horizontal	PASS
4	1961.665	-43.56	-13.00	Horizontal	PASS
5	4242.226	-46.79	-13.00	Horizontal	PASS
6	14389.853	-35.93	-13.00	Horizontal	PASS

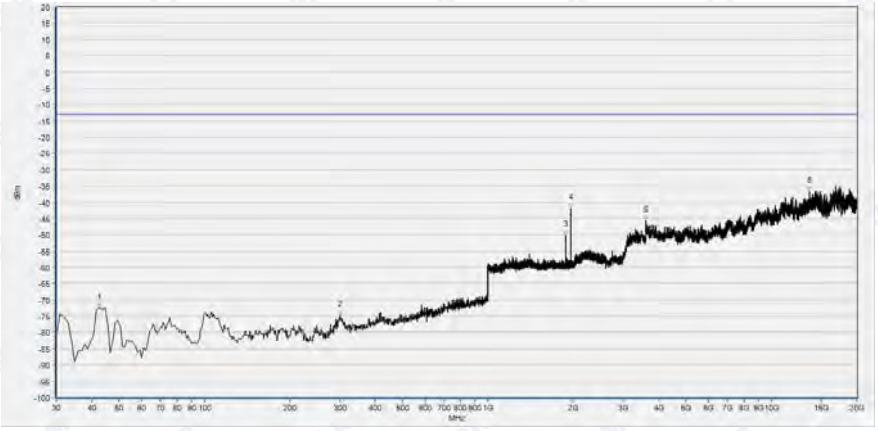


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	43.580	-71.00	-13.00	Vertical	PASS
2	299.660	-74.87	-13.00	Vertical	PASS
3	1880.352	-49.21	-13.00	Vertical	PASS
4	1961.665	-42.94	-13.00	Vertical	PASS
5	5637.643	-46.37	-13.00	Vertical	PASS
6	10826.950	-39.25	-13.00	Vertical	PASS

LTE Band 2 5MHz BW, Mid Channel, 16QAM

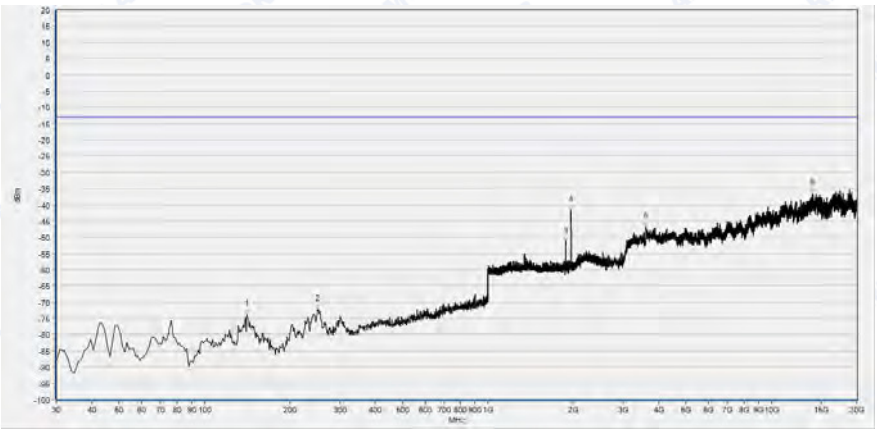


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	42.610	-74.24	-13.00	Horizontal	PASS
2	248.250	-73.12	-13.00	Horizontal	PASS
3	1879.712	-49.58	-13.00	Horizontal	PASS
4	1959.744	-43.45	-13.00	Horizontal	PASS
5	4492.199	-46.42	-13.00	Horizontal	PASS
6	10839.607	-39.51	-13.00	Horizontal	PASS

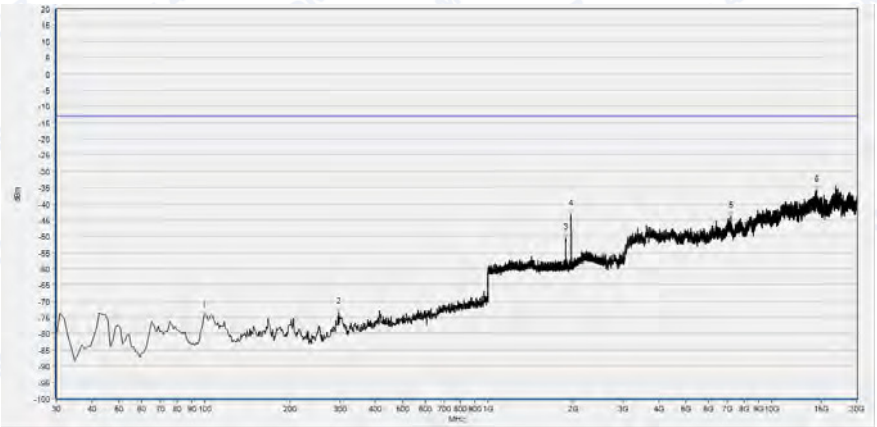


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	42.610	-72.44	-13.00	Vertical	PASS
2	300.630	-74.75	-13.00	Vertical	PASS
3	1879.072	-50.21	-13.00	Vertical	PASS
4	1960.384	-41.99	-13.00	Vertical	PASS
5	3603.055	-45.59	-13.00	Vertical	PASS
6	13595.636	-36.75	-13.00	Vertical	PASS

LTE Band 2 10MHz BW, Mid Channel, QPSK

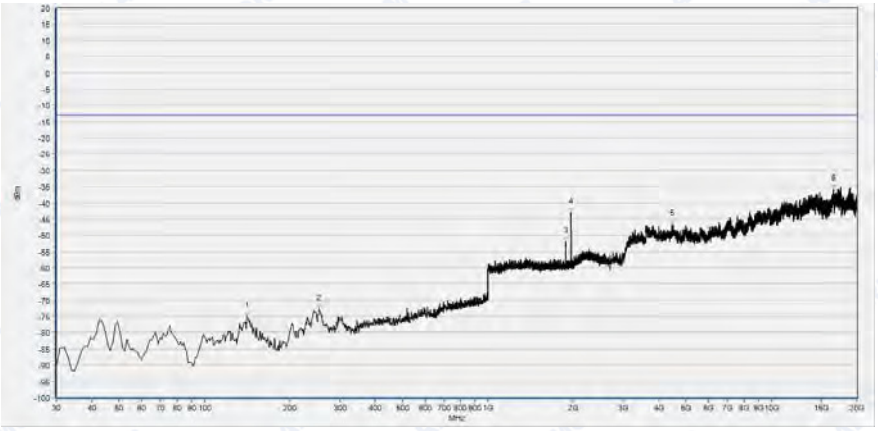


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	141.550	-73.95	-13.00	Horizontal	PASS
2	250.190	-72.31	-13.00	Horizontal	PASS
3	1877.151	-51.50	-13.00	Horizontal	PASS
4	1963.585	-41.70	-13.00	Horizontal	PASS
5	3612.548	-46.85	-13.00	Horizontal	PASS
6	13956.356	-36.43	-13.00	Horizontal	PASS

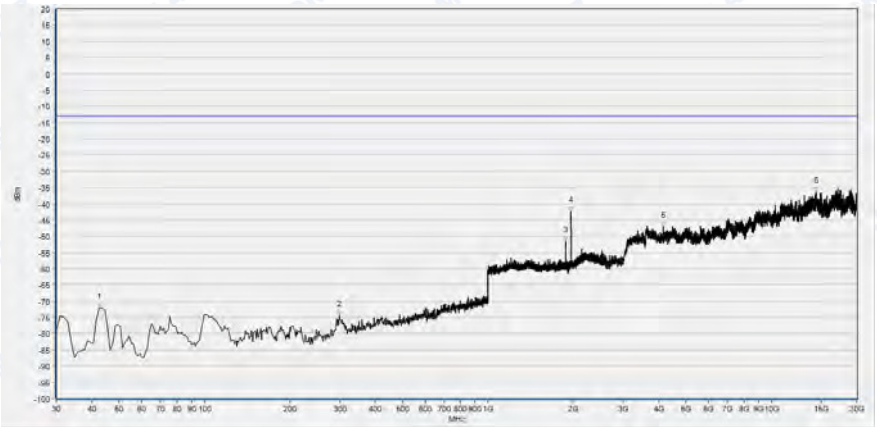


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-74.53	-13.00	Vertical	PASS
2	297.720	-73.48	-13.00	Vertical	PASS
3	1879.072	-50.53	-13.00	Vertical	PASS
4	1962.305	-43.30	-13.00	Vertical	PASS
5	7200.764	-44.00	-13.00	Vertical	PASS
6	14408.838	-35.87	-13.00	Vertical	PASS

LTE Band 2 10MHz BW, Mid Channel, 16QAM

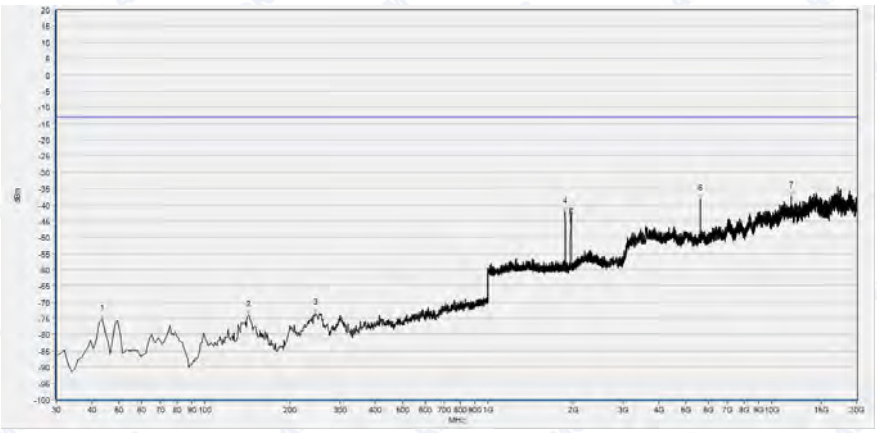


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	141.550	-74.95	-13.00	Horizontal	PASS
2	254.070	-72.69	-13.00	Horizontal	PASS
3	1880.352	-52.07	-13.00	Horizontal	PASS
4	1959.744	-43.04	-13.00	Horizontal	PASS
5	4463.721	-46.62	-13.00	Horizontal	PASS
6	16547.845	-35.85	-13.00	Horizontal	PASS

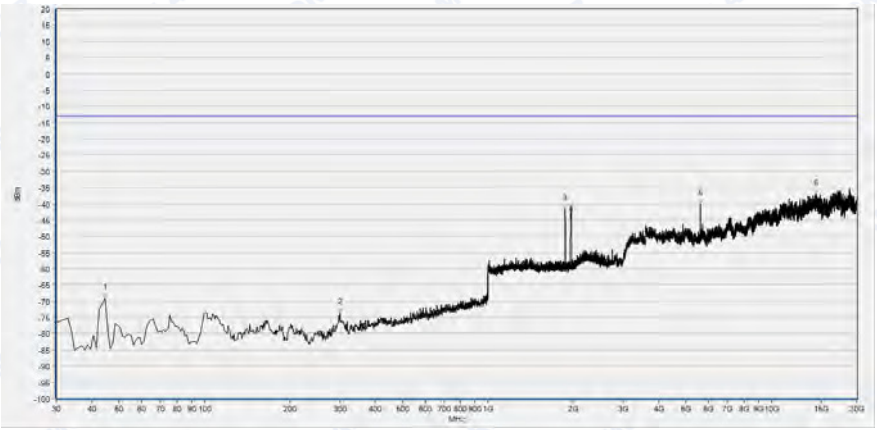


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	42.610	-72.06	-13.00	Vertical	PASS
2	298.690	-74.31	-13.00	Vertical	PASS
3	1879.712	-51.49	-13.00	Vertical	PASS
4	1963.585	-42.31	-13.00	Vertical	PASS
5	4144.135	-47.12	-13.00	Vertical	PASS
6	14396.181	-36.23	-13.00	Vertical	PASS

LTE Band 2 15MHz BW, Mid Channel, QPSK

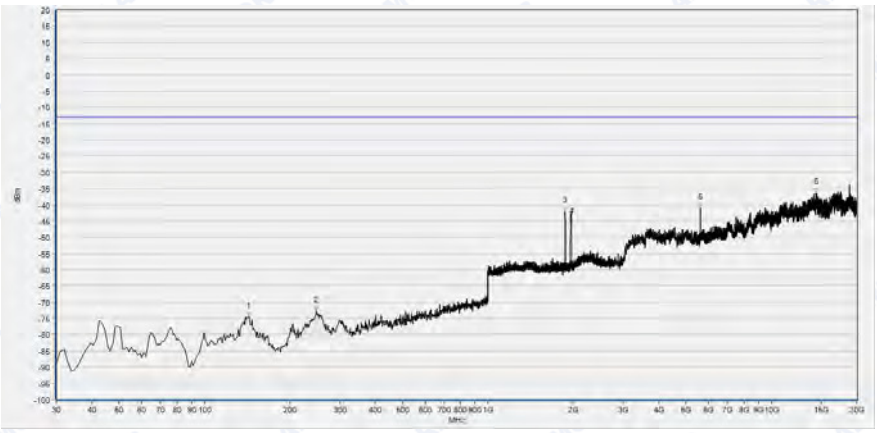


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	43.580	-75.29	-13.00	Horizontal	PASS
2	142.520	-73.99	-13.00	Horizontal	PASS
3	246.310	-73.35	-13.00	Horizontal	PASS
4	1873.950	-42.31	-13.00	Horizontal	PASS
5	1961.665	-42.32	-13.00	Horizontal	PASS
6	5621.822	-38.27	-13.00	Horizontal	PASS

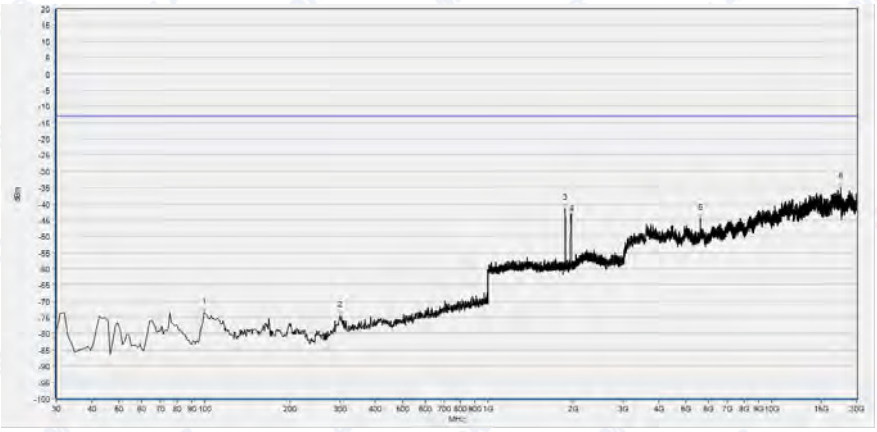


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-69.22	-13.00	Vertical	PASS
2	300.630	-73.63	-13.00	Vertical	PASS
3	1873.950	-41.63	-13.00	Vertical	PASS
4	1964.226	-41.75	-13.00	Vertical	PASS
5	5621.822	-40.09	-13.00	Vertical	PASS
6	14364.539	-36.90	-13.00	Vertical	PASS

LTE Band 2 15MHz BW, Mid Channel, 16QAM

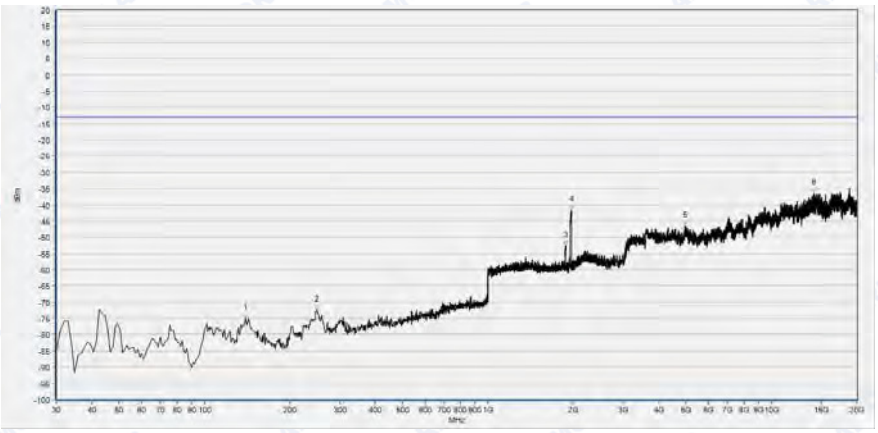


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	142.520	-74.53	-13.00	Horizontal	PASS
2	248.250	-72.80	-13.00	Horizontal	PASS
3	1873.950	-42.09	-13.00	Horizontal	PASS
4	1965.506	-42.37	-13.00	Horizontal	PASS
5	5621.822	-41.08	-13.00	Horizontal	PASS
6	14389.853	-36.41	-13.00	Horizontal	PASS

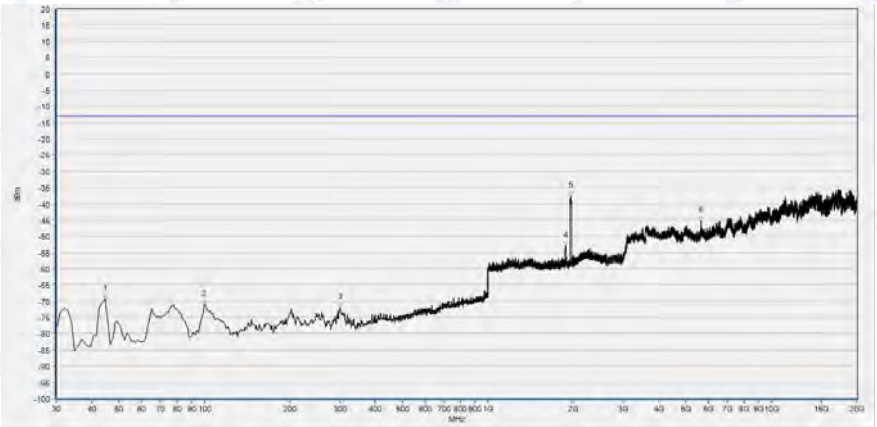


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-73.43	-13.00	Vertical	PASS
2	300.630	-74.57	-13.00	Vertical	PASS
3	1873.950	-41.52	-13.00	Vertical	PASS
4	1966.787	-43.01	-13.00	Vertical	PASS
5	5621.822	-44.67	-13.00	Vertical	PASS
6	17512.930	-34.97	-13.00	Vertical	PASS

LTE Band 2 20MHz BW, Mid Channel, QPSK

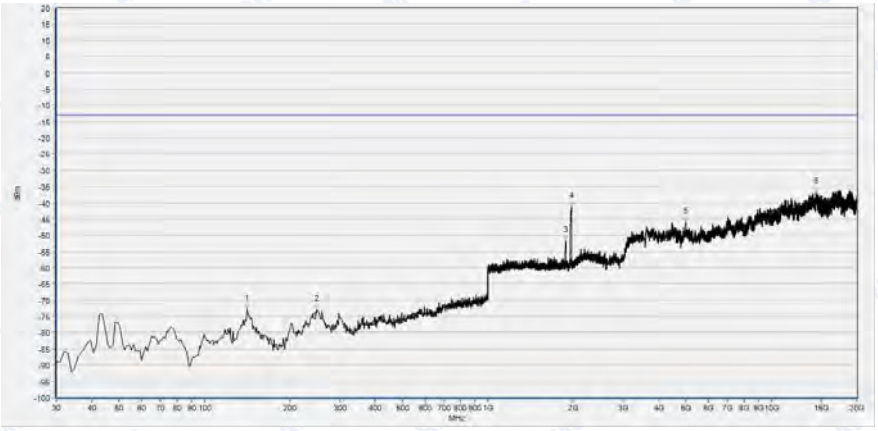


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	139.610	-74.92	-13.00	Horizontal	PASS
2	249.220	-72.52	-13.00	Horizontal	PASS
3	1879.712	-52.64	-13.00	Horizontal	PASS
4	1967.427	-41.73	-13.00	Horizontal	PASS
5	4944.681	-46.65	-13.00	Horizontal	PASS
6	14143.044	-36.63	-13.00	Horizontal	PASS

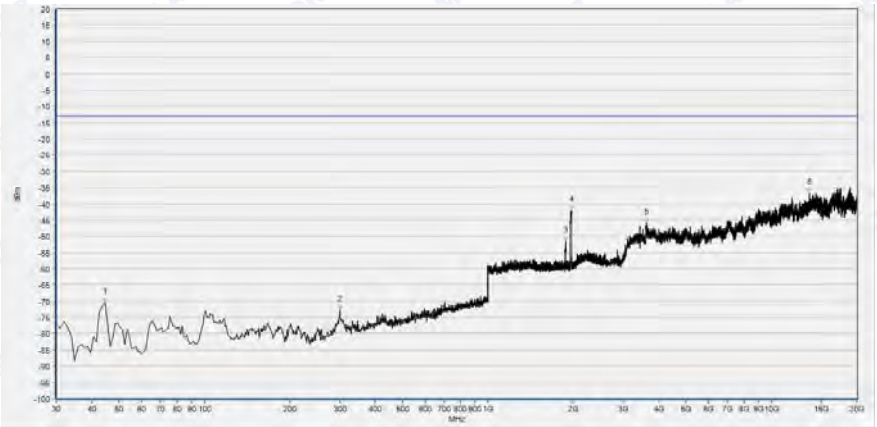


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-69.44	-13.00	Vertical	PASS
2	99.840	-71.10	-13.00	Vertical	PASS
3	301.600	-72.05	-13.00	Vertical	PASS
4	1875.230	-53.12	-13.00	Vertical	PASS
5	1961.665	-37.55	-13.00	Vertical	PASS
6	5647.136	-45.36	-13.00	Vertical	PASS

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

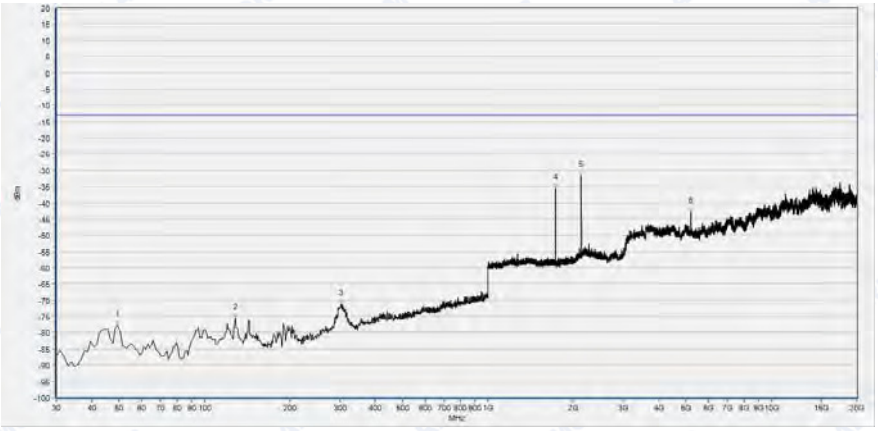


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	141.550	-72.70	-13.00	Horizontal	PASS
2	249.220	-72.88	-13.00	Horizontal	PASS
3	1877.151	-51.83	-13.00	Horizontal	PASS
4	1968.707	-41.32	-13.00	Horizontal	PASS
5	4992.144	-46.02	-13.00	Horizontal	PASS
6	14393.017	-36.70	-13.00	Horizontal	PASS

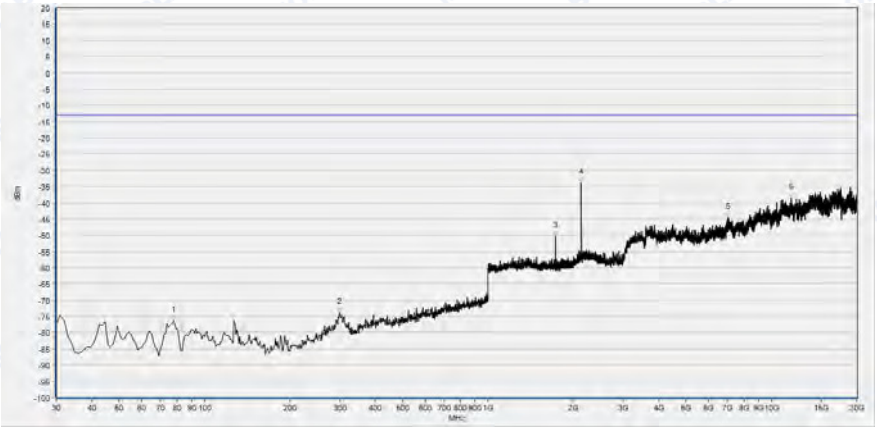


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-70.55	-13.00	Vertical	PASS
2	300.630	-72.73	-13.00	Vertical	PASS
3	1877.791	-51.41	-13.00	Vertical	PASS
4	1966.787	-42.08	-13.00	Vertical	PASS
5	3622.040	-45.95	-13.00	Vertical	PASS
6	13608.292	-36.72	-13.00	Vertical	PASS

LTE Band 4 1.4MHz BW, Mid Channel, QPSK

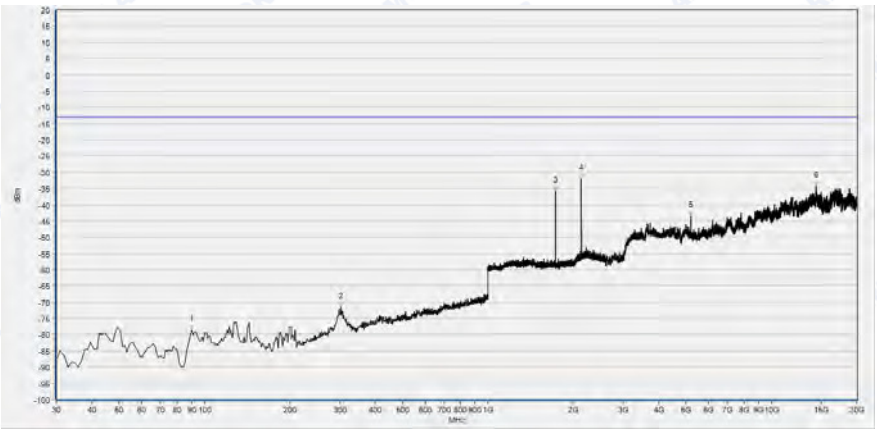


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	49.419	-77.70	-13.00	Horizontal	PASS
2	128.068	-75.55	-13.00	Horizontal	PASS
3	302.843	-71.25	-13.00	Horizontal	PASS
4	1733.167	-35.65	-13.00	Horizontal	PASS
5	2133.367	-31.67	-13.00	Horizontal	PASS
6	5195.933	-42.74	-13.00	Horizontal	PASS

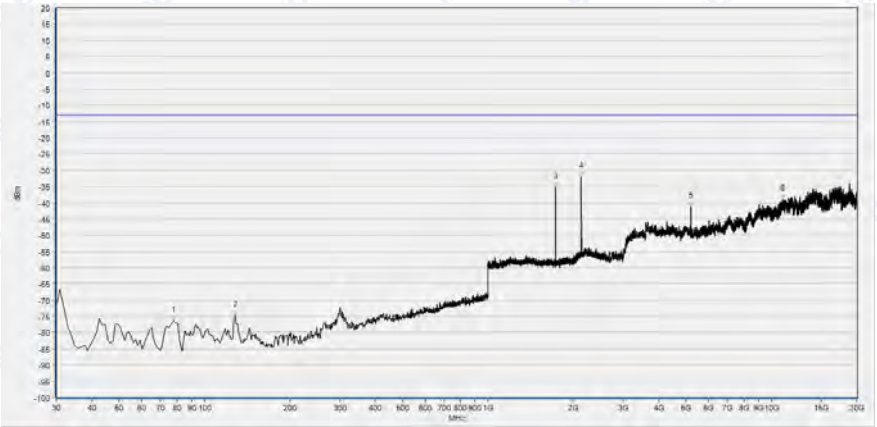


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-76.39	-13.00	Vertical	PASS
2	299.930	-73.80	-13.00	Vertical	PASS
3	1733.167	-50.31	-13.00	Vertical	PASS
4	2133.367	-33.90	-13.00	Vertical	PASS
5	7037.740	-44.60	-13.00	Vertical	PASS
6	11727.821	-38.45	-13.00	Vertical	PASS

LTE Band 4 1.4MHz BW, Mid Channel, 16QAM

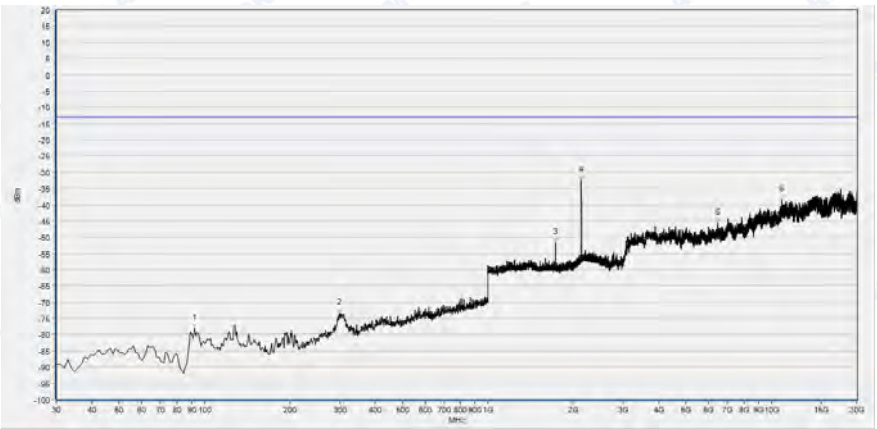


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	90.200	-78.51	-13.00	Horizontal	PASS
2	302.843	-71.64	-13.00	Horizontal	PASS
3	1733.167	-35.85	-13.00	Horizontal	PASS
4	2132.566	-32.02	-13.00	Horizontal	PASS
5	5198.833	-43.39	-13.00	Horizontal	PASS
6	14396.266	-34.27	-13.00	Horizontal	PASS

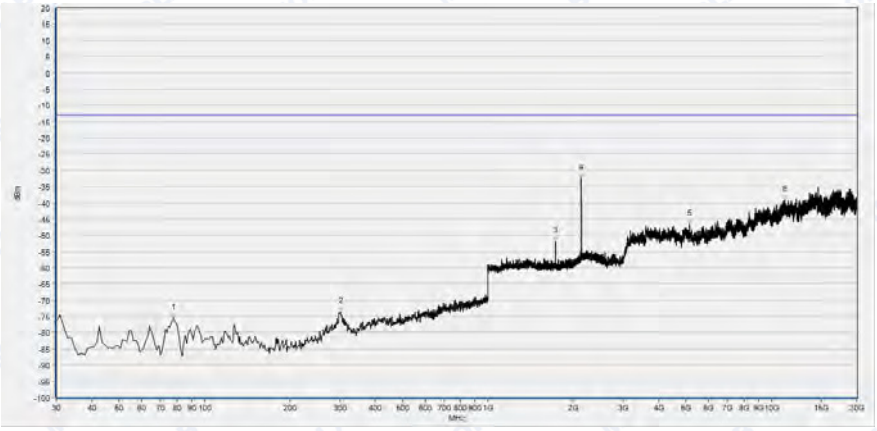


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-76.28	-13.00	Vertical	PASS
2	128.068	-74.84	-13.00	Vertical	PASS
3	1733.167	-35.47	-13.00	Vertical	PASS
4	2132.566	-32.11	-13.00	Vertical	PASS
5	5195.933	-41.15	-13.00	Vertical	PASS
6	10970.795	-38.89	-13.00	Vertical	PASS

LTE Band 4 3MHz BW, Mid Channel, QPSK

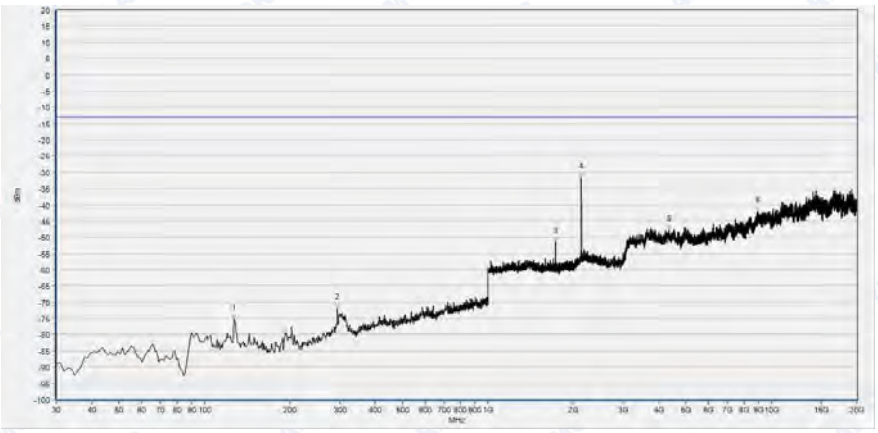


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	92.142	-78.04	-13.00	Horizontal	PASS
2	298.959	-73.45	-13.00	Horizontal	PASS
3	1732.366	-51.81	-13.00	Horizontal	PASS
4	2133.367	-32.56	-13.00	Horizontal	PASS
5	6466.344	-45.77	-13.00	Horizontal	PASS
6	10895.383	-38.54	-13.00	Horizontal	PASS

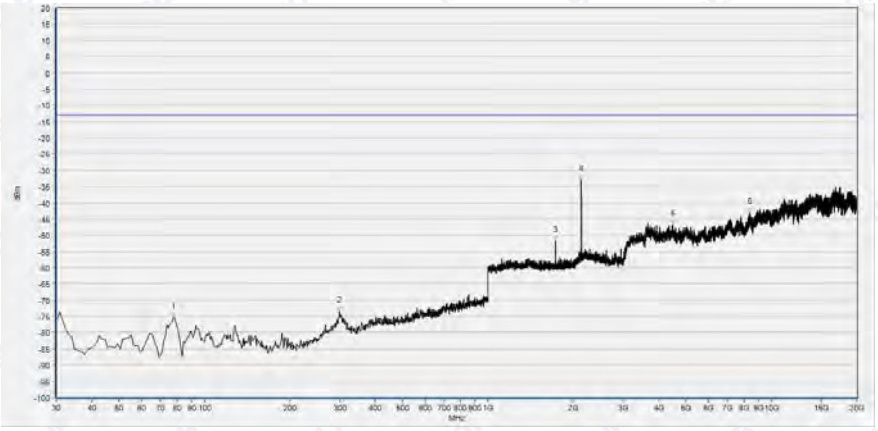


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-75.59	-13.00	Vertical	PASS
2	301.872	-73.70	-13.00	Vertical	PASS
3	1732.366	-51.94	-13.00	Vertical	PASS
4	2133.367	-32.54	-13.00	Vertical	PASS
5	5146.624	-46.67	-13.00	Vertical	PASS
6	11147.725	-39.27	-13.00	Vertical	PASS

LTE Band 4 3MHz BW, Mid Channel, 16QAM

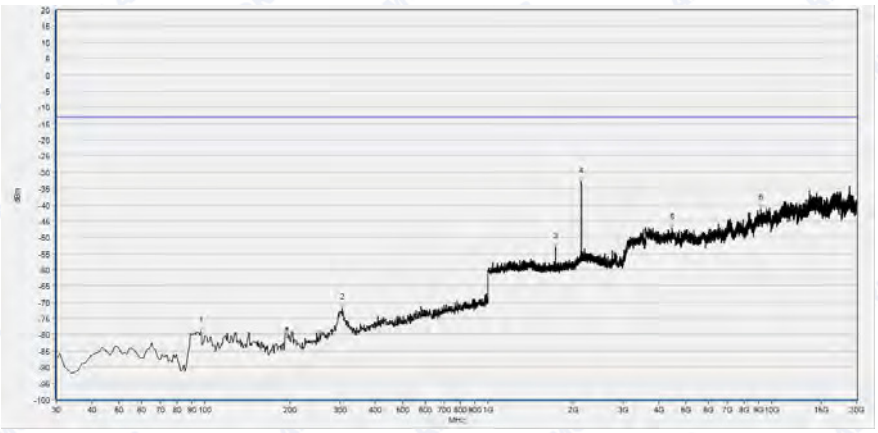


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	127.097	-75.20	-13.00	Horizontal	PASS
2	294.104	-71.95	-13.00	Horizontal	PASS
3	1732.366	-51.49	-13.00	Horizontal	PASS
4	2133.367	-31.51	-13.00	Horizontal	PASS
5	4354.792	-47.61	-13.00	Horizontal	PASS
6	8937.556	-42.20	-13.00	Horizontal	PASS

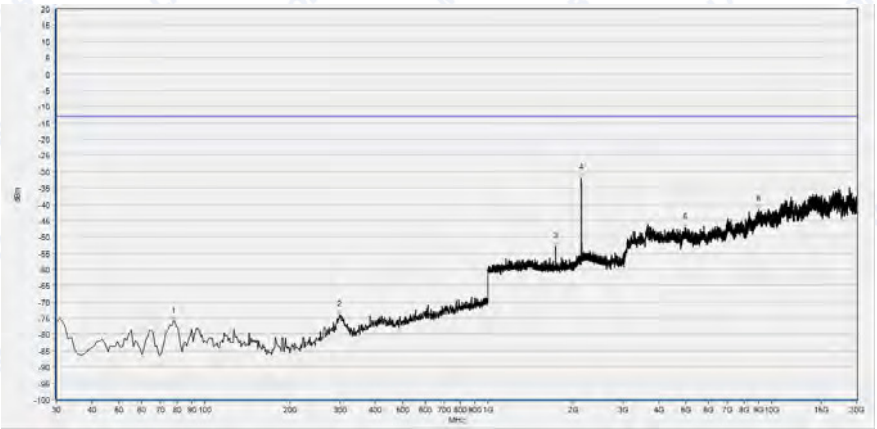


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-75.38	-13.00	Vertical	PASS
2	299.930	-73.51	-13.00	Vertical	PASS
3	1732.366	-51.77	-13.00	Vertical	PASS
4	2132.566	-32.98	-13.00	Vertical	PASS
5	4473.712	-46.89	-13.00	Vertical	PASS
6	8383.564	-43.00	-13.00	Vertical	PASS

LTE Band 4 5MHz BW, Mid Channel, QPSK

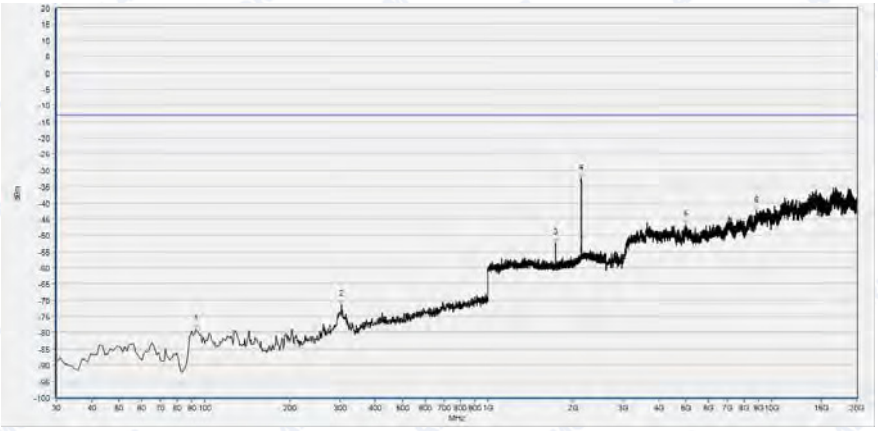


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	96.997	-79.04	-13.00	Horizontal	PASS
2	305.756	-71.81	-13.00	Horizontal	PASS
3	1732.366	-53.00	-13.00	Horizontal	PASS
4	2134.167	-33.01	-13.00	Horizontal	PASS
5	4465.011	-47.29	-13.00	Horizontal	PASS
6	9157.993	-41.20	-13.00	Horizontal	PASS

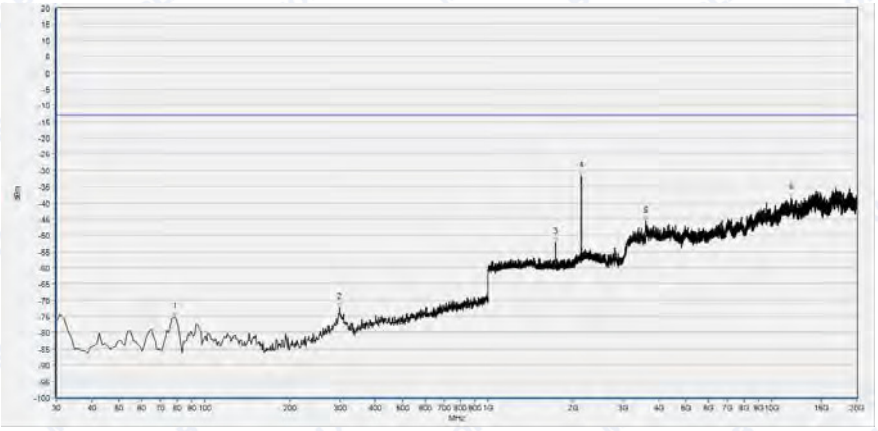


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-76.00	-13.00	Vertical	PASS
2	299.930	-74.06	-13.00	Vertical	PASS
3	1732.366	-52.97	-13.00	Vertical	PASS
4	2133.367	-32.10	-13.00	Vertical	PASS
5	4966.794	-47.26	-13.00	Vertical	PASS
6	8983.964	-41.71	-13.00	Vertical	PASS

LTE Band 4 5MHz BW, Mid Channel, 16QAM

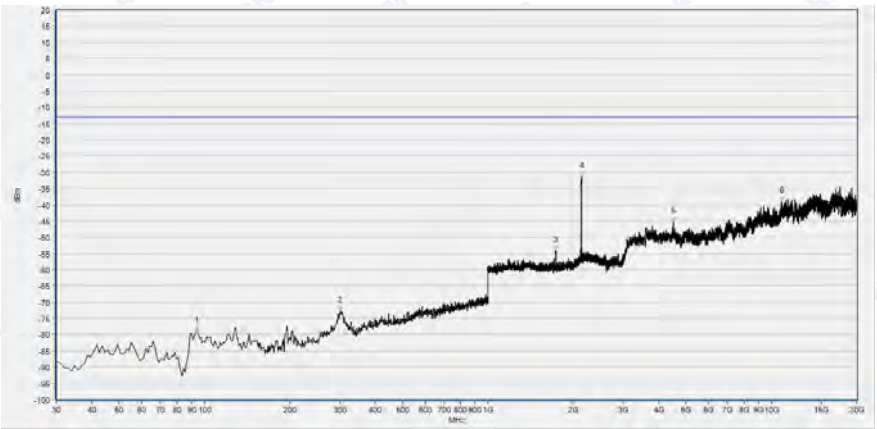


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	93.113	-78.97	-13.00	Horizontal	PASS
2	303.814	-71.39	-13.00	Horizontal	PASS
3	1733.167	-52.31	-13.00	Horizontal	PASS
4	2131.766	-32.61	-13.00	Horizontal	PASS
5	4978.396	-46.76	-13.00	Horizontal	PASS
6	8847.641	-42.58	-13.00	Horizontal	PASS



Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	78.549	-75.19	-13.00	Vertical	PASS
2	299.930	-72.30	-13.00	Vertical	PASS
3	1732.366	-52.29	-13.00	Vertical	PASS
4	2133.367	-31.92	-13.00	Vertical	PASS
5	3612.269	-45.67	-13.00	Vertical	PASS
6	11716.219	-38.50	-13.00	Vertical	PASS

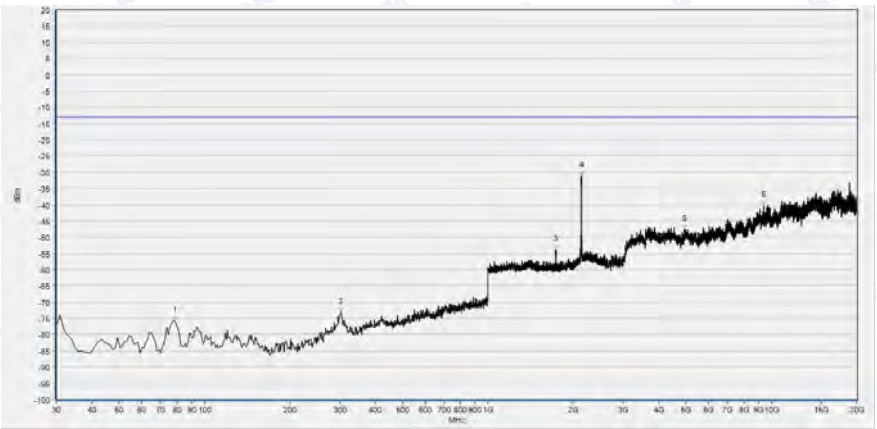
LTE Band 4 10MHz BW, Mid Channel, QPSK



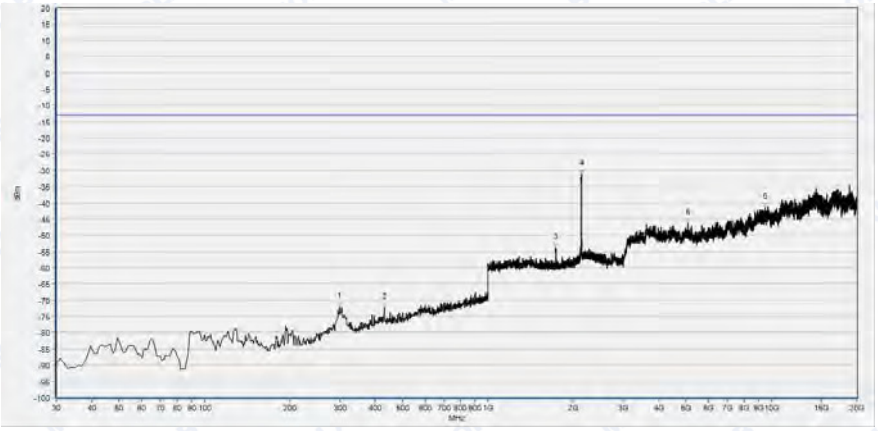
Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	94.084	-79.01	-13.00	Horizontal	PASS
2	300.901	-72.75	-13.00	Horizontal	PASS
3	1735.568	-54.11	-13.00	Horizontal	PASS
4	2135.768	-31.46	-13.00	Horizontal	PASS
5	4517.220	-45.32	-13.00	Horizontal	PASS
6	10848.975	-39.01	-13.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-75.54	-13.00	Vertical	PASS
2	299.930	-73.78	-13.00	Vertical	PASS
3	1731.566	-54.20	-13.00	Vertical	PASS
4	2136.568	-31.81	-13.00	Vertical	PASS
5	4543.324	-46.67	-13.00	Vertical	PASS
6	9471.245	-41.41	-13.00	Vertical	PASS

LTE Band 4 10MHz BW, Mid Channel, 16QAM

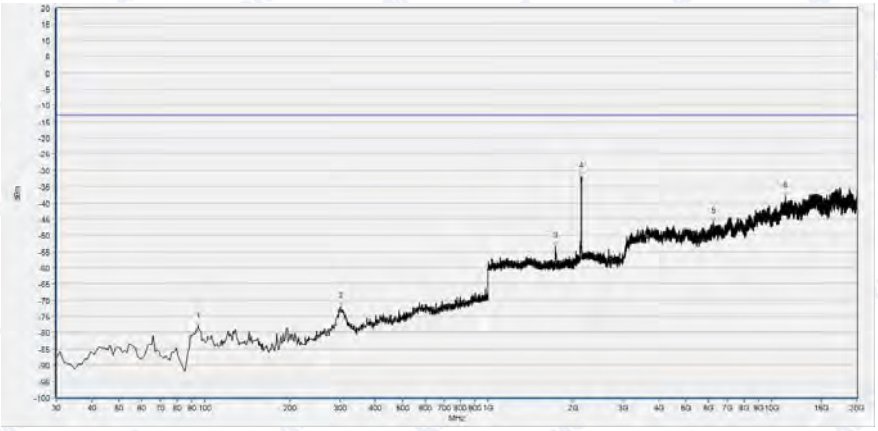


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	78.549	-75.81	-13.00	Horizontal	PASS
2	301.872	-73.28	-13.00	Horizontal	PASS
3	1730.765	-53.90	-13.00	Horizontal	PASS
4	2136.568	-31.11	-13.00	Horizontal	PASS
5	4940.690	-47.78	-13.00	Horizontal	PASS
6	9401.634	-40.29	-13.00	Horizontal	PASS

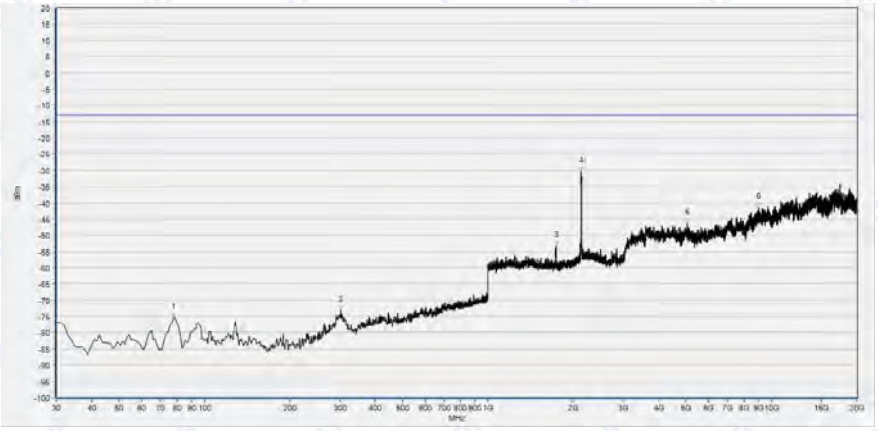


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	299.930	-72.04	-13.00	Vertical	PASS
2	431.011	-72.30	-13.00	Vertical	PASS
3	1730.765	-53.87	-13.00	Vertical	PASS
4	2136.568	-31.15	-13.00	Vertical	PASS
5	5068.311	-46.37	-13.00	Vertical	PASS
6	9485.748	-41.39	-13.00	Vertical	PASS

LTE Band 4 15MHz BW, Mid Channel, QPSK

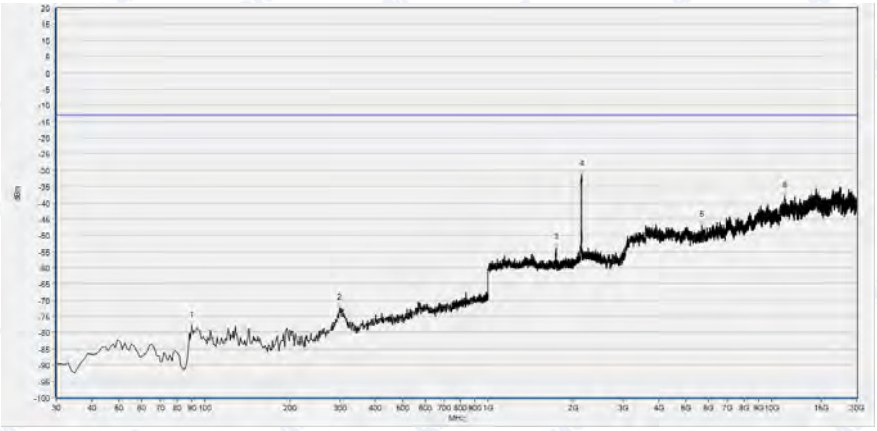


Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	95.055	-78.16	-13.00	Horizontal	PASS
2	301.872	-72.12	-13.00	Horizontal	PASS
3	1731.566	-53.57	-13.00	Horizontal	PASS
4	2131.766	-32.18	-13.00	Horizontal	PASS
5	6237.206	-46.01	-13.00	Horizontal	PASS
6	11223.137	-37.99	-13.00	Horizontal	PASS



Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	77.578	-75.33	-13.00	Vertical	PASS
2	301.872	-73.19	-13.00	Vertical	PASS
3	1736.368	-53.36	-13.00	Vertical	PASS
4	2127.764	-30.60	-13.00	Vertical	PASS
5	5053.809	-46.47	-13.00	Vertical	PASS
6	9030.372	-41.36	-13.00	Vertical	PASS

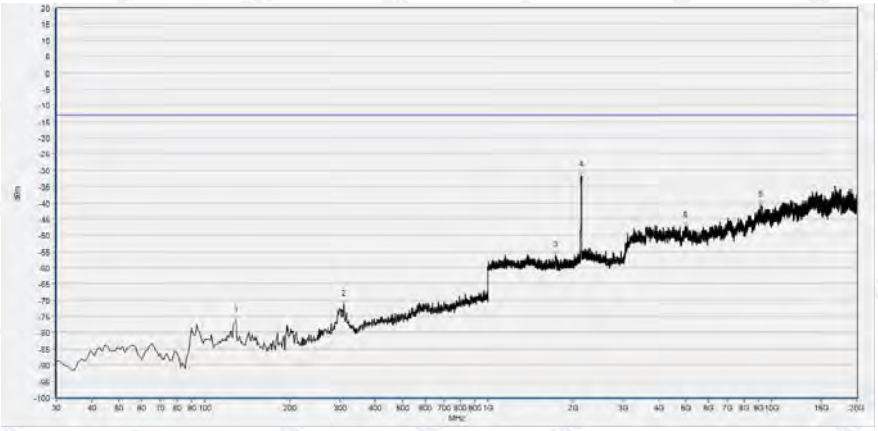
LTE Band 4 15MHz BW, Mid Channel, 16QAM



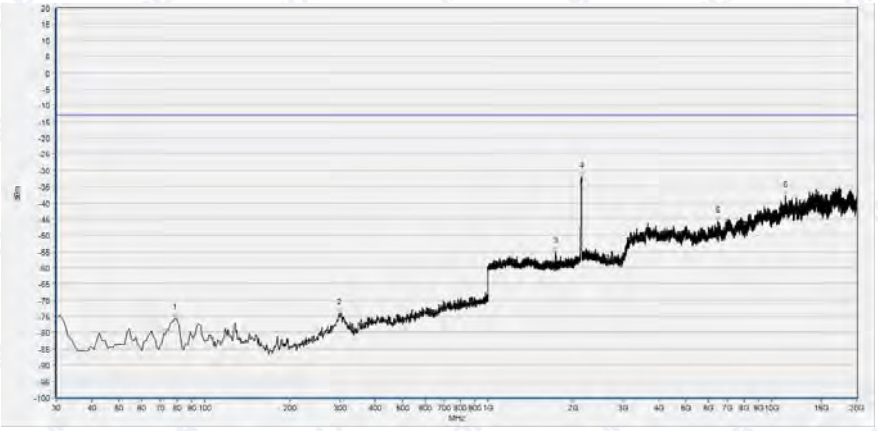
Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	90.200	-77.99	-13.00	Horizontal	PASS
2	299.930	-72.58	-13.00	Horizontal	PASS
3	1736.368	-53.93	-13.00	Horizontal	PASS
4	2137.369	-31.47	-13.00	Horizontal	PASS
5	5680.313	-47.12	-13.00	Horizontal	PASS
6	11159.327	-38.08	-13.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	79.520	-75.78	-13.00	Vertical	PASS
2	299.930	-73.90	-13.00	Vertical	PASS
3	1737.969	-54.78	-13.00	Vertical	PASS
4	2137.369	-30.86	-13.00	Vertical	PASS
5	6385.131	-46.78	-13.00	Vertical	PASS
6	12229.605	-37.99	-13.00	Vertical	PASS

LTE Band 4 20MHz BW, Mid Channel, QPSK



Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	129.039	-76.38	-13.00	Horizontal	PASS
2	310.611	-71.42	-13.00	Horizontal	PASS
3	1732.366	-56.11	-13.00	Horizontal	PASS
4	2127.764	-31.53	-13.00	Horizontal	PASS
5	4958.093	-47.26	-13.00	Horizontal	PASS
6	9140.590	-40.87	-13.00	Horizontal	PASS



Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	78.549	-75.63	-13.00	Vertical	PASS
2	298.959	-74.07	-13.00	Vertical	PASS
3	1735.568	-55.13	-13.00	Vertical	PASS
4	2140.570	-32.10	-13.00	Vertical	PASS
5	6454.742	-45.62	-13.00	Vertical	PASS
6	11197.033	-37.90	-13.00	Vertical	PASS

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

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	127.097	-75.52	-13.00	Horizontal	PASS
2	299.930	-72.84	-13.00	Horizontal	PASS
3	1730.765	-54.98	-13.00	Horizontal	PASS
4	2140.570	-31.44	-13.00	Horizontal	PASS
5	6388.031	-46.05	-13.00	Horizontal	PASS
6	11359.460	-38.01	-13.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	78.549	-75.59	-13.00	Vertical	PASS
2	302.843	-74.32	-13.00	Vertical	PASS
3	1733.167	-55.33	-13.00	Vertical	PASS
4	2131.766	-31.67	-13.00	Vertical	PASS
5	8395.166	-42.43	-13.00	Vertical	PASS
6	13569.628	-37.76	-13.00	Vertical	PASS

LTE Band 7 5MHz BW, Mid Channel, QPSK

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	49.400	-77.92	-25.00	Horizontal	PASS
2	98.870	-70.02	-25.00	Horizontal	PASS
3	203.630	-70.15	-25.00	Horizontal	PASS
4	2536.615	-51.94	-25.00	Horizontal	PASS
5	5042.553	-47.02	-25.00	Horizontal	PASS
6	11727.660	-38.06	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-74.34	-25.00	Vertical	PASS
2	75.590	-71.45	-25.00	Vertical	PASS
3	299.660	-73.96	-25.00	Vertical	PASS
4	2537.255	-51.60	-25.00	Vertical	PASS
5	6434.043	-45.98	-25.00	Vertical	PASS
6	11136.170	-38.43	-25.00	Vertical	PASS

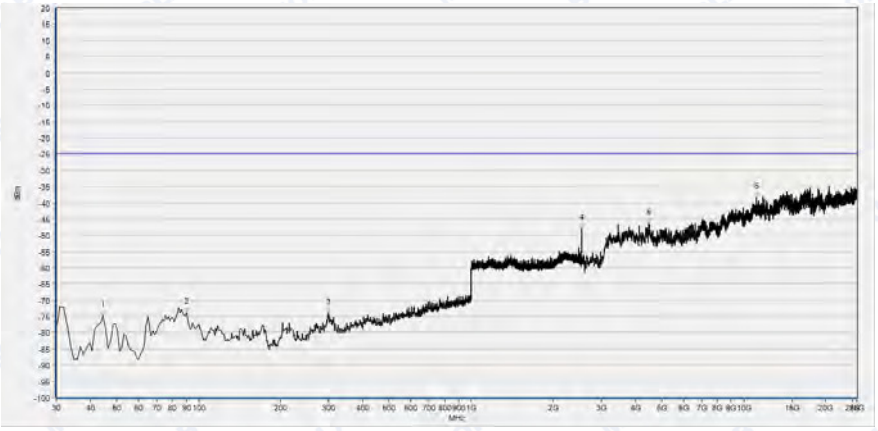
LTE Band 7 5MHz BW, Mid Channel, 16QAM

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	98.870	-70.13	-25.00	Horizontal	PASS
2	202.660	-70.38	-25.00	Horizontal	PASS
3	593.570	-70.46	-25.00	Horizontal	PASS
4	2537.255	-51.05	-25.00	Horizontal	PASS
5	6429.787	-46.45	-25.00	Horizontal	PASS
6	14382.979	-36.29	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-75.32	-25.00	Vertical	PASS
2	86.260	-72.65	-25.00	Vertical	PASS
3	298.690	-75.12	-25.00	Vertical	PASS
4	2537.255	-52.39	-25.00	Vertical	PASS
5	3680.851	-47.01	-25.00	Vertical	PASS
6	7182.979	-44.40	-25.00	Vertical	PASS

LTE Band 7 10MHz BW, Mid Channel, QPSK

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	97.900	-70.04	-25.00	Horizontal	PASS
2	202.660	-69.73	-25.00	Horizontal	PASS
3	2539.176	-50.30	-25.00	Horizontal	PASS
4	4957.447	-46.94	-25.00	Horizontal	PASS
5	9791.489	-40.88	-25.00	Horizontal	PASS
6	13944.681	-36.18	-25.00	Horizontal	PASS



Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-74.73	-25.00	Vertical	PASS
2	90.140	-73.92	-25.00	Vertical	PASS
3	299.660	-74.17	-25.00	Vertical	PASS
4	2539.176	-47.93	-25.00	Vertical	PASS
5	4485.106	-46.41	-25.00	Vertical	PASS
6	11140.426	-38.42	-25.00	Vertical	PASS

LTE Band 7 10MHz BW, Mid Channel, 16QAM

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-70.03	-25.00	Horizontal	PASS
2	204.600	-70.16	-25.00	Horizontal	PASS
3	361.740	-73.05	-25.00	Horizontal	PASS
4	2539.816	-48.35	-25.00	Horizontal	PASS
5	4493.617	-46.95	-25.00	Horizontal	PASS
6	11506.383	-38.61	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	31.940	-72.31	-25.00	Vertical	PASS
2	85.290	-72.34	-25.00	Vertical	PASS
3	302.570	-74.92	-25.00	Vertical	PASS
4	2539.176	-48.16	-25.00	Vertical	PASS
5	14080.851	-36.71	-25.00	Vertical	PASS
6	7582.979	-44.26	-25.00	Vertical	PASS

LTE Band 7 15MHz BW, Mid Channel, QPSK

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-69.93	-25.00	Horizontal	PASS
2	204.600	-70.33	-25.00	Horizontal	PASS
3	2539.176	-50.05	-25.00	Horizontal	PASS
4	3838.298	-47.34	-25.00	Horizontal	PASS
5	7021.277	-45.16	-25.00	Horizontal	PASS
6	14106.383	-36.23	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-74.78	-25.00	Vertical	PASS
2	85.290	-72.93	-25.00	Vertical	PASS
3	168.710	-75.82	-25.00	Vertical	PASS
4	2539.176	-50.45	-25.00	Vertical	PASS
5	4978.723	-47.12	-25.00	Vertical	PASS
6	11161.702	-38.40	-25.00	Vertical	PASS

LTE Band 7 15MHz BW, Mid Channel, 16QAM

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	100.810	-69.94	-25.00	Horizontal	PASS
2	204.600	-70.31	-25.00	Horizontal	PASS
3	2538.535	-49.64	-25.00	Horizontal	PASS
4	4476.596	-47.22	-25.00	Horizontal	PASS
5	7038.298	-44.35	-25.00	Horizontal	PASS
6	11744.681	-37.20	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	44.550	-74.96	-25.00	Vertical	PASS
2	89.170	-73.64	-25.00	Vertical	PASS
3	298.690	-74.15	-25.00	Vertical	PASS
4	2539.176	-49.58	-25.00	Vertical	PASS
5	4510.638	-46.36	-25.00	Vertical	PASS
6	9408.511	-40.58	-25.00	Vertical	PASS

LTE Band 7 20MHz BW, Mid Channel, QPSK

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	99.840	-69.14	-25.00	Horizontal	PASS
2	142.520	-60.65	-25.00	Horizontal	PASS
3	432.550	-71.39	-25.00	Horizontal	PASS
4	2587.195	-45.70	-25.00	Horizontal	PASS
5	5731.915	-45.38	-25.00	Horizontal	PASS
6	11723.404	-36.53	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	94.990	-69.95	-25.00	Vertical	PASS
2	248.250	-72.02	-25.00	Vertical	PASS
3	596.480	-69.84	-25.00	Vertical	PASS
4	2484.754	-51.12	-25.00	Vertical	PASS
5	4953.191	-45.53	-25.00	Vertical	PASS
6	11140.426	-37.99	-25.00	Vertical	PASS

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

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	95.960	-74.50	-25.00	Horizontal	PASS
2	142.520	-70.03	-25.00	Horizontal	PASS
3	301.600	-72.91	-25.00	Horizontal	PASS
4	2487.315	-48.63	-25.00	Horizontal	PASS
5	5042.553	-45.05	-25.00	Horizontal	PASS
6	17497.872	-31.77	-25.00	Horizontal	PASS

Mum.	Fre. (MHz)	Peak	Limit(PK)	Antenna	Verdict
1	95.960	-70.13	-25.00	Vertical	PASS
2	165.800	-72.56	-25.00	Vertical	PASS
3	248.250	-71.17	-25.00	Vertical	PASS
4	2487.315	-50.34	-25.00	Vertical	PASS
5	8885.106	-40.02	-25.00	Vertical	PASS
6	14046.809	-34.08	-25.00	Vertical	PASS

***** END OF REPORT *****