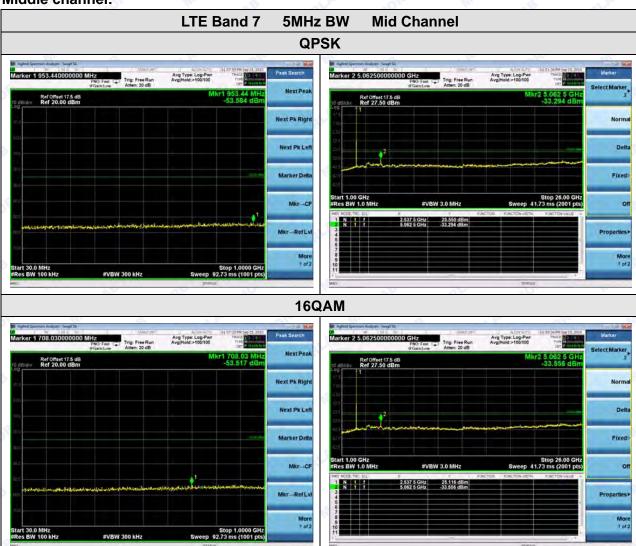
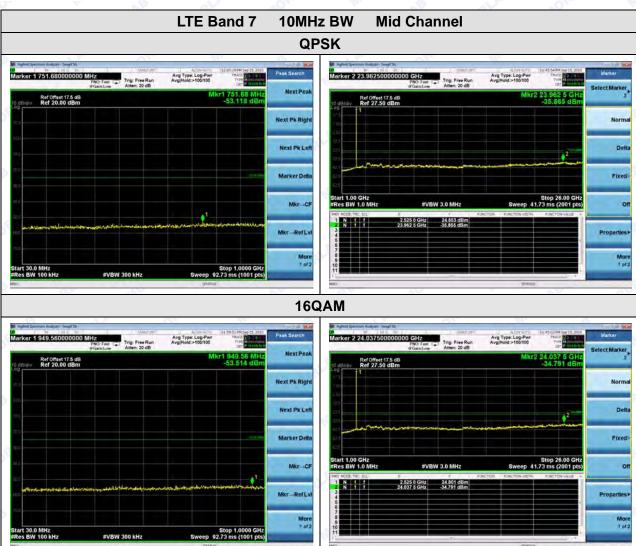




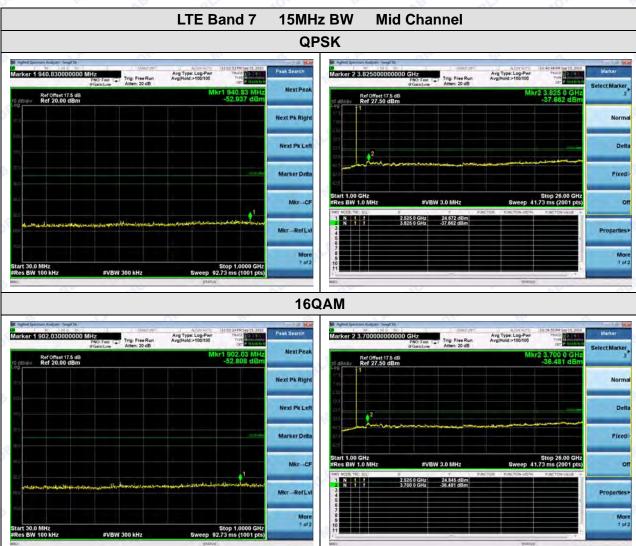
#### Middle channel:



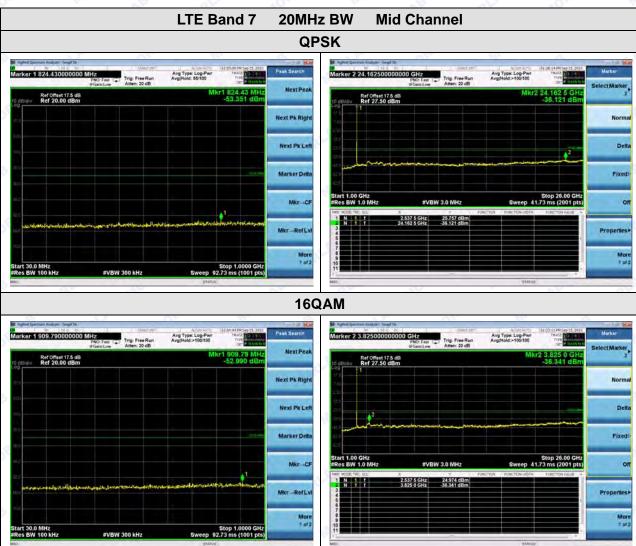




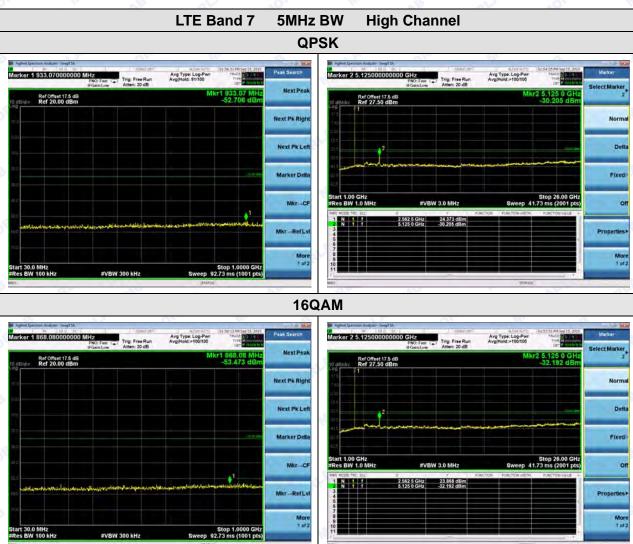




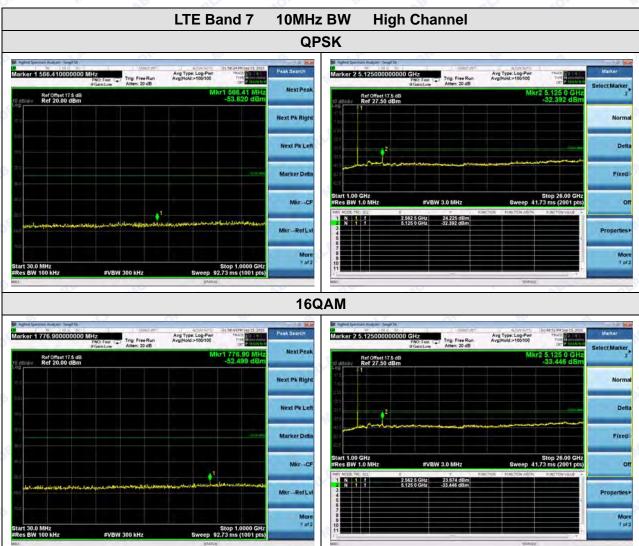




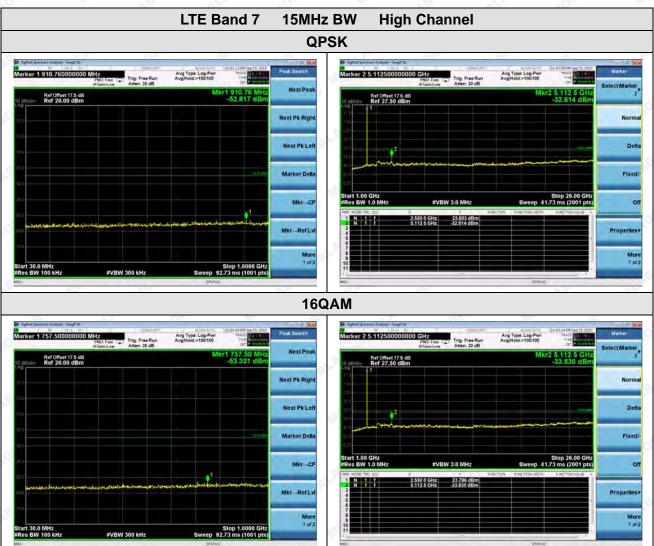




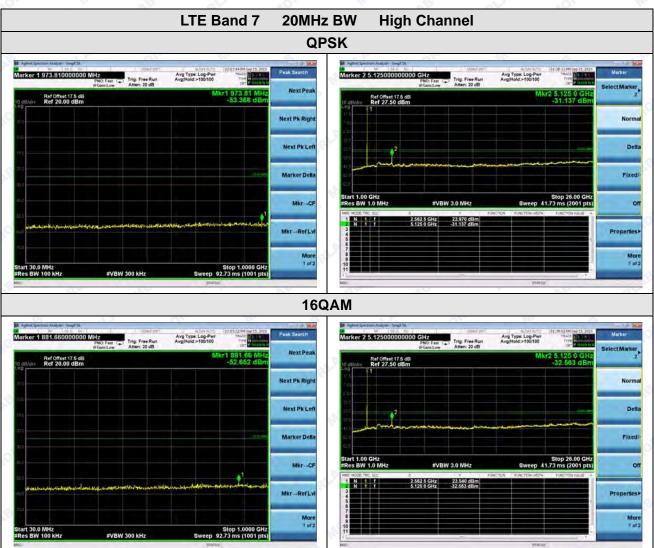














# 2.6 Band Edge

## 2.6.1 Requirement

According to FCC section 27.53(h) & (m) (4), (m) (4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

(h) For operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB.

## 2.6.2 Test Description

See section 2.1.2 of this report.

#### 2.6.3 Test Result

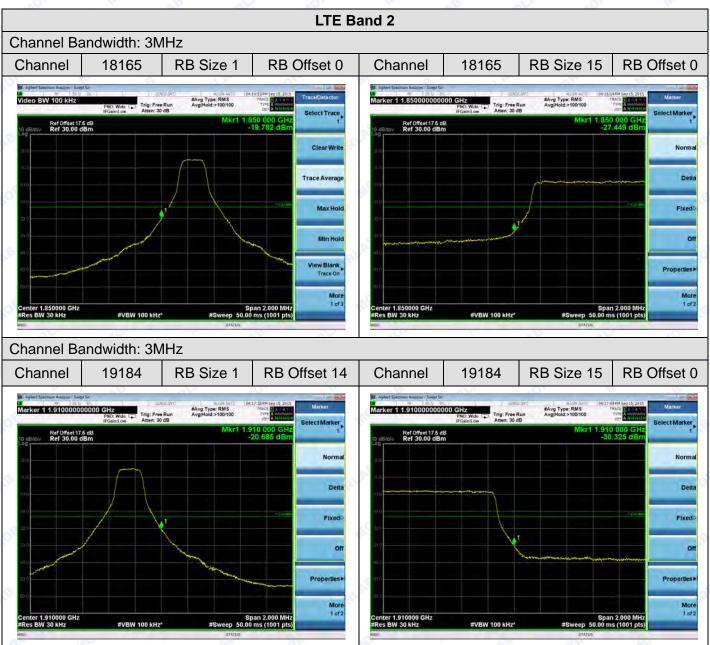
The center frequency of spectrum is the band edge frequency and span is 2MHz, Record the max trace into the test report.

PASS. See the attached plots.

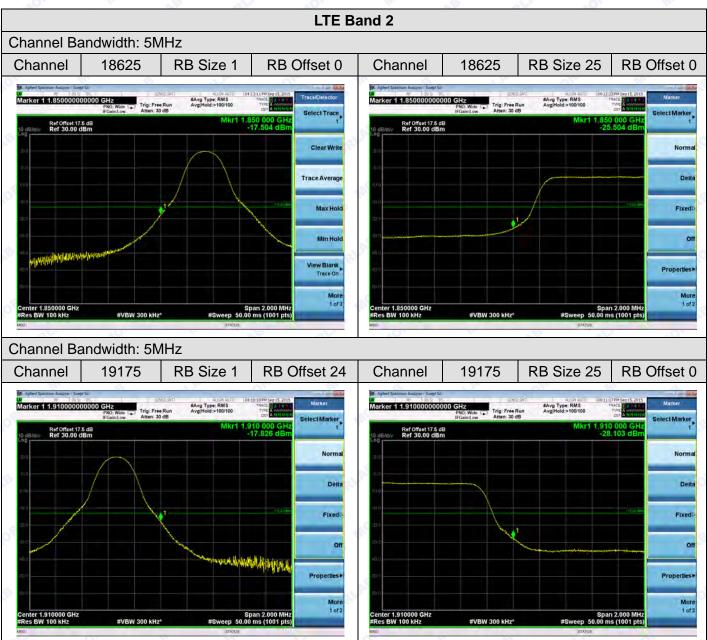




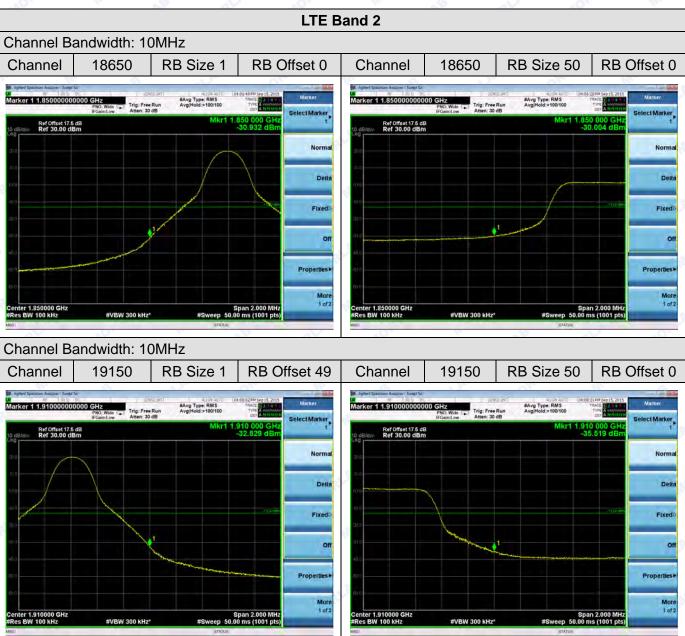




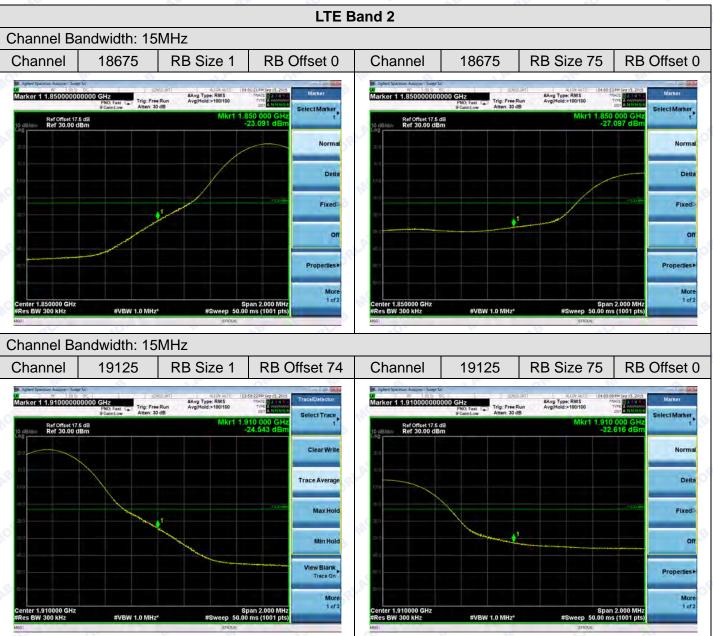




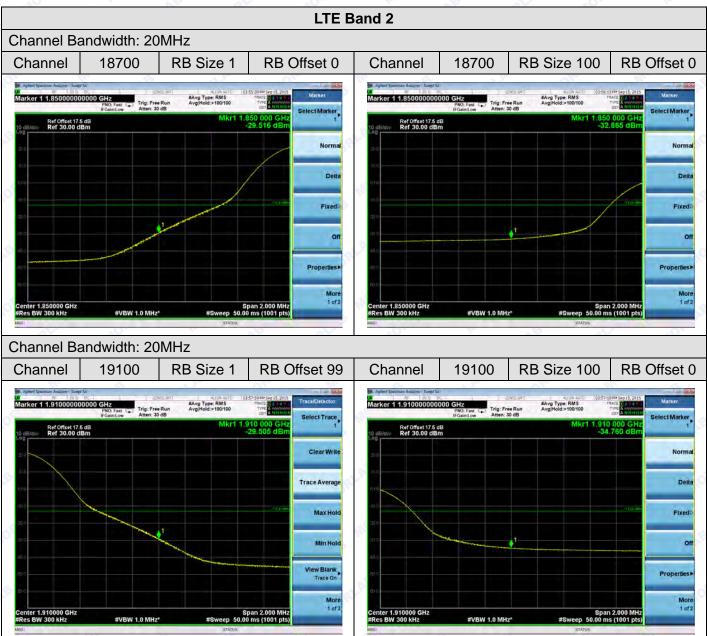




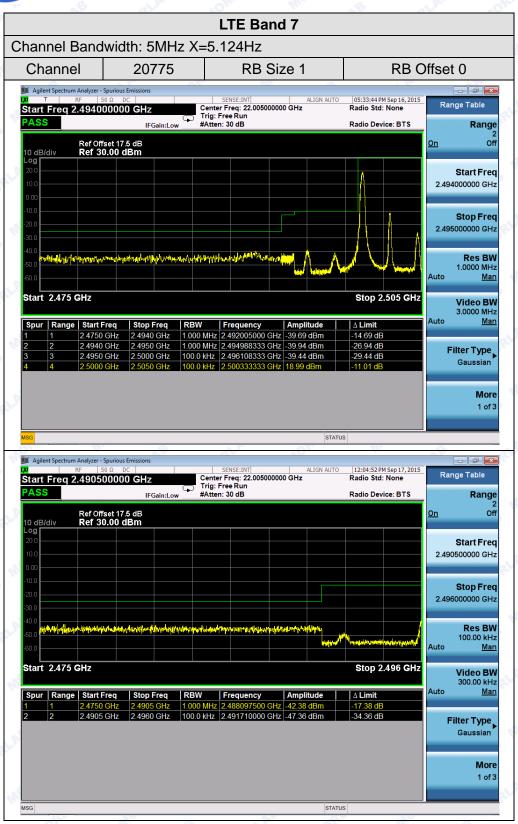




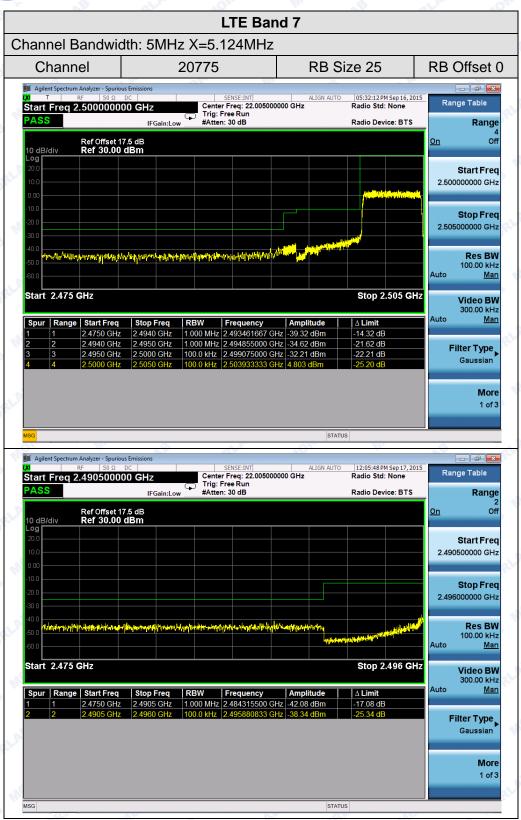




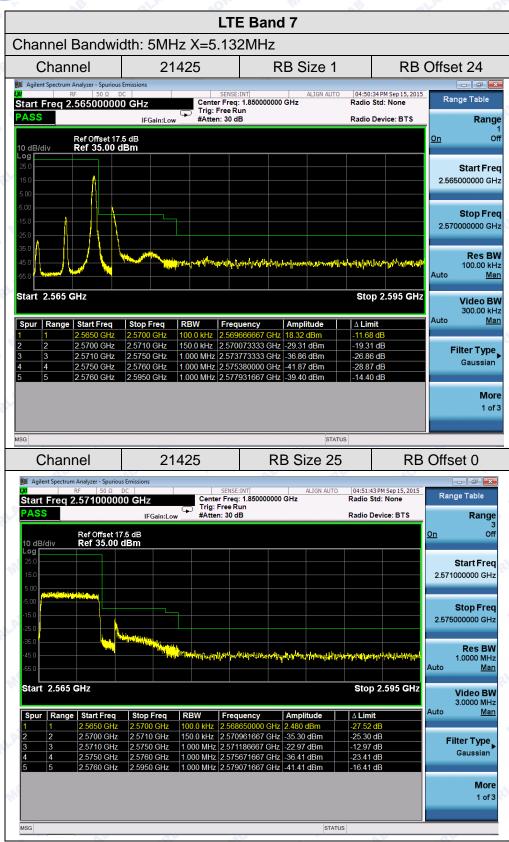




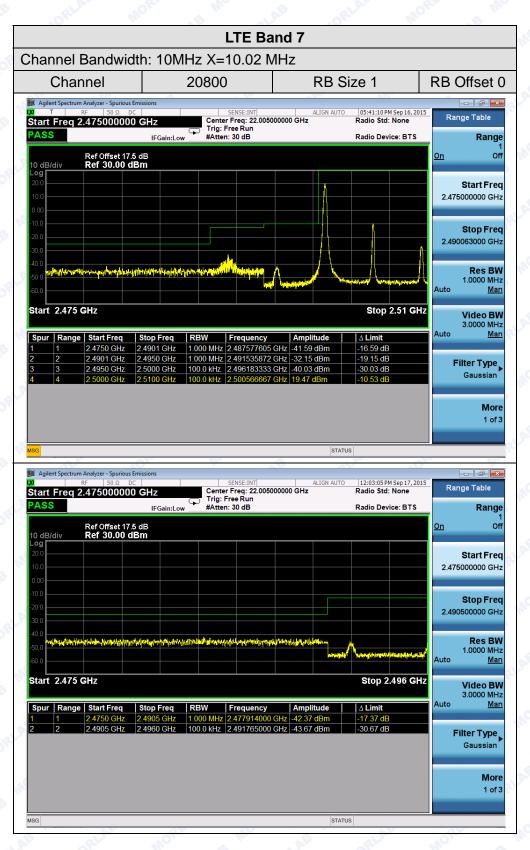








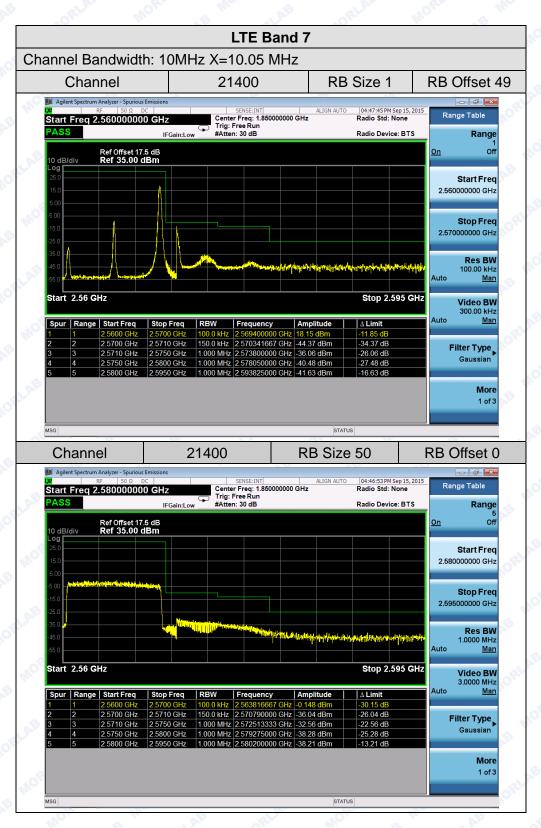




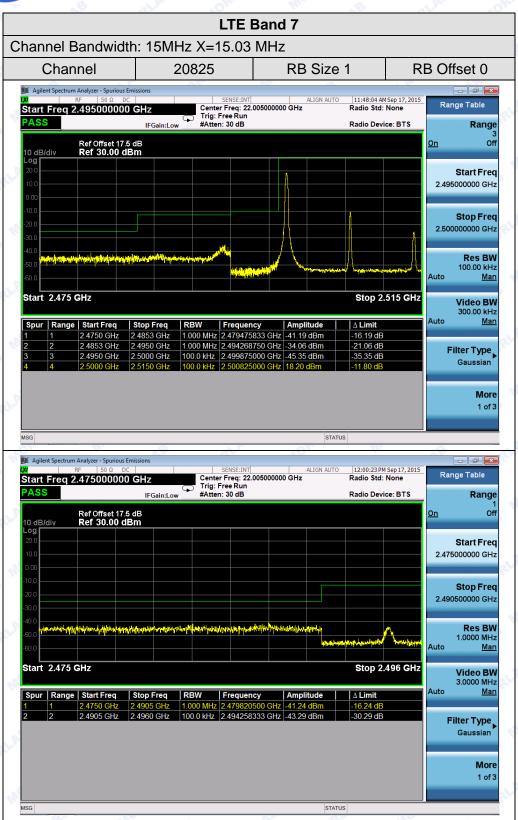








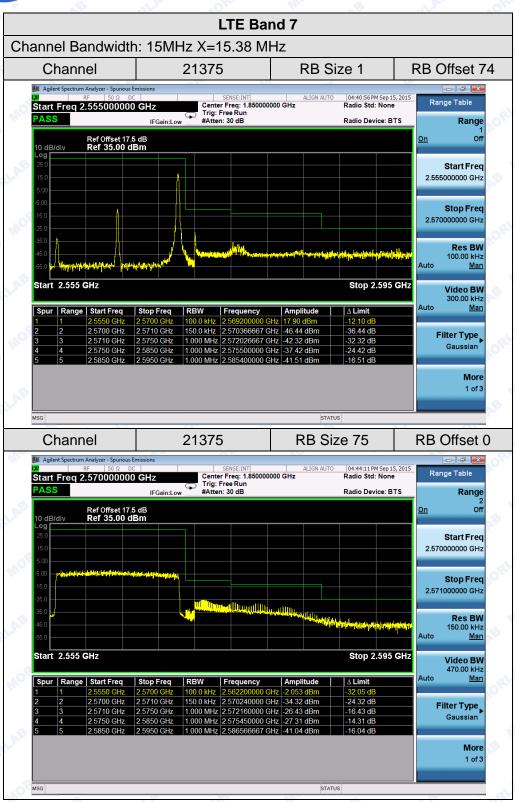




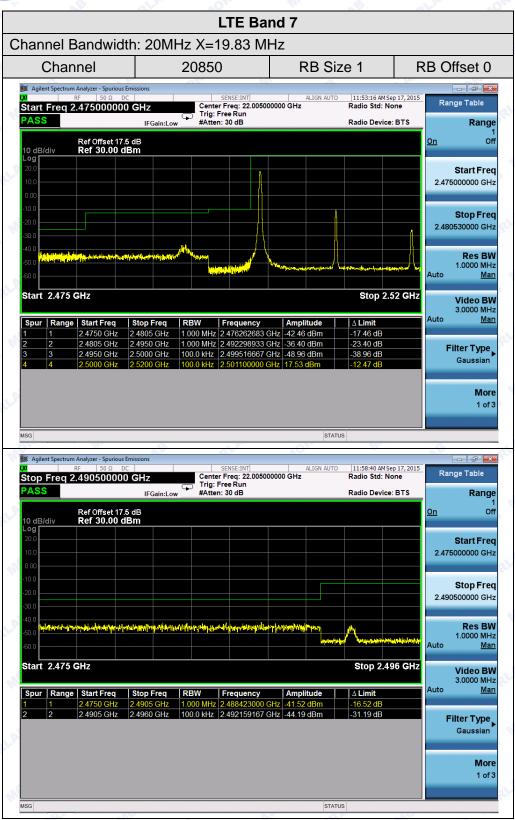








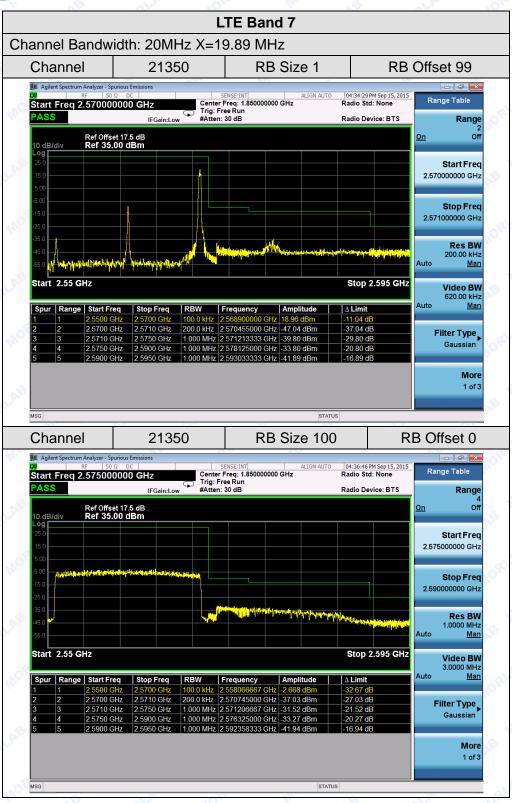














# 2.7 Transmitter Radiated Power (EIRP/ERP)

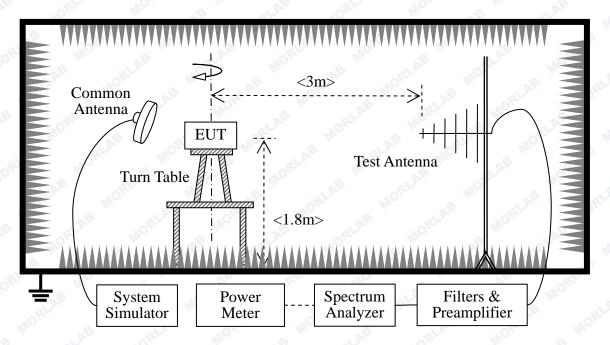
## 2.7.1 Requirement

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:**

		AV			
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Rohde& Schwarz	CMW500	1201.0002k50/ 124534/wk	2015.02.26	2016.02.25
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2015.02.26	2016.02.25
Spectrum Analyzer	Agilent	E4445A	MY44200685	2015.02.26	2016.02.25
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2015.02.26	2016.02.25
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2015.02.26	2016.02.25
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2015.02.26	2016.02.25

#### 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<sub>SUBST</sub> is the final substitution correction including receive antenna gain.

P<sub>SUBST\_TX</sub> is signal generator level,

P<sub>SUBST\_RX</sub> is receiver level,

L<sub>SUBST\_CABLES</sub> is cable losses including TX cable,

G<sub>SUBST\_TX\_ANT</sub> is substitution antenna gain.

A<sub>TOT</sub> 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  $A_{TOT}$ .



			** *Oh	M	.0	al.h.	*O/L
Band Ban	Band Width	Channel	Freq.(MHz)	Modulation	RB Cor	figuration	EIRP
	Dana wiain				RB Size	RB Offset	(dBm)
ORL MON	Mor	0.5	, AB	ODCK	10	0	23.41
MIC	NB	ALL ALE	1860	QPSK	<b>100</b>	0	21.63
Ab	ORL	18700	1000	16 OAM	1 1	0	22.44
6	LAB	ORL	MOL	16-QAM	100	0	20.79
RLAL	MORE	M	68	QPSK	10 <sup>R</sup> 1	0	23.22
NOLTE	9 01	M	1880	QFSK	100	0	22.17
ORL	20MHz	18900	1000	16-QAM	1	0	22.18
Band 2	AB.	-RIA	MORE	10-QAW	<b>100</b>	0	21.10
Alb	ORL	No.	9 0	QPSK	1 1	0	23.19
.0	LAB	Hal	1900	QFSK	100	0	22.55
RLA	Mokr	19100	1900	16-QAM	1 P	0	22.07
illo.	9 1	All Control	ORL	16-QAIVI	100	0	21.42
<u> </u>	5 1147 14		- (141)		RB Cor	figuration	EIRP
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Size	RB Offset	(dBm)
, F	0,	. 1	S (0)	QPSK	1.	0 🔊	23.11
NB '	ZLAB	Lope	1057.5		75	0	21.54
ORLAN	MOL	18675	1857.5	16-QAM	1	0	22.63
, I	D CL		ORT		75	0.0	21.07
MORL	MO	M 18900	1880	QPSK	1	0	23.32
LTE	LAB				75	0	22.17
,A.	15MHz			16-QAM	1.	0	22.33
Band 2	Band 2				75	0	20.98
ORLE	MOL	H 19125	1902.5	QPSK	1	0	23.21
. 1	S PI				75	0	22.17
MORL	MO			16-QAM	1	<b>0</b>	22.61
7. Q	TLAB				75	0	21.12
_		Vidth Channel	Freq.(MHz)	Modulation	RB Cor	figuration	EIRP
Band	Band Width				RB Size	RB Offset	(dBm)
AE MORLE IN MOR	O Un	L 18650	1855	ODOLL	1	0	23.29
	"OBL			QPSK	50	0	22.16
	B W.			16-QAM	<u> </u>	0	22.43
	RLA		III.		50	0	20.88
M	AB \	21.0	1880	QPSK	13	0	23.27
LTE	ORLA	M			50	0	22.62
OF	10MHz	18900		16-QAM	1	0	22.71
Band 2	"ORL	60	.8		50	0	21.01
MOK	' Q U.	AB	ORLA	QPSK	ø 1	0	23.32
AB	RLA	Off. H	1005		50	0	22.57
M	S. S. S.	19150	1905	16-QAM	10	0	22.63
LAB	ORLA				50	<b>600</b> 0	21.18



			401	lu.	-3	al.h.	*0/s
Band Ba	Donal Miakh	Channel	Eroa (MUz)	Modulation	RB Con	figuration	EIRP
	Band Width		Freq.(MHz)		RB Size	RB Offset	(dBm)
OPL	Mor	0	, AB	ODCK	10	0	23.55
ME	o.B	al Late	4050.5	QPSK	25	0	22.31
AB	ORL	18625	1852.5	40.0014	1 🖷	0	22.44
6	AB	ORL	Mor	16-QAM	25	0	21.19
RLAL	MORL	W	0.B	QPSK	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	23.47
LTE	9 01	M	1880	QPSK	25	0	22.68
ORL	5MHz	18900	1000	16-QAM	10	0	22.83
Band 2	AB	-RI-AI	MORE	16-QAIVI	<b>2</b> 5	0	21.21
Ab	ORL	No.	9 0	QPSK	1 👭	0 💉	23.37
.0	LAB	Her	1907.5	QPSK	25	0	22.34
RLAN	MORE	19175	1907.5	16-QAM	10 <sup>R</sup> 1	0	23.61
MO.	9 01	Alb	ORL	16-QAIVI	25	0	21.10
					RB Con	figuration	EIRP
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Size	RB Offset	(dBm)
	0,	7	E MORI	1/OV	1.	0	23.35
NB Y	ZLAB	Loppin		QPSK	15	0	22.17
ORLAN	MOL	18615	1851.5	16-QAM	1	0	22.52
Me	B CL		ORT		15	0.0	21.01
MORL	MO	M 18900	1000	QPSK	1	0	23.22
LTE	LAB				15	0	22.19
, A	3MHz		1880	16-QAM	1.	0	22.33
Band 2	Band 2		" MO.		15	0	20.98
ORLE	MOL	H 19185	1908.5	QPSK	1	0	23.34
M. C.	E OPI				15	0	22.53
MORL	MO			16-QAM	1	0	22.72
~ Q	TLAB				15	0	21.05
		Vidth Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
Band	Band Width				RB Size	RB Offset	(dBm)
VOL.	J. Un.	, S	1850.7	QPSK	1	0	23.39
all	"IOET	L W			6	0	22.42
MOL	G W	18607		16-QAM	. 1	0	22.77
AB	RLA	ORE			6	0	20.62
N	AB	21.0	900 1880	QPSK	13	0	23.41
LTE	ORLA	<sup>4MHz</sup> 18900			6	0	22.37
MOK	1.4MHz			16-QAM	1	0	22.82
Band 2	MORI	1/1			6	0	20.97
MOL	- B U.	H 19193	1909.3	QPSK	<u> </u>	0	22.53
AB	RLA				6	0	20.27
HI.				16-QAM	10	0	23.07
AB					6	0	20.56



7			10 <sup>FC</sup>	Min	.0	al.A.	*Of**
Band Bar	Dond Midth	Channel	<b>5</b> (MIL)	Modulation	RB Configuration		EIRP
	Band Width		Freq.(MHz)		RB Size	RB Offset	(dBm)
ORL MON	0	AB	ODCK	10	0	23.44	
MIC	A.B	al Land	2540	QPSK	<b>100</b>	0	22.17
Ab	ORL	20850	2510	16 OAM	1 🐠	0	22.81
6	AB	ORL	Mole	16-QAM	100	0	21.36
RLAL	MORT	III.	Q.B	QPSK	10 <sup>R</sup>	0	23.22
LTE	9 01	M	2535	QPSK	100	0	22.19
ORL	20MHz	21100	2555	16-QAM	10	0	22.78
Band 7	AB	-QLA	MORE	16-QAIVI	<b>100</b>	0	21.40
Ab	ORL	No.	9 0	QPSK	1 1	0	23.21
. 6	AB	Hal	2560	QPSK	100	0	21.73
RLA	MORE	21350	2560	16-QAM	1 1 10 PM	0	22.44
No.	9 0	A.D	ORL	16-QAIVI	100	0	21.10
					RB Cor	figuration	EIRP
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Size	RB Offset	(dBm)
	0, 1	. 1	Ø .01	, MOY	1.	0 🔊	23.39
, B	3LAB	Lopple	0-0-MO,	QPSK	75	0	22.41
ORLA	More	20825	2507.5	16-QAM	1	0	22.75
illo.	E E		OR		75	0.0	21.19
, ORL	MO.	M 21100	2535	QPSK	1	0	23.41
LTE	AB				75	0	22.22
A	15MHz			16-QAM	1.	0	22.65
Band 7	Band 7				75	0	21.22
ORLA	ORLA	H 21375	2562.5	QPSK	1	0	23.33
The same of	E CL				75	0	22.11
"OBT.	Mo			16-QAM	1	0	22.67
· Q ///	LAB				75	0	21.20
		nd Width Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
Band Band Wi	Band Width				RB Size	RB Offset	(dBm)
AGE MORLE MORL	la.	L 20800	ORLA	QPSK	1 .	0	23.37
	ib ORL				50	0	22.18
	G W		2505	WO.	<u> </u>	0	22.40
		ME	16-QAM	50	0	21.11	
NO.	O. 1	1	S OP	1110	10	0	23.19
LTE	LTE	М	0505	QPSK	50	0	20.90
OR	10MHz	21100	2535	16-QAM	1	0	22.74
Band 7	ORL				50	0	21.33
Mole	G M	, AB	2565 -	QPSK	1	0	23.29
AB QLAD	RLAN	H 21400			50	0	22.10
M	D			16-QAM	1	0	22.65
AB RLA	RLA				50	0	20.24



							40°
Band Band Width	Rand Width	Channel	Freq.(MHz)	Modulation	RB Configuration		EIRP
	Dana Watii				RB Size	RB Offset	(dBm)
ORL	ORL MO.	L 20775	2502.5	QPSK	10	0	23.25
411	A.B				<b>25</b>	0	22.41
AL	ORL			16-QAM	1 👭	0 🕓	22.80
.0	LAB				25	0	21.27
QLA.	5MHz 21100	M	2535	QPSK 16-QAM	1 P	0	23.21
NO LTE					25	0 .04	22.30
ORL		21100			1	0	22.74
Band 7		-QLA			25	0	21.32
All	AP	H 21425	2567.5	QPSK 16-QAM	1 👭	0	23.17
RLAE WORLAE	LAB				25	0	21.62
	Moke				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	22.60
Mo	IN SI				25	0 .04	21.17



# 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

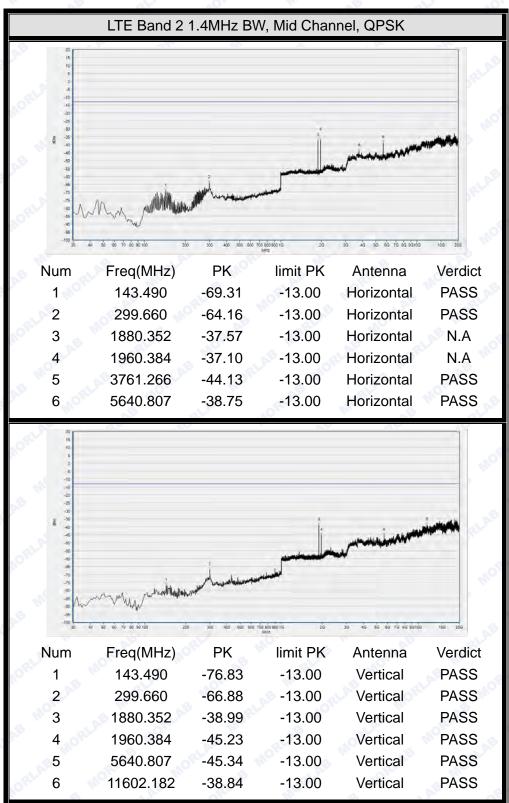
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified.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

Test Plots for the Whole Measurement Frequency Range:

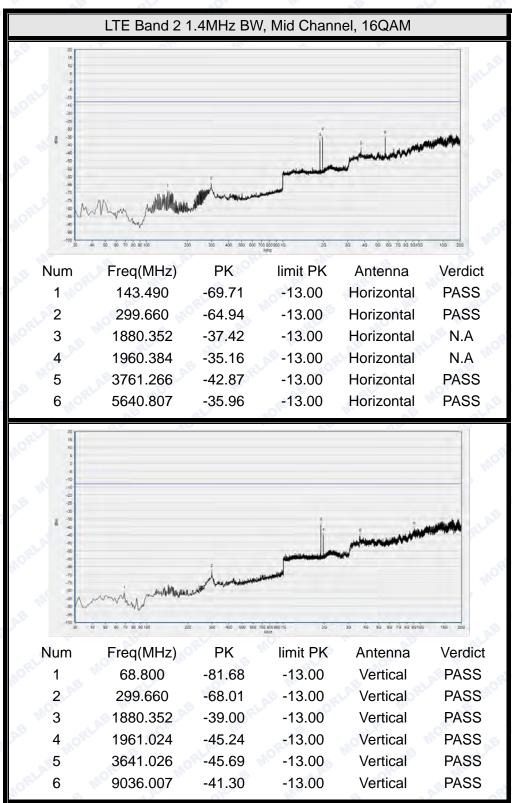
Note1: the power of the EUT transmitting frequency should be ignored.

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.

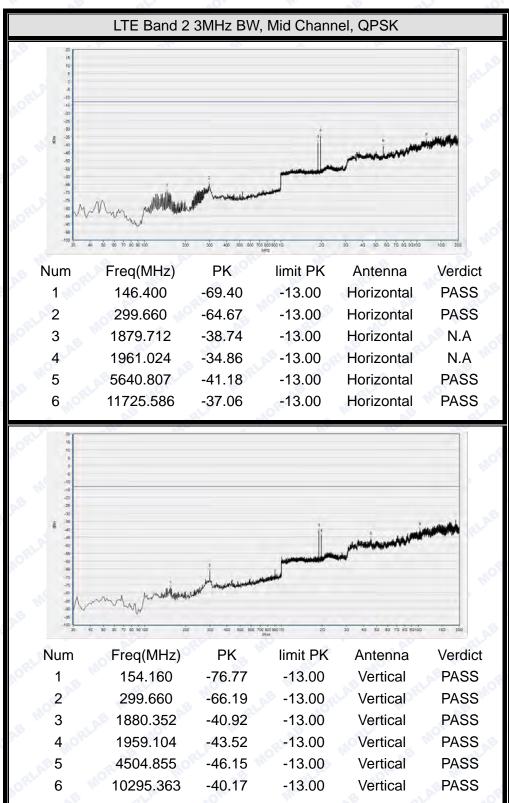




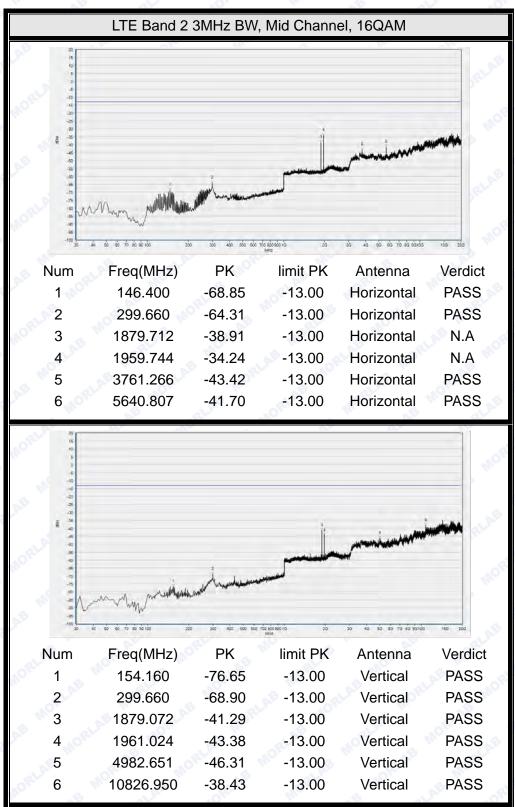




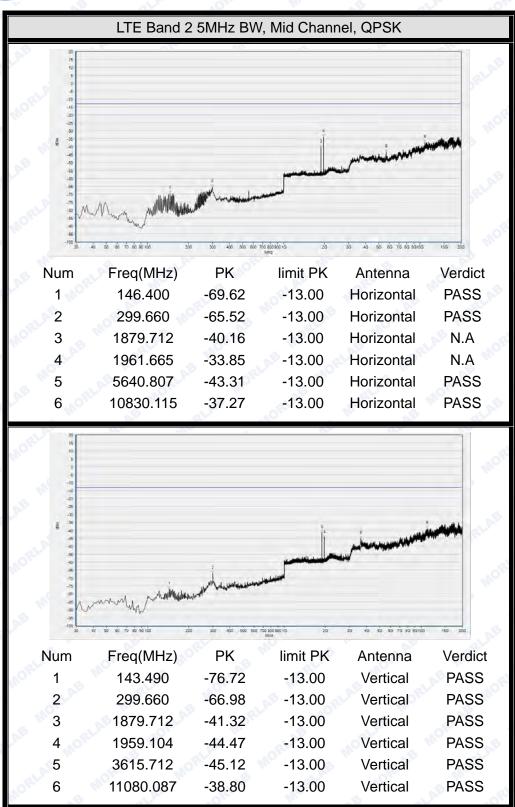




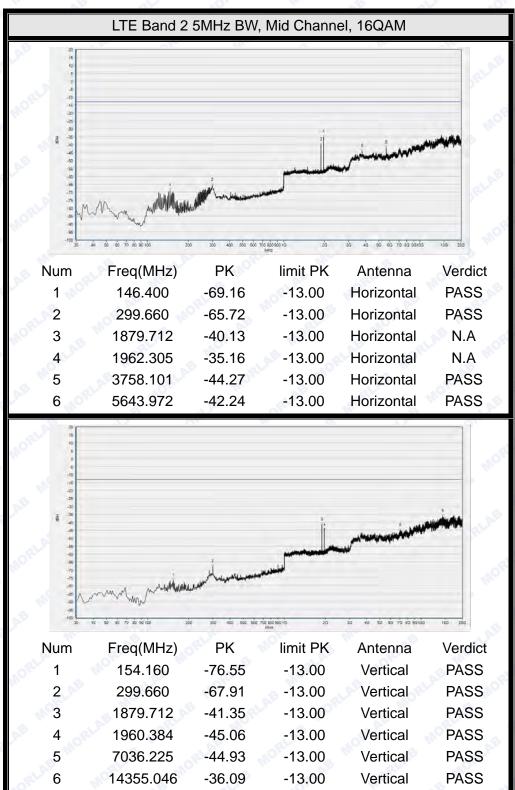




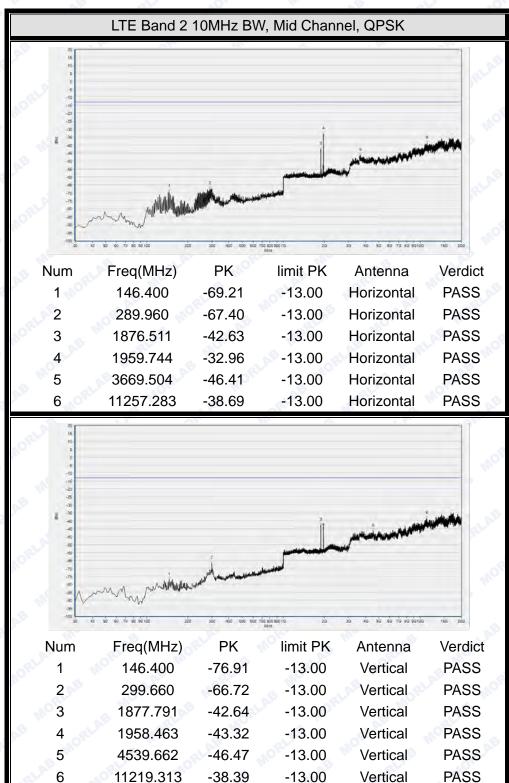




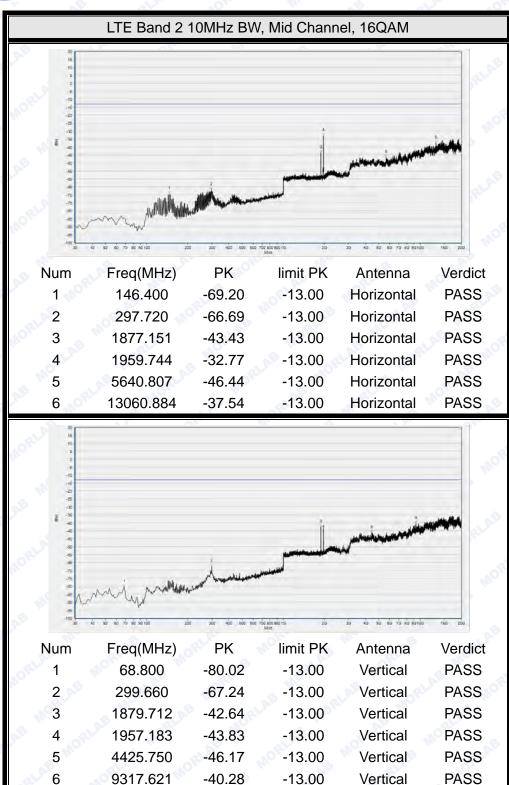




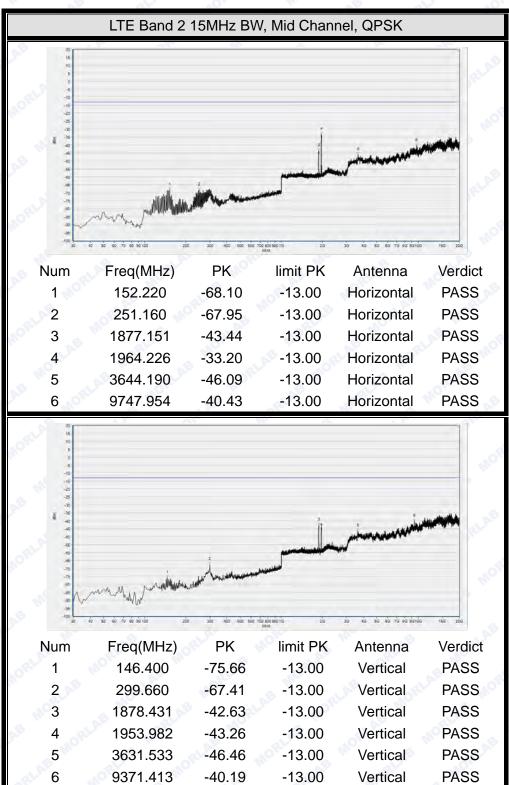




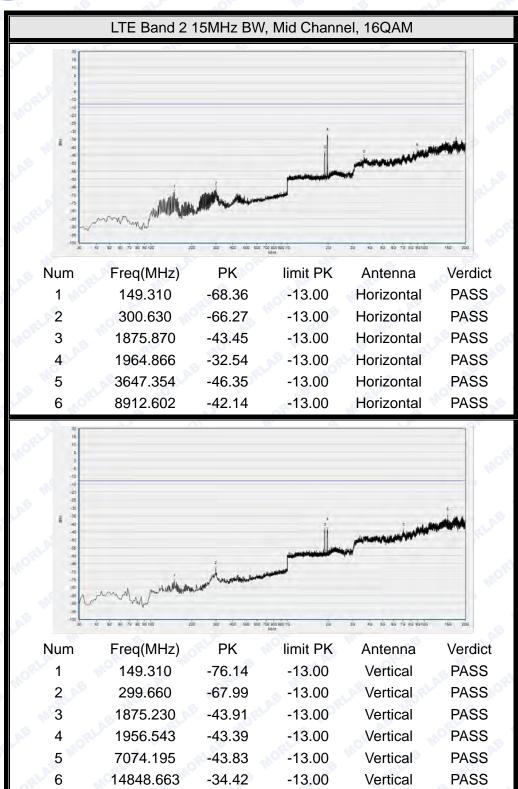




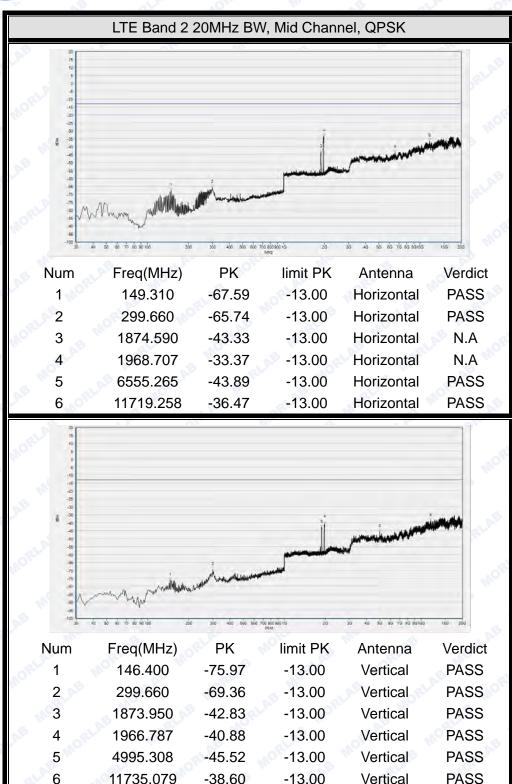




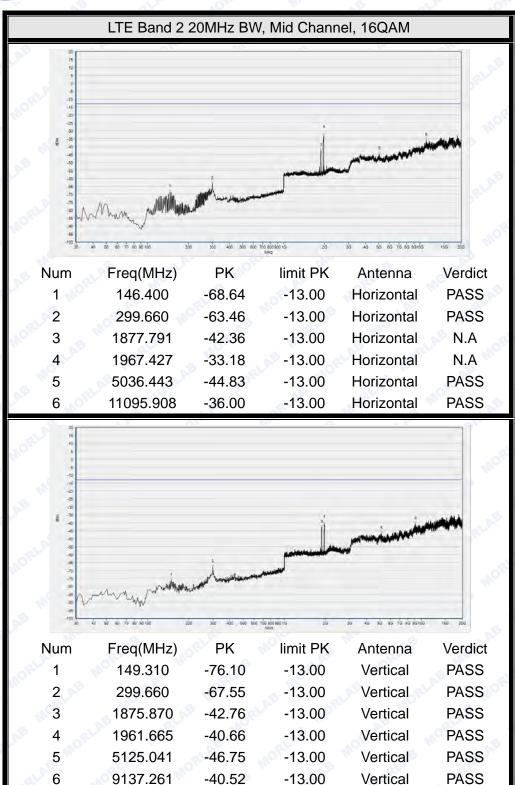




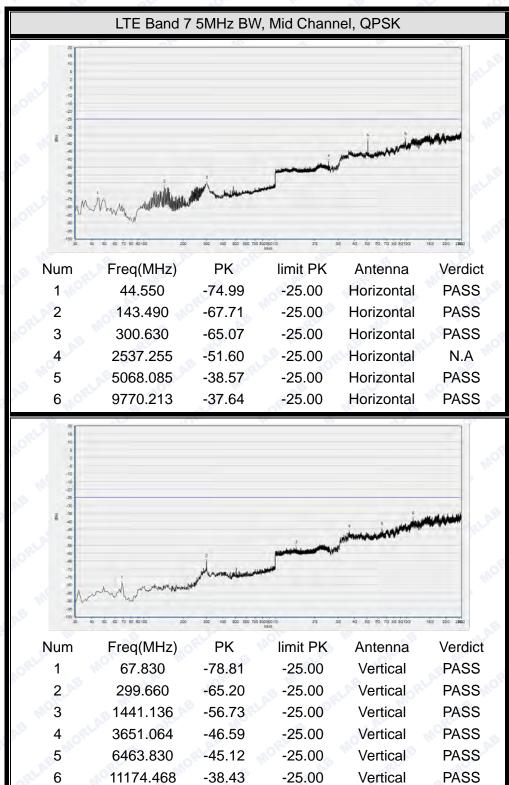




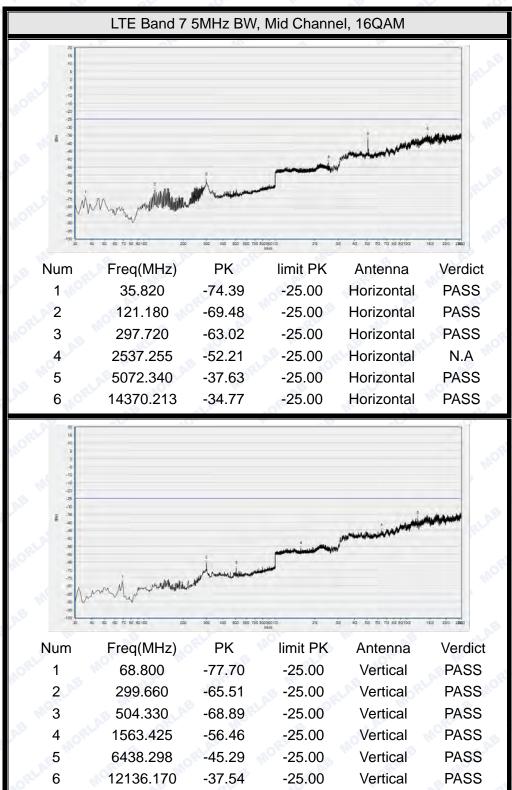




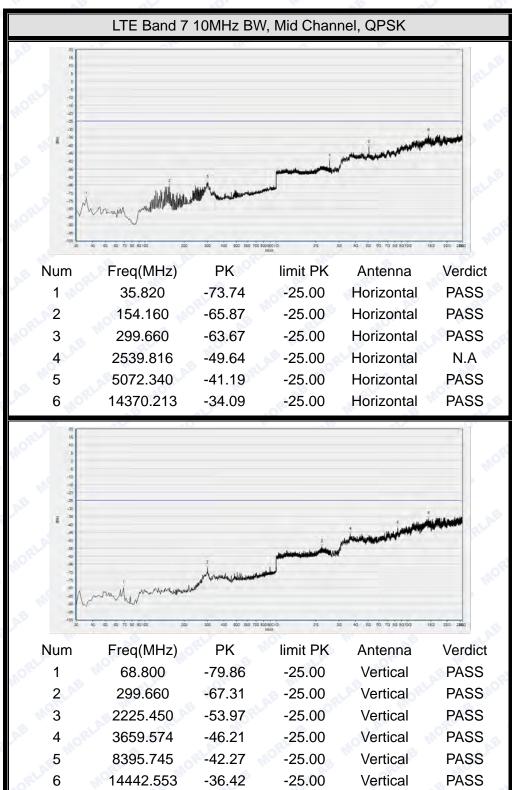




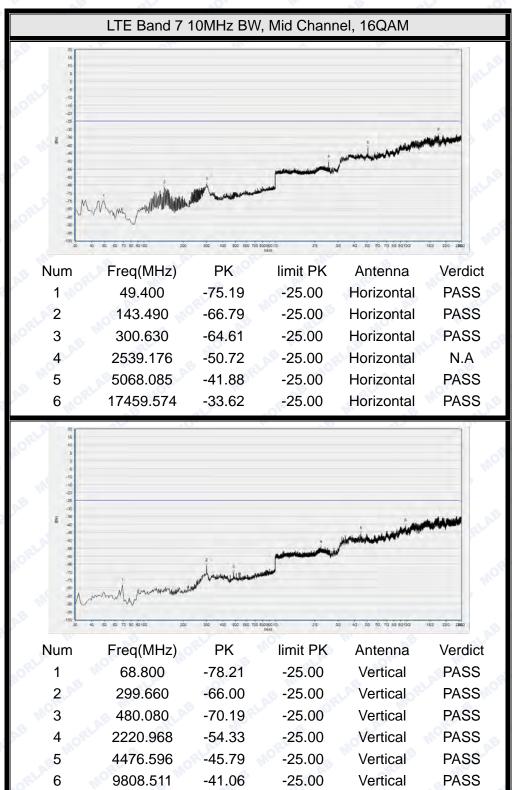




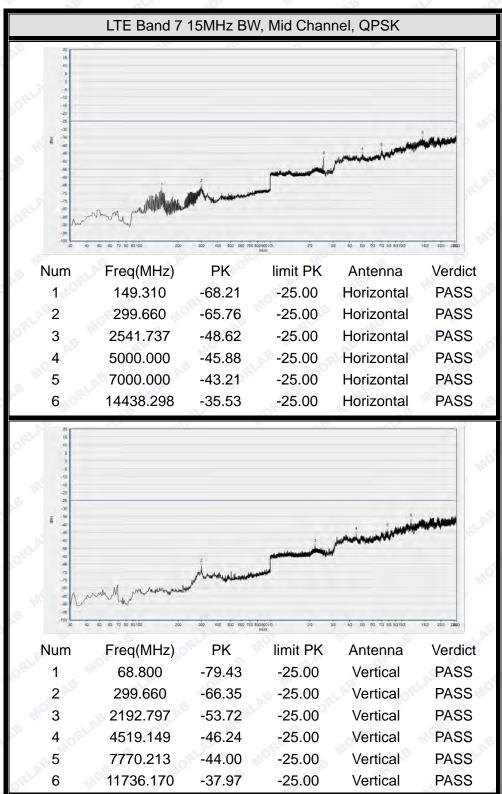




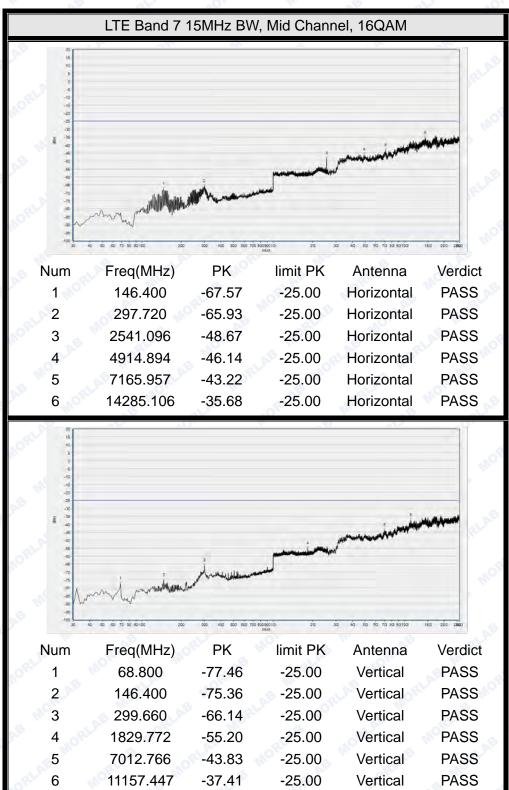




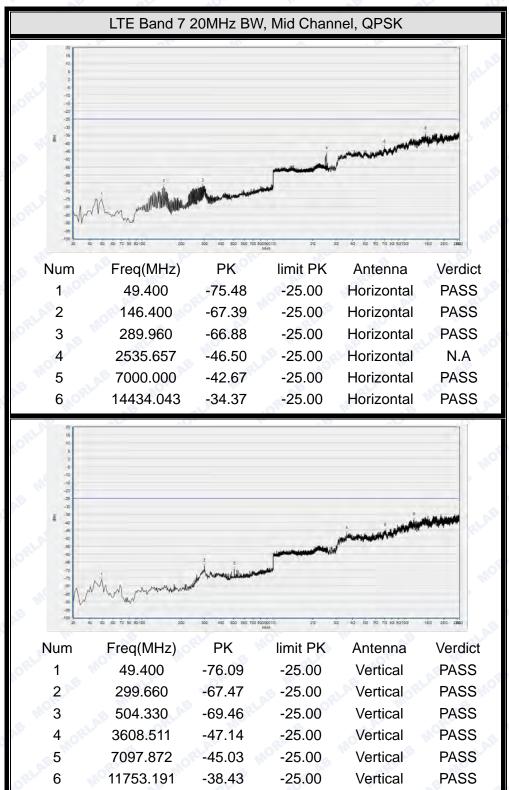




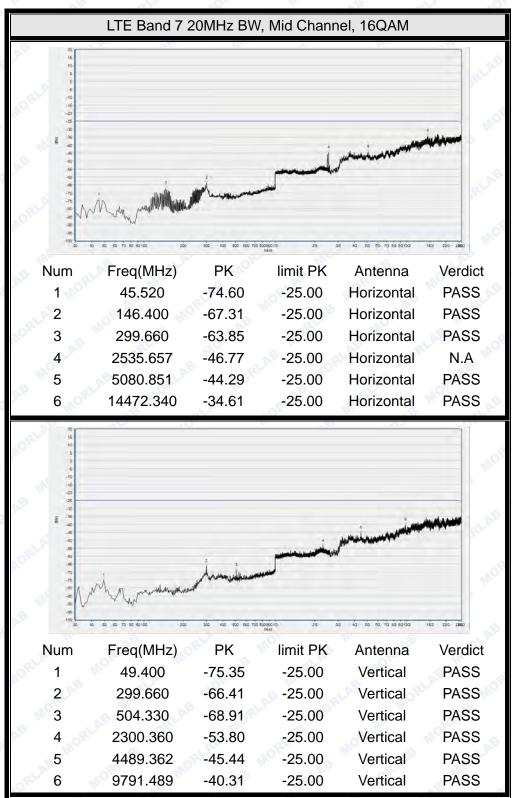












\*\*\*\*\* END OF REPORT \*\*\*\*