TEST REPORT

FCC ID: 2AI3K-CM16

Applicant : Cyrus Technology GmbH

Address : Hergelsbendenstr. 49
D-52080 Aachen, Germany

Equipment Under Test (EUT):

Name : MOBILE TELEPHONE

Model : Cyrus CM16

In Accordance with: FCC PART 15, SUBPART C: 2015 (Section 15.247)
ANSI C63.4: 2014, ANSI C63.10:2013

Report No : T1861107 03
Date of Test : June 21- July 09, 2016
Date of Issue : July 11, 2016

Test Result : PASS

Test Result: **PASS**

In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

(Mark Zhu)
General Manager

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1 General Information

1.1 Description of Device (EUT)

Trade Name	:	
EUT	:	MOBILE TELEPHONE
Model No.		Cyrus CM16
DIFF	:	N/A
Antenna Type	:	Integrated Antenna, Maximum Gain is -0.5dBi
Operation Frequency	:	IEEE 802.11b/g: 2412MHz-2462MHz IEEE 802.11n HT20: 2412MHz-2462MHz IEEE 802.11n HT40: 2422MHz-2452MHz
Channel number	:	EEE 802.11b/g:11Channels IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7Channels
Modulation type	:	IEEE 802.11b: DSSS (CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n :OFDM (64QAM, 16QAM, QPSK, BPSK)
Power Supply	:	DC 3.7V Supply by battery
Adapter		CS 27
Applicant	:	Cyrus Technology GmbH
Address	:	Hergelsbendenstr. 49 D-52080 Aachen
Manufacturer	:	Cyrus Technology GmbH
Address	:	Hergelsbendenstr. 49 D-52080 Aachen

1.2 Description of Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building B, East Area of Nanchang Second, Industrial Zone, Gushu 2nd Road,
Bao'an, Shenzhen, China

March 25, 2015 File on Federal Communication Commission
Registration Number: 203110

July 18, 2014 Certificated by IC
Registration Number: 12135A

2 EMC Equipment List

Equipment	Manufacture	Model No.	Serial No.	Last cal. Due to	Cal Interval
3m Semi-Anechoic	CHENYU	N/A	N/A	2018.01.18	2Year
Spectrum analyzer	Agilent	E4407B	MY46185649	2017.01.16	1Year
Receiver	R&S	ESPI	101873	2017.01.16	1Year
Receiver	R&S	ESCI	101165	2017.01.16	1Year
Bilog Antenna	SCHWARZBECK	VULB 9168	VULB9168-438	2018.01.18	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2017.01.20	2Year
Cable	Resenberger	N/A	No.1	2017.01.16	1Year
Cable	SCHWARZBECK	N/A	No.2	2017.01.16	1Year
Cable	SCHWARZBECK	N/A	No.3	2017.01.16	1Year
Pre-amplifier	HP	HP8347A	2834A00455	2017.01.18	1Year
Pre-amplifier	Agilent	8449B	3008A02664	2017.01.18	1Year
vector Signal Generator	Agilent	N5182A	MY49060042	2016.11.16	1 Year
vector Signal Generator	Agilent	E4438C	US44271917	2016.11.16	1 Year
X-series USB Peak and Average	Agilent	U2021XA	MY54080020	2016.11.16	1 Year

Power Sensor					
X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54110001	2016.11.16	1 Year
Signal Analyzer	Agilent	N9020A	MY48030494	2016.11.16	1 Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	8126466	2016.01.19	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	101043	2016.01.19	1 Year

3 Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The test procedure used was ANSI Standard ANSI C63.10:2013 using a 50 u H LISN. Both Lines were observed. The bandwidth of the receiver was 10 kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25℃with a humidity of 58%.

RADIATION INTERFERENCE: The test procedure used was ANSI Standard ANSI C63.10:2013 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3MHz above 1 GHz. The ambient temperature of the EUT was 25℃with a humidity of 58%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.
Example:
Freq (MHz) METER READING + ACF + CABLE = FS
33.20 dBuV + 10.36 dB + 0.9 dB= 44.46 dBuV/m @ 3m
ANSI STANDARD ANSI C63.10:2013: MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard ANSI C63.10:2013 with the EUT 40 cm from the vertical ground wall.

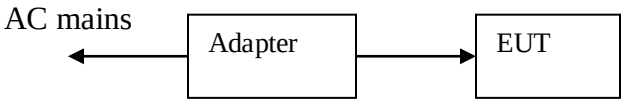
4 Summary of Measurement

4.1 Summary of test result

Test Item	Test Requirement	Standards Paragraph	Result
Spurious Emission	FCC PART 15:2014 IC RSS-247	Section 15.247&15.209 RSS-247 Section 5.5	Compliance
Conduction Emission	FCC PART 15:2014 IC RSS-247 RSS-GEN	Section 15.207 RSS-GEN Selection 8.8	Compliance
Bandwidth Test	FCC PART 15:2014 IC RSS-247	Section 15.247 RSS-247 5.1(2)	Compliance
Peak Power	FCC PART 15:2014 IC RSS-247	Section 15.247 Section 5.4(2)	Compliance
Power Density	FCC PART 15:2014 IC RSS-247	Section 15.247 Section 5.2(2)	Compliance
Band Edge	FCC PART 15:2014 IC RSS-247	Section 15.247 Section 5.5	Compliance
Antenna Requirement	FCC PART 15:2014 IC RSS Gen	Section 15.203 Section 7.1.4	Compliance

Note: The EUT has been tested as an independent unit. And Continual Transmitting in maximum power, Test had been referenced to the kdb 558074 D01 DTS Meas Guidance v03r04 .

4.2 Test connection



4.3 Assistant equipment used for test

Description	:	Adapter
Manufacturer	:	NIL
Model No.	:	CS 27
Input	:	100-240V AC, 50/60Hz,0.2A
Output	:	5.0V DC, 1A

4.4 Test mode

Duty cycle :100% Keeping TX			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11 n/HT20 with 2.4G	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11 n/HT40 with 2.4G	13.5	Low :CH3	2422
	13.5	Middle:CH6	2437
	13.5	High:CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate. Those data rate were used for all test.			

4.5 Channel list

For IEEE 802.11b/g and IEEE 802.11n/HT20 with 2.4G					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH1	2412	CH5	2432	CH9	2452
CH2	2417	CH6	2437	CH10	2457
CH3	2422	CH7	2442	CH11	2462
CH4	2427	CH8	2447		

For IEEE 802.11n/HT40 with 2.4G					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH1	/	CH5	2432	CH9	2452
CH2	/	CH6	2437	/	/
CH3	2422	CH7	2442	/	/
CH4	2427	CH8	2447	/	/

4.6 Test Conditions

Temperature range	21-25℃
Humidity range	40-75%
Pressure range	86-106kPa

4.7 Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.71dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.90 dB	Polarize: V
	3.92dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.26 dB	Polarize: H
	4.28 dB	Polarize: V
Uncertainty for conducted RF Power	0.16dB	

5 Spurious Emission

5.1 Radiation Emission

5.1.1 Radiation Emission Limits(15.209)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

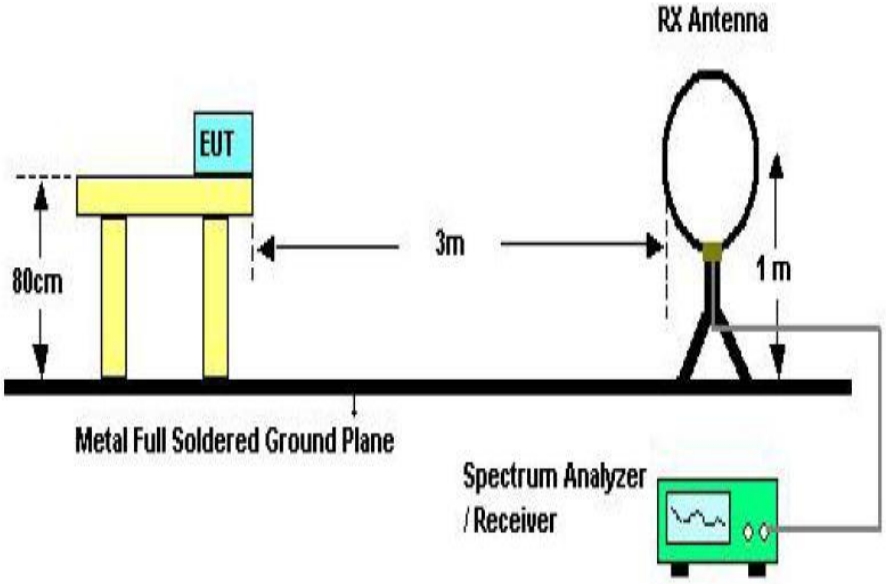
Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

NOTE:

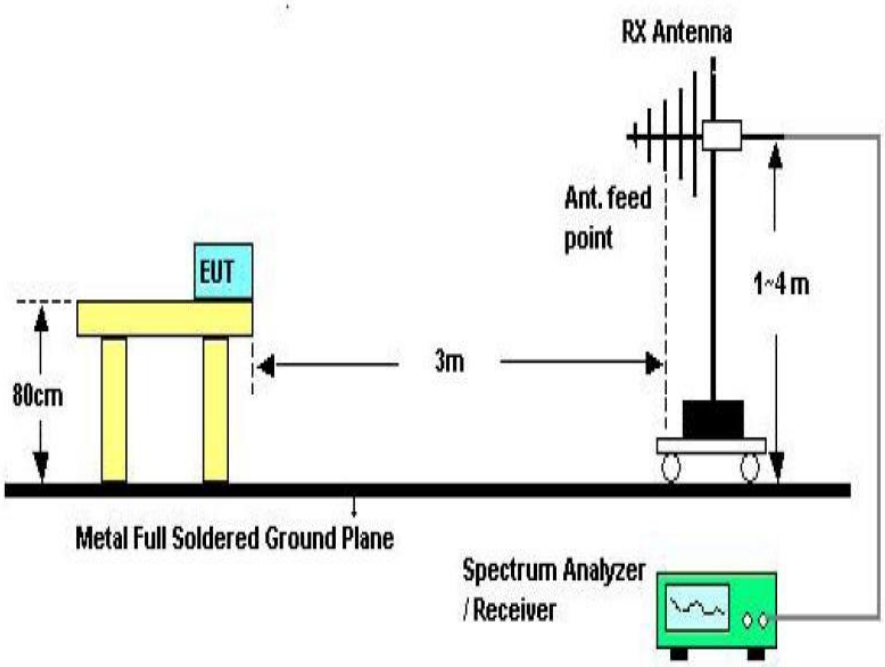
a) The tighter limit applies at the band edges.
b) Emission Level(dBuV/m)=20log Emission Level(uv/m)

5.1.2 Test Setup

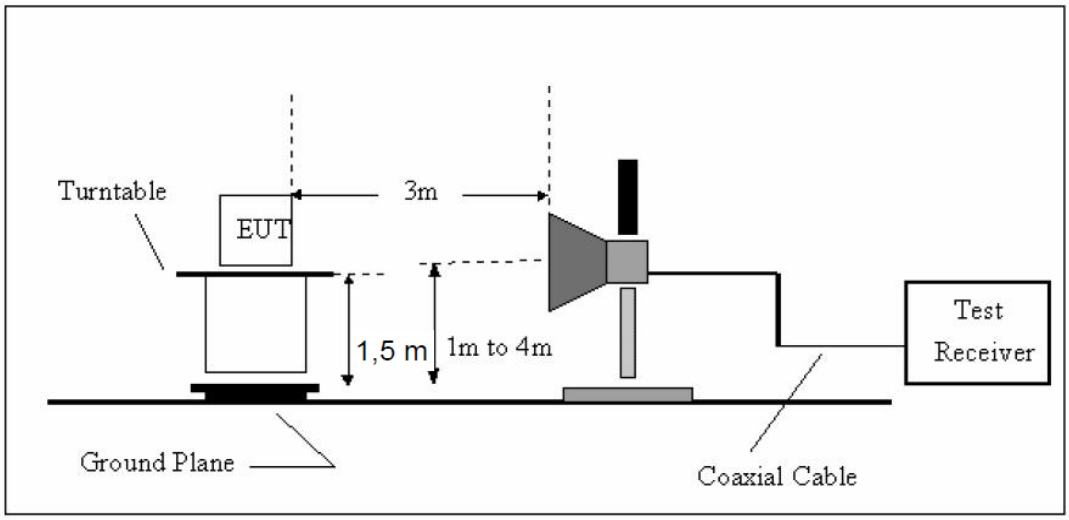
See the next page



Below 30MHz Test Setup



Above 30MHz Test Setup



Above 1GHz Test Setup

5.1.3 Test Procedure

a) The measuring distance of 3 m shall be used for measurements at frequency up to 1 GHz and above 1 GHz, The EUT was placed on a rotating 0.8 m high above ground for below 1GHz and 1.5m high for above1GHz testing, The table was rotated 360 degrees to determine the position of the highest radiation
b) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set of make measurement.
c) The initial step in collecting conducted emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significant Peaks are then marked. and then Quasi Peak Detector mode premeasured
d) If peak value comply with QP limit below 1GHz.The EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.
e) For the actual test configuration, please see the test setup photo.

5.1.4 Test Equipment Setting For emission test Result

9 kHz~150 kHz	RBW 200Hz	VBW 1 kHz
150 kHz~30 MHz	RBW 9 kHz	VBW 30 kHz
30 MHZ~1 GHz	RBW 120 kHz	VBW 300 kHz
Above 1 GHz	RBW 1 MHz	VBW 3 MHz

5.1.5 Test Condition

Continual Transmitting in maximum power.

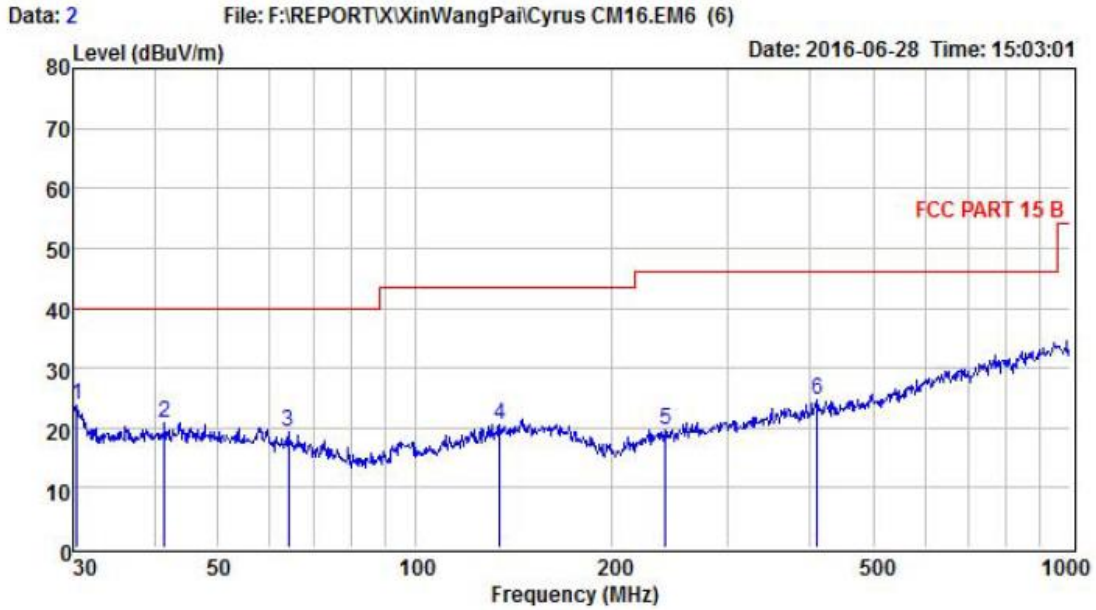
5.1.6 Test Result

We have scanned the 9 kHz from 25 GHz to the EUT.
Detailed information please see the following page.

From 9 kHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

H:

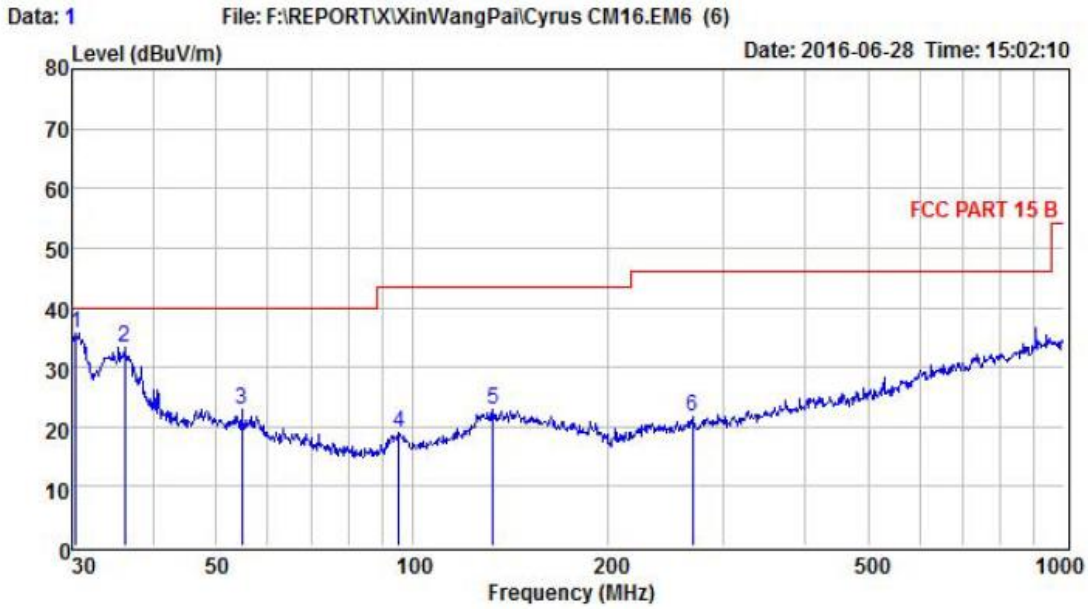


Condition : FCC PART 15 B POL: HORIZONTAL
EUT : Phone
Model No : Cyrus CM16
Test Mode : WIFI
Power : AC 120V/60Hz
Test Engineer :
Remark :
Temp : 24.5°C
Hum : 56%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	30.42	41.46	13.22	30.98	0.03	23.73	40.00	-16.27	Peak
2	41.42	37.49	13.93	30.85	0.19	20.76	40.00	-19.24	Peak
3	63.98	37.58	11.98	30.52	0.24	19.28	40.00	-20.72	Peak
4	134.56	36.48	13.08	29.44	0.46	20.58	43.50	-22.92	Peak
5	240.83	35.84	11.47	28.25	0.53	19.59	46.00	-26.41	Peak
6	410.38	35.85	14.99	27.23	0.93	24.54	46.00	-21.46	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

V:



Condition : FCC PART 15 B POL: VERTICAL
EUT : Phone
Model No : Cyrus CM16
Test Mode : WIFI
Power : AC 120V/60Hz
Test Engineer :
Remark :
Temp : 24.5°C
Hum : 56%

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	30.42	53.45	13.22	30.98	0.03	35.72	40.00	-4.28	Peak
2	36.13	50.54	13.39	30.83	0.11	33.21	40.00	-6.79	Peak
3	54.64	40.35	13.22	30.87	0.21	22.91	40.00	-17.09	Peak
4	95.43	39.09	9.87	30.19	0.36	19.13	43.50	-24.37	Peak
5	132.69	38.92	12.93	29.44	0.53	22.94	43.50	-20.56	Peak
6	269.43	37.14	12.09	28.13	0.69	21.79	46.00	-24.21	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

From 1G-25GHz

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

IEEE 802.11b

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	V	44.92	---	-11.24	33.68	---	74	54	40.32	Peak
4824	V	37.3	---	0.64	37.94	---	74	54	36.06	Peak
N/A										

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	H	44.44	---	-11.24	33.20	---	74	54	40.8	Peak
4824	H	37.03	---	0.64	37.67	---	74	54	36.33	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	V	43.89	---	-11.24	32.65	---	74	54	41.35	Peak
4874	V	39.63	---	0.76	40.39	---	74	54	33.61	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	H	44.05	---	-11.24	32.81	---	74	54	41.19	Peak
4874	H	40.63	---	0.76	41.39	---	74	54	32.61	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	V	43.84	---	-11.24	32.60	---	74	54	41.4	Peak
4924	V	35.26	---	0.87	36.13	---	74	54	37.87	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1103	H	44.25	---	-11.24	33.01	---	74	54	40.99	Peak
4924	H	34.1	---	0.87	34.97	---	74	54	39.03	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11 g:

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1145	V	44.72	---	-11.24	33.48	---	74	54	40.52	Peak
2586	V	46.79	---	-7.13	39.66	---	74	54	34.34	Peak
3062	V	44.85	---	-5.74	39.11	---	74	54	34.89	Peak
4824	V	44.45	---	0.64	45.09	---	74	54	28.91	Peak
N/A										

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1294	H	44.06	---	-10.96	33.10	---	74	54	40.9	Peak
2038	H	44.25	---	-8.58	35.67	---	74	54	38.33	Peak
3483	H	43.15	---	-4.95	38.20	---	74	54	35.8	Peak
4824	H	41.95	---	0.64	42.59	---	74	54	31.41	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1374	V	44.25	---	-10.43	33.82	---	74	54	40.18	Peak
2589	V	44.84	---	-7.13	37.71	---	74	54	36.29	Peak
3365	V	44.22	---	-5.18	39.04	---	74	54	34.96	Peak
4874	V	43.44	---	0.76	44.20	---	74	54	29.8	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1321	H	44.25	---	-10.84	33.41	---	74	54	40.59	Peak
2314	H	44.95	---	-7.46	37.49	---	74	54	36.51	Peak
3577	H	43.24	---	-4.76	38.48	---	74	54	35.52	Peak
4874	H	40.95	---	0.76	41.71	---	74	54	32.29	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1302	V	44.25	---	-10.84	33.41	---	74	54	40.59	Peak
2982	V	44.79	---	-5.86	38.93	---	74	54	35.07	Peak
3831	V	43.85	---	-3.96	39.89	---	74	54	34.11	Peak
4924	V	42.25	---	0.87	43.12	---	74	54	30.88	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1446	H	44.43	---	-10.29	34.14	---	74	54	39.86	Peak
2198	H	43.25	---	-8.24	35.01	---	74	54	38.99	Peak
3905	H	44.35	---	-3.68	40.67	---	74	54	33.33	Peak
4924	H	41.83	---	0.87	42.70	---	74	54	31.3	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT20 with 2.4G

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1492	V	44.43	---	-10.27	34.16	---	74	54	39.84	Peak
2671	V	44.02	---	-6.94	37.08	---	74	54	36.92	Peak
3948	V	44.21	---	-3.68	40.53	---	74	54	33.47	Peak
4824	V	42.96	---	0.64	43.60	---	74	54	30.4	Peak
N/A										

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1451	H	44.46	---	-10.27	34.19	---	74	54	39.81	Peak
2839	H	44.73	---	-6.17	38.56	---	74	54	35.44	Peak
3607	H	44.3	---	-4.52	39.78	---	74	54	34.22	Peak
4824	H	43.22	---	0.64	43.86	---	74	54	30.14	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1262	V	44.15	---	-10.96	33.19	---	74	54	40.81	Peak
2013	V	44.59	---	-8.58	36.01	---	74	54	37.99	Peak
3798	V	43.83	---	-4.07	39.76	---	74	54	34.24	Peak
4874	V	42.95	---	0.76	43.71	---	74	54	30.29	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1511	H	44.05	---	-10.14	33.91	---	74	54	40.09	Peak
2353	H	44.21	---	-7.59	36.62	---	74	54	37.38	Peak
3266	H	44.48	---	-5.39	39.09	---	74	54	34.91	Peak
4874	H	43.22	---	0.76	43.98	---	74	54	30.02	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1477	V	45.48	---	-10.27	35.21	---	74	54	38.79	Peak
2703	V	44.36	---	-6.43	37.93	---	74	54	36.07	Peak
3561	V	44.25	---	-4.76	39.49	---	74	54	34.51	Peak
4924	V	43.08	---	0.87	43.95	---	74	54	30.05	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1503	H	44.03	---	-10.14	33.89	---	74	54	40.11	Peak
3588	H	44.33	---	-4.96	39.37	---	74	54	34.63	Peak
4153	H	44.14	---	-2.48	41.66	---	74	54	32.34	Peak
4924	H	42.19	---	0.87	43.06	---	74	54	30.94	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT40 with 2.4G

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1551	V	44.49	---	-10.07	34.42	---	74	54	39.58	Peak
2695	V	44.36	---	-6.94	37.42	---	74	54	36.58	Peak
3463	V	43.65	---	-4.95	38.7	---	74	54	35.3	Peak
4844	V	42.24	---	0.64	42.88	---	74	54	31.12	Peak
N/A										

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26ºC	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1542	H	44.26	---	-10.14	34.12	---	74	54	39.88	Peak
2358	H	44.12	---	-7.59	36.53	---	74	54	37.47	Peak
3096	H	44.53	---	-5.74	38.79	---	74	54	35.21	Peak
4844	H	42.93	---	0.64	43.57	---	74	54	30.43	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1628	V	44.82	---	-9.84	34.98	---	74	54	39.02	Peak
2593	V	44.24	---	-7.13	37.11	---	74	54	36.89	Peak
3301	V	44.38	---	-5.31	39.07	---	74	54	34.93	Peak
4874	V	43.23	---	0.76	43.99	---	74	54	30.01	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1564	H	44.45	---	-10.07	34.38	---	74	54	39.62	Peak
2248	H	44.79	---	-8.13	36.66	---	74	54	37.34	Peak
3159	H	43.75	---	-5.52	38.23	---	74	54	35.77	Peak
4874	H	43	---	0.76	43.76	---	74	54	30.24	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1645	V	44.88	---	-9.84	35.04	---	74	54	38.96	Peak
2590	V	44.41	---	-7.13	37.28	---	74	54	36.72	Peak
3851	V	43.83	---	-3.84	39.99	---	74	54	34.01	Peak
4904	V	42.18	---	0.87	43.05	---	74	54	30.95	Peak

EUT	MOBILE TELEPHONE	**Model Name**	Cyrus CM16
Temperature	26°C	**Relative Humidity**	56%
Pressure	960hPa	**Test voltage**	DC 3.7V from battery
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1792	H	44.55	---	-9.27	35.28	---	74	54	38.72	Peak
2804	H	44.73	---	-6.17	38.56	---	74	54	35.44	Peak
3743	H	45.09	---	-4.24	40.85	---	74	54	33.15	Peak
4904	H	43.52	---	0.87	44.39	---	74	54	29.61	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

6 POWER LINE CONDUCTED EMISSION

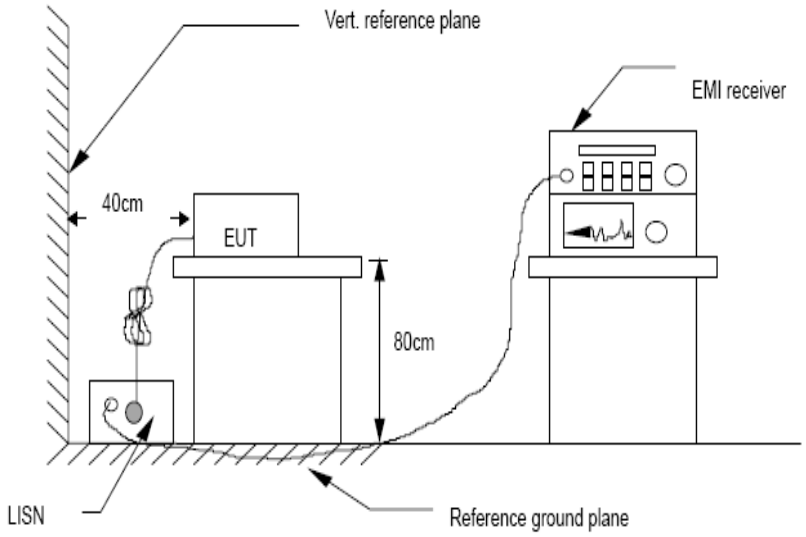
6.1 Conducted Emission Limits(15.207)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 -0.50	66 -56*	56 - 46*
0.50 -5.00	56	46
5.00 -30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

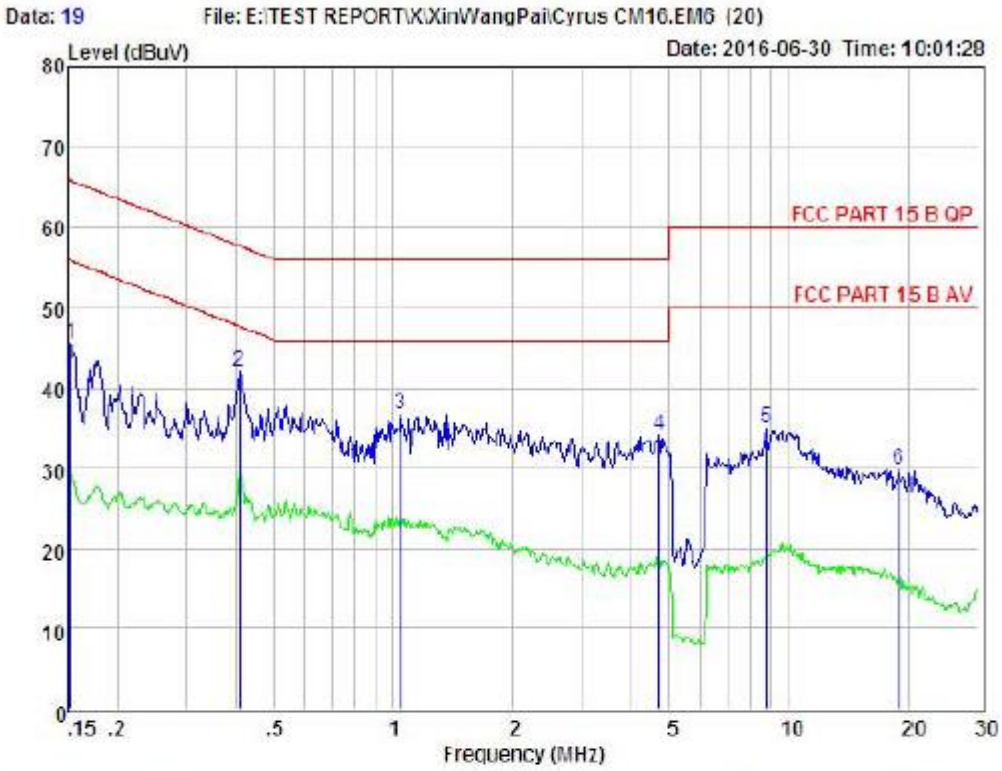
6.2 Test Setup



6.3 Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10:2013 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCI) is set at 9 kHz.

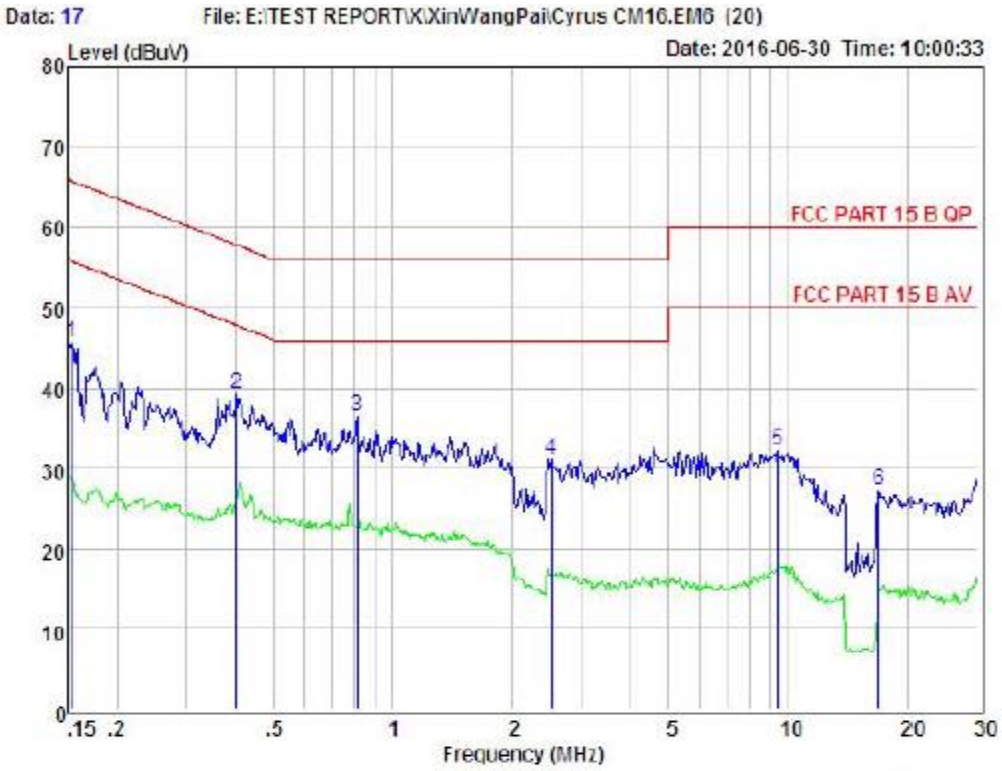
6.4 Test Results



Condition : FCC PART 15 B QP POL: LINE Temp: 24.1 ℃ Hum: 50%
EUT :
Model No : Cyrus CM16
Test Mode : WIFI
Power : DC 5V From Adapter With AC 120V/60Hz
Test Engineer :
Remark :

Item	Freq	Read Level	LISN Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	0.152	35.86	0.03	-9.52	0.10	46.51	65.91	-20.40	Peak
2	0.408	32.42	0.03	-9.57	0.10	42.12	57.68	-15.56	Peak
3	1.043	26.82	0.04	-9.63	0.10	36.59	56.00	-19.41	Peak
4	4.721	24.08	0.10	-9.91	0.12	34.21	56.00	-21.79	Peak
5	8.822	24.64	0.16	-9.95	0.18	34.93	60.00	-25.07	Peak
6	19.021	19.29	0.30	-9.81	0.33	29.73	60.00	-30.27	Peak

Remark: Level = Read Level + LISN Factor - Preamp Factor + Cable Loss



Condition : FCC PART 15 B QP POL: NEUTRAL Temp: 24.1 ℃ Hum: 50%
EUT :
Model No : Cyrus CM16
Test Mode : WIFI
Power : DC 5V From Adapter With AC 120V/60Hz
Test Engineer :
Remark :

Item	Freq	Read Level	LISN Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	0.153	35.99	0.03	-9.52	0.10	45.64	65.82	-20.18	Peak
2	0.402	29.50	0.03	-9.57	0.10	39.20	57.81	-18.61	Peak
3	0.813	26.84	0.02	-9.60	0.10	36.56	56.00	-19.44	Peak
4	2.527	21.18	0.06	-9.75	0.11	31.10	56.00	-24.90	Peak
5	9.451	21.96	0.17	-9.94	0.19	32.26	60.00	-27.74	Peak
6	17.018	16.87	0.27	-9.82	0.29	27.25	60.00	-32.75	Peak

Remark: Level = Read Level + LISN Factor - Preamp Factor + Cable Loss

7 Conducted Maximum Output Power

7.1 Test limit

Please refer section RSS-247 & 15.247.

7.2 Test Procedure

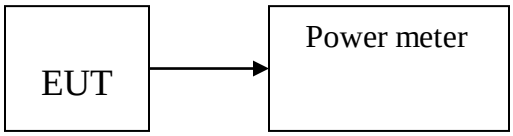
Details see the KDB558074 Meas Guidance V03

7.2.1 Place the EUT on the table and set it in transmitting mode.

7.2.2 Measure out each mode and each bands peak output power of EUT.

Note: The cable loss and attenuator loss were offset into measure device as amplitude offset.
Details see the KDB558074 DTS Meas Guidance V03

7.3 Test Setup



7.4 Test Results

PASS

Detailed information please see the following page.

EUT: MOBILE TELEPHONE M/N: Cyrus CM16				
Test date: 2016-06-25 Test site: RF site Tested by: Eric Huang				
Mode	Frequency (MHz)	PK Output power(dBm)	Limit (dBm)	Margin (dB)
IEEE 802.11 b	CH1: 2412	20.67	30	9.33
	CH6: 2437	20.53	30	9.47
	CH11: 2462	20.87	30	9.13
IEEE 802.11 g	CH1: 2412	17.53	30	12.47
	CH6: 2437	19.78	30	10.22
	CH11: 2462	17.85	30	12.15
IEEE 802.11 n/HT20 with 2.4G	CH1: 2412	17.52	30	12.48
	CH6: 2437	19.43	30	10.57
	CH11: 2462	17.83	30	12.17
IEEE 802.11 n/HT40 with 2.4G	CH1: 2422	15.36	30	14.64
	CH4: 2437	17.58	30	12.42
	CH7: 2452	15.47	30	14.53
Conclusion: PASS				

8 PEAK POWER SPECTRAL DENSITY

8.1 Test limit

8.1.1 Please refer section RSS-247 & 15.247.

8.1.2 For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

8.1.3 The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

8.2 Method of measurement

Details see the KDB558074 DTS Meas Guidance V03

8.2.1 Place the EUT on the table and set it in transmitting mode.

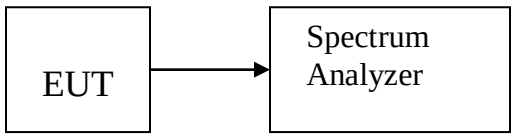
8.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

8.2.3 Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, span=5-30%EBW, detail see the test plot.

8.2.4 Record the max reading.

8.2.5 Repeat the above procedure until the measurements for all frequencies are completed.

8.3 Test Setup



8.4 Test Results

PASS.

Detailed information please see the following page.

EUT: MOBILE TELEPHONE M/N: Cyrus CM16				
Test date: 2016-06-25 Test site: RF site Tested by: Eric Huang				
Mode	Frequency (MHz)	PK Output power (dBm)	Limit (dBm)	Result
IEEE 802.11 b	CH1: 2412	-8.572	8	PASS
	CH6: 2437	-7.586	8	PASS
	CH11: 2462	-6.456	8	PASS
IEEE 802.11 g	CH1: 2412	-13.293	8	PASS
	CH6: 2437	-11.922	8	PASS
	CH11: 2462	-12.296	8	PASS
IEEE 802.11 n/HT20 with 2.4G	CH1: 2412	-12.612	8	PASS
	CH6: 2437	-11.830	8	PASS
	CH11: 2462	-12.033	8	PASS
IEEE 802.11 n/HT40 with 2.4G	CH1: 2422	-18.523	8	PASS
	CH4: 2437	-15.937	8	PASS
	CH7: 2452	-16.513	8	PASS
Conclusion: PASS				

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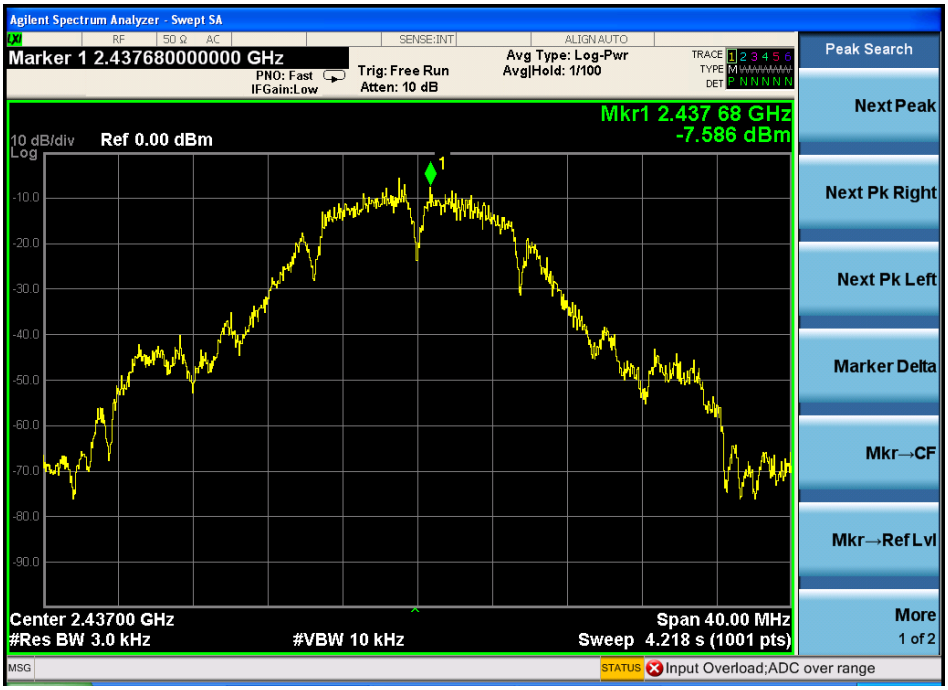
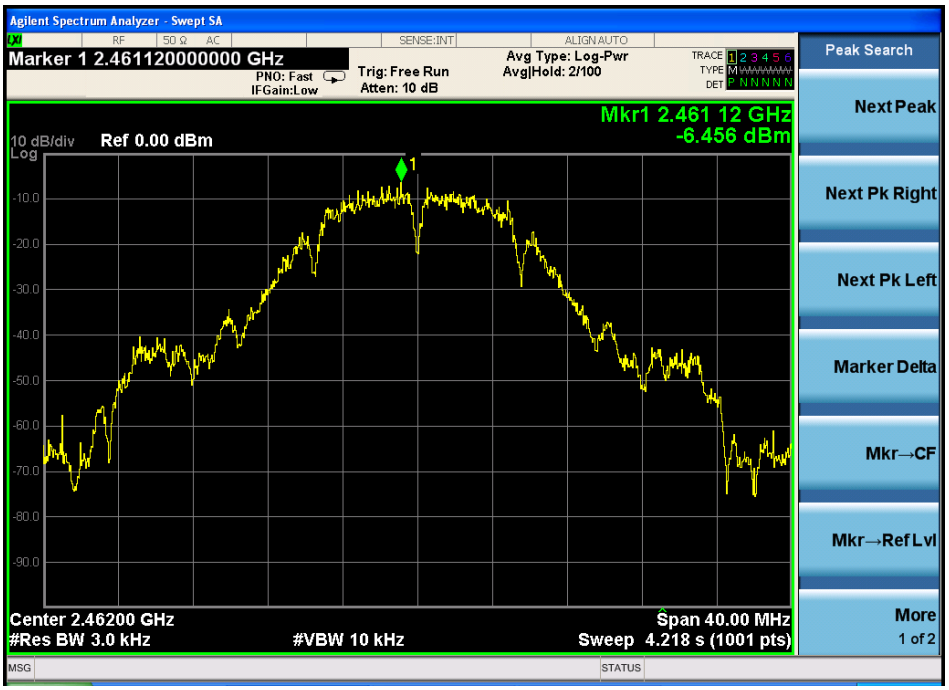
IEEE 802.11b:
CH Low:

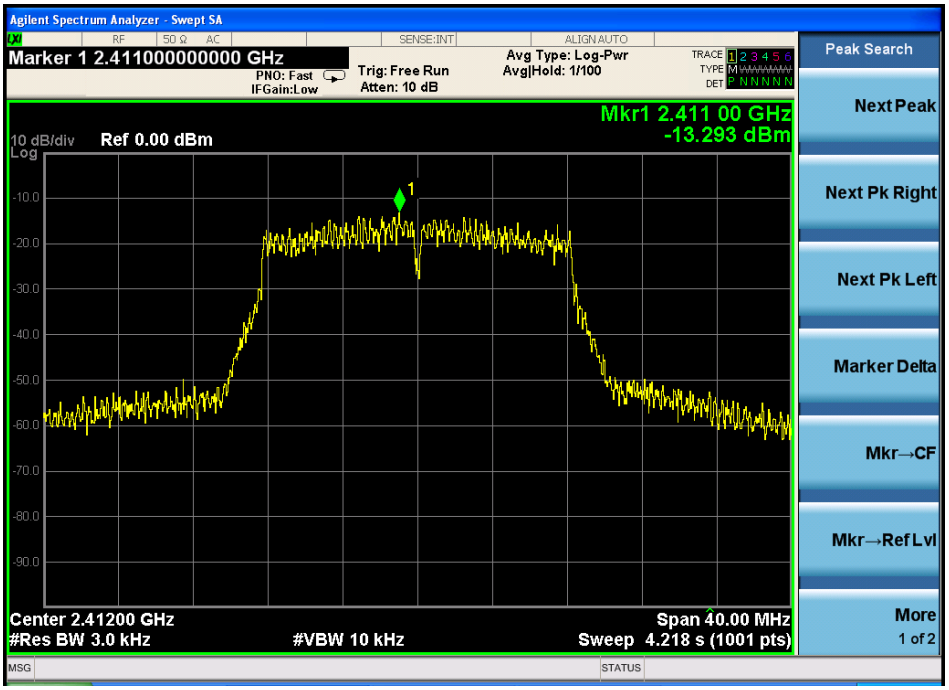
CH Mid:



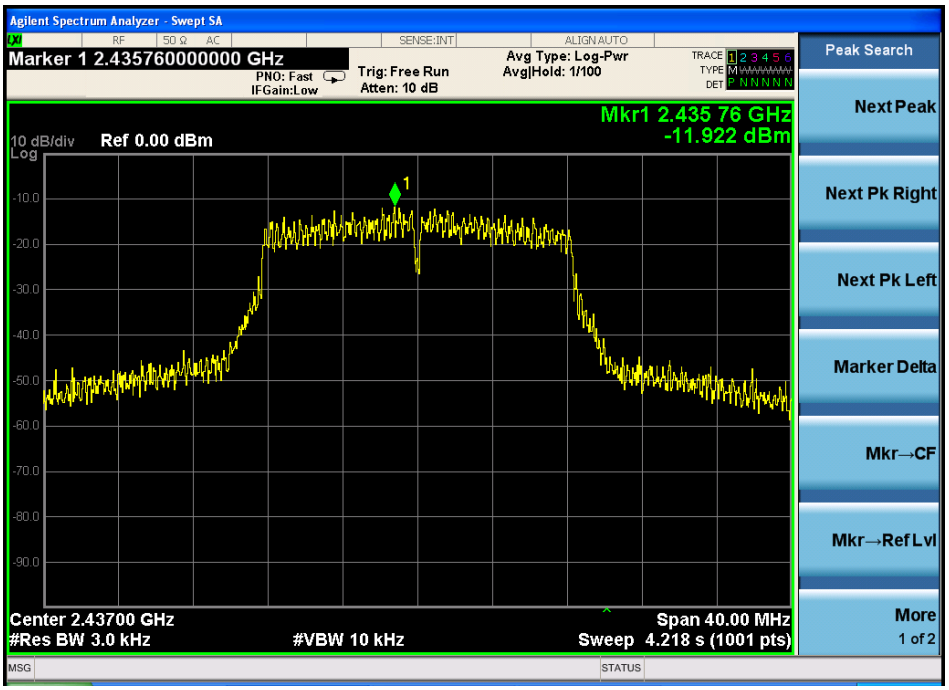
CH High:



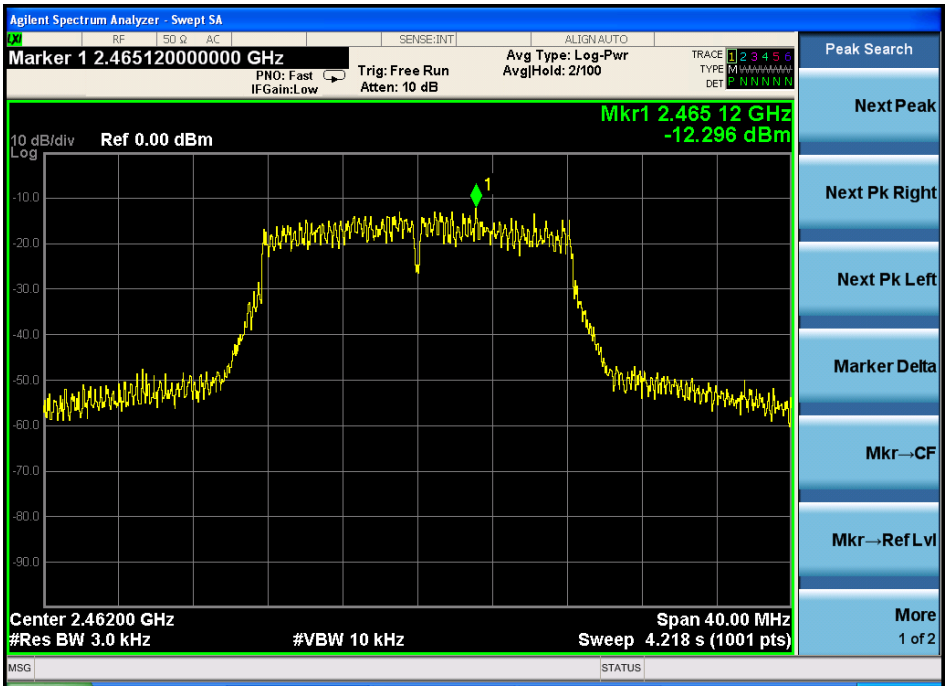
IEEE 802.11g:
CH Low:



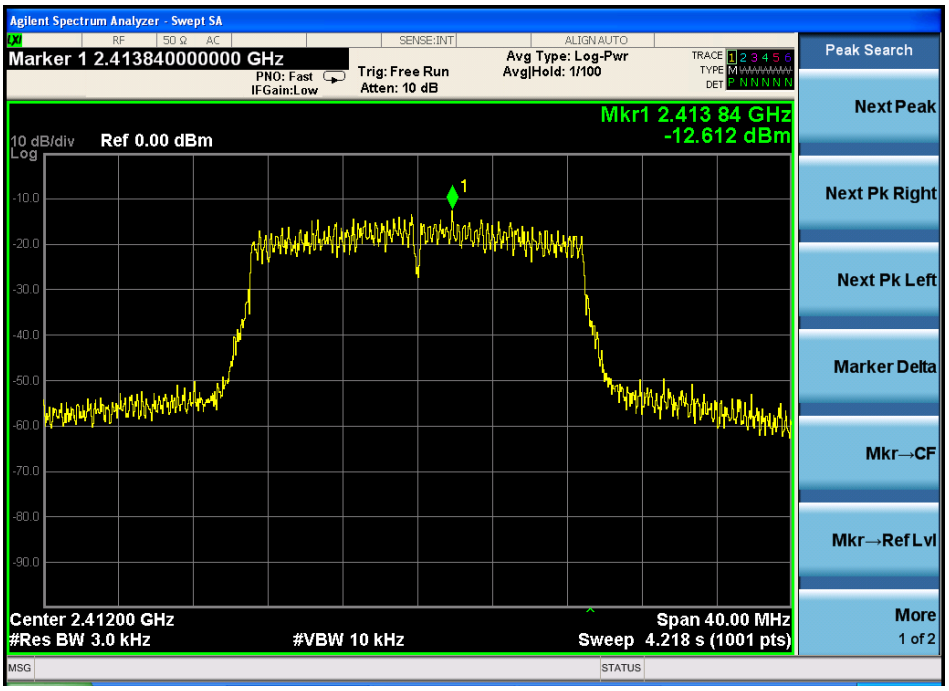
CH Mid:



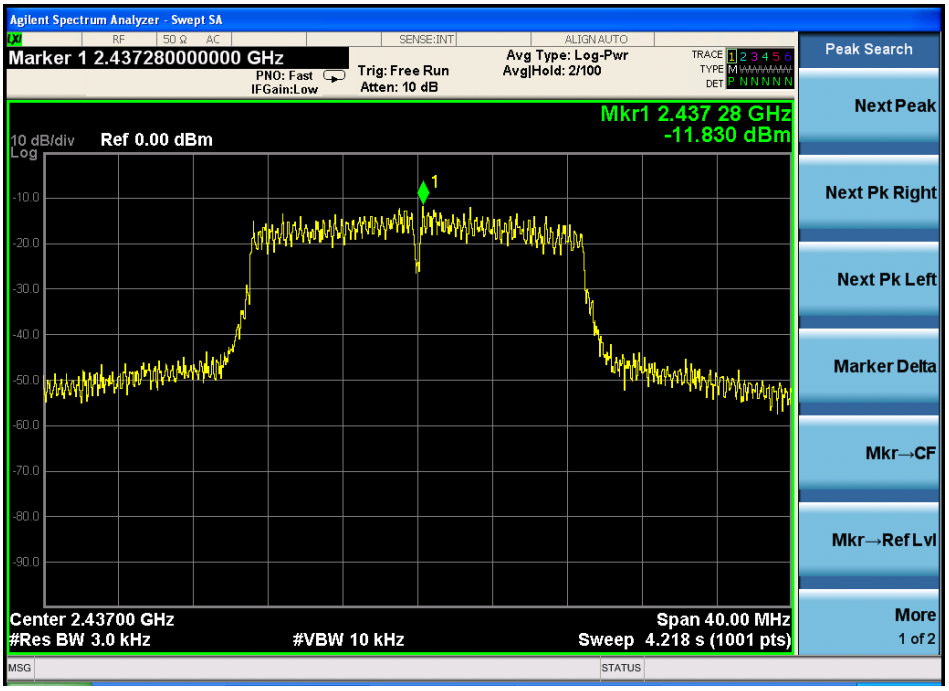
CH High:



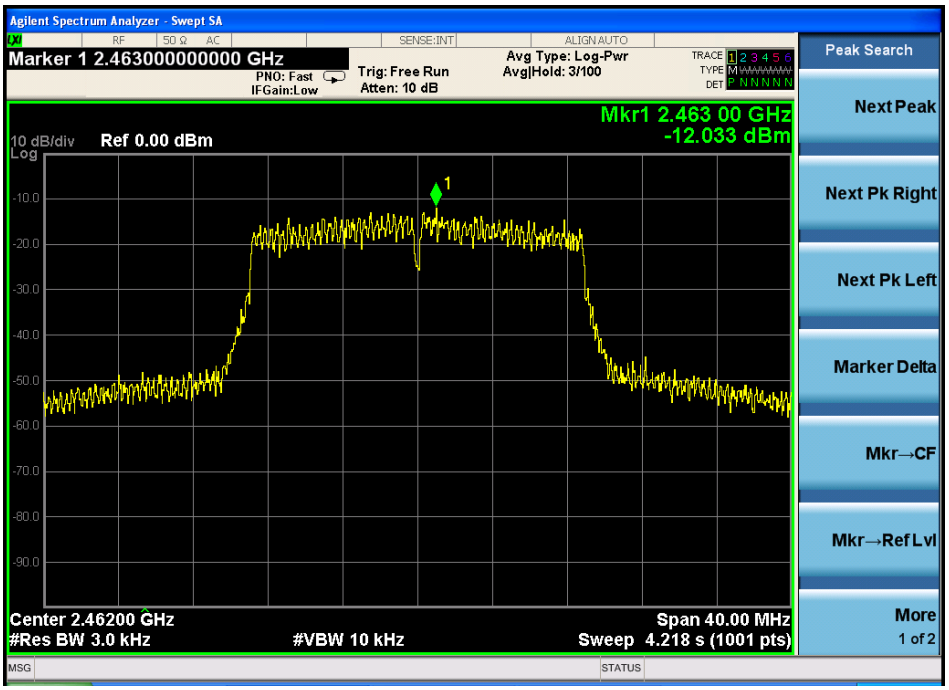
IEEE 802.11n HT20:
CH Low:



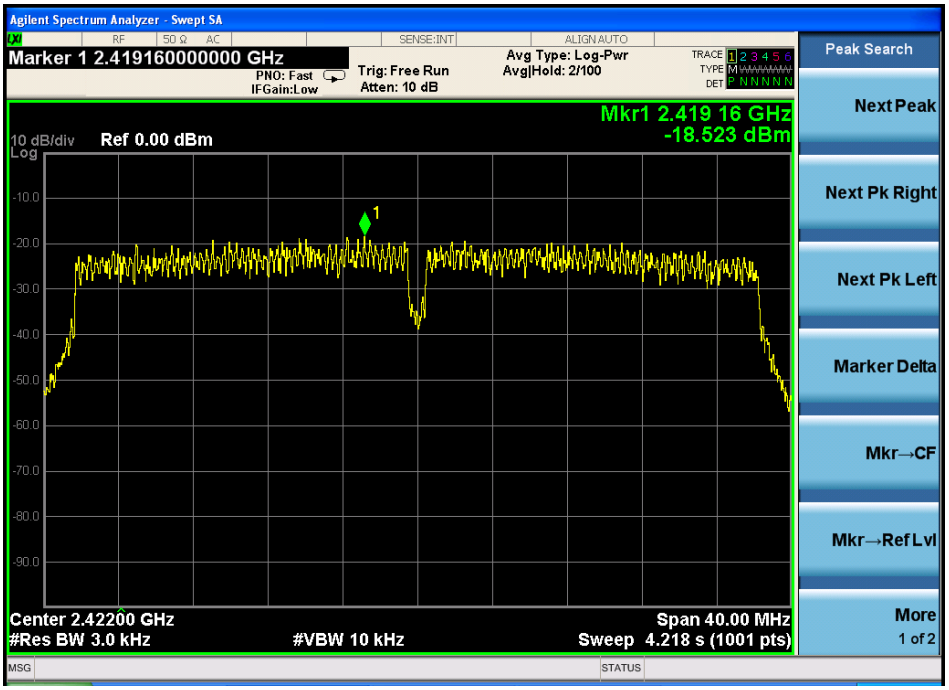
CH Mid:



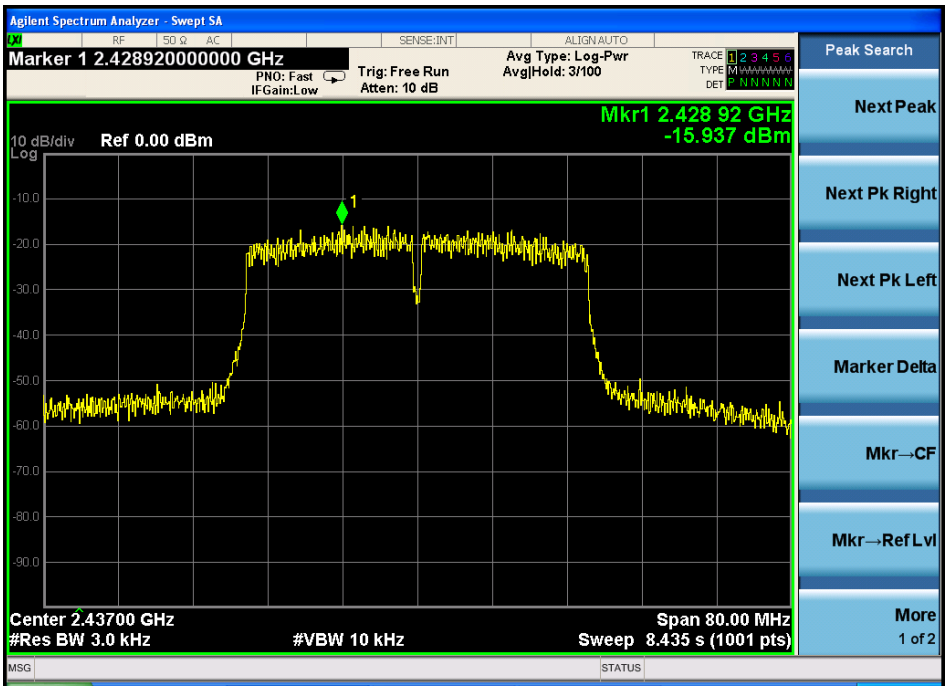
CH High:



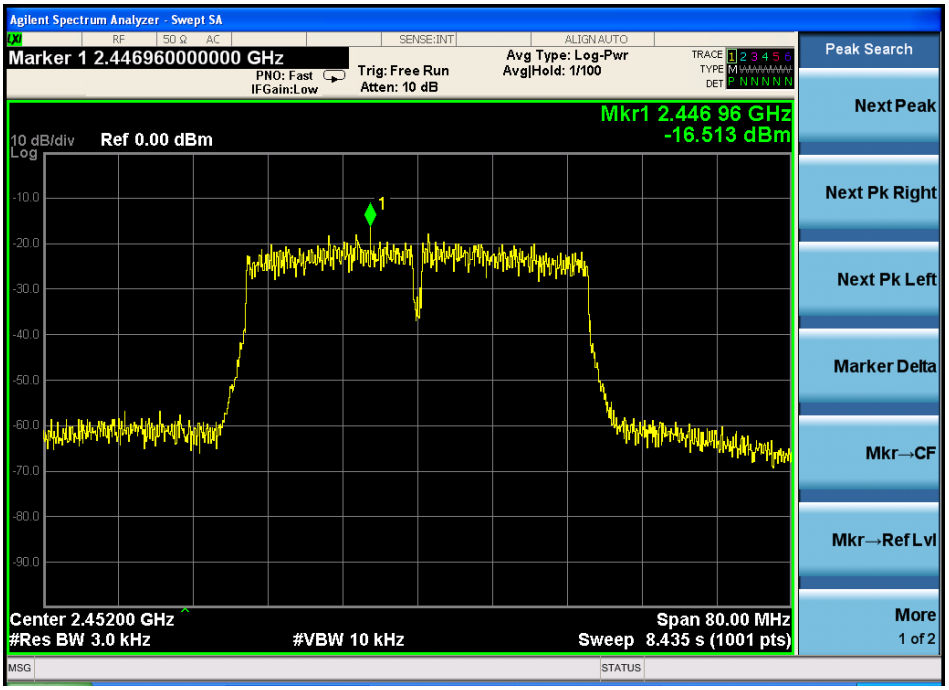
IEEE 802.11n HT40:
CH Low:



CH Mid:



CH High:



9 Bandwidth

9.1 Test limit

Please refer section RSS-247 & 15.247

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz.

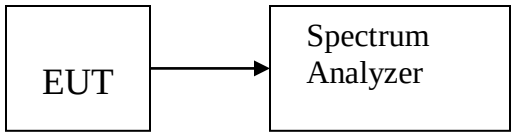
9.2 Method of measurement

Details see the KDB558074 D01 Meas Guidance

a) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

b) The test receiver set RBW = 100KHz, VBW≥3RBW, Peak detector, Sweep time set auto, detail see the test plot.

9.3 Test Setup



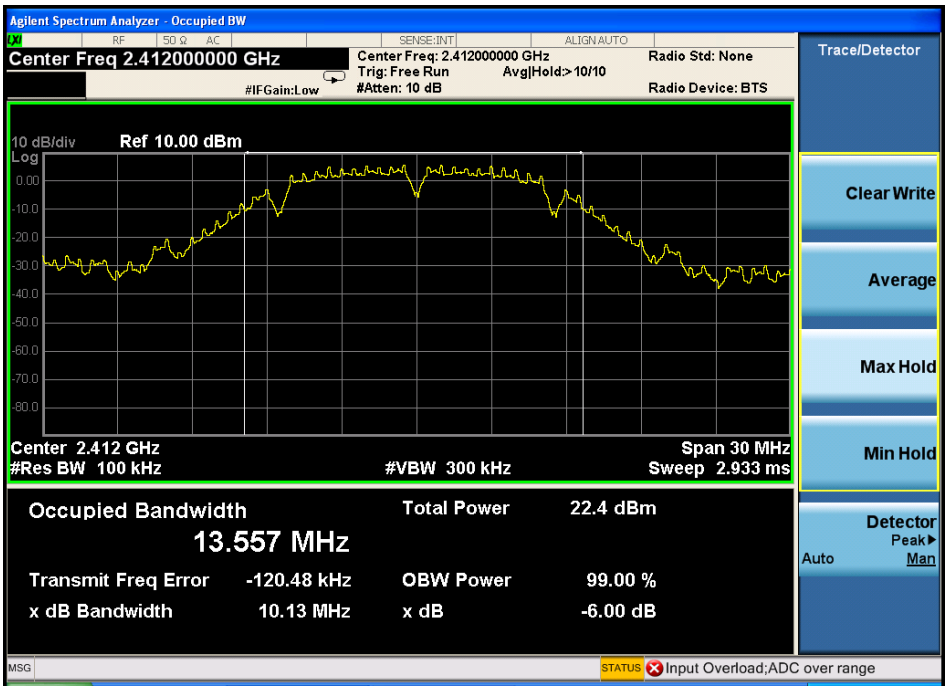
9.4 Test Results

PASS.

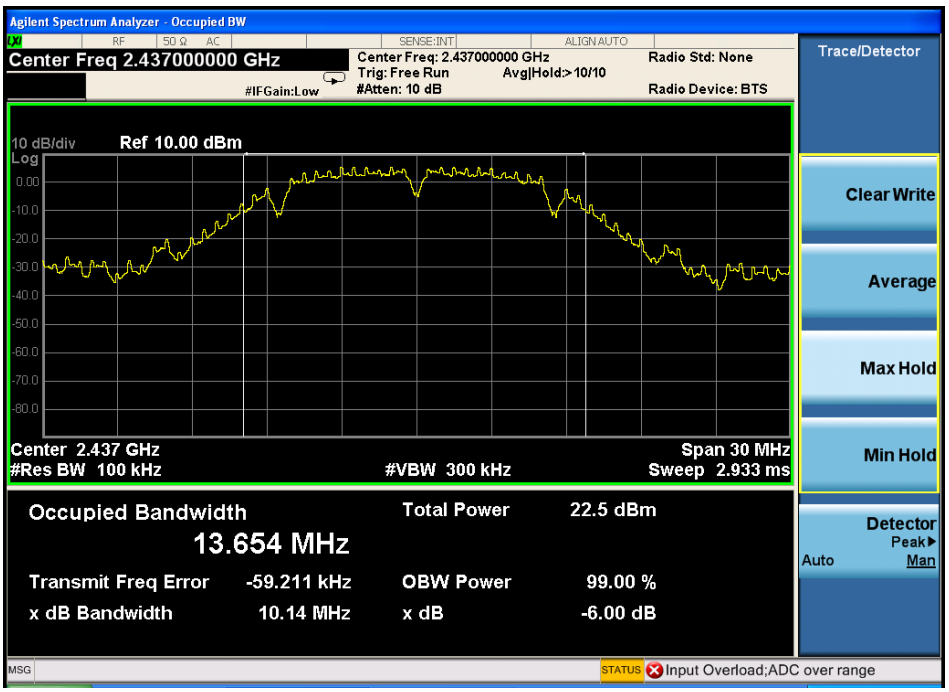
Detailed information please see the following page.

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b:					
Low	2412	10.13	/	0.5	PASS
Mid	2437	10.14	/	0.5	PASS
High	2462	10.16	/	0.5	PASS
IEEE 802.11g					
Low	2412	15.13	/	0.5	PASS
Mid	2437	15.09	/	0.5	PASS
High	2462	14.66	/	0.5	PASS
IEEE 802.11n/HT20:					
Low	2412	15.13	/	0.5	PASS
Mid	2437	15.15	/	0.5	PASS
High	2462	16.27	/	0.5	PASS
IEEE 802.11n/HT40:					
Low	2422	35.22	/	0.5	PASS
Mid	2437	35.24	/	0.5	PASS
High	2452	35.23	/	0.5	PASS

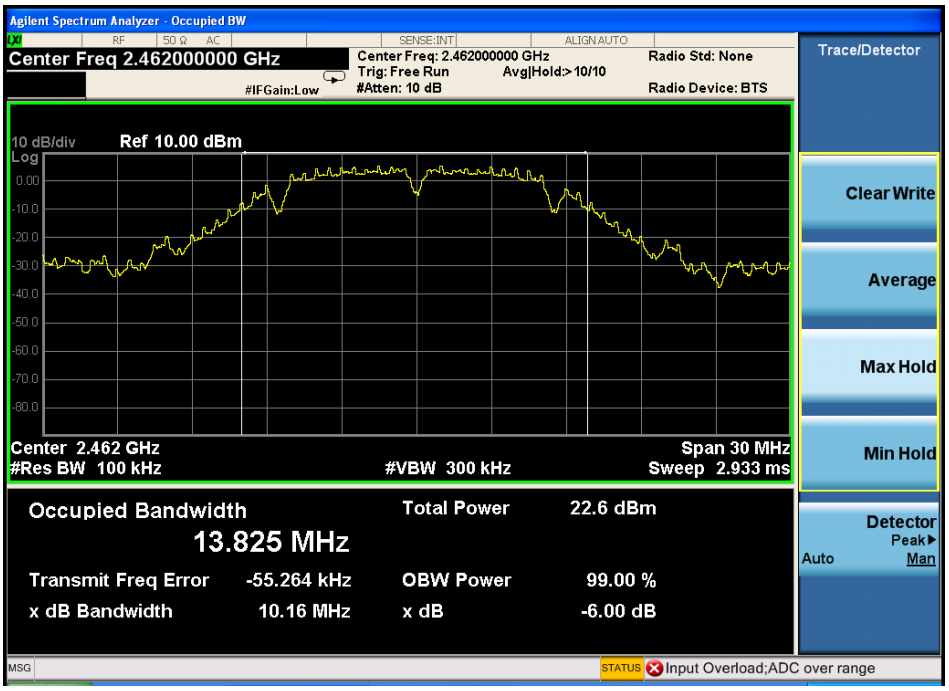
IEEE 802.11b:
CH Low:



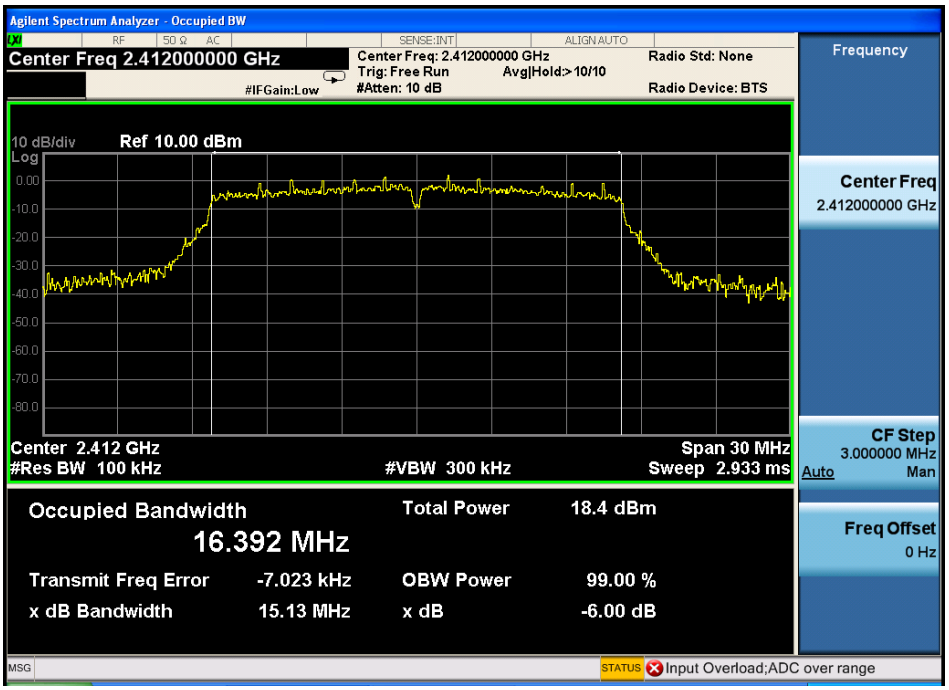
CH Mid:



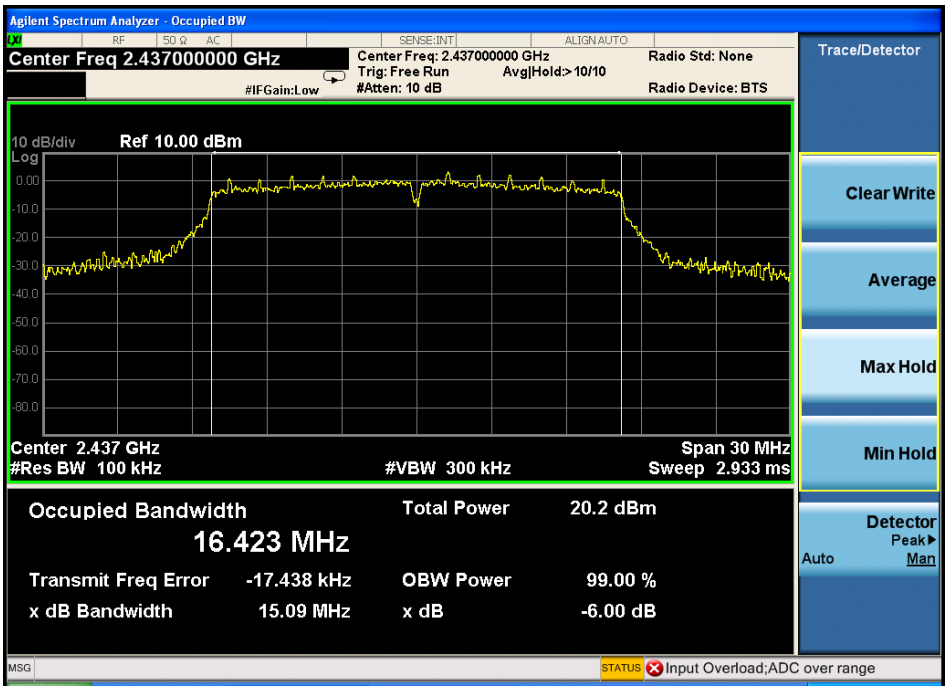
CH High:



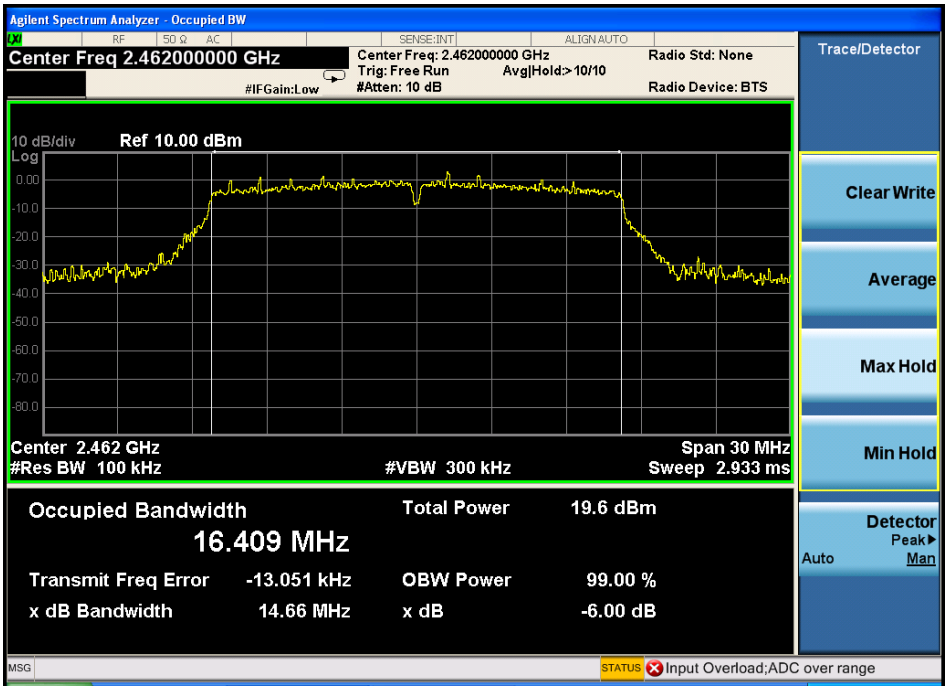
IEEE 802.11g:
CH Low:



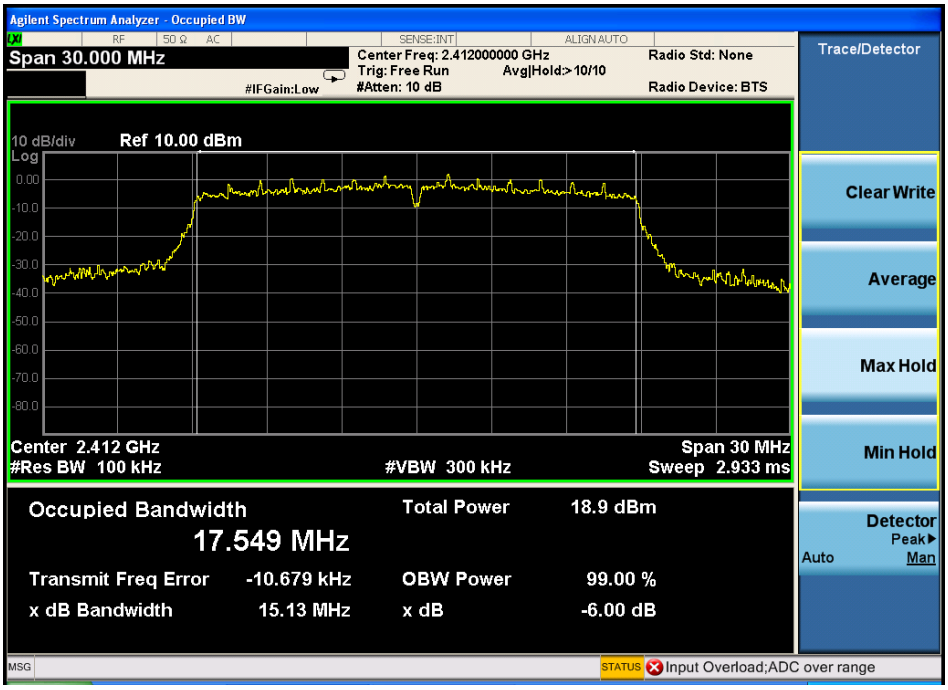
CH Mid:



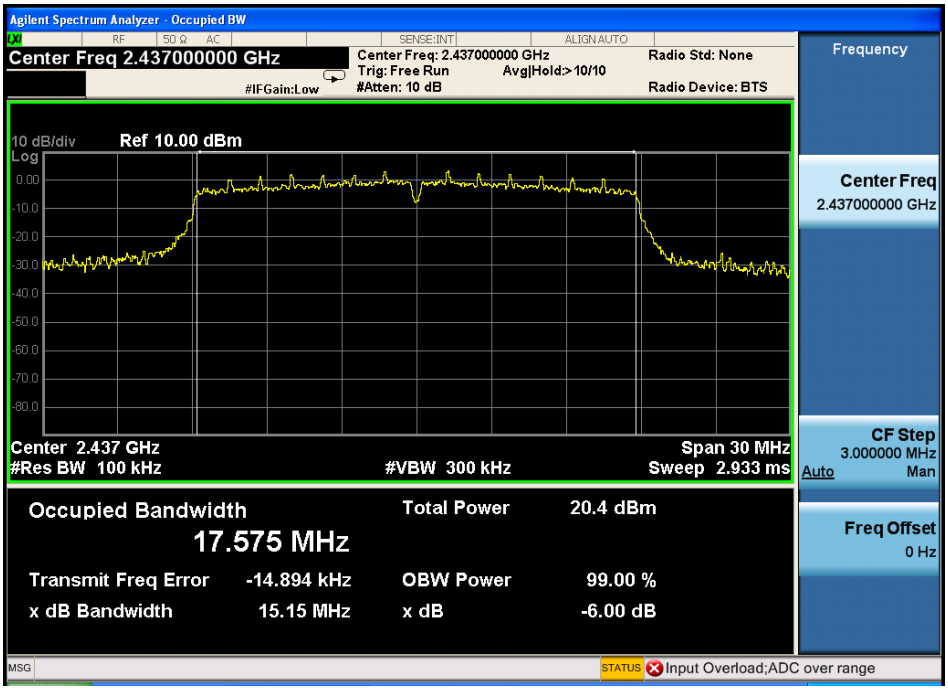
CH High:



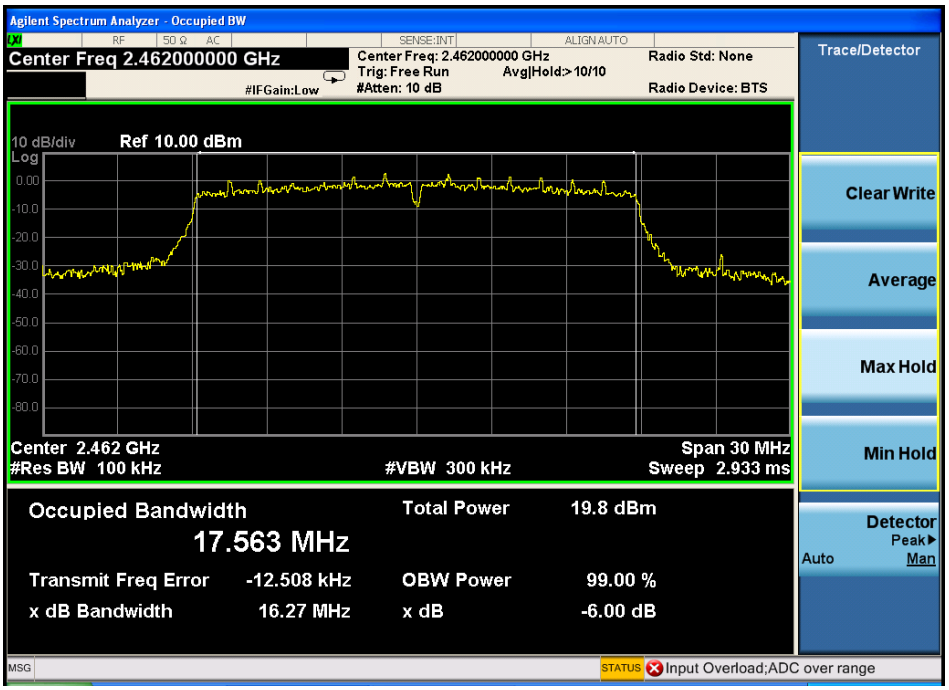
IEEE 802.11n HT20:
CH Low:



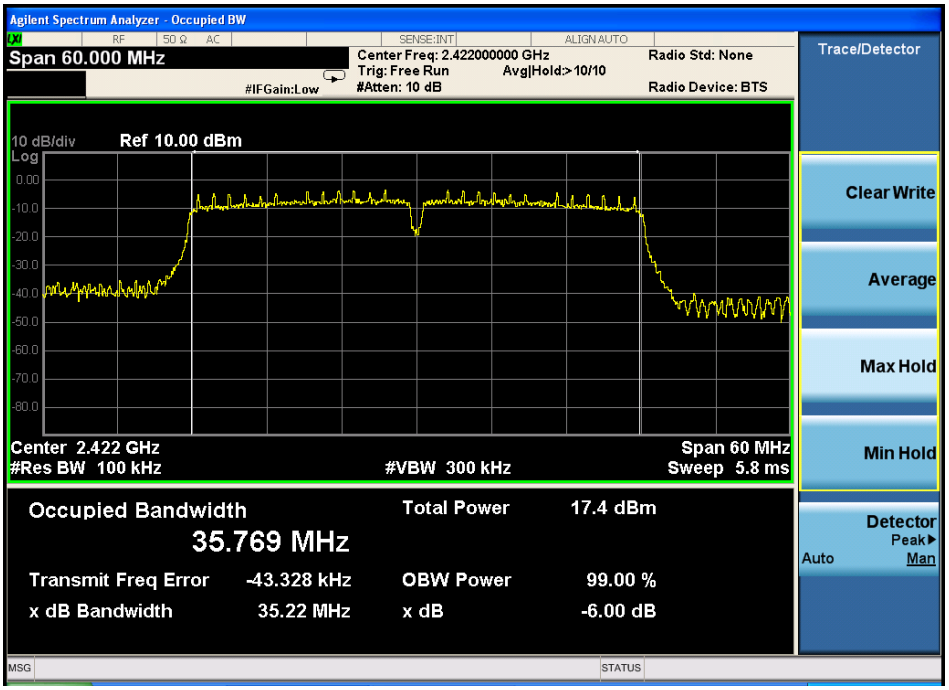
CH Mid:



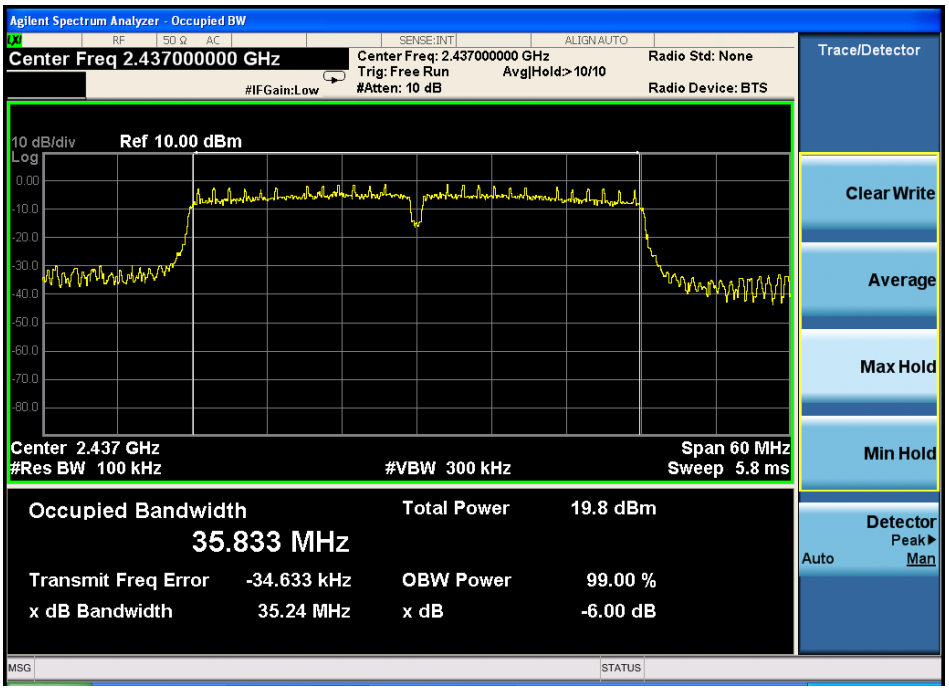
CH High:



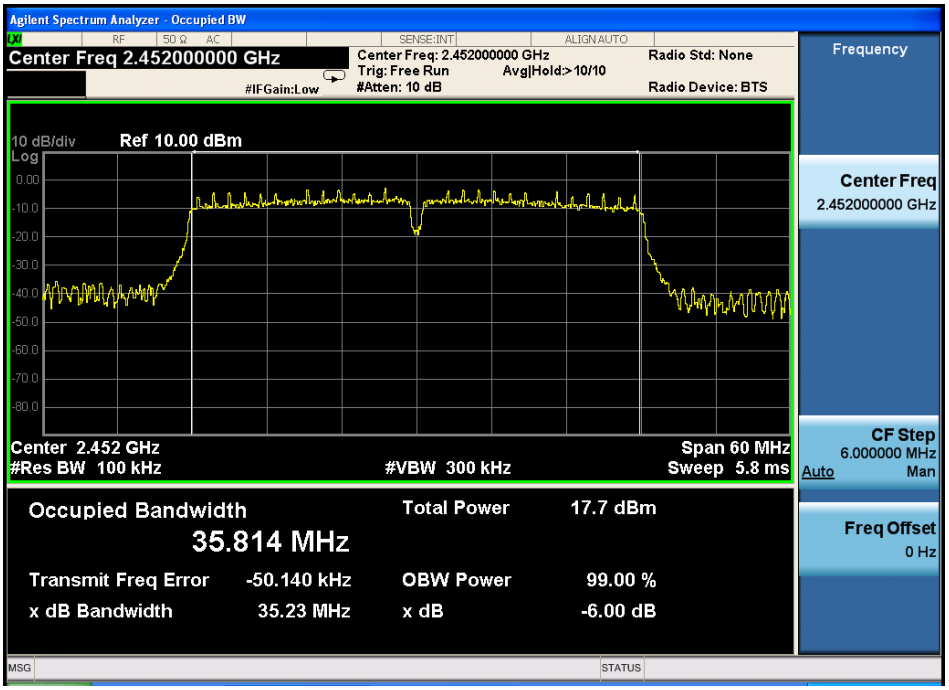
IEEE 802.11n/HT40:
CH Low:



CH Mid:



CH High:



10 Band Edge Check

10.1 Test limit

Please refer section RSS-GEN & 15.247.

10.2 Test Procedure

12.2.1 Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

12.2.2 Check the spurious emissions out of band.

12.2.3 RBW 1MHz ,VBW 3MHz ,peak detector for peak value , RBW 1MHz ,VBW 3MHz , RMS detector for AV value.

10.3 Test Setup

Same as 5.2.2.

10.4 Test Result

PASS.

Detailed information please see the following page.

Radiated Method:
802.11b

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx Low								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	45.26	27.62	3.92	34.97	41.83	74	32.17	**PK**
2390	--	27.62	3.92	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	44.03	27.62	3.92	34.97	40.6	74	33.4	**PK**
2390	--	27.62	3.92	34.97	--	54	--	AV
Note: 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS 3, Result = Read level + Antenna factor + cable loss-Amp factor 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx High								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	45.1	27.89	4	34.97	42.02	74	31.98	**PK**
2483.5	--	27.89	4	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2483.5	44.3	27.89	4	34.97	41.22	74	32.78	**PK**
2483.5	--	27.89	4	34.97	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

802.11g

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx Low								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	43.76	27.62	3.92	34.97	40.33	74	33.67	**PK**
2390	--	27.62	3.92	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	44.71	27.62	3.92	34.97	41.28	74	32.72	**PK**
2390	--	27.62	3.92	34.97	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx High								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	44.23	27.89	4	34.97	41.15	74	32.85	**PK**
2483.5	--	--	--	--	--	54	--	AV
Antenna Polarity: Horizontal								
2483.5	44.45	27.89	4	34.97	41.37	74	32.63	**PK**
2483.5		--	--	--	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

802.11n20

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx Low								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	44.53	27.62	3.92	34.97	41.1	74	32.9	**PK**
2390	--	27.62	3.94	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	44.85	27.62	3.92	34.97	41.42	74	32.58	**PK**
2390	--	27.62	3.94	34.97	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx High								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	43.94	27.89	4	34.97	40.86	74	33.14	PK
2483.5		--	--	--	--	54	--	AV
Antenna Polarity: Horizontal								
2483.5	44.38	27.89	4	34.97	41.3	74	32.7	PK
2483.5		--	--	--	--	54	--	AV
Note: 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS 3, Result = Read level + Antenna factor + cable loss-Amp factor 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

802.11n40

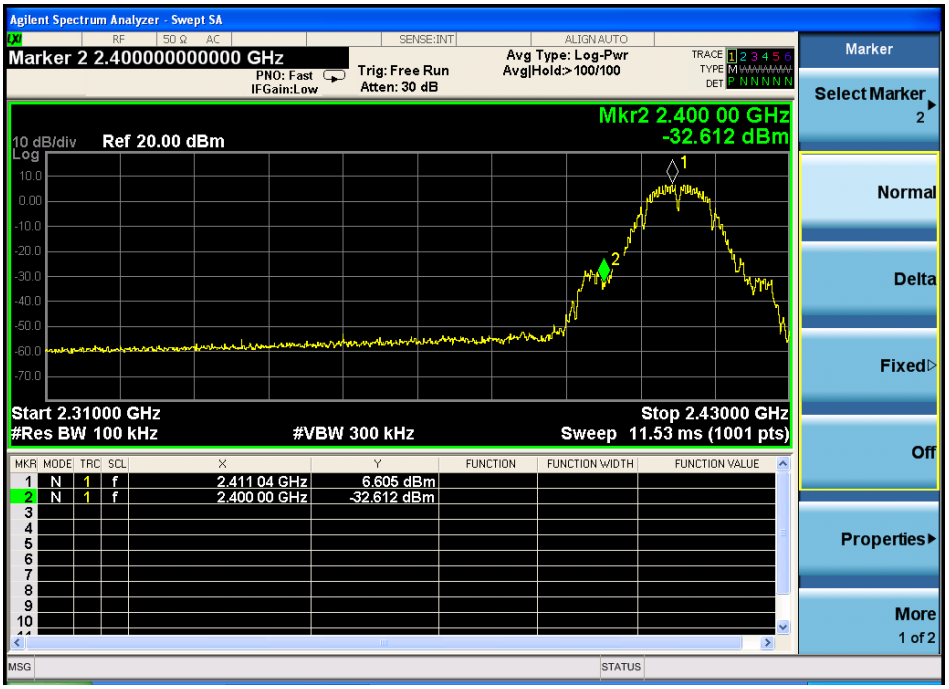
Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx Low								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	44.53	27.62	3.92	34.97	41.1	74	32.9	**PK**
2390	--	27.62	3.94	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	44.49	27.62	3.92	34.97	41.06	74	32.94	**PK**
2390	--	27.62	3.94	34.97	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

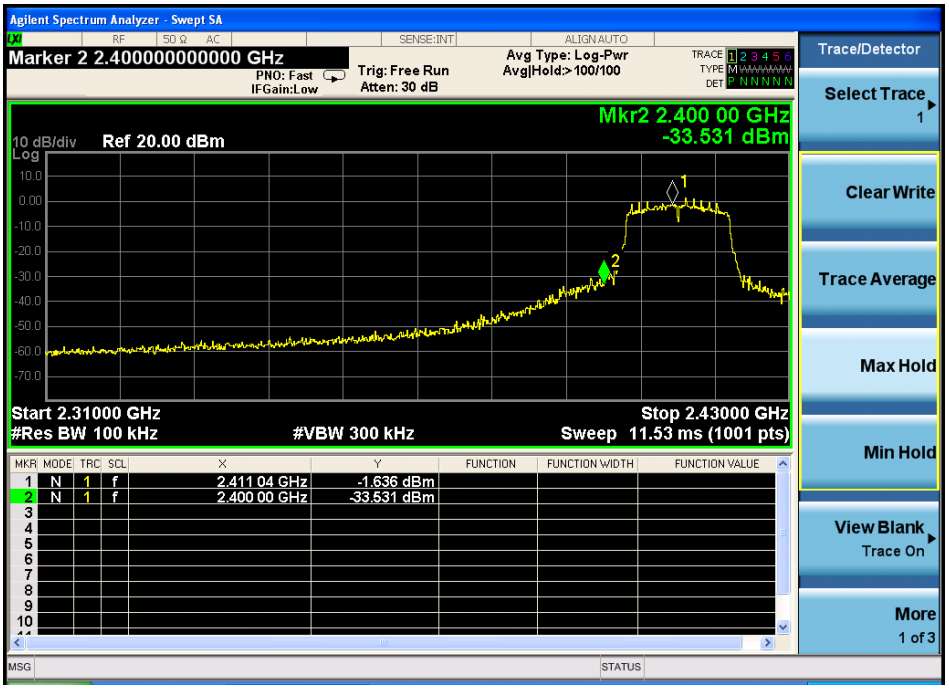
Band Edge Test result								
EUT: MOBILE TELEPHONE M/N: Cyrus CM16								
Power: DC 3.7V from battery								
Test date: 2016-06-25 Test site: 3m Chamber Tested by: Eric Huang								
Test mode: Tx High								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	43.78	27.89	4	34.97	40.7	74	33.3	PK
2483.5		--	--	--	--	54	--	AV
Antenna Polarity: Horizontal								
2483.5	45.03	27.89	4	34.97	41.95	74	32.05	PK
2483.5		--	--	--	--	54	--	AV

Note:
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
3, Result = Read level + Antenna factor + cable loss-Amp factor
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Conducted Method:
802.11b



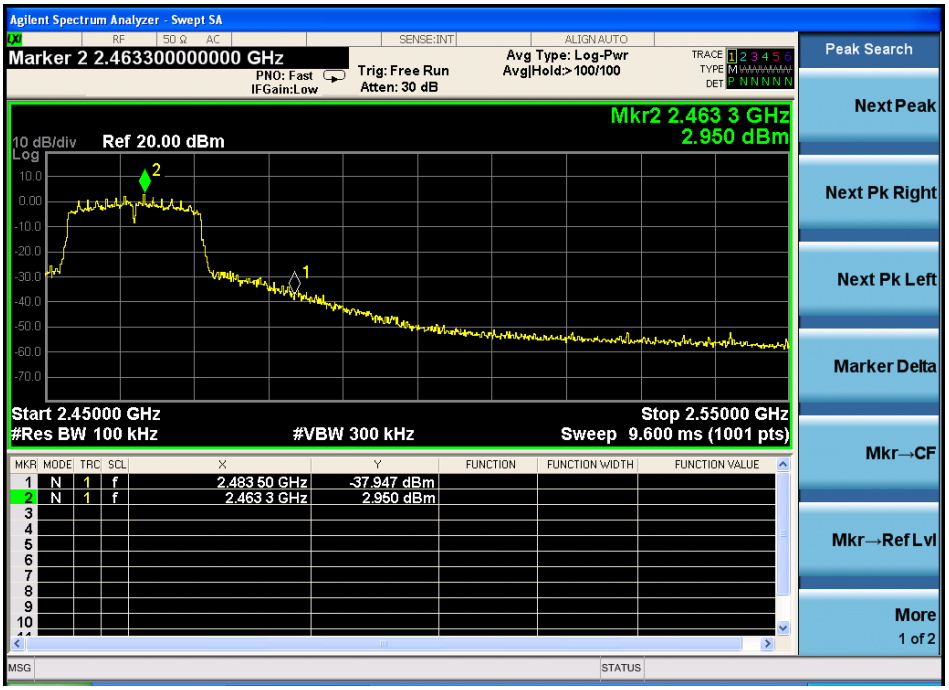
802.11g


Agilent Spectrum Analyzer - Swept SA
Marker 2 2.400000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr2 2.400 00 GHz
-33.531 dBm
10 dB/div
Ref 20.00 dBm
Start 2.31000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.43000 GHz
Sweep 11.53 ms (1001 pts)
1 N 1 f 2.411 04 GHz -1.636 dBm
2 N 1 f 2.400 00 GHz -33.531 dBm
Trace/Detector
Select Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View Blank Trace On
More 1 of 3

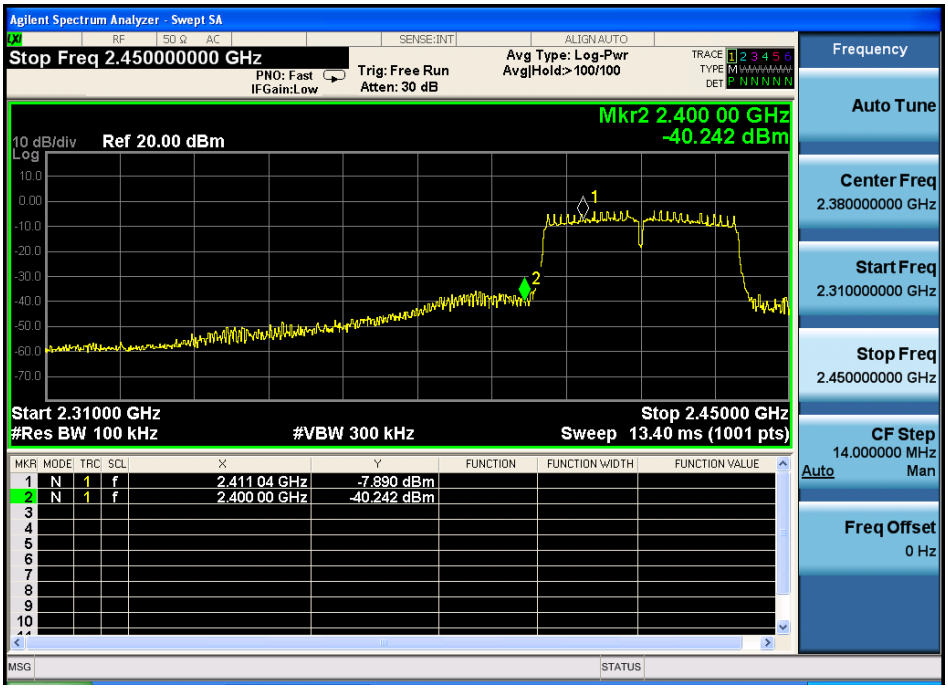

Agilent Spectrum Analyzer - Swept SA
Marker 2 2.463300000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr2 2.463 3 GHz
2.619 dBm
10 dB/div
Ref 20.00 dBm
Start 2.45000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 9.600 ms (1001 pts)
1 N 1 f 2.483 50 GHz -37.971 dBm
2 N 1 f 2.463 3 GHz 2.619 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

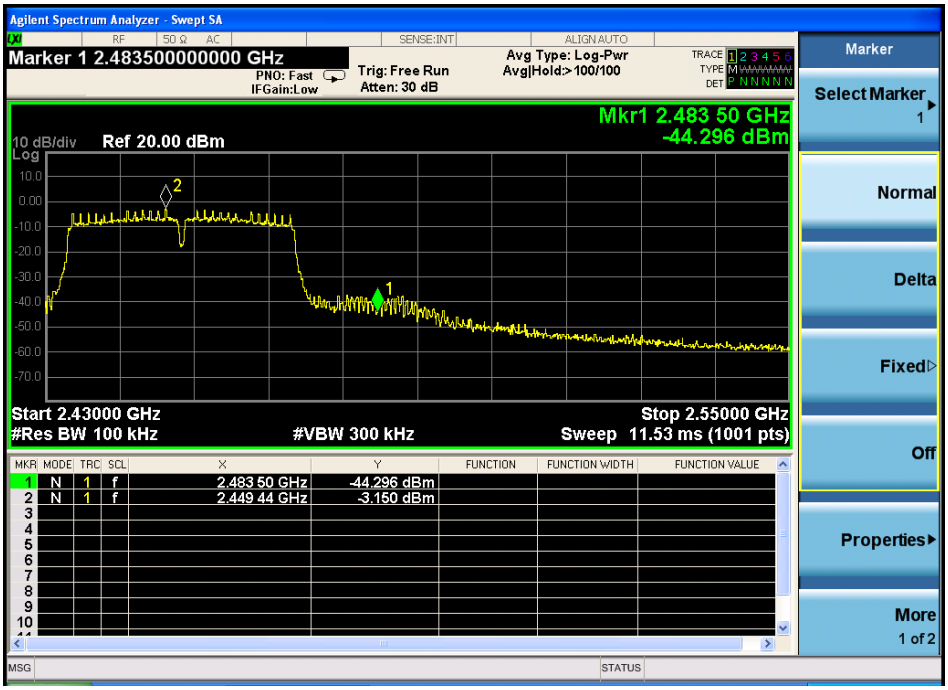
802.11n HT20


Agilent Spectrum Analyzer - Swept SA
Marker 2 2.400000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 90/100
Mkr2 2.400 00 GHz
-34.319 dBm
10 dB/div
Log
Ref 20.00 dBm
Start 2.31000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.43000 GHz
Sweep 11.53 ms (1001 pts)
1 N 1 f 2.411 04 GHz -2.592 dBm
2 N 1 f 2.400 00 GHz -34.319 dBm
Trace/Detector
Select Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View Blank Trace On
More 1 of 3


Agilent Spectrum Analyzer - Swept SA
Marker 2 2.463300000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr2 2.463 3 GHz
2.950 dBm
10 dB/div
Log
Ref 20.00 dBm
Start 2.45000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 9.600 ms (1001 pts)
1 N 1 f 2.483 50 GHz -37.947 dBm
2 N 1 f 2.463 3 GHz 2.950 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2

802.11n HT40


Agilent Spectrum Analyzer - Swept SA
Stop Freq 2.450000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr2 2.400 00 GHz
-40.242 dBm
10 dB/div
Log
Ref 20.00 dBm
Start 2.31000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.45000 GHz
Sweep 13.40 ms (1001 pts)
1 N 1 f 2.411 04 GHz -7.890 dBm
2 N 1 f 2.400 00 GHz -40.242 dBm
Frequency
Auto Tune
Center Freq
2.380000000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.450000000 GHz
CF Step
14.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.483500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 2.483 50 GHz
-44.296 dBm
10 dB/div
Log
Ref 20.00 dBm
Start 2.43000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 11.53 ms (1001 pts)
1 N 1 f 2.483 50 GHz -44.296 dBm
2 N 1 f 2.449 44 GHz -3.150 dBm
Marker
Select Marker
1
Normal
Delta
Fixed
Off
Properties
More
1 of 2

11 Antenna Requirement

11.1 Standard Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2 Antenna Connected Construction

The antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

11.3 Result

The EUT antenna has an internal antenna. It comply with the FCC requirement.

12 Test setup photo

Please refer to EUT test setup photos.

13 Photos of EUT

Please refer to EUT photo document.

---------END OF THE REPORT-------