



F	CC REPORT	
Report Reference No:	TRE1705022402	R/C: 87855
FCC ID::	2AAA6-LS50	
Applicant's name:	SENWA MEXICO,S.A.DE C.V	
Address:	Av.Javier Barros Sierra 540,Tor SANTA FE DELEGACION, ALV	
Manufacturer	Senwa Mobile HK Itd	
Address	Room 910, International Trade (Tsuen Wan, NT, HK	Centre 11-19 Sha Tsui Road,
Test item description:	Mobile Phone	
Trade Mark	SENWA	
Model/Type reference:	LS50	
Listed Model(s)		
Standard:	FCC Part 22: PUBLIC MOBILE	SERVICES
	FCC Part 24:PERSONAL COM FCC Part 27: MISCELLANEOU COMMUNICATIONS SERVICE	JS WIRELESS
Date of receipt of test sample	May.24, 2017	
Date of testing	May.25, 2017- Jun.19, 2017	
Date of issue	Jun.20, 2017	
Result:	Pass	
Compiled by (position+printedname+signature):	File administrators Candy Liu	Candy Live
Supervised by (position+printedname+signature):	Project Engineer Lion Cai	Candy Live Cron Cor Mours Mu
Approved by (position+printedname+signature):	Manager Hans Hu	Hours rue
Testing Laboratory Name: :	Shenzhen Huatongwei Interna	ational Inspection Co., Ltd.
Address:	1/F, Bldg 3, Hongfa Hi-tech Indu Gongming, Shenzhen, China	ustrial Park, Genyu Road, Tianliao,
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The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. Test standards and Report version

1.1. Applicable Standards

The tests were performed according to following standards:

FCC Part 22: PRIVATE LAND MOBILE RADIO SERVICES.

FCC Part 24: PUBLIC MOBILE SERVICES

FCC Part 27: MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

TIA/EIA 603 D June 2010: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

FCC Part 2: FREQUENCY ALLOCA-TIONS AND RADIO TREATY MAT-TERS; GENERAL RULES AND REG-ULATIONS

<u>971168 D01 Power Meas License Digital Systems v02r02</u>: provides a methodology for fully characterizing the fundamental power of wideband (> 1 MHz) digitally modulated RF signals acceptable to the FCC for demonstrating compliance for licensed transmitters.

1.2. Report version

Version No.	Date of issue	Description
00	Jun.20, 2017	Original

2. Test Description

Test Item	Section in CFR 47	Result
RF Output Power	Part 2.1046 Part 22.913(a) Part 24.232(c) Part 27.50	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b)	Pass
Conducted Spurious Emissions	Part 2.1051 Part 22.917 Part 24.238 Part 27.53	Pass
Band Edge	Part 2.1051 Part 22.917 Part 24.238 Part 27.53	Pass
ERP and EIRP	Part 22.913(a) Part 24.232(b)	Pass
Radiated Spurious Emissions	Part 2.1053 Part 22.917 Part 24.238 Part 27.53	Pass
Frequency stability vs. temperature	Part 2.1055(a)(1)(b) Part 22.255 Part 24.235 Part 27.54	Pass
Frequency stability vs. voltage	Part 2.1055(d)(1)(2) Part 22.255 Part 24.235 Part 27.54	Pass
Peak-Average Ratio	Part 24.232 Part 27.50	Pass

Note: The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Client Information

Applicant:	SENWA MEXICO, S.A.DE C.V
Address:	Av.Javier Barros Sierra 540,Torre I,Planta 5, COL.LOMAS DE SANTA FE DELEGACION, ALVARO OBREGON, Mexico
Manufacturer:	Senwa Mobile HK Itd
Address:	Room 910, International Trade Centre 11-19 Sha Tsui Road, Tsuen Wan, NT, HK

3.2. Product Description

Name of EUT:	Mobile Phone					
Trade Mark:	SENWA					
Model No.:	LS50					
Listed Model(s):	-					
IMEI:	357942080001300					
Power supply:	DC 3.8V From internal battery					
Adapter information:	Input:100-240Va.c., 50/60Hz, 0.15A Max Output: 5Vd.c., 1000mA					
Hardware version:	SP9832A-2_V1.1.0(4M)					
Software version:	SENWA_LS50_Ver01					
RF Technical Description						
FDD Band 2						
Operation Frequency:	Uplink:1850.7 MHz – 1909.3 MHz Downlink: 1930.7 MHz – 1989.3 MHz					
Channel bandwidth:	⊠1.4MHz ⊠ 3MHz ⊠ 5MHz ⊠ 10MHz ⊠15MHz					
FDD Band 4						
Operation Frequency:	Uplink:1710.7 MHz – 1754.3 MHz Downlink: 2110.7 MHz – 2154.3 MHz					
Channel bandwidth:	⊠1.4MHz ⊠ 3MHz ⊠ 5MHz ⊠ 10MHz ⊠15MHz ⊠20MHz					
FDD Band 7						
Operation Frequency:	Uplink:2502.5 MHz – 2567.5 MHz Downlink: 2622.5 MHz – 2687.5 MHz					
Channel bandwidth:	□1.4MHz □ 3MHz ⊠ 5MHz ⊠ 10MHz ⊠15MHz ⊠20MHz					
FDD Band 17						
Operation Frequency:	Uplink:706.5 MHz – 713.5 MHz Downlink: 736.5MHz – 743.5 MHz					
Channel bandwidth:	□1.4MHz □ 3MHz ⊠ 5MHz ⊠ 10MHz □15MHz □20MHz					
Power Class:	□ Class 1 □ Class 2 ⊠ Class 3 □ Class 4					
Modulation type:	QPSK Z16QAM G4QAM					
Antennna type:	IntegralAntennna					
Antenna gain:	Band 2: 2.2 dBi, Band 4: 2.2 dBi, Band 7: 2.2 dBi, Band 17: 2.2 dBi					

3.3. Operation state

Test frequency list

Test Frequency ID Bandwidth [MHz] NuL Frequency of Uplink [MHz] NuL Frequency of Downlink [MHz] 1.4 19957 1710.7 1957 2110.7 3 19965 1711.5 1965 2111.5 1.0 20000 1715 2000 2115 15 20025 1771.7 2050 2120 Mid Range 1.4/3/5/10/15/20 20175 1732.5 2175 2132.5 1.4 20393 1754.3 2393 2153.5 2152.5 1.4 20393 1755.5 2375 2152.5 150 15 20325 1747.5 2350 2150 15 15 20325 1747.5 2325 2147.5 20 20300 1745 2300 2145 15 20325 1747.5 2325 2147.5 20 20300 1745 2300 2145 16 20800 2505 2607.5 2622.5 <	DD Band 2						
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3 18615 18515 615 19315 Low Range 3 18615 1852.5 625 1932.5 10 18650 1855 650 1932.5 15 1870.0 1857.5 675 1937.5 14.4(1970.0 1860.0 1860.0 900 1940 14.4(1970.0 1890.0 1880.0 900 1960.5 14.4(1970.0 1900.5 1175 1987.5 1175 1987.5 10 19150.1 1905.5 1125 1982.5 2011.1 1910.0 1990.1 100.1 1985.1 15.10 1912.5 1902.5 1125 1982.5 2011.1 1980.5 1100.1 1980.1 100.1 1980.1 100.1 100.1 1980.1 100.1 100.1 1980.1 100.1 100.1 100.1 100.1 1100.1 110.1 110.7 1957.2 110.7 110.7 110.7 110.7 110.7 110.7 120.7 110.7 120.7			1.4	18607	1850.7	607	
Low Range 5 18650 1855 650 1935 10 18650 1855 650 1937.5 20.01 1937.5 20.01 18700 1860 700 1940 1940 1940 Mid Range 1.4/19157 1900.5 1185 1983.5 1983.5 15.01 19175 1907.5 1175 1987.5 1987.5 16.01 19150 1905.5 1125 1982.5 1982.5 15.01 1912.5 1902.5 1125 1982.5 1982.5 15.01 1912.5 1902.5 1125 1982.5 1982.5 1912.5 1902.5 1125 1982.5 112.5 1982.5 10 20.00 1912.5 1902.5 112.5 1982.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 112.5 111.5 115.5 20.02 111.5 112				18615	1851.5	615	1931.5
Low Range 10 18650 1855 650 1937 Mid Range 14,473/510 18675 1867.5 675 1937.5 Mid Range 14,473/510 1890.0 1880 900 1940 Mid Range 1.4 19193 1990.3 1193 1998.5 High Range 5 19175 1907.5 1175 1987.5 10 19150 1905 1125 1982.5 2019 1980.1 1980.5 1985.5 1987.5 1982.5 2019 1910.0 1990.5 1175 1982.5 2019 1910.0 1990.5 1175 1982.5 2019 1980.5 1985.5 1917.5 1962.5 112.5 1982.5 2019 1910.0 1990.5 1175.5 1982.5 2019 1982.5 2019 1980.5 1175.5 1982.5 1175.5 1982.5 2110.5 1175.5 1982.5 2110.5 1175.5 1210.5 1170.7 1175.7 1210.2 110.7 1175.2 21							
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High Range 10 ^[1] 23800 711 5800 741 NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101		-	5 ^[1]				
		High Range	10 [1]				
				n of the spec	ified UE receiver se	nsitivity requi	rement (TS 36.101

3.4. EUT operation mode

For RF test items

The EUT has been tested under typical operating condition. The Applicant providessoftware to control the EUT for staying in continoustransmitting and receiving mode for testing.

				Bandv	vidth (M	lHz)		Modu	ulation		RB #		Tes	t Char	nnel
Test Items	Band	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	м	н
	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Max	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
OutputPower	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v
	2	v	v	v	v	v	v	v	v			v	v	v	v
26dB and 99%	4	v	v	v	v	v	v	v	v			v	v	v	v
Bandwidth	7	-	-	v	v	v	v	v	v			v	v	v	v
Conducted	17	-	-	v	v	-	-	v	v			v	v	v	v
	2	v	v	v	v	v	v	v	v	v		v	v		v
	4	v	v	v	v	v	v	v	v	v		v	v		v
Band Edge	7	-	-	v	v	v	v	v	v	v		v	v		v
	17	-	-	v	v	-	-	v	v	v		v	v		v
	2	v	v	v	v	v	v	v	v	v			v	v	v
Conducted Spurious Emission	4	v	v	v	v	v	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	17 - v v - - v v v 2 v		v	v	v										
	2	v	v	v	v	v	v	v	v	v			v	v	v
E.R.P./ E.I.R.P.	4	v	v	v	v	v	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
	2	v	v	v	v	v	v	v		v			v	v	v
Radiated Spurious	4	v	v	v	v	v	v	v		v			v	v	v
Emission	7	-	-	v	v	v	v	v		v			v	v	v
	17	-	-	v	v	-	-	v		v			v	v	v
	2						v	v	v			v		v	
Frequency	4						v	v	v			v		v	
Stability	7						v	v	v			v		v	
	17	-	-	v	v	-	-	v	v			v		v	
	2						v	v	v	v		v	v	v	v
Peak-to-	4						v	v	v	v		v	v	v	v
AverageRatio	7						v	v	v	v		v	v	v	v
	17	-	_	v	v	-	-	v	v	v		v	v	v	v
Remark	2. Th 3. Th d	e mark ' e device	"-"mean: e is inve: RB size/	s that thi stigatedf	is bandv from 30N	vidth is n MHz to10	ot suppo) times c	offundame	ng ental signal Subseque	for radia ntly, only	ated spur / the wor	ious em st case o	ission te emissio	est und ns are	ler

3.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- supplied by the manufacturer
- \bigcirc supplied by the lab

	Length (m) :	/
	Shield :	/
	Detachable :	/
	Manufacturer :	/
	Model No. :	/

3.6. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Laboratory:Shenzhen Huatongwei International Inspection Co., Ltd. Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China Phone: 86-755-26748019 Fax: 86-755-26748089

4.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 317478.

IC-Registration No.: 5377B

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

4.3. Equipments Used during the Test

	Output Power(Conducted) & Occupied Bandwidth & Emission Bandwidth & Band Edge									
Compli	Compliance&Conducted Spurious Emission									
No.	b. Equipment Manufacturer Model No. SerialNo. Last Cal.									
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2016/11/13					
2	WIDEB.RADIO COMM.TESRER	Rohde&Schwarz	CMW500	1201.0002K50	2016/11/13					
3	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2016/11/13					
4	Splitter	Mini-Circuit	ZAPD-4	400059	2016/11/13					

Frequei	Frequency Stability								
No.	Equipment	Manufacturer	Model No.	SerialNo.	Last Cal.				
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2016/11/13				
2	WIDEB.RADIO COMM.TESRER	Rohde&Schwarz	CMW500	1201.0002K50	2016/11/13				
3	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2016/11/13				
4	Climate Chamber	ESPEC	EL-10KA	05107008	2016/11/13				
5	Splitter	Mini-Circuit	ZAPD-4	400059	2016/11/13				

	Power (Radiated) & Radiated		Model No.	CarialNa	Loot Col
No.	Equipment	Manufacturer	WODELINO.	SerialNo.	Last Cal.
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2016/11/13
2	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2016/11/13
3	HORNANTENNA	ShwarzBeck	9120D	1012	2016/11/13
4	HORNANTENNA	ShwarzBeck	9120D	1011	2016/11/13
5	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2016/11/13
6	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	539	2016/11/13
7	TURNTABLE	MATURO	TT2.0		2016/11/13
8	ANTENNA MAST	MATURO	TAM-4.0-P		N/A
9	EMI Test Software	Audix	E3	N/A	N/A
10	EMI Test Receiver	Rohde&Schwarz	ESIB 26	100009	2016/11/13
11	RF Test Panel	Rohde&Schwarz	TS / RSP	335015/0017	2016/11/13
12	High pass filter	Compliance Direction systems	BSU-6	34202	2016/11/13
13	Splitter	Mini-Circuit	ZAPD-4	400059	2016/11/13
14	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2016/11/13
15	Horn Antenna	SCHWARZBECK	BBHA9170	25842	2016/11/13
16	Preamplifier	ShwarzBeck	BBV 9718	BBV 9718	2016/11/13
17	Broadband Preamplifier	ShwarzBeck	BBV743	9743-0079	2016/11/13
18	Signal Generator	Rohde&Schwarz	SMF100A	101932	2016/11/13
19	Amplifer	Compliance Direction systems	PAP1-4060	120	2016/11/13
20	TURNTABLE	ÉTS	2088	2149	2016/11/13
21	ANTENNA MAST	ETS	2075	2346	2016/11/13
22	HORNANTENNA	Rohde&Schwarz	HF906	100068	2016/11/13
23	HORNANTENNA	Rohde&Schwarz	HF906	100039	2016/11/13
24	WIDEB.RADIO COMM.TESRER	R&S	CMW500	1201.0002K50	2016/11/13

The calibration interval was one year.

4.4. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature/Tnor:	15~35°C
lative Humidity	30~60 %
Air Pressure	950-1050 hPa

4.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibilityand Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 1"and TR-100028-02 "Electromagnetic compatibilityand Radio spectrum Matters (ERM);Uncertainties in the measurement characteristics;Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongweilaboratory is reported:

Test Items	MeasurementUncertainty	Notes
Frequency stability	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth		(1)
Emission Mask		(1)
Modulation Characteristic		(1)
Transmitter Frequency Behavior		(1)

 This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

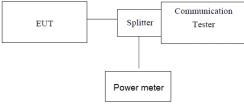
5. TEST CONDITIONS AND RESULTS

5.1. Conducted Output Power

LIMIT

N/A

TEST CONFIGURATION



Note: Measurement setup for testing on Antenna connector

TEST PROCEDURE

- 1. The transmitter output port was connected to base station.
- 2. The RF output of EUT was connected to the power meter by RF cable and attenuator, the path loss was compensated to the results for each measurement.
- 3. Set EUT at maximum power through base station.
- 4. Select lowest, middle, and highest channels for each band and different modulation.
- 5. Measure the maximum burst average power.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

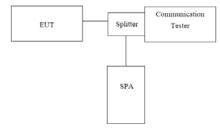
☑ Passed □ Not Applicable

EUT Mode	Frequency (MHz)	Max Avg.Power QPSK (dBm)	Max Avg.Power 16QAM (dBm)
LTE Band 2	1850.70 - 1909.30	21.41	21.29
LTE Band 4	1710.70 – 1754.30	22.39	21.14
LTE Band 7	2502.50 - 2567.50	21.39	21.08
LTE Band 17	706.50 – 713.50	22.50	22.24

5.2. 99% & -26 dB Occupied Bandwidth

N/A

TEST CONFIGURATION



Note: Measurement setup for testing on Antenna connector

TEST PROCEDURE

- 1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer
- 2. RBWwas set to about 1% of emission BW, VBW= 3 times RBW.
- 3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☑ Passed □ Not Applicable

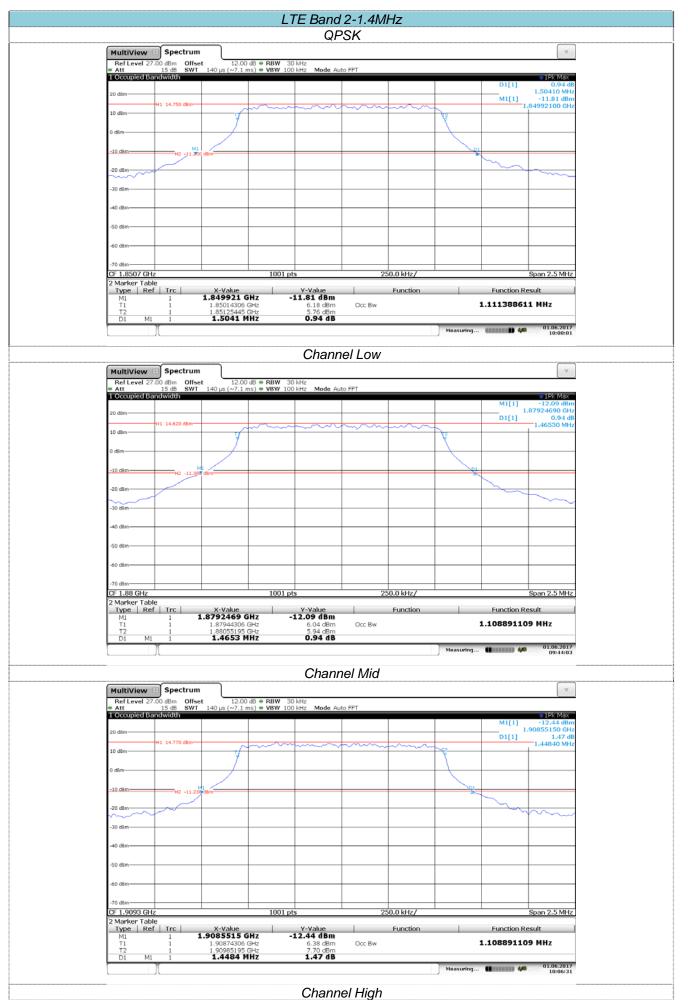
		LTE Band 2				
Bandwidth	Channel	99% Occupy ba	ndwidth (MHz)	-26dB bandwidth (MHz)		
Danuwiutn	Channel	QPSK	16QAM	QPSK	16QAM	
	Low	1.11	1.13	1.50	1.15	
1.4MHz	Mid	1.11	1.11	1.47	1.46	
	High	1.11	1.13	1.45	1.45	
	Low	2.69	2.68	2.99	3.05	
3MHz	Mid	2.68	2.68	3.03	3.02	
	High	2.69	2.68	2.98	3.04	
	Low	4.55	4.54	5.39	5.39	
5MHz	Mid	4.53	4.57	5.30	5.51	
	High	4.53	4.55	5.37	5.34	
	Low	8.96	8.95	9.86	9.78	
10MHz	Mid	8.96	8.96	10.03	9.93	
	High	8.92	8.94	9.82	10.01	
	Low	13.51	13.51	15.21	15.03	
15MHz	Mid	13.54	13.54	15.55	15.02	
	High	13.43	13.51	15.01	15.30	
	Low	17.98	18.02	20.16	20.21	
20MHz	Mid	18.05	18.05	20.22	20.18	
	High	17.95	17.95	19.91	19.75	

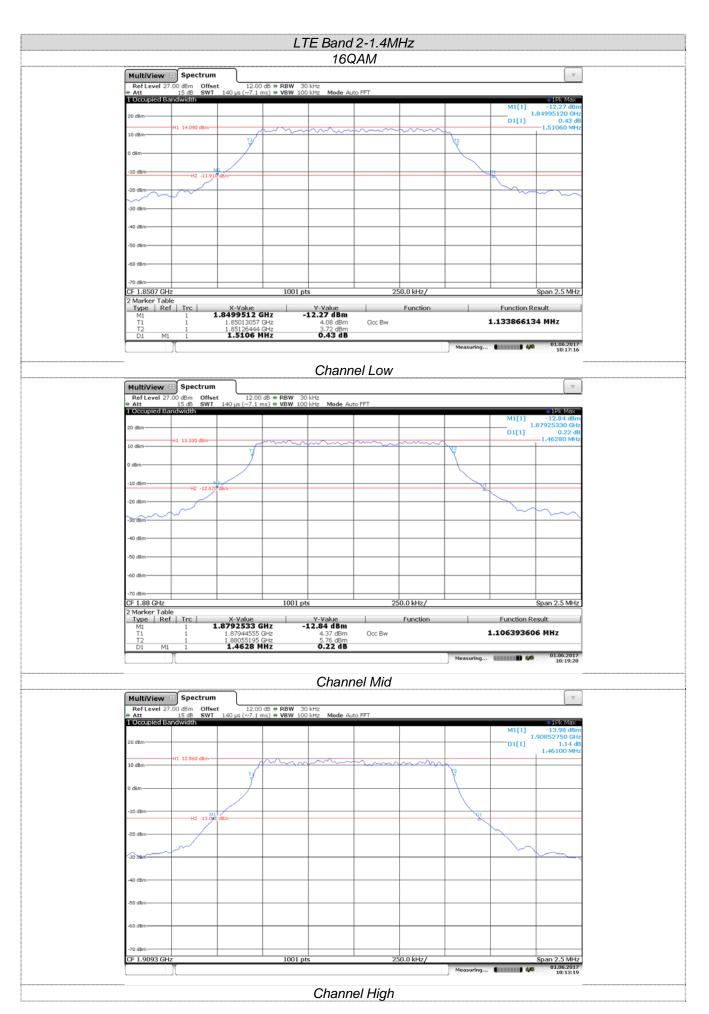
Report Template Version: H00 (2016-08)

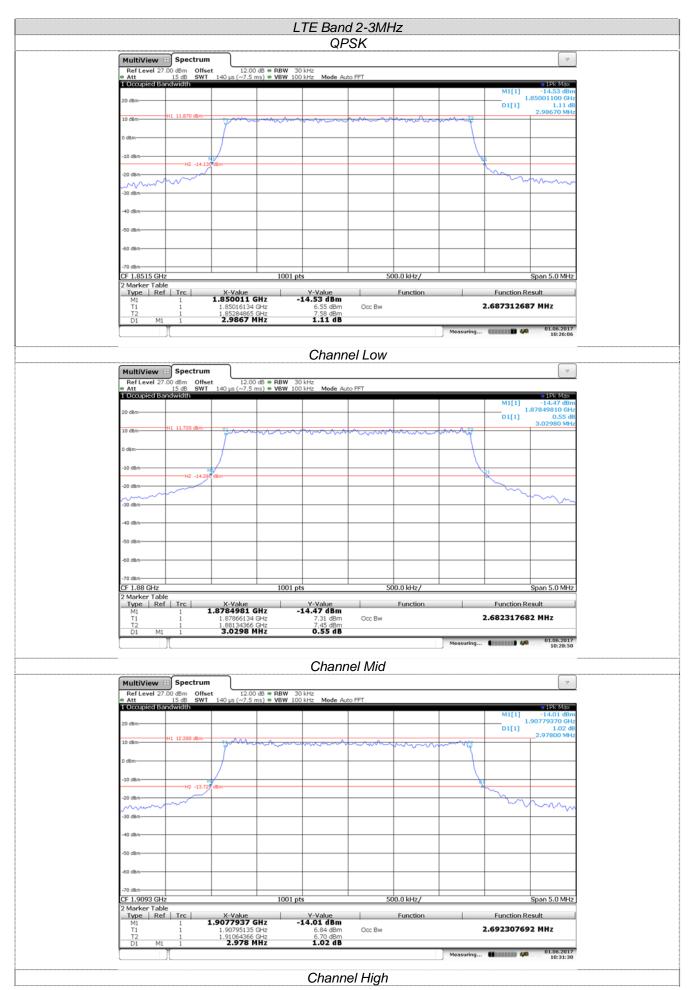
		LTE Band 4				
Bandwidth	Channel	99% Occupy ba	ndwidth (MHz)	-26dB bandwidth (MHz)		
Danowidin	Channel	QPSK	16QAM	QPSK	16QAM	
	Low	1.11	1.11	1.48	1.46	
1.4MHz	Mid	1.11	1.17	1.47	1.53	
	High	1.11	1.13	1.48	1.49	
	Low	2.68	2.68	3.02	3.07	
3MHz	Mid	2.68	2.68	3.05	3.07	
	High	2.68	2.68	3.04	3.05	
	Low	4.53	4.57	5.33	5.51	
5MHz	Mid	4.52	4.56	5.34	5.41	
	High	4.55	4.53	5.39	5.39	
	Low	8.95	8.97	9.93	10.15	
10MHz	Mid	8.95	8.95	10.02	9.95	
	High	8.95	8.97	9.88	9.81	
	Low	13.51	13.51	15.39	14.92	
15MHz	Mid	13.51	13.51	15.33	15.28	
	High	13.54	13.51	15.38	14.98	
	Low	17.98	17.98	19.91	19.98	
20MHz	Mid	17.95	17.91	19.98	19.78	
	High	17.91	18.02	19.71	19.75	

			LTE Band 7					
Bondwidth	Channel	99% Occupy ba	ndwidth (MHz)	-26dB bandwidth (MHz)				
Bandwidth	Channel	QPSK	16QAM	QPSK	16QAM			
	Low	4.53	4.54	5.54	5.39			
5MHz	Mid	4.55	4.57	5.44	5.53			
	High	4.53	4.56	5.41	5.40			
	Low	8.94	8.96	9.88	10.11			
10MHz	Mid	8.97	8.96	9.94	9.95			
	High	8.96	8.94	9.83	9.89			
	Low	13.49	13.54	15.40	14.89			
15MHz	Mid	13.51	13.54	15.56	15.25			
	High	13.51	13.51	15.25	14.91			
	Low	17.98	17.98	20.03	20.05			
20MHz	Mid	18.02	18.02	19.88	20.16			
	High	17.95	18.02	19.89	20.11			

	LTE Band 17							
Bandwidth	Channel	99% Occupy ba	ndwidth (MHz)	-26dB bandwidth (MHz)				
Danuwiuth	Channel	QPSK	16QAM	QPSK	16QAM			
	Low	4.53	4.57	5.34	5.49			
5MHz	Mid	4.53	4.57	5.43	5.46			
	High	4.54	4.54	5.42	5.42			
	Low	8.94	8.96	9.90	10.06			
10MHz	Mid	8.97	8.97	10.03	10.00			
	High	8.97	8.97	9.92	9.83			

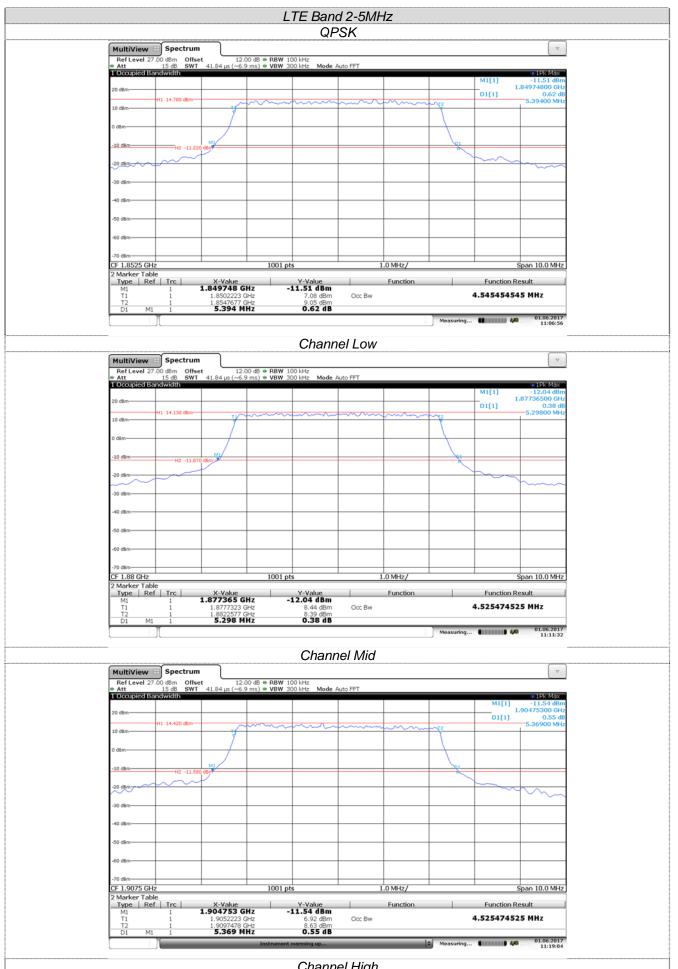




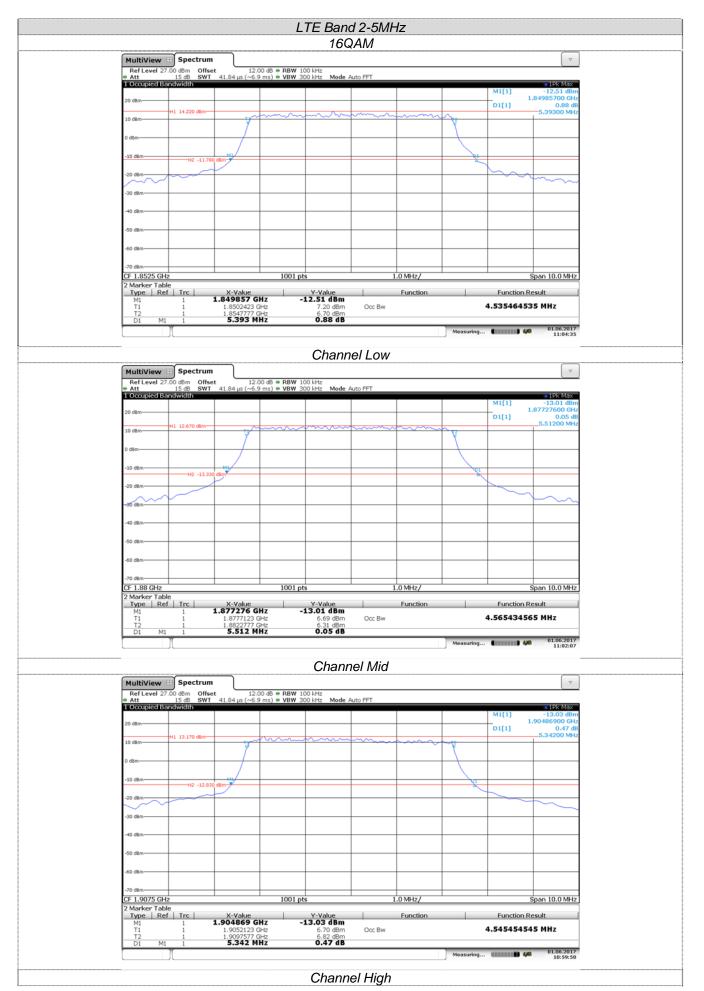


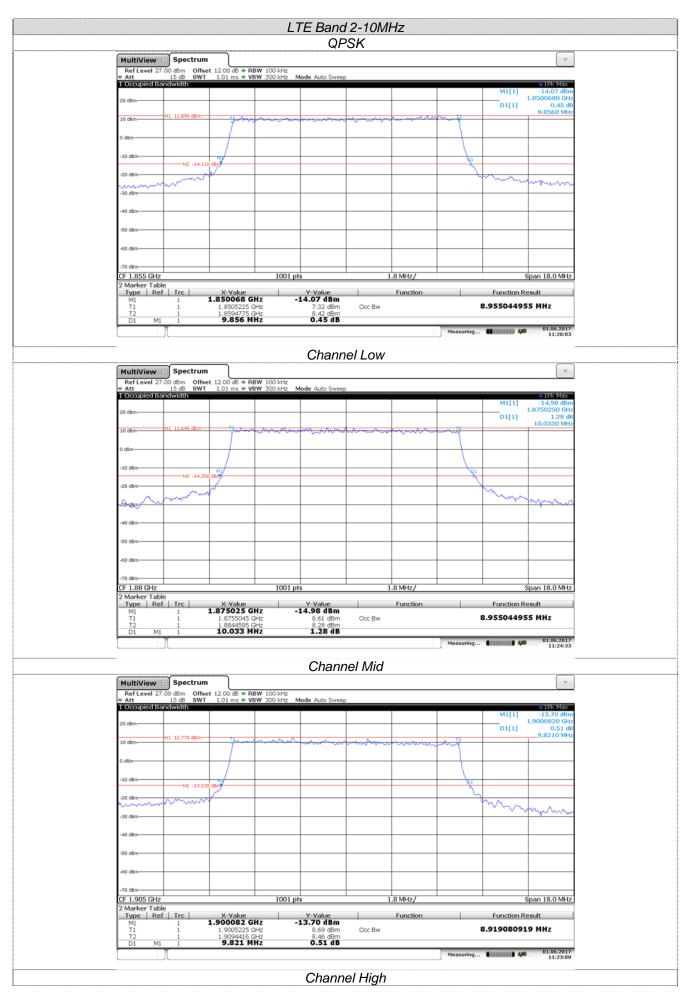
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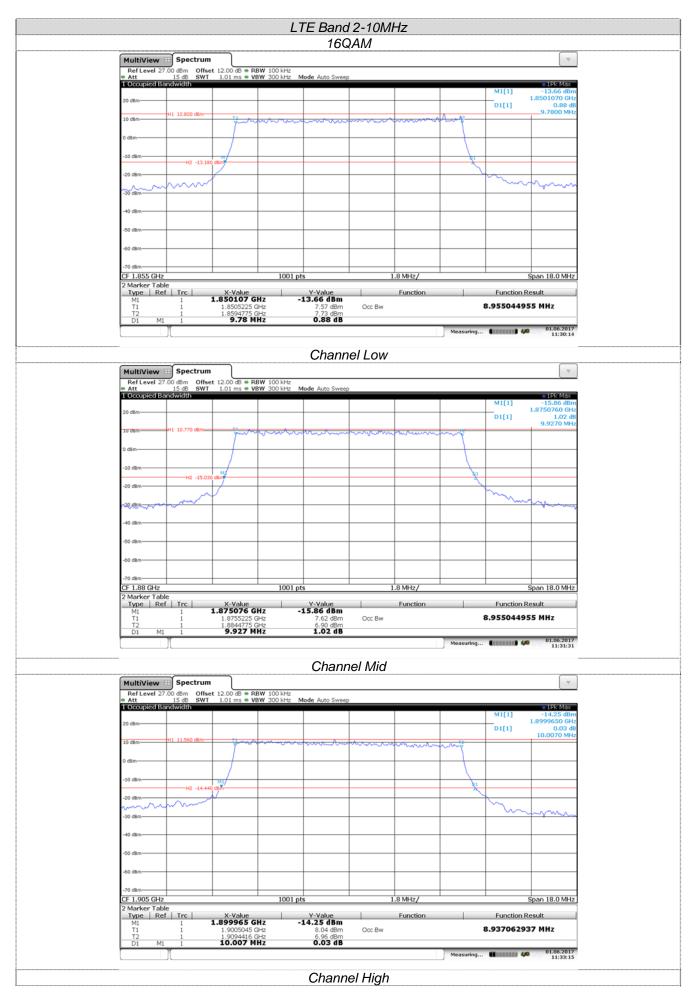
				1	TF Ban	d 2-3MH	17			
						QAM	12			
MultiV	/iew 🕀	Spectrum					***********	******	*****	_ ▽
Ref Le Att	evel 27.0	0 dBm Offset 15 dB SWT	12.00 140 µs (~7.5 r	dB • RBW 30 ns) • VBW 100) kHz) kHz Mode Au	ito FFT				
1 Occup	pied Ban	dwidth							M1[1]	 1Pk Max -15.65 dBm
20 dBm									1 1	.84997360 GHz 0.95 dB
10 dBm		41 10.720 dBm	12mm		rmm			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		3.05400 MHz
0 dBm								$\left \right $		
-10 dBm										
		H2 -15.200	dBm						2ª	
-20 dBm-		m							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m
-30 dBm-										
-40 dBm-										
-50 d8m										
-60 dBm										
	15 GHz			1001 pt	is .	50	0.0 kHz/			Span 5.0 MHz
	er Table Ref	Trc	X-Value		Y-Value 15.65 dBm		Function		Function R	esult
M1 T1 T2		1 1	.8499736 G 1.85016134 1.85284366	GHz	5.90 dBm 5.88 dBm	Occ Bw			2.68231768	2 MHz
D1	M1	1	3.054 M	Hz	0.95 dB					01.06.2017
								Measuring	(10:49:47
					Chann	el Low				
	/iew 🕀	Spectrum								▼
Ref Le Att	evel 27.0	00 dBm Offset 15 dB SWT	12.00 140 µs (~7.5 r	dB • RBW 30 ns) • VBW 100) kHz) kHz Mode Au	ito FFT				
1 Occup	pied Ban	dwidth							M1[1]	 1Pk Max -15.23 dBm
20 dBm									D1[1]	.87848310 GHz 0.59 dB 3.01890 MHz
10 dBm		41 10.950 dBm	12	mm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mm	mm	mmt2		3.01890 MHz
0 dBm								+		
-10 dBm-			/							
		H2 -15.050	dBm						*	
-20 d8m-	\sim	\sim								······
-30 dBm—										
-40 dBm-										
-50 dBm										
-60 dBm										
-70 dBm										
CF 1.88				1001 pt	is	50)0.0 kHz/			Span 5.0 MHz
2 Marke Type	er Table Ref	Trc 1	X-Value		Y-Value		Function		Function R	esult
M1 T1 T2		1 1	1.87865634 1.88133866	GHZ -	6.20 dBm	Occ Bw			2.68231768	2 MHz
D1	M1	î	3.0189 M	IHz	5.54 dBm 0.59 dB					01.06.2017 10:51:25
								Measuring		10:51:25
					Chanr	nel Mid				
MultiV		Spectrum								▽
Att		0 dBm Offset 15 dB SWT	12.00 140 µs (~7.5 r	dB = RBW 30 ns) = VBW 100) kHz) kHz Mode Au	ito FFT				1 Die Mare
	pied Ban	Gwidth							M1[1]	 1Pk Max -15.56 dBm .90693770 GHz
20 dBm									D1[1]	0.53 dE 3.03860 MHz
-10 dBm	+	41 10.340 dBm	The	mm	······	mmm	m	T2		
0 dBm			1					+		
-10 dBm—		Mž	/					+		
-20 dBm-		H2 -15.660	dBm							
~~~~	$ \rightarrow $	~							-	
-30 dBm—										mun
-40 dBm-	$\rightarrow$									
-50 dBm										
-60 dBm										
-70 dBm-										
CF 1.90	185 GHz			1001 pt	is	50	0.0 kHz/	1	1	Span 5.0 MHz
2 Marke Type M1	er Table Ref	Trc	X-Value	Hz	Y-Value 15.56 dBm		Function		Function R	esult
T1 T2		1	1.90715634 1.90983367 3.0386 M	GHz GHz	4.40 dBm 5.07 dBm	Occ Bw			2.67732267	7 MHz
D1	M1	i	3.0386 M	Hz	0.53 dB			Margandar		01.06.2017
		ι						measuring	40	10:53:17
					<u> </u>	el High				

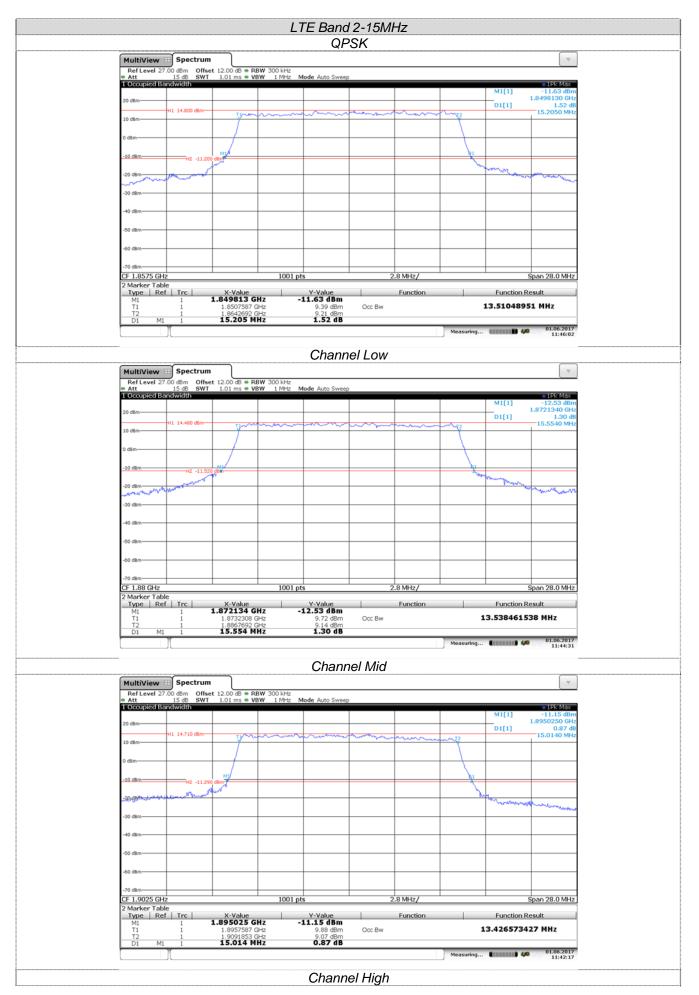


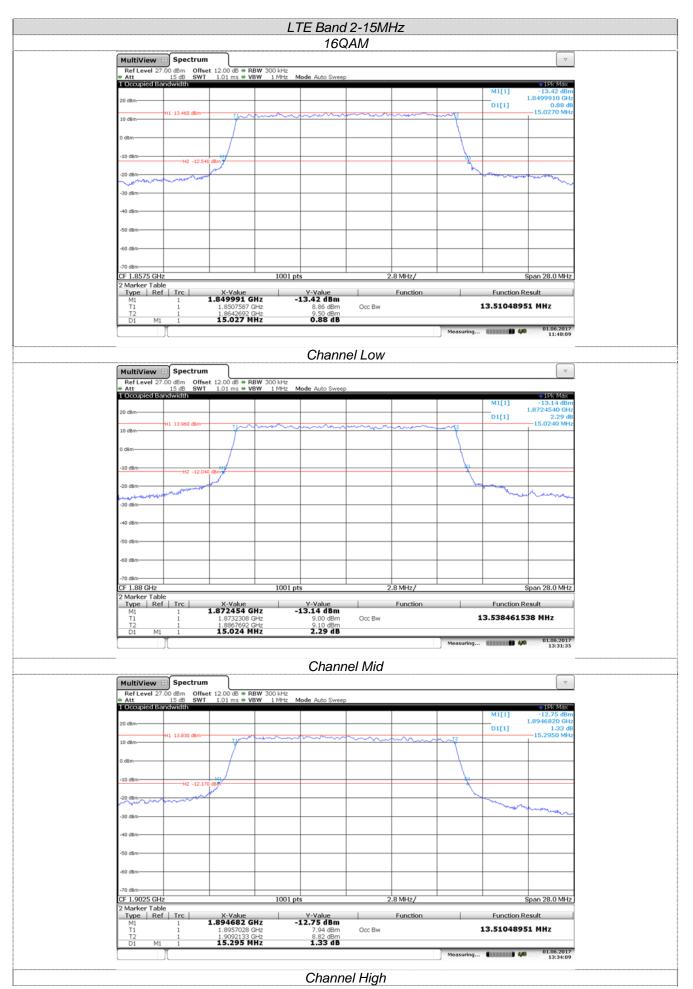
Channel High

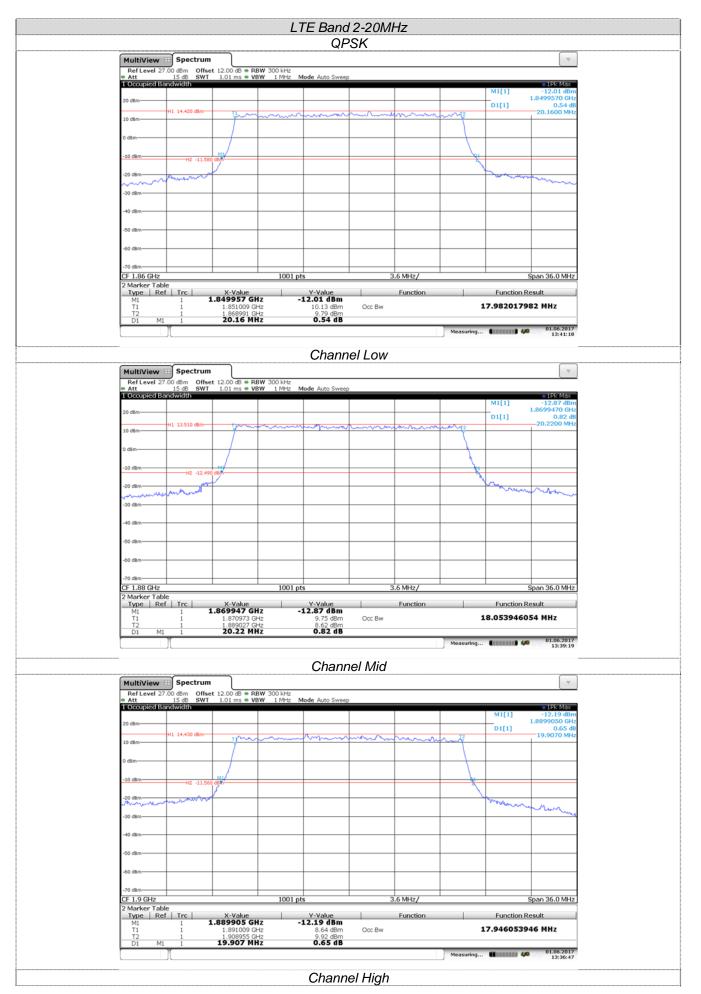


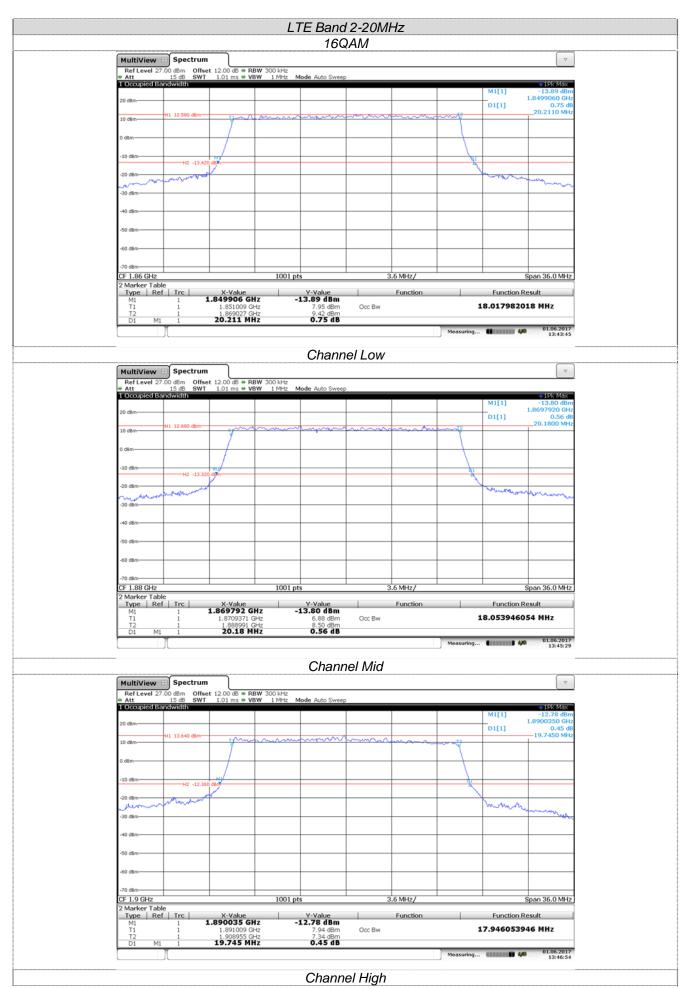




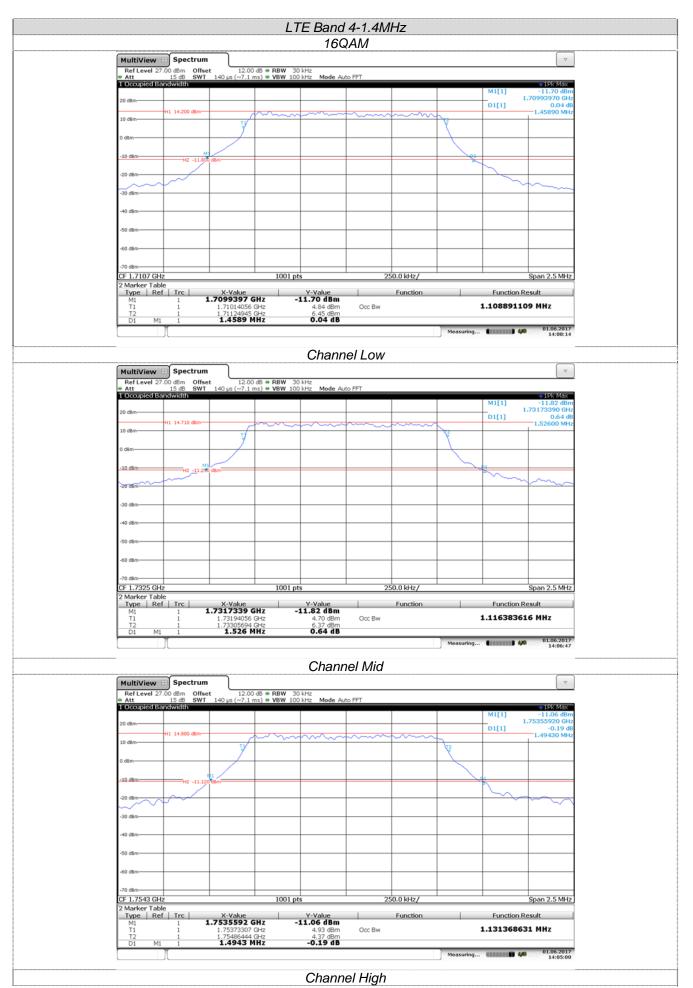












			L7		d 4-3MH	lz			
(				QP	PSK				
Ref Level 27		12.00 dB 140 µs (~7.5 ms)	• RBW 30 k	kHz					~
<ul> <li>Att</li> <li>1 Occupied Ba</li> </ul>	andwidth	140 µs (~7.5 ms)	VBW 100 k	KHZ Mode Au	to FFT			M1[1]	<ul> <li>1Pk Max</li> <li>-14.72 dBm</li> </ul>
20 dBm								1 1	.71000030 GHz 0.52 dB
10 dBm	H1 11.550 dBm		······································	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			3.02110 MHz
0 d8m									
-10 dBm									
-20 d8m-	H2 -14.450	dBm						1	
-30 dBm								~~	hom
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm CF 1.7115 GH			1001 pts		50	0.0 kHz/			Span 5.0 MHz
2 Marker Tab Type Re	le	X-Value				Function	1	Function R	
M1 T1	1 1	X-Value .7100003 GHz 1.71016134 GHz	Z	Y-Value 4.72 dBm 6.87 dBm	Occ Bw			2.68231768	
T2 D1 M1	1 1 1	1.71284366 GH: 3.0211 MHz	2	8.33 dBm 0.52 dB					01.06.2017
							Measuring	40	01.06.2017 14:10:16
				Chann	el Low				
MultiView			- 0041 - 001	-14-					▼
Ref Level 27 Att 1 Occupied Ba	7.00 dBm Offset 15 dB SWT andwidth	12.00 dB 140 µs (~7.5 ms)	<ul> <li>RBW 30 k</li> <li>VBW 100 k</li> </ul>	kHz Mode Au	to FFT				• 1Pk Max
20 dBm									-12.77 dBm .73098580 GHz
10 dBm	H1 13.220 dBm	TI. And The second	m	man	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man	mml	D1[1]	0.12 dB 3.04720 MHz
		I I		-					
0 d8m									
-10 dBm-	H2 -12.780	dBm						2 m	A
-20 dBM	Amora de la compañía de								
-30 d8m									
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm									
CF 1.7325 GH 2 Marker Tab	le	· · · · ·	1001 pts		50	0.0 kHz/			Span 5.0 MHz
M1	f Trc 1	X-Value .7309858 GHz		Y-Value 2.77 dBm	Orea Pour	Function		Function R	
T1 T2 D1 M1	1	1.73116134 GH 1.73384366 GH 3.0472 MH	2 2	8.51 dBm 8.85 dBm 0.12 dB	Occ Bw		· · · · · ·		
	J						Measuring	4	01.06.2017 14:12:07
				Chanr	nel Mid				
MultiView									
Att		12.00 dB 140 µs (~7.5 ms)	<ul> <li>RBW 30 k</li> <li>VBW 100 k</li> </ul>	kHz kHz <b>Mode</b> Au	to FFT				o (Direttor
20 dBm	andwidth							M1[1]	<ul> <li>19k Max</li> <li>-13.56 dBm</li> <li>.75199460 GHz</li> </ul>
	H1 12.550 dBm	The sec			A		A. 0. A. 12	D1[1]	0.33 dB 3.03500 MHz
10 dBm		- proved		<del>/~~~~~~~~</del> /~~~//		~~~~~~	hand		
0 dBm									
-10 dBm	H2 -13.450	dBm						21	
-20 dBm								-~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm									
CF 1.7535 GH			1001 pts		50	0.0 kHz/			Span 5.0 MHz
2 Marker Tab Type Re	le f Trc	X-Value .7519946 GH2		Y-Value 3.56 dBm		Function		Function R	esult
M1 T1 T2	1	1.75216134 GHz 1.75484366 GHz 3.035 MHz	2 Z	7.99 dBm 8.26 dBm 0.33 dB	Occ Bw		:	2.68231768	82 MHz
D1 M1	I Î T	3.035 MH	2	0.33 dB		-	Measuring		01.06.2017
									14:48:23
				$\sim$	el Hiah				

