# FCC RADIO TEST REPORT

Prepared For	World Assurance Group Inc.
Product Name:	Mobile phone
Trade Name:	World
Model Name :	WP4U
FCC ID:	2ADOFWP4U
Prepared By	DongGuan Precise Testing Service Co.,Ltd.
	F616A Room, 6th Floor, Meixin Business Center, Dongcheng Middle Road, Dongguan, Guangdong, China
Report No.	PTS201411127F2
Test Date:	Nov. 20 ~ Nov. 30, 2014
Date of Report :	Nov.30, 2014



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# **VERIFICATION OF COMPLIANCE**

Applicant:	World Assurance Group Inc.
Address	The Seagram Building, 375 Park Avenue, Suite 2607, New York City NY
Manufacturer Name:	Quality Technology Industrial Co., Ltd.
Address:	201~203, 2/F, Block B3, Ming You Industrial Products Procurement Center, #168 Bao Yuan Road, Bao'an District, Shenzhen, China
Product Description:	Mobile phone
Brand Name:	World
Model Name:	WP4U
Serial Model	N/A
Test procedure	FCC Part15.247
Standards	ANSI C63.4-2003

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# 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C						
Standard Section	Test Item	Judgment	Remark			
15.207	Conducted Emission	PASS				
15.247 (a)(2)	6dB Bandwidth	PASS				
15.247 (b)	Peak Output Power	PASS				
15.247 (c)	Radiated Spurious Emission	PASS				
15.247 (d)	Power Spectral Density	PASS				
15.205	Band Edge Emission	PASS				
15.203	Antenna Requirement	PASS				

# NOTE:

(1)" N/A" denotes test is not applicable in this Test Report



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# 1.1 TEST FACILITY

Dongguan Quality Supervision Testing Center

Add.: B#, Dongguan Quality Supervision Testing Center, NO.2 South Industry Road,

Songshan Lake, Dongguan City, 523808, China.

FCC Registration No.: 817095; IC Registration No.: 6843A-1

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately 95 %  $^{\circ}$ 

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

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2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile phone				
Trade Name	World				
Model Name	WP4U				
Serial Model	N/A				
Model Difference	N/A				
Product Description	User's Manual, the EUT Device. More details of	one  802.11b/g/n:2412~2462 MHz 802.11n(40):2422~2452MHz  CCK/OFDM/DBPSK/DAPSK  802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6  Mbps 802.11n(20/40MHz):150/144.44/130/11 7/115.56/104/86.67/78/52/6.5 Mbps  802.11b/g/n20: 11CH 802.11n 40: 7CH  Please see Note 3.  802.11b: 13.33dBm (Max.) 802.11g: 11.46 dBm (Max.) 802.11n20: 10.85 dBm (Max.) 802.11n40: 10.32 dBm (Max.)  n, features, or specification exhibited in is considered as an ITE/Computing EUT technical specification, please refer to			
Channel List	the User's Manual. Please refer to the Note 2.				
Adapter	Input: AC 100-240V, 50/60Hz, 0.15A; Output: DC 5.0V, 1.0A				
Battery	2500mAh,3.7V				
Connecting I/O Port(s)	Please refer to the User's Manual				

#### Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

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2.

		Channe	el List for 80	)2.11b/g/n(2	20MHz)		
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	80	2447	11	2462
03	2422	06	2437	09	2452		

	Channel List for 802.11n(40MHz)						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	06	2437	09	2452		
04	2427	07	2442				
05	2432	80	2447				

3.

# Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
Α	N/A	N/A	Internal antenna	N/A	4.52	N/A



2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

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Pretest Mode	Description	
Mode 1	802.11b CH1/ CH6/ CH11	
Mode 2	802.11g CH1/ CH6/ CH11	
Mode 3	802.11n(20)CH1/ CH6/ CH11	
Mode 4	802.11n(40) CH3/ CH6/ CH9	
Mode 5	Mode 5 Link Mode	

For Conducted Emission				
Final Test Mode	Description			
Mode 4	Link Mode			

For Radiated Emission				
Final Test Mode	Description			
Mode 1	802.11b CH1/ CH6/ CH11			
Mode 2	802.11g CH1/ CH6/ CH11			
Mode 3	802.11n(20)CH1/ CH6/ CH11			
Mode 4	802.11n(40) CH3/ CH6/ CH9			

#### Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

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# 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED





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# 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Mobile phone	World	WP4U	N/A	EUT
E-2	Adapter	World	FL-POS	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.8M	
C-2	NO	NO	0.8M	

#### Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



# 2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY4510804 0	2014.07.06	2015.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2014.06.07	2015.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2014.07.06	2015.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 6	2014.06.07	2015.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2014.06.07	2015.06.06	1 year
6	Horn Antenna	EM	EM-AH-101 80	2011071402	2014.07.06	2015.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2014.07.06	2015.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2014.12.22	2015.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2014.06.08	2015.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2014.07.06	2015.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619. 05	2014.07.06	2015.07.05	1 year
12	RF cables	R&S	N/A	N/A	2014.07.06	2015.07.05	1 year

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**Conduction Test equipment** 

Item	Kind of Equipment	Manufactu rer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Test Receiver	R&S	ESCI	101160	2014.06.06	2015.06.05	1 year
2	LISN	R&S	ENV216	101313	2014.08.24	2015.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2014.08.24	2015.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 7	2014.06.07	2015.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2014.06.07	2015.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2014.06.08	2015.06.07	1 year
7	RF cables	R&S	N/A	N/A	2014.07.06	2015.07.05	1 year



3. EMC EMISSION TEST

# 3.1 CONDUCTED EMISSION MEASUREMENT

# 3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

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FREQUENCY (MHz)	Class A (dBuV)		Class B	Standard	
PREQUENCT (MINZ)	Quasi-peak	Average	Quasi-peak	Average	Statiuatu
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

### Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



#### 3.1.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

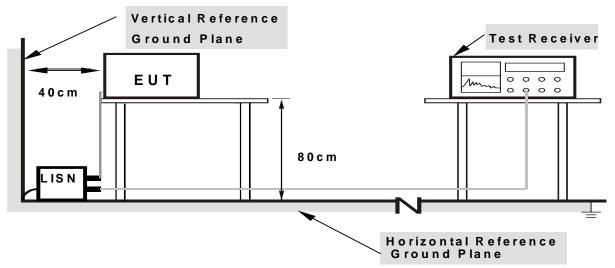
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- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

# 3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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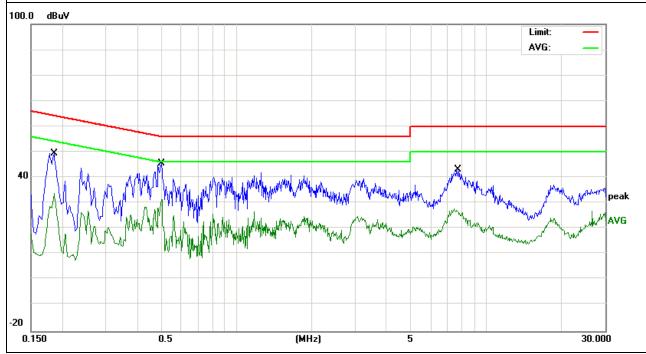
# 3.1.6 TEST RESULTS

EUT:	Mobile phone	Model Name. :	WP4U
Temperature :	<b>26</b> ℃	Relative Humidity:	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	AC120V	Test Mode:	Mode 5

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Туре
7.6980	32.81	10.41	43.22	60.00	-16.78	QP
0.5020	35.29	10.20	45.49	56.00	-10.51	QP
0.1860	39.69	9.79	49.48	64.21	-14.73	QP
0.1860	23.24	9.79	33.03	54.21	-21.18	AVG
0.5020	21.24	10.20	31.44	46.00	-14.56	AVG
7.6980	17.42	10.41	27.83	50.00	-22.17	AVG

# Remark:

- All readings are Quasi-Peak and Average values.
   Factor = Insertion Loss + Cable Loss.

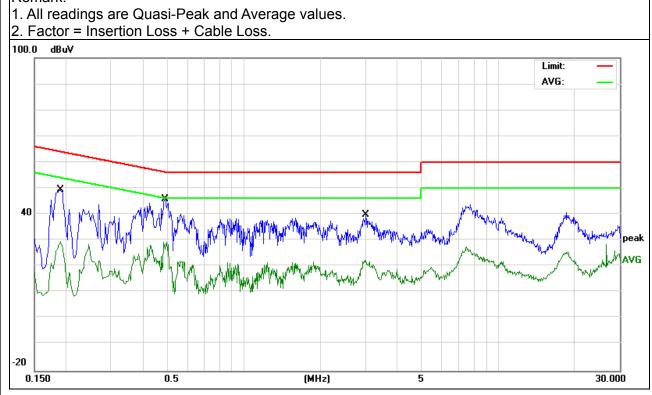


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EUT:	Mobile phone	Model Name. :	WP4U
Temperature :	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC120V	Test Mode:	Mode 5

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Туре
0.4900	35.68	10.17	45.85	56.17	-10.32	QP
3.0100	29.63	10.32	39.95	56.00	-16.05	QP
0.1900	39.64	9.83	49.47	64.03	-14.56	QP
0.1900	19.83	9.83	29.66	54.03	-24.37	AVG
0.4900	19.31	10.17	29.48	46.17	-16.69	AVG
3.0100	12.00	10.32	22.32	46.00	-23.68	AVG

# Remark:





3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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

Setting	
Auto	
1000 MHz	
10th carrier harmonic	
1 MHz / 1 MHz for Peak, 1 MHz / <i>10Hz</i> for Average	

Receiver Parameter	Setting		
Attenuation	Auto		
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP		
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP		
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP		

# 3.2.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.





d. 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 re-measured.

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- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

#### 3.2.3 DEVIATION FROM TEST STANDARD

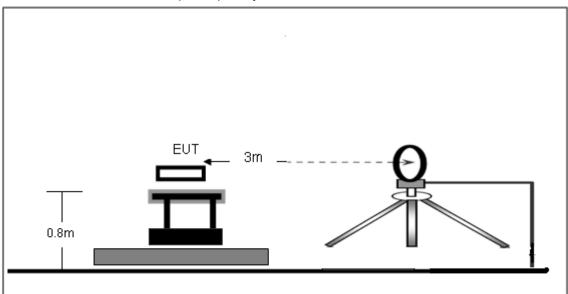
No deviation



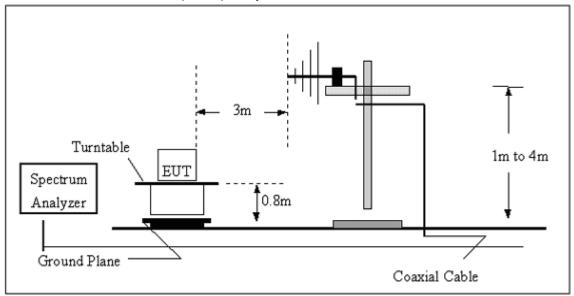
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# 3.2.4 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz



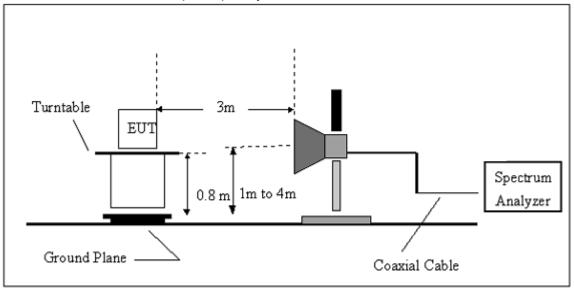
(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





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# (C) Radiated Emission Test-Up Frequency Above 1GHz



# 3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

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# 3.2.6 TEST RESULTS (BETWEEN 9KHZ - 30 MHZ)

EUT:	Mobile phone	Model Name. :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidtity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode:	TX	Polarization :	

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				PASS
				PASS

# NOTE:

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

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

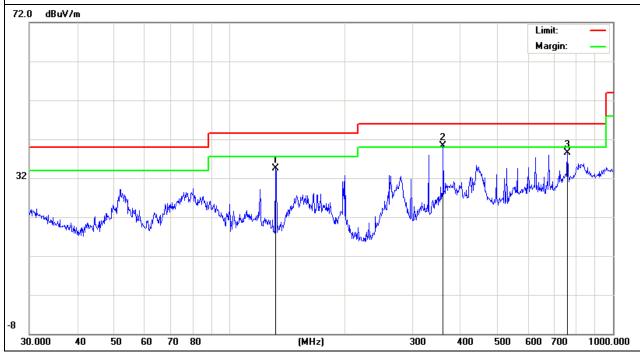
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# 3.2.7 TEST RESULTS (BETWEEN 30MHZ - 1GHZ)

EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Link	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
131.7576	22.47	11.94	34.41	43.50	-9.09	QP
360.4476	24.71	15.57	40.28	46.00	-5.72	QP
760.7036	14.16	24.36	38.52	46.00	-7.48	QP

# Remark:



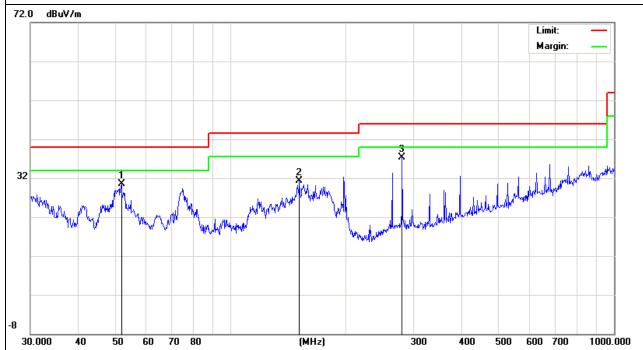


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EUT:	Mobile phone	Model Name :	WP4U
	<u> </u>	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Link	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotostor Typo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
51.8430	23.29	7.31	30.60	40.00	-9.40	QP
151.0665	19.54	11.68	31.22	43.50	-12.28	QP
280.0237	23.97	13.35	37.32	46.00	-8.68	QP

# Remark:



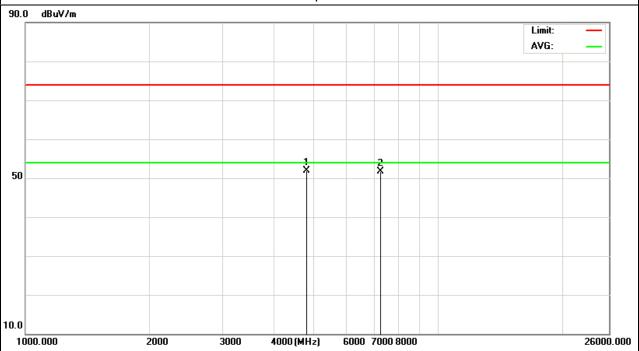
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# 3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1 (802.11b Mode)/2412	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4803.945	41.49	10.40	51.89	74.00	-22.11	peak
7236.007	39.37	12.39	51.76	74.00	-22.24	peak

# Remark:



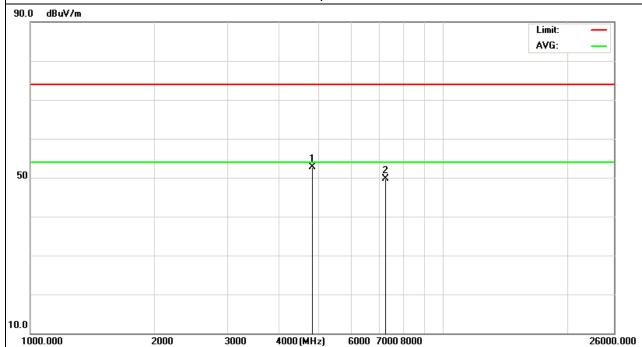


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1 (802.11b Mode)/2412	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4824.211	42.17	10.44	52.61	74.00	-21.39	peak
7236.192	37.26	12.39	49.65	74.00	-24.35	peak

# Remark:



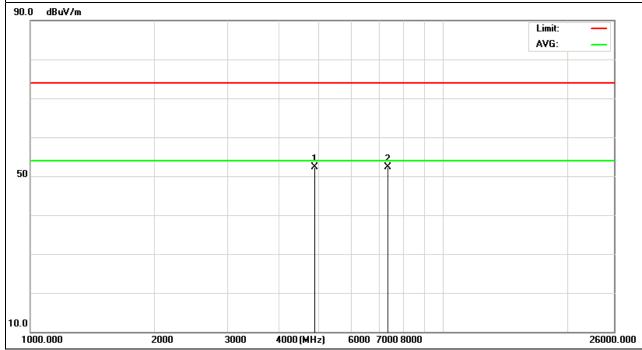


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6 (802.11b Mode)/2437	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4876.467	41.84	10.39	52.23	74.00	-21.77	peak
7322.612	39.63	12.76	52.39	74.00	-21.61	peak

#### Remark:



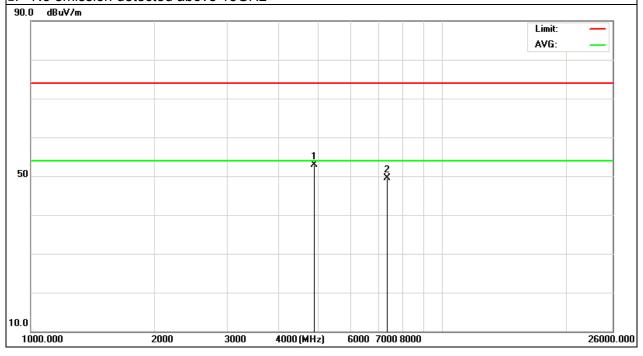
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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6 (802.11b Mode)/2437	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4874.224	42.46	10.40	52.86	74.00	-21.14	peak
7331.765	36.63	12.78	49.41	74.00	-24.59	peak

# Remark:

- 1. Factor = Antenna Factor + Cable Loss Pre-amplifier.
- 2. No emission detected above 18GHz



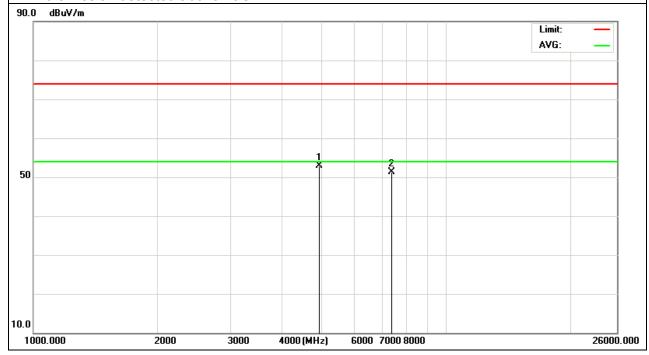
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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11 (802.11b Mode)/2462	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotostor Typo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4924.006	42.57	10.39	52.96	74.00	-21.04	peak
7385.619	38.64	12.68	51.32	74.00	-22.68	peak

# Remark:

- 1. Factor = Antenna Factor + Cable Loss Pre-amplifier.
- 2. No emission detected above 18GHz



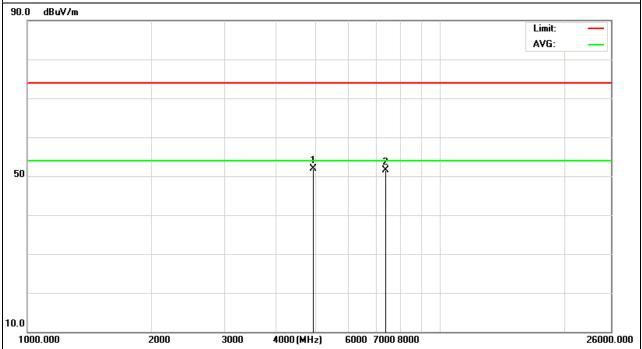


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11 (802.11b Mode)/2462	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4924.657	41.53	10.39	51.92	74.00	-22.08	peak
7386.662	38.90	12.68	51.58	74.00	-22.42	peak

# Remark:

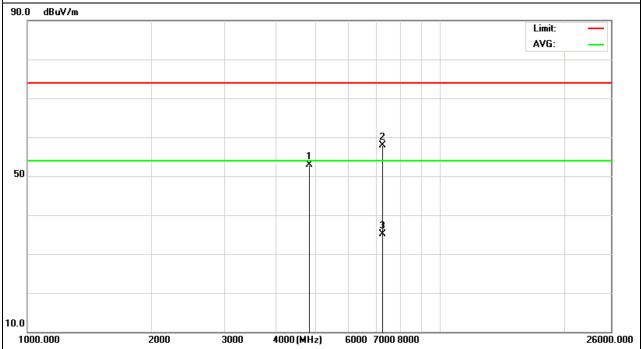


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1 (802.11g Mode)/2412	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4823.617	42.48	10.44	52.92	74.00	-21.08	peak
7237.384	45.47	12.39	57.86	74.00	-16.14	peak
7237.384	22.64	12.39	35.03	54.00	-18.97	AVG

# Remark:

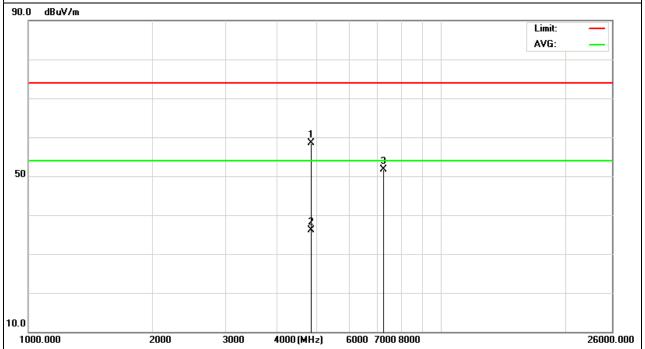


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1 (802.11g Mode)/2412	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Turns
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4824.337	48.03	10.44	58.47	74.00	-15.53	peak
4824.337	25.62	10.44	36.06	54.00	-17.94	AVG
7235.242	39.23	12.39	51.62	74.00	-22.38	peak

# Remark:



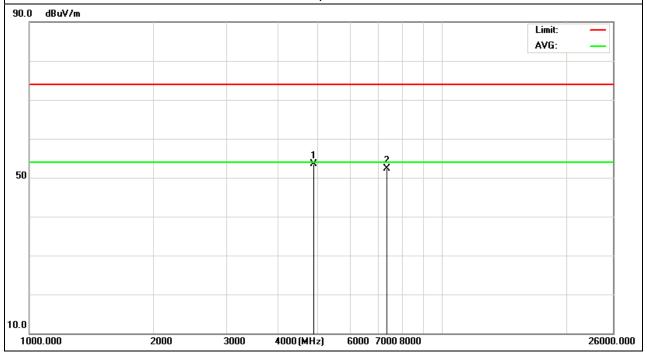


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EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6 (802.11g Mode)/2437	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4875.220	43.16	10.39	53.55	74.00	-20.45	peak
7332.494	39.46	12.79	52.25	74.00	-21.75	peak

# Remark:



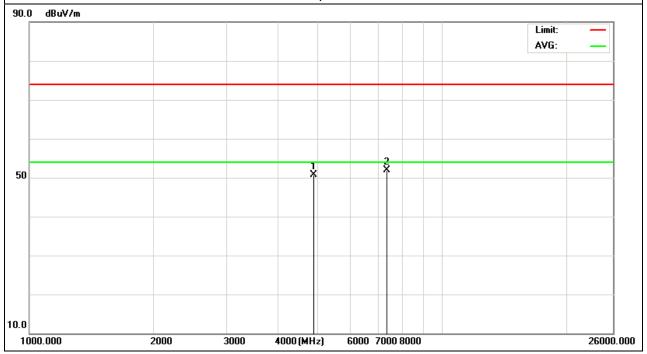


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6 (802.11g Mode)/2437	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4873.031	40.27	10.41	50.68	74.00	-23.32	peak
7333.465	39.06	12.79	51.85	74.00	-22.15	peak

# Remark:



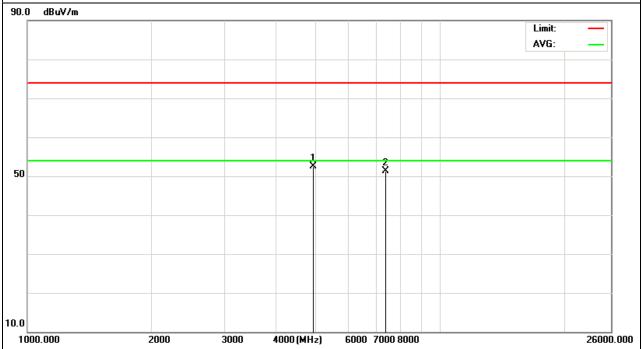


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11 (802.11g Mode)/2462	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tuna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4923.391	42.03	10.39	52.42	74.00	-21.58	peak
7386.247	38.61	12.68	51.29	74.00	-22.71	peak

# Remark:



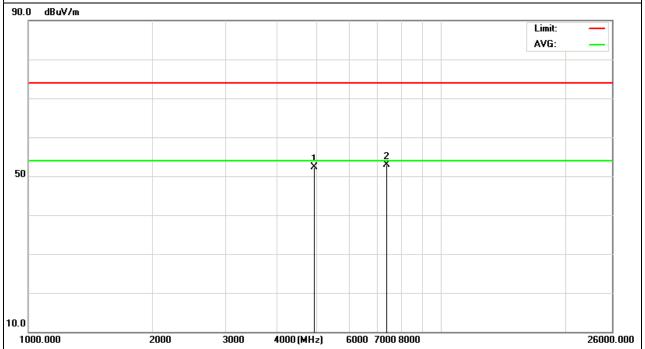


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11g Mode)/2462	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Turns
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4925.257	41.92	10.40	52.32	74.00	-21.68	peak
7385.619	40.13	12.68	52.81	74.00	-21.19	peak

# Remark:

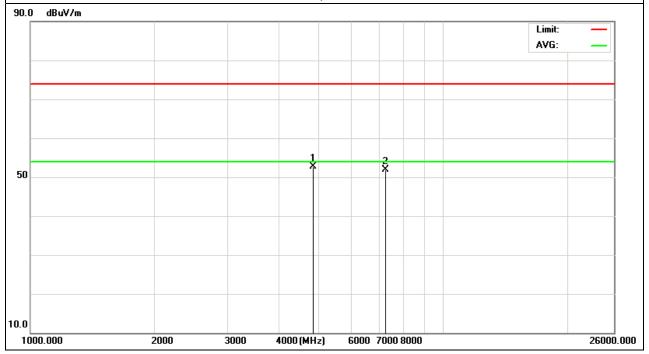


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11n Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data atau Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4824.924	42.19	10.45	52.64	74.00	-21.36	peak
7235.792	39.60	12.39	51.99	74.00	-22.01	peak

# Remark:

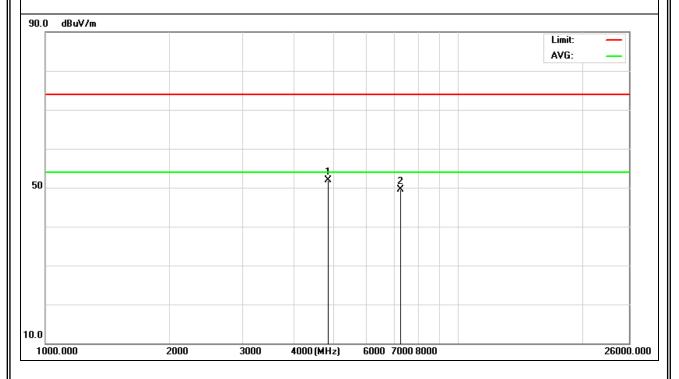


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11n Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4824.663	41.48	10.44	51.92	74.00	-22.08	peak
7236.719	37.15	12.39	49.54	74.00	-24.46	peak

# Remark:



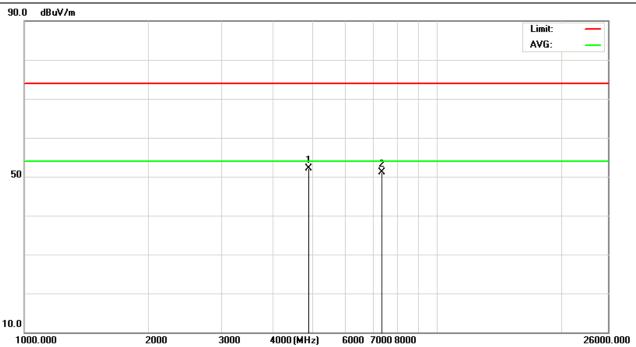


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			<u>.</u>
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6(802.11n Mode)	Polarization:	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4875.399	41.68	10.39	52.07	74.00	-21.93	peak
7332.642	38.27	12.79	51.06	74.00	-22.94	peak

# Remark:

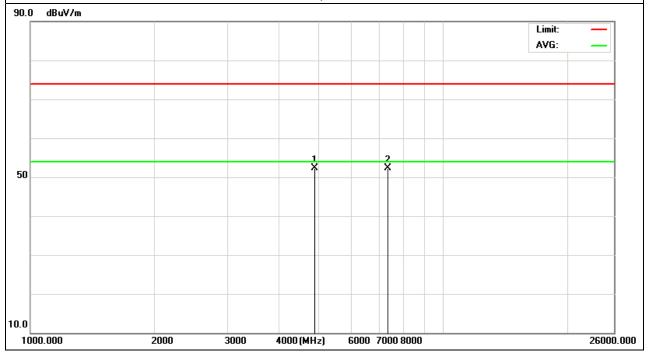


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6(802.11n Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4873.941	41.99	10.40	52.39	74.00	-21.61	peak
7334.093	39.48	12.79	52.27	74.00	-21.73	peak

# Remark:

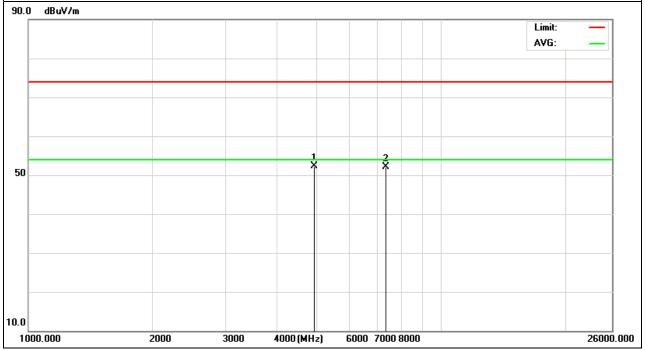


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11n Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4923.957	41.93	10.39	52.32	74.00	-21.68	peak
7340.557	39.27	12.79	52.06	74.00	-21.94	peak

# Remark:

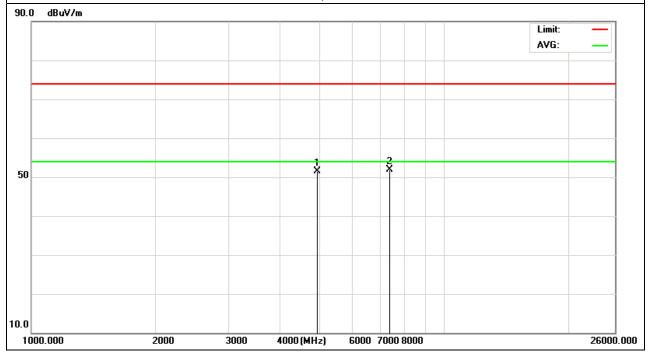


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11n Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4924.404	41.08	10.39	51.47	74.00	-22.53	peak
7387.457	39.26	12.68	51.94	74.00	-22.06	peak

# Remark:

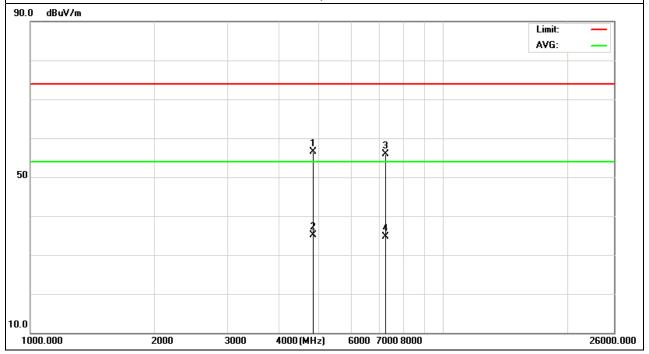


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH3(802.11n Mode)/40MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tuna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4845.167	46.03	10.50	56.53	74.00	-17.47	peak
4845.167	24.66	10.50	35.16	54.00	-18.84	AVG
7266.461	43.40	12.50	55.90	74.00	-18.10	peak
7266.461	22.16	12.50	34.66	54.00	-19.34	AVG

# Remark:

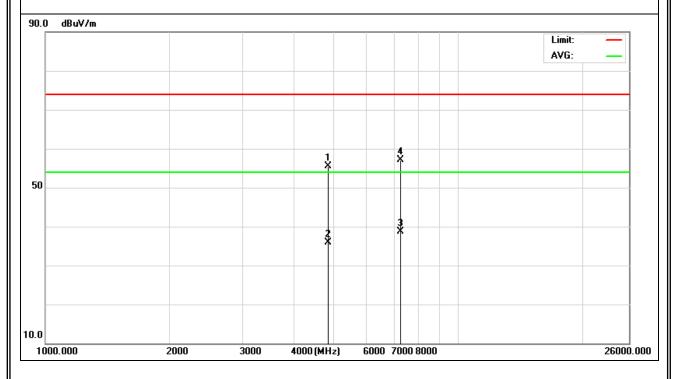


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH3(802.11n Mode) /40MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4844.284	45.02	10.50	55.52	74.00	-18.48	peak
4844.284	25.49	10.50	35.99	54.00	-18.01	AVG
7265.590	26.19	12.50	38.69	54.00	-15.31	AVG
7265.599	44.58	12.50	57.08	74.00	-16.92	peak

#### Remark:



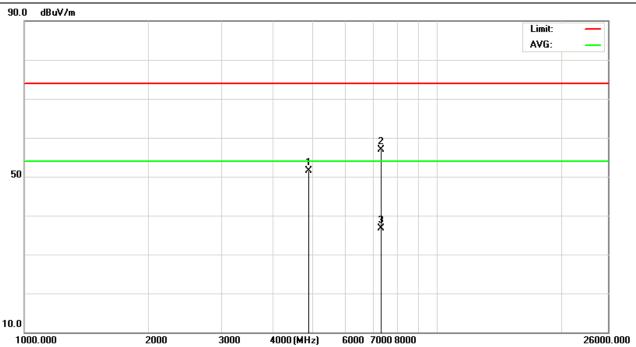


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		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature:	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6(802.11n Mode) /40MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4873.427	41.20	10.40	51.60	74.00	-22.40	peak
7310.427	44.24	12.75	56.99	74.00	-17.01	peak
7310.517	23.97	12.75	36.72	54.00	-17.28	AVG

# Remark:

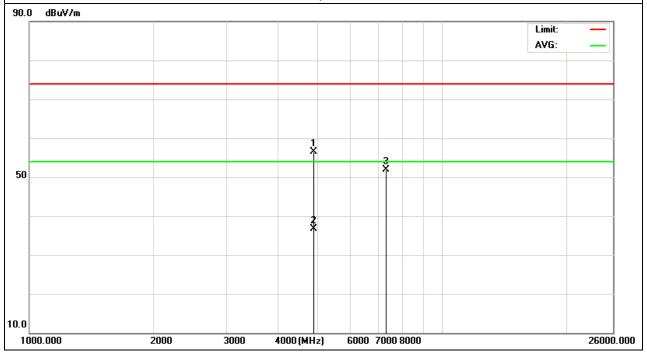


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH6(802.11n Mode) /40MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4874.492	46.07	10.40	56.47	74.00	-17.53	peak
4874.492	26.34	10.40	36.74	54.00	-17.26	AVG
7312.590	39.14	12.75	51.89	74.00	-22.11	peak

# Remark:

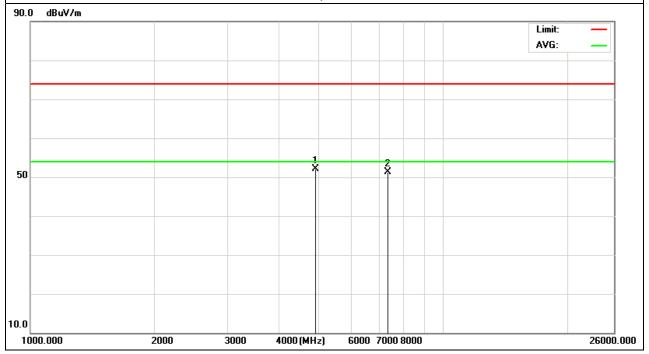


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH9(802.11n Mode) /40MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4905.467	41.71	10.30	52.01	74.00	-21.99	peak
7356.826	38.51	12.79	51.30	74.00	-22.70	peak

# Remark:

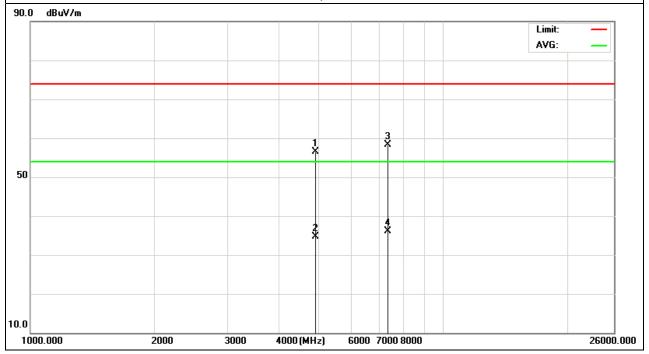


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH9(802.11n Mode) /40MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4904.462	46.29	10.30	56.59	74.00	-17.41	peak
4904.462	24.38	10.30	34.68	54.00	-19.32	AVG
7357.239	45.49	12.79	58.28	74.00	-15.72	peak
7357.239	23.28	12.79	36.07	54.00	-17.93	AVG

# Remark:





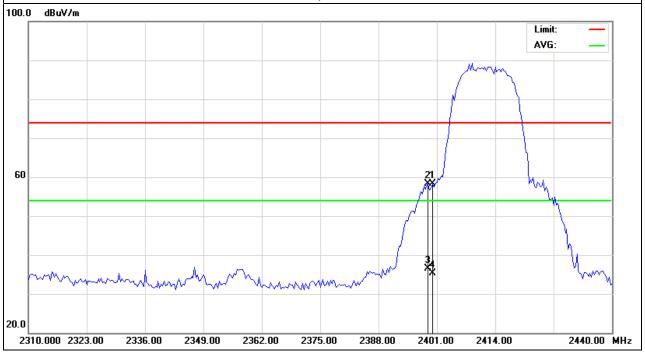


EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11b Mode)	Polarization :	Horizontal

Report No.: PTS201411127F2

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
2400.000	71.39	-12.99	58.40	74.00	-15.60	peak
2399.050	71.40	-13.00	58.40	74.00	-15.60	peak
2399.050	49.47	-13.00	36.47	54.00	-17.53	AVG
2400.000	48.23	-12.99	35.24	54.00	-18.76	AVG

# Remark:







EUT:	Mobile phone	Model Name :	WP4U
Temperature:	20 ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11b Mode)	Polarization :	Vertical

Report No.: PTS201411127F2

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
2399.375	75.89	-12.99	62.90	74.00	-11.10	peak
2399.375	52.16	-12.99	39.17	54.00	-14.83	AVG
2400.000	73.59	-12.99	60.60	74.00	-13.40	peak
2400.000	51.90	-12.99	38.91	54.00	-15.09	AVG

# Remark:

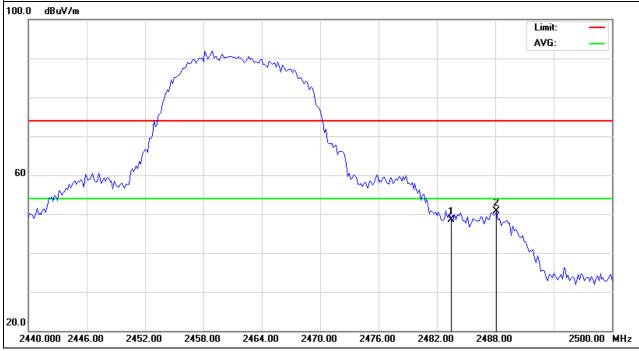


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EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11b Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	61.31	-12.78	48.53	74.00	-25.47	peak
2488.150	63.53	-12.77	50.76	74.00	-23.24	peak

# Remark:

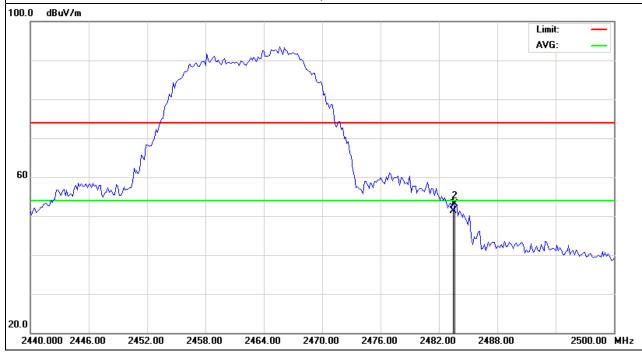


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11b Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	64.18	-12.78	51.40	74.00	-22.60	peak
2483.650	65.88	-12.78	53.10	74.00	-20.90	peak

# Remark:



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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11g Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	69.59	-12.99	56.60	74.00	-17.40	peak
2400.000	40.07	-12.99	27.08	54.00	-26.92	AVG

# Remark:

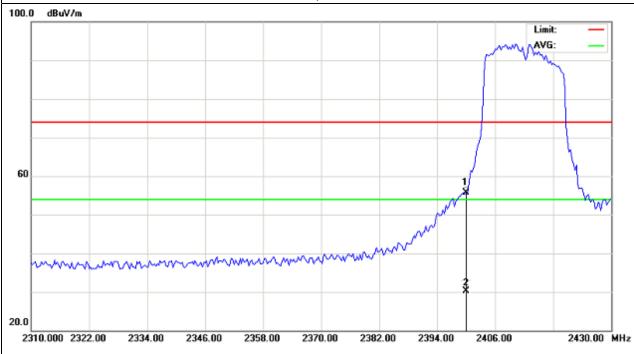


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11gMode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	68.69	-12.99	55.70	74.00	-18.30	peak
2400.000	44.55	-12.99	31.56	54.00	-22.44	AVG

# Remark:

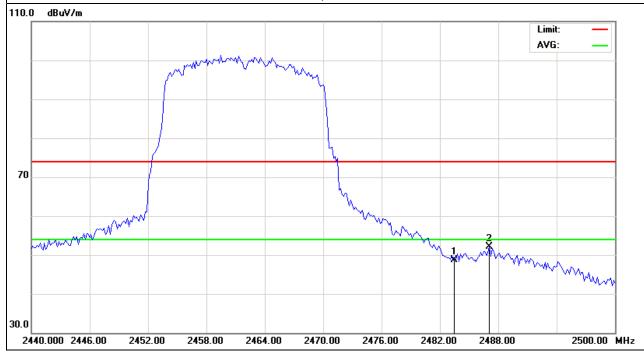




EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11g Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	61.58	-12.78	48.80	74.00	-25.20	peak
2487.100	64.87	-12.77	52.10	74.00	-21.90	peak

# Remark:

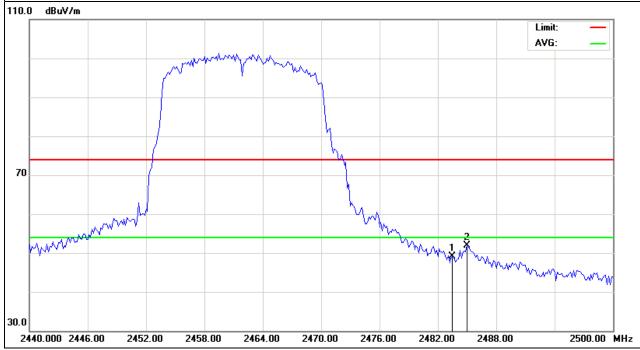




EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11g Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	61.85	-12.78	49.07	74.00	-24.93	peak
2485.000	64.68	-12.78	51.90	74.00	-22.10	peak

# Remark:

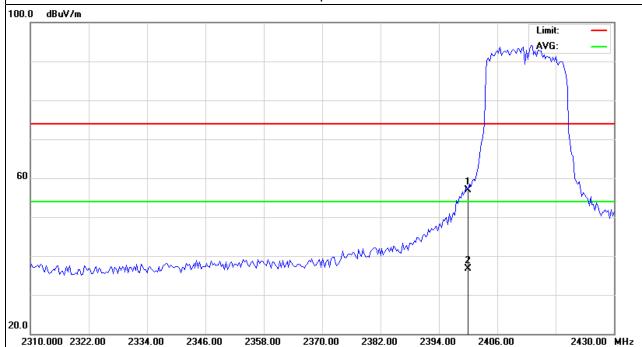


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11N Mode)	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tyna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	69.89	-12.99	56.90	74.00	-17.10	peak
2400.000	49.64	-12.99	36.65	54.00	-17.35	AVG

# Remark:

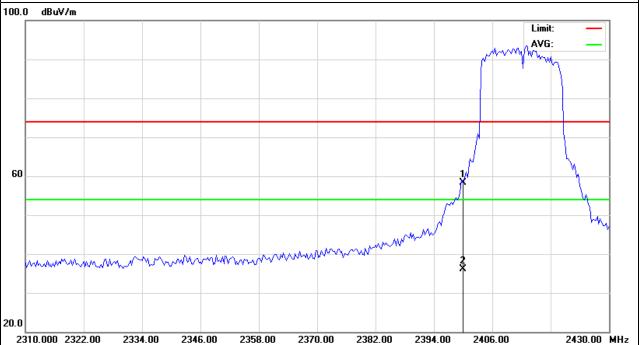


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EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH1(802.11N Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	71.39	-12.99	58.40	74.00	-15.60	peak
2400.000	49.16	-12.99	36.17	54.00	-17.83	AVG

# Remark:



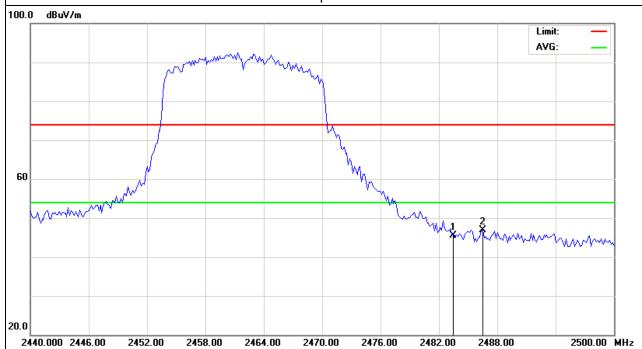


EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11N Mode)	Polarization :	Horizontal

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Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastas Tosa
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	58.28	-12.78	45.50	74.00	-28.50	peak
2486.500	59.77	-12.77	47.00	74.00	-27.00	peak

#### Remark:

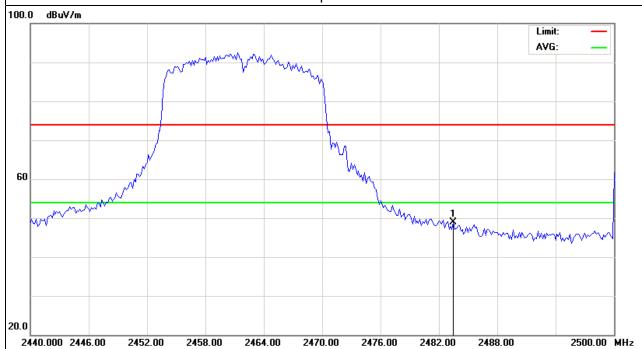


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH11(802.11N Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data et en Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	61.78	-12.78	49.00	74.00	-25.00	peak

# Remark:





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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH9(802.11n Mode)/40MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data atau Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	66.08	-12.78	53.30	74.00	-20.70	peak

# Remark:



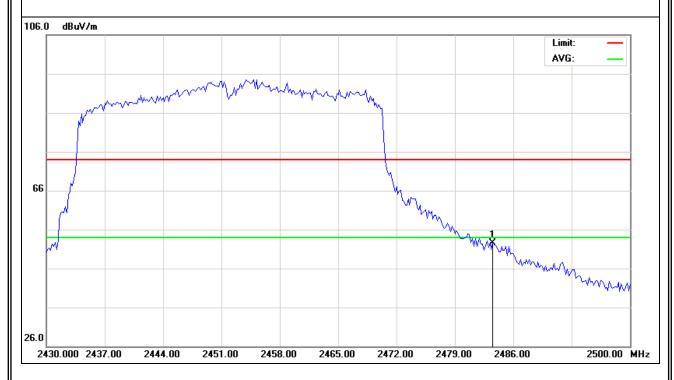


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH9(802.11n Mode) /40MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotostor Typo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.500	65.28	-12.78	52.50	74.00	-21.50	peak

# Remark:

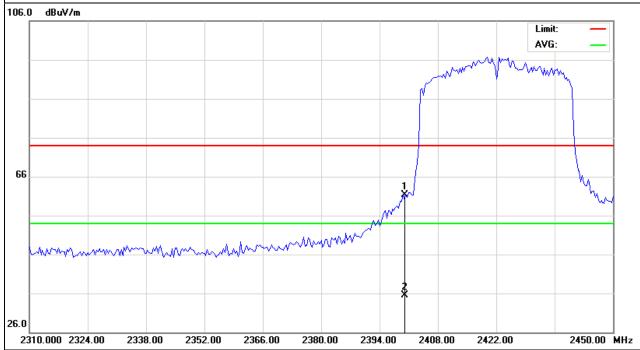


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH3(802.11n Mode) /40MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastar Tuna
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	74.39	-12.99	61.40	74.00	-12.60	peak
2400.000	48.57	-12.99	35.58	54.00	-18.42	AVG

#### Remark:

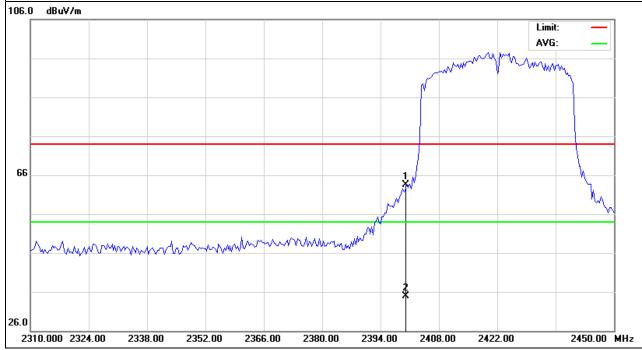


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EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH3(802.11n Mode) /40MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2400.000	76.49	-12.99	63.50	74.00	-10.50	peak
2400.000	47.92	-12.99	34.93	54.00	-19.07	AVG

# Remark:





4. POWER SPECTRAL DENSITY TEST

#### 4.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result	
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS	

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#### **4.1.1 TEST PROCEDURE**

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS channel bandwidth.
- 3. Set the RBW  $\geq$  3 kHz.
- 4. Set the VBW  $\geq$  3 x RBW.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

#### 4.1.2 DEVIATION FROM STANDARD

No deviation.

#### 4.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

#### 4.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

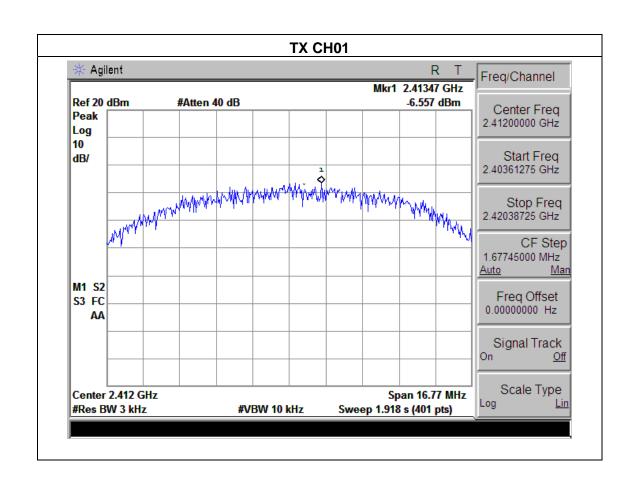


4.1.5 TEST RESULTS

EUT:	Mobile phone	Model Name :	WP4U
Temperature :	25 ℃	Relative Humidity:	60%
Pressure :	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX b Mode /CH01, CH06, CH11		

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Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-6.56	8	PASS
2437 MHz	-4.64	8	PASS
2462 MHz	-4.16	8	PASS



**#VBW 10 kHz** 



AA

Center 2.437 GHz

#Res BW 3 kHz

**TX CH06** Agilent R Peak Search Mkr1 2.43846 GHz Ref 20 dBm #Atten 40 dB -4.64 dBm Peak Meas Tools > Log 10 dB/ Next Peak Next Pk Right Next Pk Left M1 S2 S3 FC Min Search

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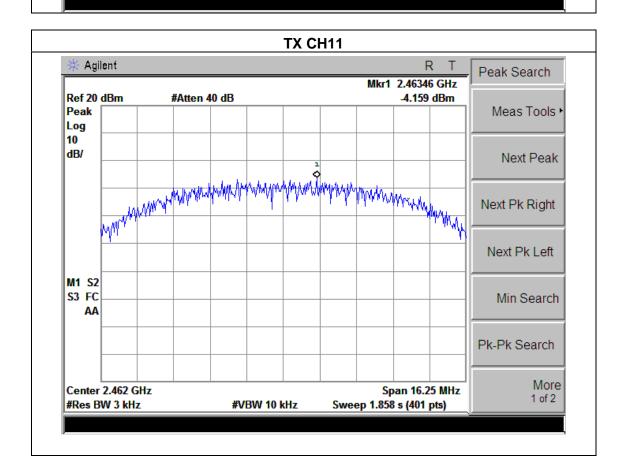
Pk-Pk Search

Span 16.72 MHz

Sweep 1.912 s (401 pts)

More

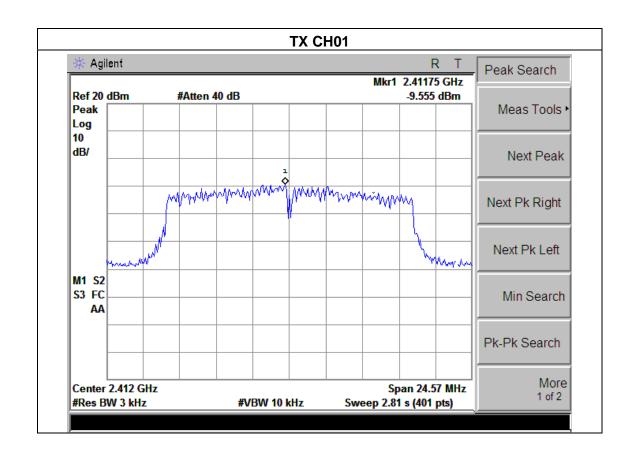
1 of 2



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,			
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX g Mode /CH01, CH06, CH11		

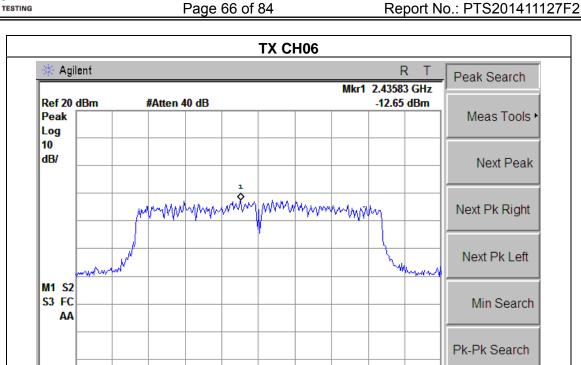
Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-9.56	8	PASS
2437 MHz	-12.65	8	PASS
2462 MHz	-11.76	8	PASS





Center 2.437 GHz

#Res BW 3 kHz



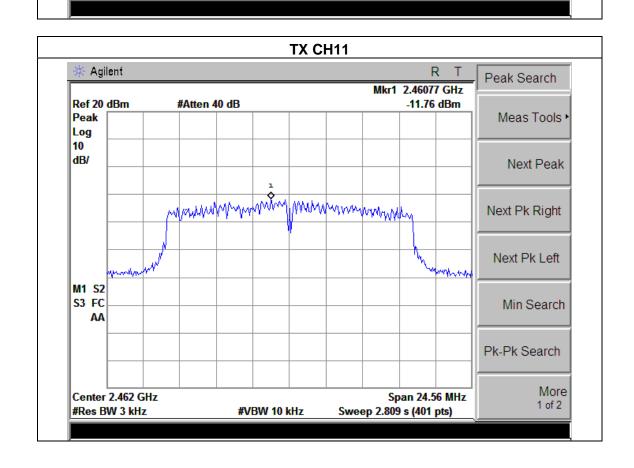
**#VBW 10 kHz** 

More

1 of 2

Span 24.63 MHz

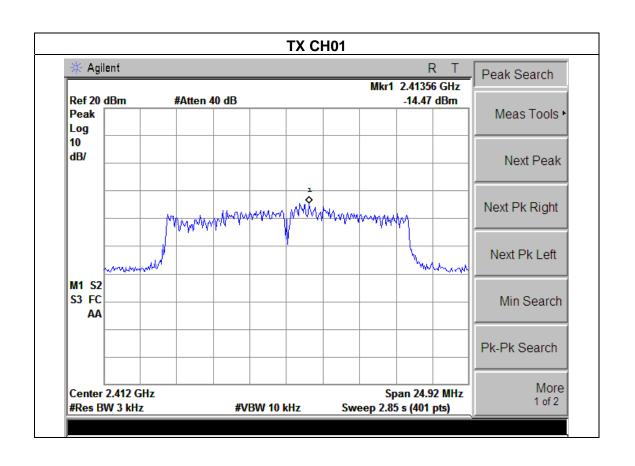
Sweep 2.817 s (401 pts)



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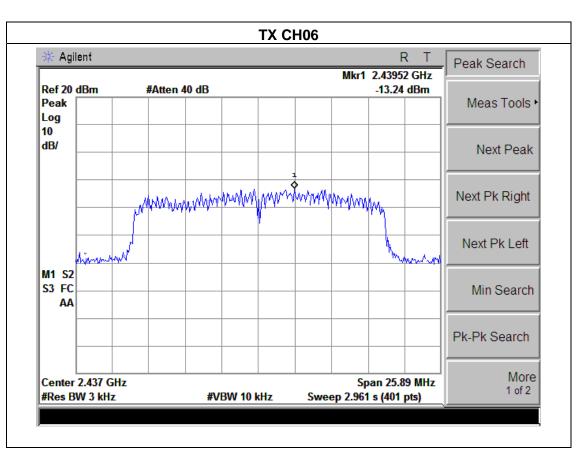
EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n(20) Mode /CH01, CH06, CH11		

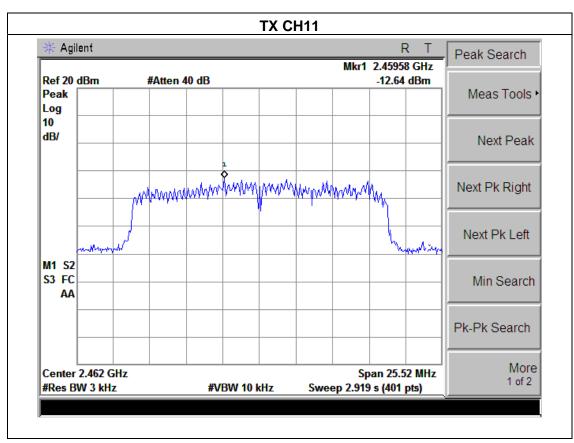
Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-14.47	8	PASS
2437 MHz	-13.24	8	PASS
2462 MHz	-12.64	8	PASS





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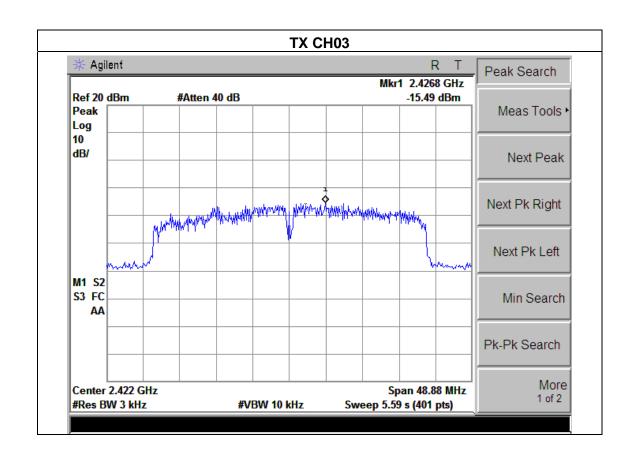




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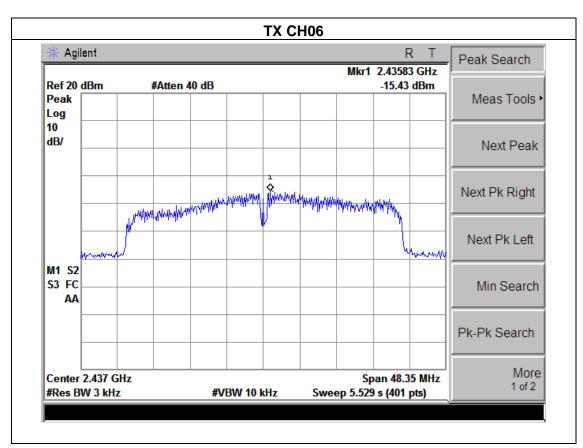
		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n(40) Mode /CH03, CH06, CH09		

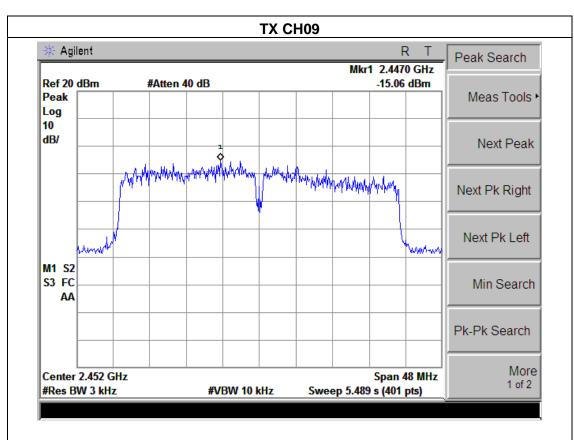
Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-15.49	8	PASS
2437 MHz	-15.43	8	PASS
2452 MHz	-15.06	8	PASS





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# 5. BANDWIDTH TEST

#### 5.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result	
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS	

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#### **5.1.1 TEST PROCEDURE**

- 1. Set RBW= 100 kHz.
- 2. Set the video bandwidth (VBW)  $\geq$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

## **5.1.2 DEVIATION FROM STANDARD**

No deviation.

## 5.1.3 TEST SETUP



## **5.1.4 EUT OPERATION CONDITIONS**

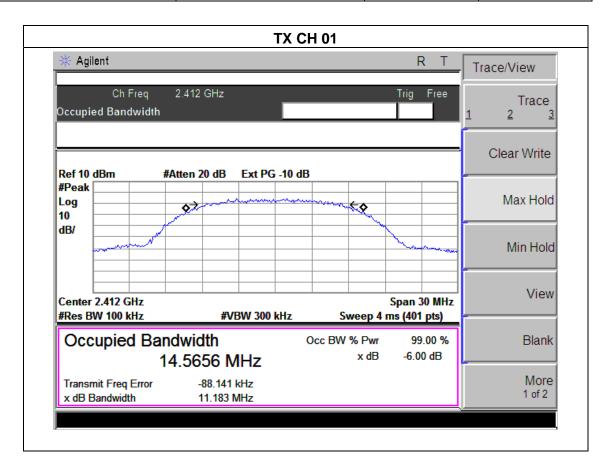
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



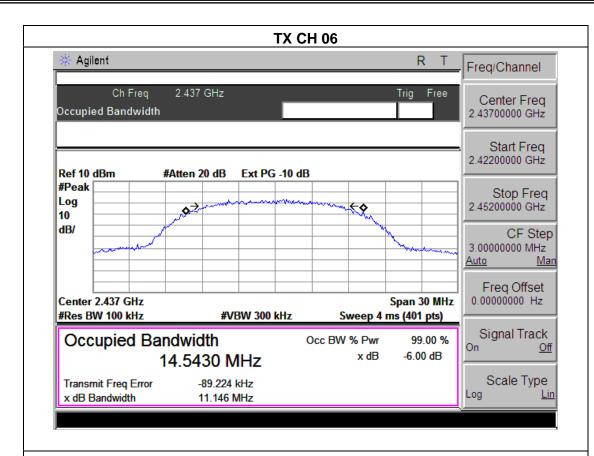
**5.1.5 TEST RESULTS** 

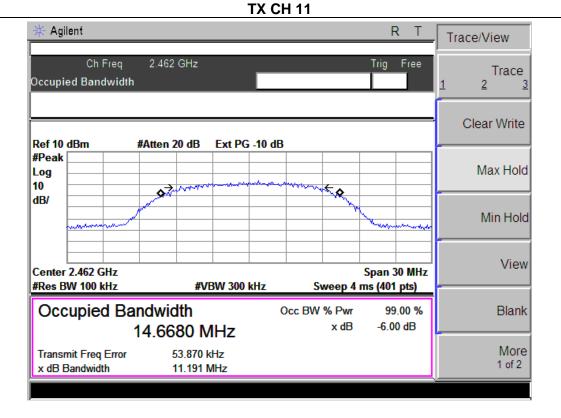
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX b Mode /CH01 CH06 CH1	1	

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	11.18	>=500KHz	PASS
2437 MHz	11.14	>=500KHz	PASS
2462 MHz	11.19	>=500KHz	PASS







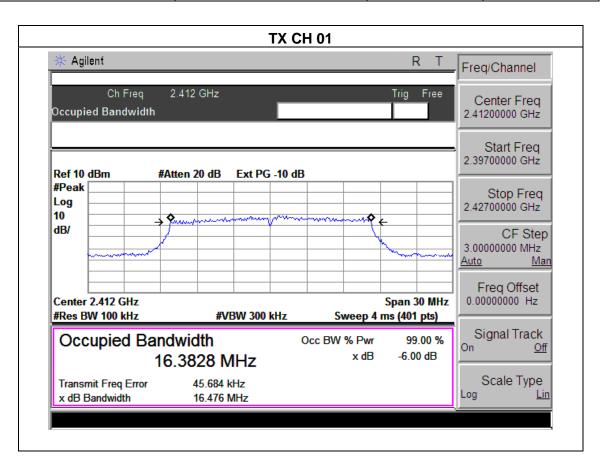




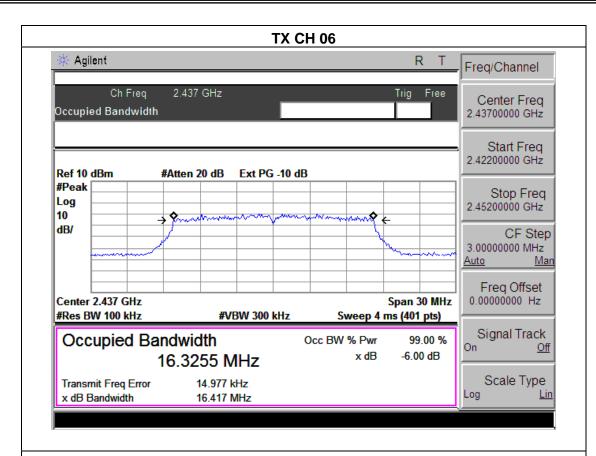
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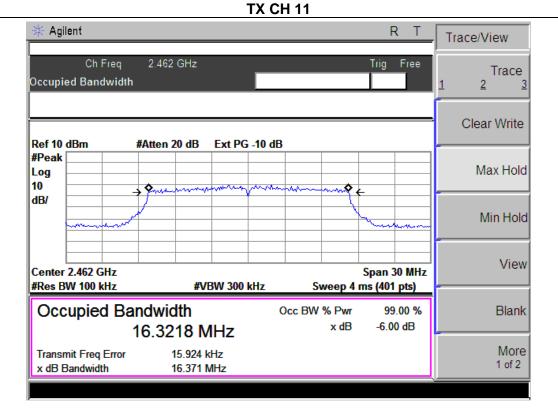
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX g Mode /CH01, CH06, CH1	1	

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	16.47	>=500KHz	PASS
2437 MHz	16.42	>=500KHz	PASS
2462 MHz	16.37	>=500KHz	PASS





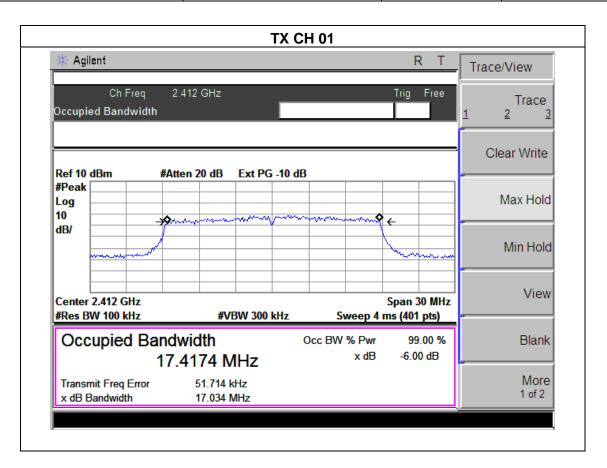




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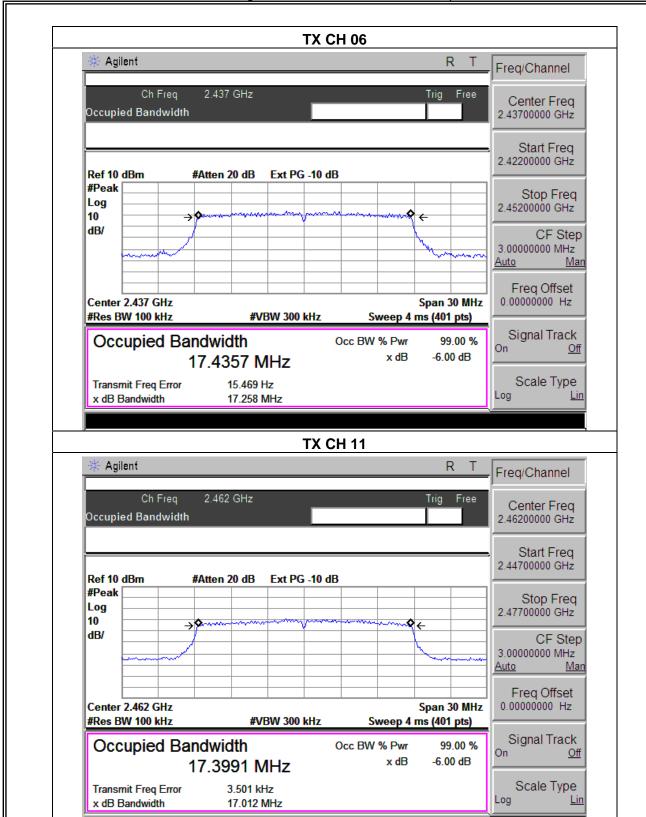
		_	
EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n(20) Mode /CH01, CH06, (	CH11	

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	17.03	>=500KHz	PASS
2437 MHz	17.26	>=500KHz	PASS
2462 MHz	17.01	>=500KHz	PASS





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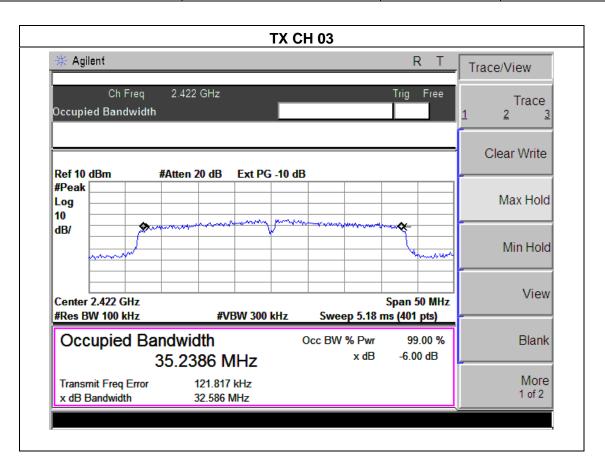




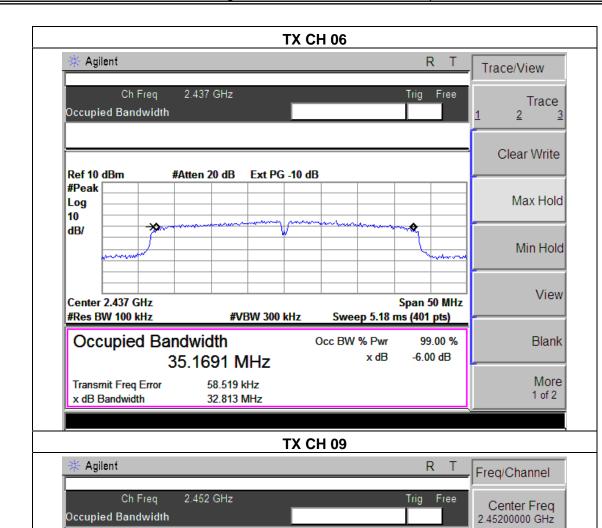
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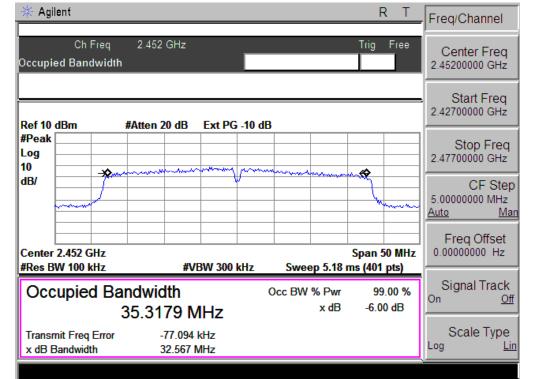
EUT:	Mobile phone	Model Name :	WP4U
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX n(40) Mode /CH03, CH06, 0	CH09	

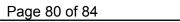
Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2422 MHz	32.58	>=500KHz	PASS
2437 MHz	32.81	>=500KHz	PASS
2452 MHz	32.56	>=500KHz	PASS













**6. PEAK OUTPUT POWER TEST** 

## **6.1 APPLIED PROCEDURES / LIMIT**

FCC Part15 (15.247) , Subpart C					
Section Test Item Limit Frequency Range (MHz) Result				Result	
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS	

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#### **6.1.1 TEST PROCEDURE**

a. The EUT was directly connected to the Power meter

## **6.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 6.1.3 TEST SETUP



## **6.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

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# 6.1.5 TEST RESULTS

EUT:	Mobile phone	Model Name :	WP4U
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX b/g/n Mode /CH01, CH06, CH11		

	TX 802.11b Mode				
		Maximum Peak	Maximum AV		
Test	Frequency	Conducted Output	Conducted Output	LIMIT	
Channe		Power	Power		
	(MHz)	(dBm)	(dBm)	dBm	
CH01	2412	13.01	8.89	30	
CH06	2437	13.23	9.21	30	
CH11	2462	13.33	8.93	30	
		TX 802.11	g Mode		
CH01	2412	11.23	7.56	30	
CH06	2437	11.46	7.78	30	
CH11	2462	11.67	7.83	30	
		TX 802.11n(	20) Mode		
CH01	2412	10.17	7.04	30	
CH06	2437	10.85	6.94	30	
CH11	2462	10.37	7.14	30	
TX 802.11n(40) Mode					
CH03	2422	10.54	6.67	30	
CH06	2437	10.32	7.03	30	
CH09	2452	10.52	6.83	30	





7. ANTENNA REQUIREMENT

# 7.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: 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.

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# 7.2 EUT ANTENNA

The EUT antenna is Integrated ante	nna. It comply with t	he standard req	uirement.
------------------------------------	-----------------------	-----------------	-----------



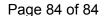
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# 8. EUT TEST PHOTO











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