TEST REPORT

MANUFACTURER	:	Hot Pepper, Inc.
PRODUCT NAME	:	4G Smart Phone
MODEL NAME	:	HPP-L55
BRAND NAME	:	Hot Pepper
FCC ID	:	2APD4-A95C
STANDARD(S)	:	47 CFR Part 22 Subpart H 47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart L
RECEIPT DATE	:	2019-10-10
TEST DATE	:	2019-11-10 to 2020-01-13
ISSUE DATE	:	2020-1-13

Edited by : Bowers Zeng

Bowers Zeng(Test engineer)

Review by: Elvis

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Kehu-Morlab Test Laboratory

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2020-1-13	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Hot Pepper, Inc.
Applicant Address:	5151 California Ave., Suite 100, Irvine 92617, USA
Manufacturer:	Hot Pepper, Inc.
Manufacturer Address:	5151 California Ave., Suite 100, Irvine 92617, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	4G Smart Phone
Serial No:	(N/A, marked #1 by test site)
Hardware Version:	A95C_MAINBOARD_P3
Software Version:	HPP-L55-C1.0.0
Modulation Type:	GSM/GPRS Mode with GMSK Modulation EDGE Mode with 8PSK Modulation WCDMA Mode with QPSK Modulation HSDPA Mode with QPSK Modulation HSUPA Mode with QPSK Modulation
Operating Frequency Range:	**GSM 850MHz:** Tx: 824.20 - 848.80MHz Rx: 869.20 - 893.80MHz **GSM 1900MHz:** Tx: 1850.20 - 1909.80MHz Rx: 1930.20 - 1989.80MHz **WCDMA Band V** Tx: 826.4 - 846.6MHz Rx: 871.4 - 891.6MHz **WCDMA Band II** Tx: 1852.4 - 1907.6MHz Rx: 1932.4 - 1987.6MHz

Operating Frequency Range:	**WCDMA Band IV** Tx: 1712.4 – 1752.6MHz Rx: 2112.4 - 2152.6MHz	
Antenna Type:	Fixed Internal	
Antenna Gain:	GSM 850:	-2.0 dBi
	GSM1900:	-1.2 dBi
	WCDMA Band V:	-2.0 dBi
	WCDMA Band II:	-1.2 dBi
	WCDMA Band IV:	-2dBi
Accessory Information:	**Battery**	
	Manufacturer:	Shenzhen HUATIANTONG TECHNOLOGY CO.LTD
	Brand Name:	Hot Pepper
	Model No.:	H2019A95C
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	2200mAh
	Rated Voltage:	3.80V
	Charge Limit:	4.35V
	AC Adapter	
	Manufacturer:	Shenzhen Tianyin Electronics Co.,Ltd.
	Brand Name:	Hot Pepper
	Model No.:	TPA-46B050100UU
	Serial No.:	(N/A, marked #1 by test site)
	Rated Input:	100-240V ~ 50/60Hz 0.2A
	Rated Output:	5V⎓1.0A

Note 1: The transmitter (Tx) frequency arrangement of the Cellular 850MHz band used by the EUT can be represented with the formula F(n)=824.2+0.2*(n-128), 128<=n<=251; the lowest, middle, highest channel numbers (ARFCHs) used and tested in this report are separately 128 (824.2MHz), 190 (836.6MHz) and 251 (848.8MHz).

Note 2: The transmitter (Tx) frequency arrangement of the PCS 1900MHz band used by the EUT can be represented with the formula F(n)=1850.2+0.2*(n-512), 512<=n<=810; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 512 (1850.2MHz), 661 (1880.0MHz) and 810 (1909.8MHz).

Note 3: The transmitter (Tx) frequency arrangement of the WCDMA Band V used by the EUT can be represented with the formula F(n)=826.4+0.2*(n-4132), 4132<=n<=4233; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 4132 (826.4MHz), 4182(836.4MHz) and 4233 (846.6MHz).

Note 4: The transmitter (Tx) frequency arrangement of the WCDMA Band II used by the EUT can

be represented with the formula F(n)=1852.4+0.2*(n-9262), 9262<=n<=9538; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 9262 (1852.4MHz), 9400 (1880MHz) and 9538 (1907.6MHz).

Note 5: The transmitter (Tx) frequency arrangement of the WCDMA 1700MHz band used by the EUT can be represented with the formula F(n)=1712.4+0.2*(n-1312), 1312<=n<=1513; the lowest, middle and highest channel numbers (ARFCHs) used and tested in this report are separately 1312 (1712.4MHz), 1413 (1732.6MHz) and 1513 (1752.6MHz).

Note 6: All modes and data rates were considered and evaluated respectively by performing full test. Test modes are chosen to be reported as the worst case below:
GPRS mode and EDGE mode for GSM 850;
GPRS mode and EDGE mode for GSM 1900;
WCDMA mode for WCDMA band V;
WCDMA mode for WCDMA band II;
WCDMA mode for WCDMA band IV;

Note 7: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3. Maximum ERP/EIRP and Emission Designator

System	Maximum ERP/EIRP (W)	Emission Designator
GSM850	0.922	251KGXW
EDGE850	0.237	245KG7W
GSM1900	0.584	250KGXW
EDGE1900	0.194	248KG7W
WCDMA Band V	0.100	4M17F9W
WCDMA Band II	0.097	4M17F9W
WCDMA Band IV	0.142	4M16F9W

1.4. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22, Part 24 and Part 27 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22	Public Mobile Services
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result
1	2.1046	Conducted RF Output Power	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS
2	22.913(d) 24.232(d), 27.50(d)	Peak - Average Ratio	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS
3	2.1049	99% Occupied Bandwidth	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS
4	2.1055, 22.355, 24.235, 27.54	Frequency Stability	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS

5	2.1051, 22.917(a), 24.238(a), 27.53(h)	Conducted Out of Band Emissions	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS
6	2.1051, 22.917(a), 24.238(a), 27.53(h)	Band Edge	Nov 10,2019 Jan 13,2020	laihuihuang	PASS
7	22.913(a), 27.50(d),24.232(a)	Transmitter Radiated Power (EIPR/ERP)	Nov 10,2019 Nov 11,2019 Nov 12,2019	laihuihuang	PASS
8	2.1051, 22.917(a), 24.238(a), 27.53(h)	Radiated Out of Band Emissions	Nov 23,2019 Nov 25,2019	Bowers Hui Li	PASS
Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03r01 and ANSI/TIA-603-E-2016. **Note 2:** The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments.					

1.5. Environmental Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 - 60
Atmospheric Pressure (kPa):	86 - 106

2. 47 CFR Part 2, Part 22H , 24E&27L Requirements

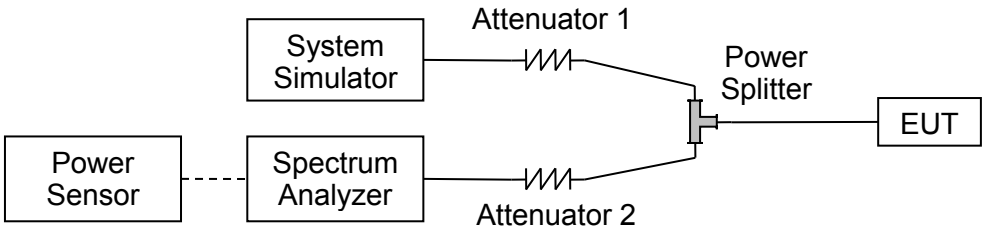
2.1. Conducted RF Output Power

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

2.1.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

2.1.3. Test Results

GSM850	Average Power (dBm)		
TX Channel	**128**	**190**	**251**
Frequency (MHz)	**824.2**	**836.6**	**848.8**
GSM 1 Tx slot	31.79	31.76	31.79
GPRS 1 Tx slot	31.80	31.76	31.80
GPRS 2 Tx slots	30.30	30.32	30.35
GPRS 3 Tx slots	28.32	28.35	28.39
GPRS 4 Tx slots	27.31	27.38	27.38
EDGE 1 Tx slot	25.60	25.77	25.93
EDGE 2 Tx slots	24.84	24.95	24.72
EDGE 3 Tx slots	22.61	22.72	22.61
EDGE 4 Tx slots	21.58	21.66	21.65

GSM1900	Average Power (dBm)		
TX Channel	**512**	**661**	**810**
Frequency (MHz)	**1850.2**	**1880**	**1909.8**
GSM 1 Tx slot	28.62	28.91	28.85
GPRS 1 Tx slot	28.42	28.01	28.19
GPRS 2 Tx slots	26.49	26.00	26.14
GPRS 3 Tx slots	24.43	23.91	24.06
GPRS 4 Tx slots	23.46	22.93	23.04
EDGE 1 Tx slot	24.14	23.16	23.28
EDGE 2 Tx slots	23.38	22.48	22.37
EDGE 3 Tx slots	20.85	20.26	20.69
EDGE 4 Tx slots	19.97	19.10	19.09

WCDMA Band II	Average Power (dBm)		
TX Channel	**9262**	**9400**	**9538**
Frequency (MHz)	**1852.4**	**1880.0**	**1907.6**
AMR 12.2Kbps	21.01	21.06	21.11
RMC 12.2Kbps	21.46	21.20	21.04
HSDPA Subtest-1	20.48	20.22	20.07
HSDPA Subtest-2	19.93	19.53	19.48
HSDPA Subtest-3	18.98	18.75	18.60
HSDPA Subtest-4	18.91	18.75	18.67
HSUPA Subtest-1	19.98	19.83	19.55

HSUPA Subtest-2	20.26	20.12	19.97
HSUPA Subtest-3	18.98	19.01	18.58
HSUPA Subtest-4	20.37	20.17	20.00
HSUPA Subtest-5	19.69	19.45	19.46
HSPA+ (16QAM) Subtest-1	19.83	19.92	19.90

WCDMA Band IV	**Average Power (dBm)**		
TX Channel	**1312**	**1413**	**1513**
Frequency (MHz)	**1712.4**	**1732.6**	**1752.6**
AMR 12.2Kbps	21.54	21.51	21.46
RMC 12.2Kbps	21.63	21.71	21.76
HSDPA Subtest-1	20.57	20.36	20.17
HSDPA Subtest-2	20.07	19.94	19.44
HSDPA Subtest-3	19.23	18.84	18.71
HSDPA Subtest-4	18.72	18.91	18.76
HSUPA Subtest-1	20.45	20.47	20.15
HSUPA Subtest-2	20.56	20.65	20.71
HSUPA Subtest-3	19.21	19.45	19.28
HSUPA Subtest-4	20.66	20.73	20.77
HSUPA Subtest-5	20.03	20.05	20.07
HSPA+ (16QAM) Subtest-1	19.96	19.86	19.88

WCDMA Band V	**Average Power (dBm)**		
TX Channel	**4132**	**4182**	**4233**
Frequency (MHz)	**826.4**	**836.4**	**846.6**
AMR 12.2Kbps	22.13	22.16	22.08
RMC 12.2Kbps	22.25	22.26	22.30
HSDPA Subtest-1	20.44	20.15	19.96
HSDPA Subtest-2	19.80	19.55	19.56
HSDPA Subtest-3	18.79	18.74	18.52
HSDPA Subtest-4	19.06	18.75	18.33
HSUPA Subtest-1	20.15	19.60	19.92
HSUPA Subtest-2	20.39	20.11	19.98
HSUPA Subtest-3	19.21	18.87	18.74
HSUPA Subtest-4	20.47	20.21	20.06
HSUPA Subtest-5	19.77	19.37	19.52
HSPA+ (16QAM) Subtest-1	19.50	19.64	19.49

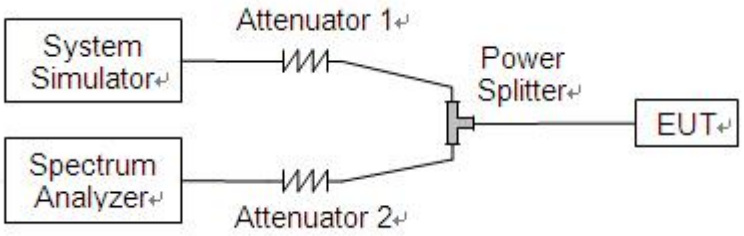
2.2. Peak to Average Ratio

2.2.1. Requirement

According to FCC 24.232(d)&22.913(d)&27.50(d) the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

2.2.2. Test Description

Test Setup:



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2.2.3. Test procedure

1 .For GSM/EDGE operating mode:

a. Set RBW=1MHz, VBW=3MHz, peak detector in spectrum analyzer.
b. Set EUT in maximum output power, and triggered the bust signal.
c. Measured respectively the peak level and mean level, and the deviation was recorded as Peak to Average ratio.

2. For UMTS operating mode:

a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1%.

2.2.4. Test Result

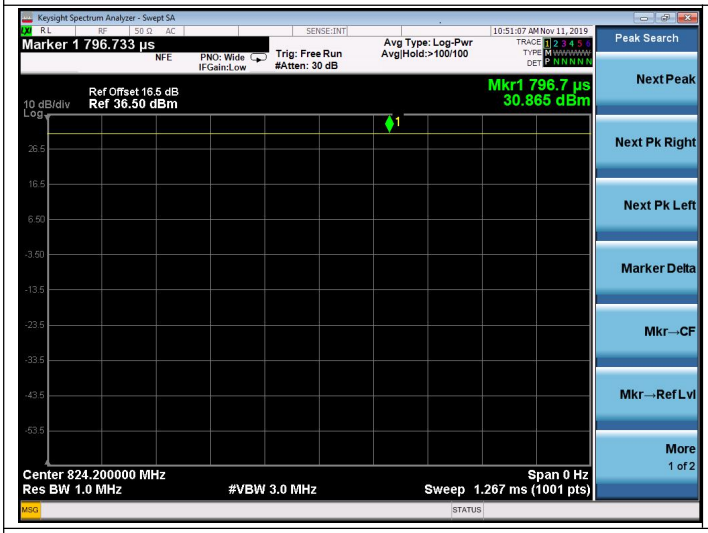
The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

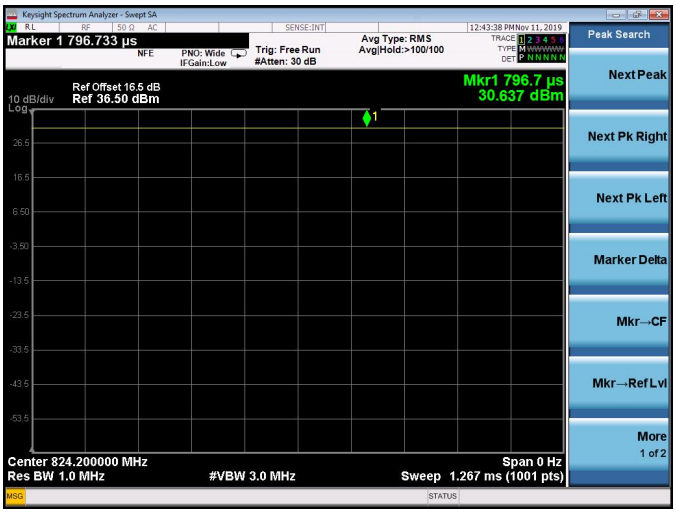
A. Test Verdict:

Band	Channel	Frequency (MHz)	Peak to Average ratio	Limit	Verdict
			dB	dB	
GSM 850MHz	128	824.2	0.228	13	PASS
	190	836.6	0.039		PASS
	251	848.8	0.027		PASS
GSM 1900MHz	512	1850.2	0.029		PASS
	661	1880.0	0.026		PASS
	810	1909.8	0.035		PASS
EDGE 850MHz	128	824.2	0.007		PASS
	190	836.6	0.003		PASS
	251	848.8	0.007		PASS
EDGE 1900MHz	512	1850.2	0.062		PASS
	661	1880.0	0.003		PASS
	810	1909.8	0.029		PASS

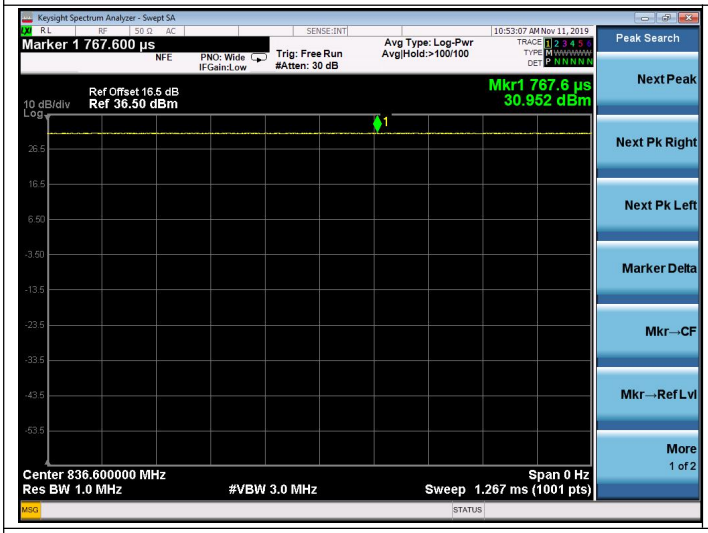
Band	Channel	Frequency (MHz)	Peak to Average ratio	Limit	Verdict
			dB	dB	
WCDMA Band II	9262	1852.4	2.89	13	PASS
	9400	1880.0	2.90		PASS
	9538	1907.6	2.83		PASS
WCDMA Band IV	1312	1712.4	3.02		PASS
	1413	1732.6	2.95		PASS
	1513	1752.6	3.00		PASS
WCDMA Band V	4132	826.4	3.06		PASS
	4182	836.4	2.98		PASS
	4233	846.6	2.92		PASS

GSM 850MHz CH128 824.2MHz

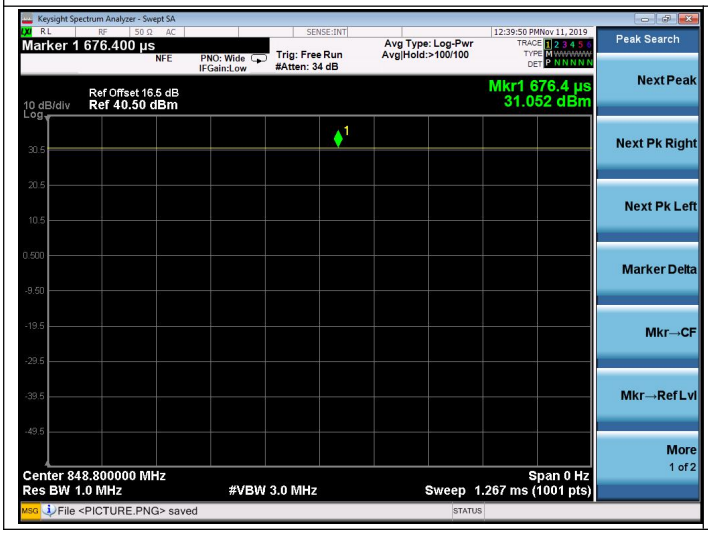




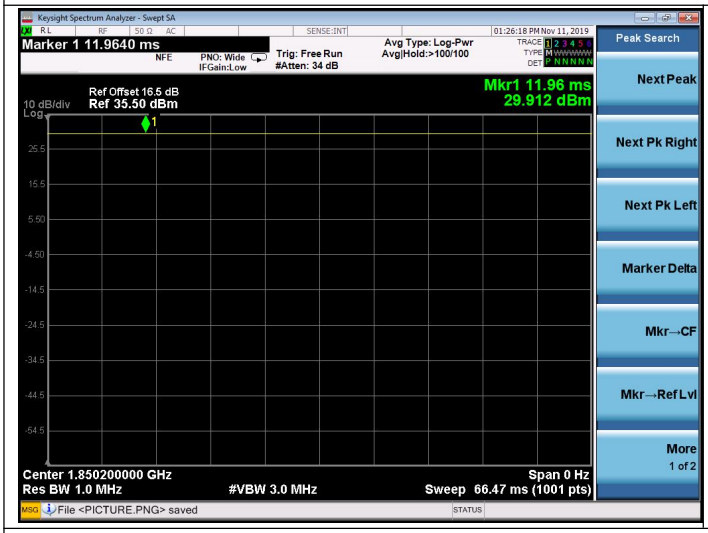
GSM 850MHz CH190 836.6MHz



GSM 850MHz CH251 848.8MHz



GSM 1900MHz CH512 1850.2MHz

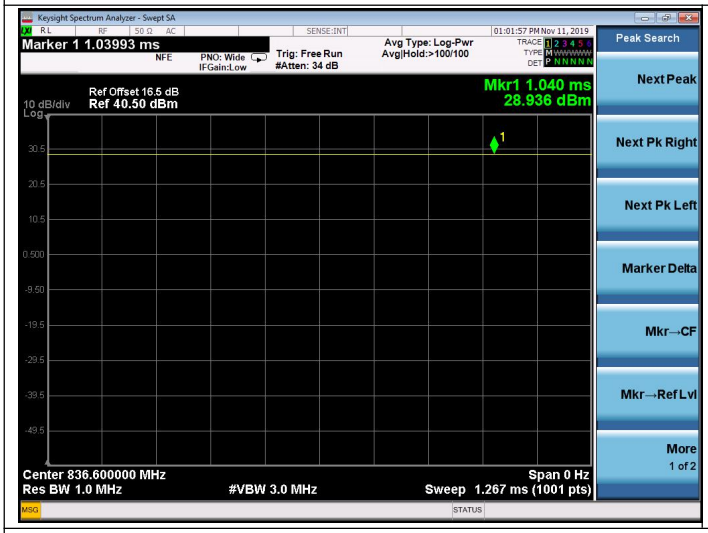


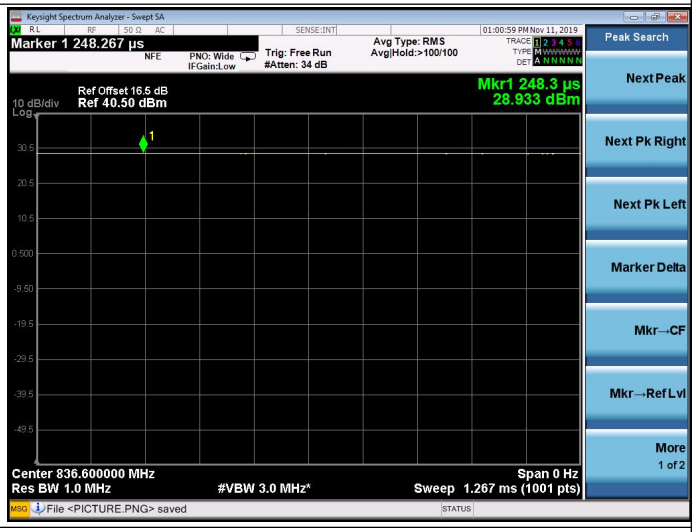
GSM 1900MHz CH661 1880.0MHz

GSM 1900MHz CH810 1909.8MHz

EDGE 850MHz CH128 824.2MHz

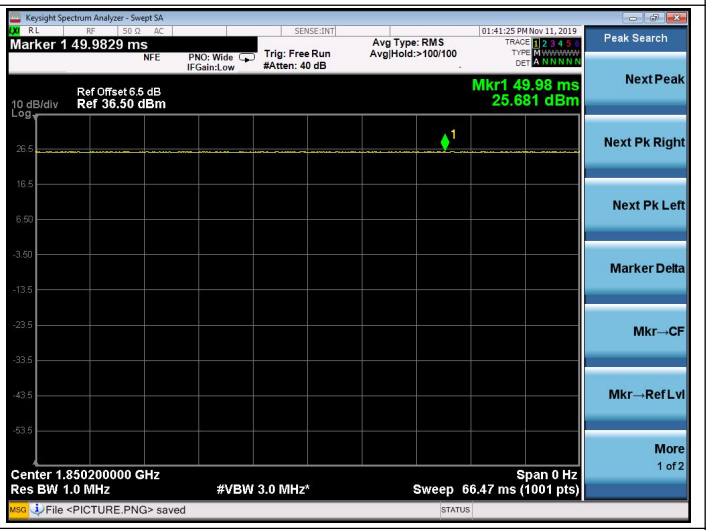
EDGE 850MHz CH190 836.6MHz





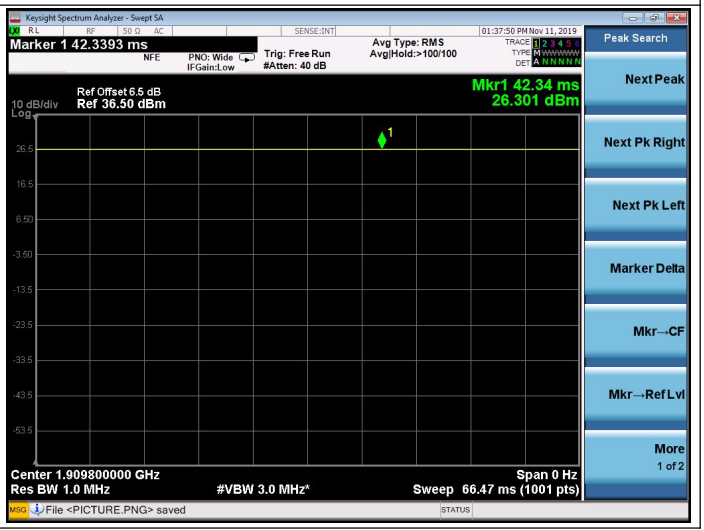
EDGE 850MHz CH251 848.8MHz

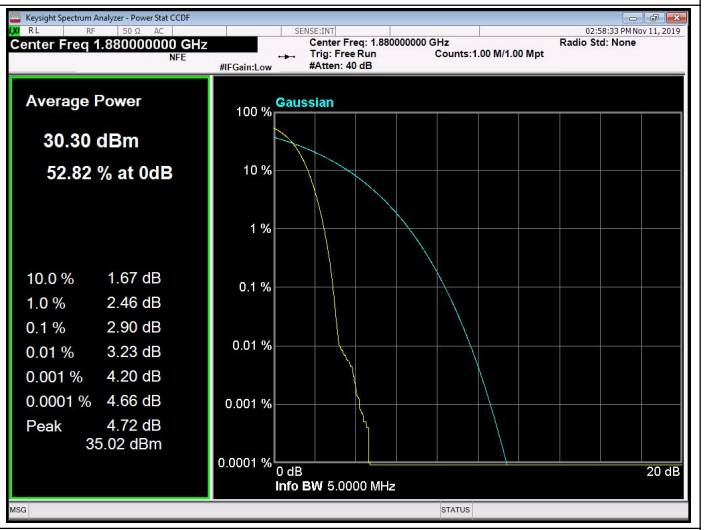
EDGE 1900MHz CH512 1850.2MHz



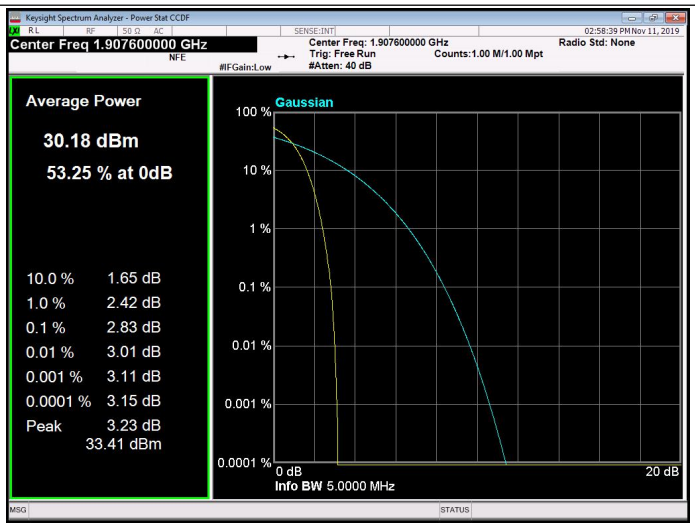
EDGE 1900MHz CH661 1880.0MHz

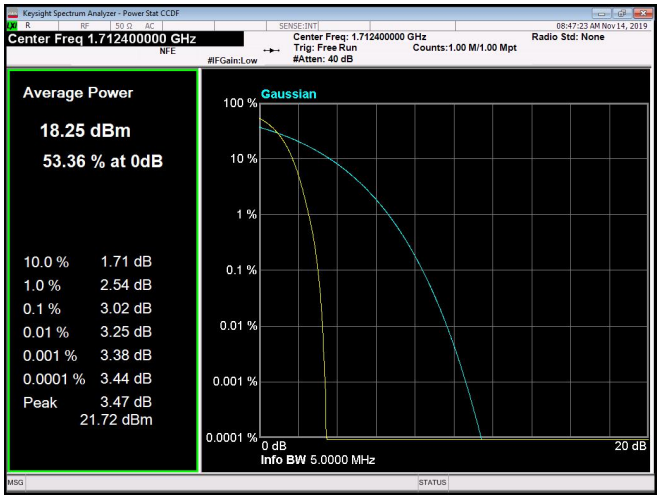
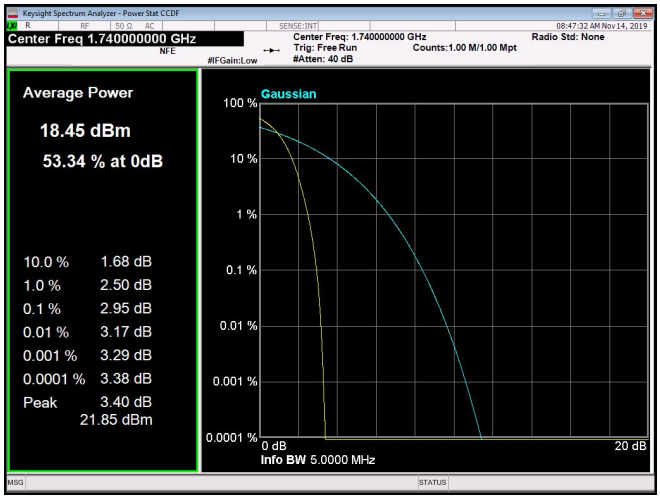
EDGE 1900MHz CH810 1909.8MHz



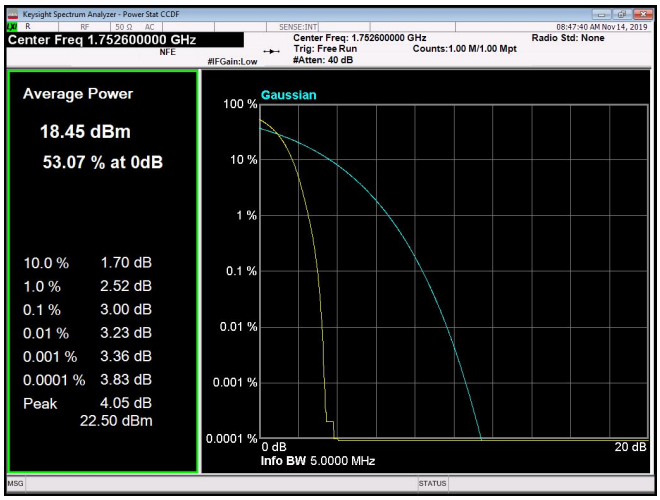
WCDMA Band II CH9262 1852.4MHz	WCDMA Band II CH9400 1880.0MHz
	

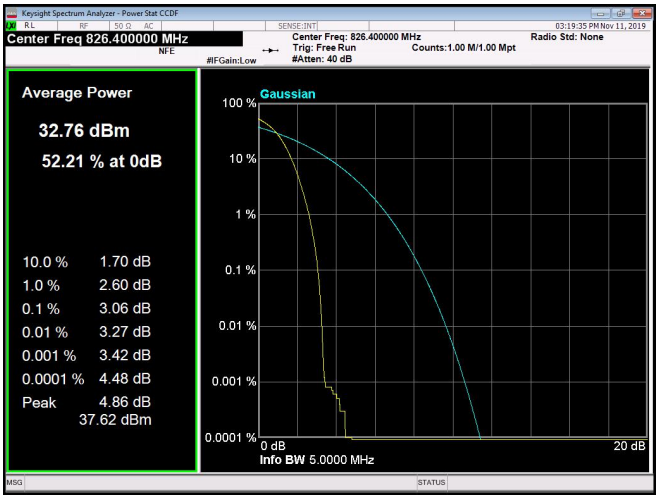
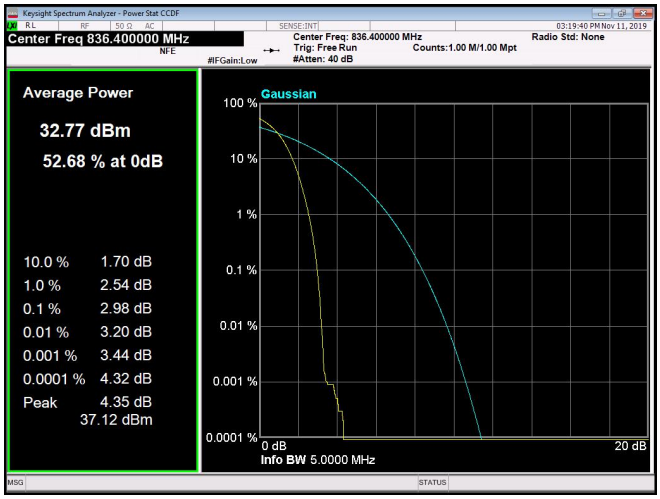
WCDMA Band II CH9538 1907.6MHz



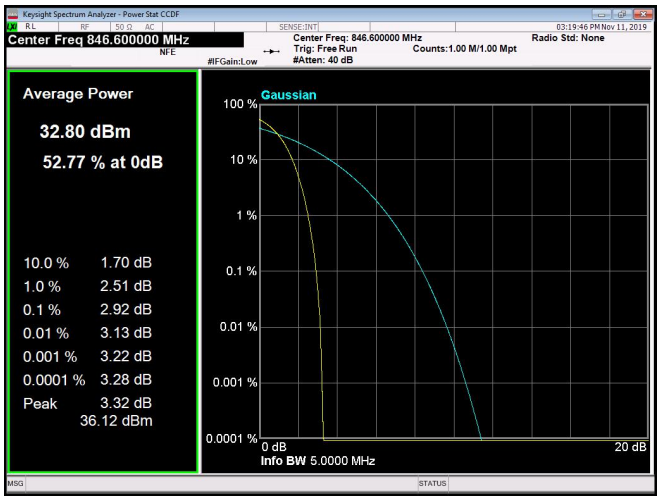
WCDMA Band IV CH1312 1712.4MHz	WCDMA Band IV CH1413 1732.6MHz
	

WCDMA Band IV CH1513 1752.6MHz



WCDMA Band V CH4132 826.4MHz	WCDMA Band V CH4182 836.4MHz
	

WCDMA Band V CH4233 846.6MHz



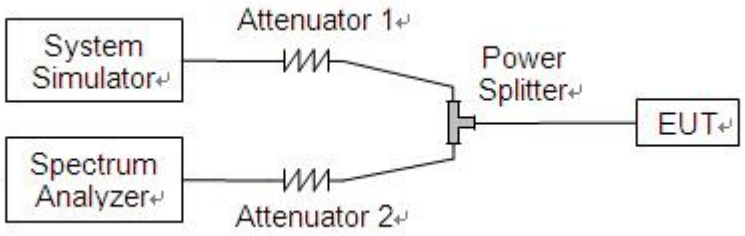
2.3. 99% Occupied Bandwidth

2.3.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

2.3.2. Test Description

Test Setup:



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2.3.3. Test Result

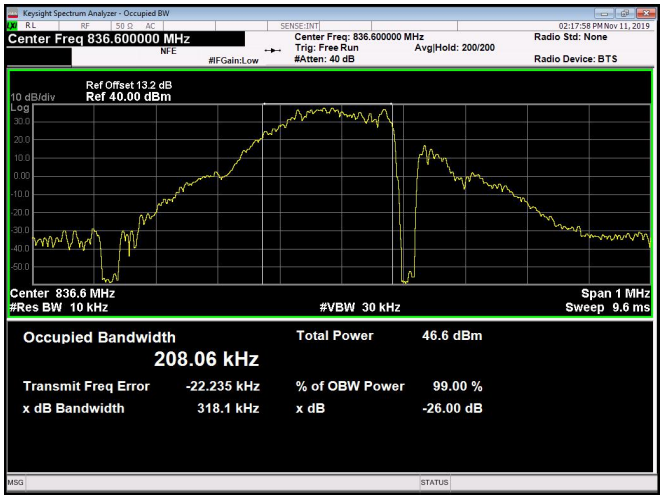
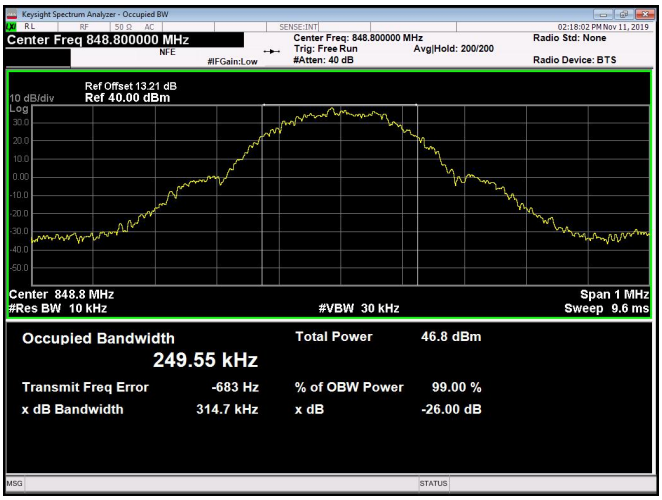
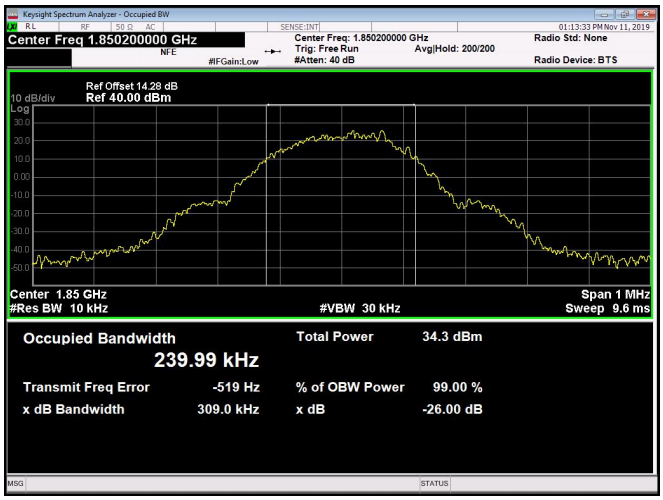
The lowest, middle and highest channels are selected to perform testing to record the 99% occupied bandwidth.

GSM Test Verdict:

Band	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)
GSM 850MHz	128	824.2	251.266	328.319
	190	836.6	208.059	318.093
	251	848.8	249.554	314.661
GSM 1900MHz	512	1850.2	239.987	309.026
	661	1880.0	250.345	319.803
	810	1909.8	241.496	307.186
EDGE 850MHz	128	824.2	241.594	298.580
	190	836.6	245.418	301.070
	251	848.8	233.253	293.000
EDGE 1900MHz	512	1850.2	248.803	311.792
	661	1880.0	242.782	299.594
	810	1909.8	246.601	313.940

WCDMA Test Verdict:

Band	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
WCDMA Band II	9262	1852.4	4.172	4.723
	9400	1880.0	4.170	4.712
	9538	1907.6	4.165	4.714
WCDMA Band IV	1312	1712.4	4.169	4.693
	1413	1732.6	4.166	4.705
	1513	1752.6	4.169	4.688
WCDMA Band V	4132	826.4	4.162	4.707
	4182	836.4	4.173	4.718
	4233	846.6	4.161	4.837

GSM 850MHz CH128 824.2MHz	GSM 850MHz CH190 836.6MHz
	
GSM 850MHz CH251 848.8MHz	**GSM 1900MHz CH512 1850.2MHz**
	
GSM 1900MHz CH661 1880.0MHz	**GSM 1900MHz CH810 1909.8MHz**