

FCC PART 15 SUBPART C TEST REPORT

for

PbDongle-CC2511

Model No.: PB-2701

FCC ID: WXQPB-2701

of

Applicant: POLOSTAR TECHNOLOGY CORPORATION

**Address: 8F-7, No.79, Sec. 1, Hsin Tai Wu Rd., Xizhi Dist.,
New Taipei City 221, Taiwan, R.O.C.**

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1

A2LA Accredited No.: 2732.01



Report No.: W6M21211-12878-P-15

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com



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Worldwide Testing Services(Taiwan) Co., Ltd.

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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

Tester:

December 05, 2012

Robert Ren

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

December 05, 2012

Danny Sung

Date

WTS

Name

Signature



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1.2 Testing laboratory

1.2.1 Location

OATS

No.5-1, Lishui, Shuang Sing Village,
Wanli Dist., New Taipei City 207,
Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

TEL:886-2-6613-0228

FAX:886-2-2791-5046

Company

Worldwide Testing Services(Taiwan) Co., Ltd.

6F, NO. 58, LANE 188, RUEY-KUANG RD.

NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877

Fax : 886-2-66068879

1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2730.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1



Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :

Name: ./.

Accredited number: ./.

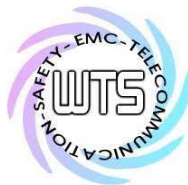
Street: ./.

Town: ./.

Country: ./.

Telephone: ./.

Fax: ./.



Worldwide Testing Services(Taiwan) Co., Ltd.

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1.3 Details of approval holder

Name: POLOSTAR TECHNOLOGY CORPORATION
Street: 8F-7, No.79, Sec. 1, Hsin Tai Wu Rd., Xizhi Dist.,
Town: New Taipei City 221
Country: Taiwan, R.O.C
Telephone: +886-2-86983478
Fax: +886-2-86983548
Teletex: ./.

1.4 Application details

Date of receipt of test item: November 19, 2012
Date of test: From November 19, 2012 to December 05, 2012

1.5 General information of Test item

Type of test item: PbDongle-CC2511
Model Number: PB-2701
Multi-listing model number: ./.
Photos: see Annex

Technical data

Frequency band: 2.400-2.4835GHz
Operation Frequency: 2.4021-2.4811GHz
Frequency 1: 2.4021 GHz
Frequency 2: 2.4481 GHz
Frequency 3: 2.4811 GHz
Operation modes: duplex
Modulation Type: MSK
Antenna type: PCB antenna
Power supply: 5VDC (Power from PC)

Manufacturer: (if different from applicant)

Name: ./.
Street: ./.
Town: ./.
Country: ./.

Additional information: ./.

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART C § 15.249 (2011-10)



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2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.



or

The deviations as specified in 2.5 were ascertained in the course of the tests performed.



2.2 Test environment

Temperature:	23 °C
Relative humidity content:	20 ... 75 %
Air pressure:	86 ... 103 kPa
Details Power supply:	5VDC (Power from PC)
Extreme conditions parameters:	Not required



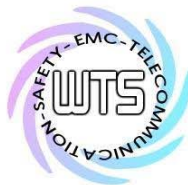
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2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2012/9/5	2013/9/4
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2011/12/28	2012/12/27
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2012/9/26	2013/9/25
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2012/3/5	2013/3/4
ETSTW-CE 007	SPECTRUM ANALYZER 5GHz	FSB	849670/001	R&S	Pre-test Use	
ETSTW-CE 008	HF-EICHELITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2012/7/3	2013/7/2
ETSTW-CE 013	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T4-02	20242	FCC	2012/9/6	2013/9/5
ETSTW-CE 024	IMPEDANCE STABILIZATION NETWORK	ISN T800	29454	TESEQ	2012/1/4	2013/1/3
ETSTW-CS 004	COUPLING AND DECOUPLING NETWORK	CDN M016	20053	SCHAFFNER	2012/8/10	2013/8/09
ETSTW-CS 005	RF Power Amplifier	100A250A	306547	AR	Function Test	
ETSTW-CS 010	6 dB Attenuator	SA3N1007-06	None	AISI	Function test	
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2012/8/10	2013/8/09
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2012/9/5	2013/9/4
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2012/9/5	2013/9/4
ETSTW-RE 010	ABSORBING CLAMP	MDS 21	3469	Schwarzbeck	2012/9/5	2013/9/4
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2012/10/12	2013/10/11
ETSTW-RE 019	MICROWAVE HORN ANTENNA	22240-25	121074	FM	2012/4/03	2013/4/02
ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR	Function Test	
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2012/8/01	2013/7/31
ETSTW-RE 028	Log-Periodic Dipole Array Antenna	3148	34429	EMCO	Function Test	
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	Function Test	
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	EMCO	2012/2/21	2013/2/20
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2012/10/5	2013/10/4
ETSTW-RE 033	WaveRunner 6000A Serie Oscilloscope	WAVERUNNER 6100A	LCRY0604P1450 8	LeCroy	Function Test	
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2012/10/5	2013/10/4
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2012/1/10	2013/1/9
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2012/4/13	2013/4/12
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2012/4/06	2013/4/05

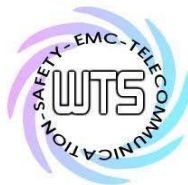


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ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2012/8/28	2013/8/27
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2012/3/23	2013/3/22
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2012/3/3	2013/3/2
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2012/3/3	2013/3/2
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2012/3/3	2013/3/2
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2012/5/29	2013/5/28
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2012/3/3	2013/3/2
ETSTW-RE 061	Amplifier Module	CHC 1	None	ETS	2012/5/17	2013/5/16
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2012/11/28	2013/11/27
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 065	Amplifier	AMF-6F-18002650- 25-10P	941608	MITEQ	2012/4/6	2013/4/5
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	EMCO	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2012/10/5	2013/10/4
ETSTW-RE 073	Power Meter	N1911A	MY45100769	Agilent	2012/1/4	2013/1/3
ETSTW-RE 074	Power Sensor	N1921A	MY45241198	Agilent	2012/1/4	2013/1/3
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2012/10/12	2013/10/11
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2012/3/5	2013/3/4
ETSTW-RE 105	2.4GHz Notch Filter	NO124411	39555	MICROWAVE CIRCUITS, INC.	2012/3/5	2013/3/4
ETSTW-RE 106	Humidity Temperature Meter	TES-1366	091011113	TES	2012/11/28	2013/11/27
ETSTW-RE 111	TRILOG Super Broadband test Antenna	VULB 9160	9160-3309	Schwarz beck	2011/12/27	2012/12/26
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	None	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2012/1/12	2013/1/11
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2012/7/3	2013/7/2
ETSTW-RE 125	5GHz Notch filter	5NSL11- 5200/E221.3-O/O	1	K&L Microwave	2012/8/18	2013/8/17
ETSTW-RE 126	5GHz Notch filter	5NSL11- 5800/E221.3-O/O	1	K&L Microwave	2012/8/18	2013/8/17
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2012/3/3	2013/3/2
ETSTW-EMI 001	HARMONICS 1000	HAR1000-1P	093	EMC-PARTNER	2012/8/10	2013/8/09
ETSTW-EMS 001	BASELSTRASSE 160 CH- 4242 LAUFEN	CN-EFT1000	354	EMC-PARTNER	Function Test	
ETSTW-EMS 002	Frequency Converter	YF-6020	0308014	None	Function Test	
ETSTW-EMS 003	EMC Immunity Test System	TRA2000IN6	579	EMC-PARTNER	2012/11/6	2013/11/5
ETSTW-EMS 009	Magnetic Field Antenna	MF1000-1	104	EMC-PARTNER	Function Test	
ETSTW-EMS 010	Coupling De-coupling Network	CDN-UTP8	014	EMC-PARTNER	Function Test	
ETSTW-EMS 012	EM Injection Clamp	F-203I-23MM	476	FCC	2012/5/29	2013/5/28
ETSTW-EMS 016	EMF Tester	1390	071208732	TES	2012/10/5	2013/10/4
ETSTW-EMS 017	Multimeter	DM-1220	518614	HOLA	2012/8/10	2013/8/09



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ETSTW-EMS 019	Electrostatic Discharge Simulator	ESS-2002	ESS06Y6300	NoiseKen	2012/10/5	2013/10/4
ETSTW-EMS 020	Humidity Temperature Meter	TES-1366	091011116	TES	2011/12/20	2012/12/19
ETSTW-RS 003	RF Power Amplifier	30S1G3	306933	AR	Function Test	
ETSTW-RS 004	RF Power Amplifier	150W1000	307009	AR	Function Test	
ETSTW-RS 006	SIGNAL GENERATOR	SML03	101551	R&S	2012/2/29	2013/2/28
ETSTW-RS 007	14" COLOR VIDEO MONITOR	HS-CM145A	0512011548	None	Function Test	
ETSTW-RS 009	SIGNAL GENERATOR	8648C	3642U01656	HP	2012/2/20	2013/2/19
ETSTW-RS 010	Broadband Field Meter	NBM-520	C-0195	Narda	2012/9/24	2013/9/23
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2012/10/5	2013/10/4
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2012/1/13	2013/1/12
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2012/1/13	2013/1/12
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2012/1/13	2013/1/12
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2012/1/13	2013/1/12
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2012/9/18	2013/9/17
ETSTW-Cable 002	Microwave Cable	SUCOFLEX 104 (S_Cable 7)	238093	HUBER+SUHNER	2012/5/17	2013/5/16
ETSTW-Cable 003	Microwave Cable	SUCOFLEX 104 (S_Cable 11)	209953	HUBER+SUHNER	2012/5/17	2013/5/16
ETSTW-Cable 010	BNC Cable	5 M BNC Cable	None	JYE BAO CO.,LTD.	2012/3/5	2013/3/4
ETSTW-Cable 011	BNC Cable	BNC Cable 1	None	JYE BAO CO.,LTD.	Pre-test Use NCR	
ETSTW-Cable 012	N TYPE To SMA Cable	Cable 012	None	JYE BAO CO.,LTD.	2012/3/5	2013/3/4
ETSTW-Cable 013	Microwave Cable	SUCOFLEX 104 (S_Cable 5)	232345	HUBER+SUHNER	Function Test	
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2012/3/3	2013/3/2
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2012/3/3	2013/3/2
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2012/3/3	2013/3/2
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2012/3/3	2013/3/2
ETSTW-Cable 022	N TYPE Cable	5006	0002	JYE BAO CO.,LTD.	2012/4/6	2013/4/5
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2012/3/5	2013/3/4
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2012/3/5	2013/3/4
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2012/10/12	2013/10/11
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2012/10/12	2013/10/11
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2012/3/5	2013/3/4
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 (S_Cable 10)	238092	HUBER+SUHNER	2012/11/28	2013/11/27
ETSTW-Cable 032	Microwave Cable	SUCOFLEX 104 (S_Cable 12)	237301	HUBER+SUHNER	Function Test	
ETSTW-Cable 039	Microwave Cable	SUCOFLEX 104 (S_Cable 19)	316739	HUBER+SUHNER	2012/5/17	2013/5/16
ETSTW-Cable 040	Microwave Cable	SUCOFLEX 104 (S_Cable 20)	316738	HUBER+SUHNER	Function Test	
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2012/11/28	2013/11/27
ETSTW-Cable 047	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2012/11/28	2013/11/27

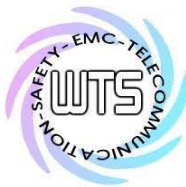


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ETSTW-Cable 051	BNC Cable	BNC Cable 6	None	JYE BAO CO.,LTD.	2012/3/30	2013/3/29
ETSTW-Cable 052	BNC Cable	Clamp Cable	None	Schwarz beck	2012/3/30	2013/3/29
ETSTW-Cable 053	N TYPE To SMA Cable	RG142	None	JYE BAO CO.,LTD.	2012/4/6	2013/4/5
ETSTW-Cable 054	BNC To SMA Cable	RG142	None	JYE BAO CO.,LTD.	2012/4/6	2013/4/5
ETSTW-Cable 055	NTYPE Cable	N30N30-JBY240-80CM	20110621-1.1	JYE BAO CO.,LTD.	Function Test	
ETSTW-Cable 056	N TYPE Cable	N30N30-JBY240-80CM	20110621-1.0	JYE BAO CO.,LTD.	Function Test	
ETSTW-Cable 057	N TYPE Cable	N30N30-JBY240-80CM	20110621-1.1	JYE BAO CO.,LTD.	Function Test	
WTSTW-SW 001	EMI TEST SOFTWARE	Harmonics-1000	None	EMC PARTNER	HARCS Version 4.16 Firmware Version 2.18	
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMCC	None	Farad	Version ETS-03A1	
WTSTW-SW 003	EMS TEST SOFTWARE	i2	None	AUDIX	Version 3.2007-8-17b	



2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2009 5.2 using a 50 μ H LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

RADIATION INTERFERENCE: The test procedure used was according to ANSI STANDARD C63.4-2009 6.4 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

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 dB μ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dB μ V + 10.36 dB + 6 dB = 36.36 dB μ V/m @3m

ANSI STANDARD C63.4-2009 6.3.1 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm height and with dimensions of 1m by 1.5m (non metallic table). The EUT was placed in the centre of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.

Measurements were made by Worldwide Testing Services(Taiwan) Co., Ltd. at the registered open field test site located at No.5-1, Lishui, Shuang Sing Village, Wanli Dist., New Taipei City 207, Taiwan (R.O.C.). The Registration Number: 930600.

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.

ANSI STANDARD C63.4-2009 10.2.7: Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



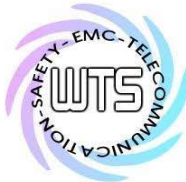
Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

3 Test results (enclosure)

Test case	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.249 (a)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.249 (e)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions conducted – Transmitter operating	15.249 (e)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission from Receiver Part	15.109	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Out of Band Spurious Emission, Band edge-Transmitter operating	15.249 (e)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following is intentionally left blank.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

3.1 Peak Output Power (transmitter)

FCC Rule: 15.249 (b)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

The power was measured with modulation (declared by the applicant).

Model: PB-2701 Date: 2012/11/21~2012/11/24
 Mode: TX - 2402.1MHz Temperature: 24 °C Engineer: Vic
 Polarization: Horizontal Humidity: 60 %

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2402.1870	59.22	15.55	37.08	96.30	52.63	114.00	94.00	-41.37	265	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2402.0430	56.64	15.44	37.08	93.72	52.52	114.00	94.00	-41.48	155	100

Mode: TX - 2448.1MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2448.2030	58.62	14.84	37.19	95.81	52.03	114.00	94.00	-41.97	265	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2448.3450	54.48	---	37.19	91.67	---	114.00	94.00	-22.33	155	100

Mode: TX - 2481.1MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2481.2730	55.27	15.49	37.27	92.54	52.76	114.00	94.00	-41.24	255	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
2481.2400	54.39	---	37.27	91.66	---	114.00	94.00	-22.34	175	100



Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 044

Explanation: The diagrams for the field strength measurements are included in appendix.

3.2 Equivalent isotropic radiated power

Because using an permanent antenna there are no deviations from the radiated test results according 3.1.

3.3 RF Exposure Compliance Requirements

Not applicable for this EUT for the low power level.

3.4 Out of Band Radiated Emissions

FCC Rule: 15.249 (d)(e), 15.35(b)

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 to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

For frequency above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

Limits:

Frequency of Emission (MHz)	Field strength (microvolts/meter)	Field Strength (dB microvolts/meter)
30 - 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.5
Above 960	500	54.0

For frequencies above 1 GHz (Peak measurements).

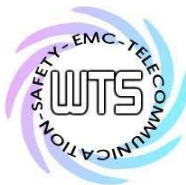
Limit + 20 dB 54.0 dB μ V/m + 20 dB= 74dB μ V/m

Or

Must be attenuated at least 50dB below the level of fundament

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 111, ETSTW-RE 030,
ETSTW-RE 044

Explanation: Please see attached diagram as appendix.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

3.5 Spurious emission (tx)

Spurious emission was measured with modulation (declared by manufacturer).

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 to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

For frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

SAMPLE CALCULATION OF LIMIT. ALL results will be updated by an automatic measuring system in accordance with point 2.3.

The peak and average spurious emission plots was measured with the average limits.
The critical peak value listed in the table agree with the above calculated limits.

Summary table with radiated data of the test plots

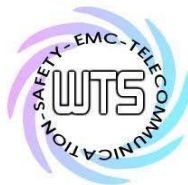
Model: PB-2701 Date: 2012/11/21~2012/11/24
Mode: TX- 2402.1MHz Temperature: 24 °C Engineer: Vic
Polarization: Horizontal Humidity: 60 %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
234.1082	20.77	peak	13.55	34.32	46.00	-11.68	215	100
239.9398	22.92	peak	13.69	36.61	46.00	-9.39	300	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4801.6030	47.31	---	-1.38	45.93	---	74.00	54.00	-28.07	80	100
7206.4130	52.68	37.25	4.16	56.84	41.41	74.00	54.00	-12.59	105	100
9608.0000	36.16	---	6.44	42.60	---	74.00	54.00	-31.40	145	100
12010.0000	34.39	---	11.23	45.62	---	74.00	54.00	-28.38	280	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
31.9440	16.79	peak	13.25	30.04	40.00	-9.96	95	100
98.0361	19.03	peak	10.43	29.46	43.50	-14.04	215	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4801.6030	47.45	---	-1.38	46.07	---	74.00	54.00	-27.93	195	100
7206.2750	53.08	36.89	4.16	57.24	41.05	74.00	54.00	-12.95	0	100
9608.0000	34.88	---	6.44	41.32	---	74.00	54.00	-32.68	145	100
12010.0000	33.55	---	11.23	44.78	---	74.00	54.00	-29.22	305	100

Mode: TX - 2448.1MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
232.1642	21.46	peak	13.50	34.96	46.00	-11.04	195	100
239.9398	22.91	peak	13.69	36.60	46.00	-9.40	305	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4889.7790	52.82	---	-1.10	51.72	---	74.00	54.00	-22.28	65	100
7344.0000	41.07	---	4.47	45.54	---	74.00	54.00	-28.46	285	100
9792.0000	34.97	---	6.88	41.85	---	74.00	54.00	-32.15	65	100
12240.0000	32.67	---	12.40	45.07	---	74.00	54.00	-28.93	135	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
31.9440	17.29	peak	13.25	30.54	40.00	-9.46	150	100
98.0361	20.28	peak	10.43	30.71	43.50	-12.79	65	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4889.7790	49.32	---	-1.10	48.22	---	74.00	54.00	-25.78	160	100
7344.0000	40.65	---	4.47	45.12	---	74.00	54.00	-28.88	85	100
9792.0000	36.34	---	6.88	43.22	---	74.00	54.00	-30.78	285	100
12240.0000	33.29	---	12.40	45.69	---	74.00	54.00	-28.31	135	100

Mode: TX - 2481.1MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
234.1082	23.81	peak	13.55	37.36	46.00	-8.64	245	100
300.2004	16.57	peak	15.53	32.10	46.00	-13.90	50	100



Worldwide Testing Services(Taiwan) Co., Ltd.

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FCC ID: WXQPB-2701

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4961.9240	44.75	---	-0.83	43.92	---	74.00	54.00	-30.08	130	100
7443.0000	41.75	---	4.55	46.30	---	74.00	54.00	-27.70	285	100
9924.0000	34.69	---	7.21	41.90	---	74.00	54.00	-32.10	285	100
12405.0000	32.96	---	12.89	45.85	---	74.00	54.00	-28.15	190	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
98.0361	24.00	peak	10.43	34.43	43.50	-9.07	300	100
226.3327	19.03	peak	13.14	32.17	46.00	-13.83	135	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4961.9240	52.24	---	-0.83	51.41	---	74.00	54.00	-22.59	165	100
7443.0000	42.05	---	4.55	46.60	---	74.00	54.00	-27.40	285	100
9924.0000	35.29	---	7.21	42.50	---	74.00	54.00	-31.50	55	100
12405.0000	33.36	---	12.89	46.25	---	74.00	54.00	-27.75	80	100

- Note**
1. Correction Factor = Antenna factor + Cable loss - Preamplifier
 2. The formula of measured value as: Test Result = Reading + Correction Factor
 3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
 4. All not in the table noted test results are more than 20 dB below the relevant limits.
 5. Measurement uncertainty for 3m measurement: 30-1000 MHz = ± 3.72 dB, 1-18 GHz = ± 5.56 dB, 18-40 GHz = ± 3.46 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
 6. Up Line: PK Limit Line, Down Line: Ave Limit Line.
 7. See attached diagrams in appendix.

TEST RESULT (Transmitter): The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 111, ETSTW-RE 030,
ETSTW-RE 044, ETSTW-RE 088, ETSTW-RE 018



Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

3.6 Radiated Emissions from Receiver Part

Summary table with radiated data of the test plots

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Field Strength (dBmicrovolts/meter)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

Note

- 1. Correction Factor = Antenna factor + Cable loss - Preamplifier**
- 2. The formula of measured value as: Test Result = Reading + Correction Factor**
- 3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.**
- 5. Measurement uncertainty for 3m measurement : 30-1000 MHz = ± 3.72 dB, 1-18 GHz = ± 5.56 dB, 18-40 GHz = ± 3.46 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.**

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 111, ETSTW-RE 030,
ETSTW-RE 044

Explanation: The test results are listed in the separated test report no.: W6M21211-12878-P-15B.

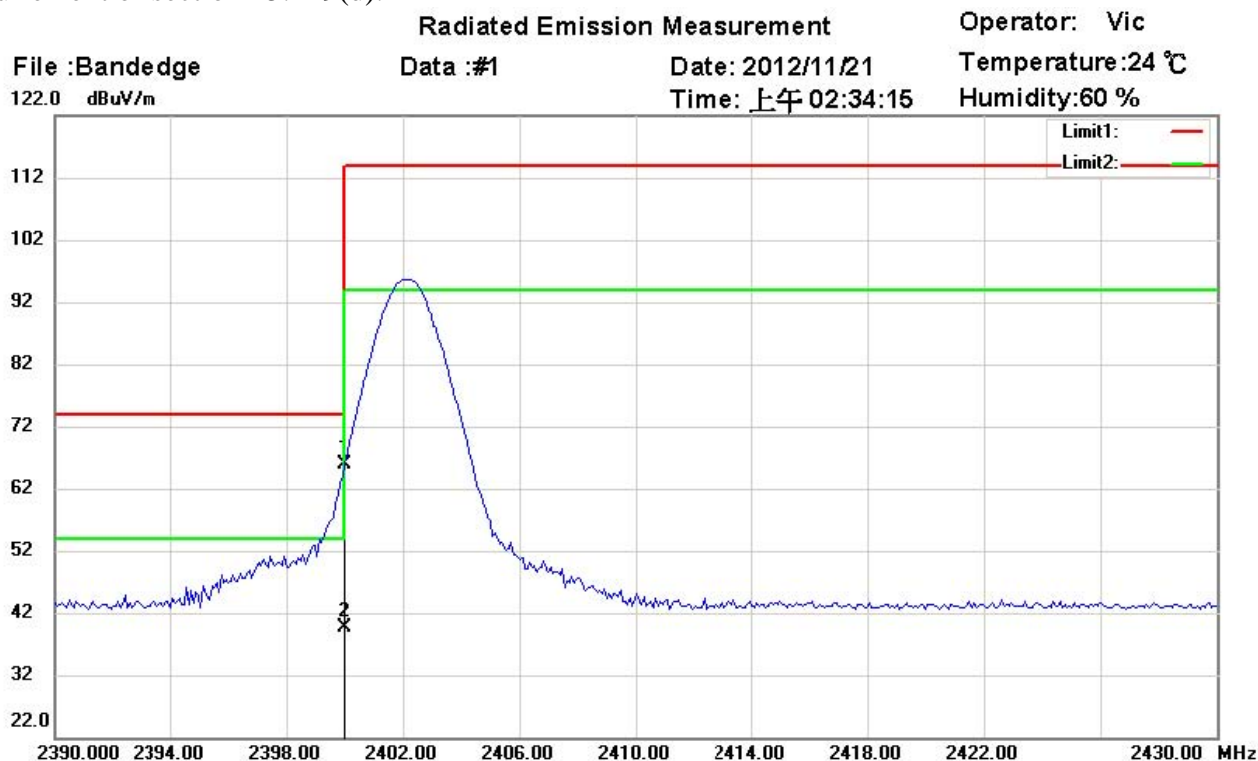


Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

3.7 Radiated Emission on the band edge

From the following plots, they show that the fundamental emissions are confined in the specified band and they are at least 50 dB below the carrier level at band edge (2400 and 2483.5 MHz). It meets the requirement of section 15.249(d).



Site : Chamber_01

Condition : FCC 15.249 PK (Bandedge)

EUT : W6M21211-12878

M/N: PB-2701

Test Mode : 2402.1MHz

Note :

Polarization: *Horizontal*

Power : 110VAC

Distance: 3m

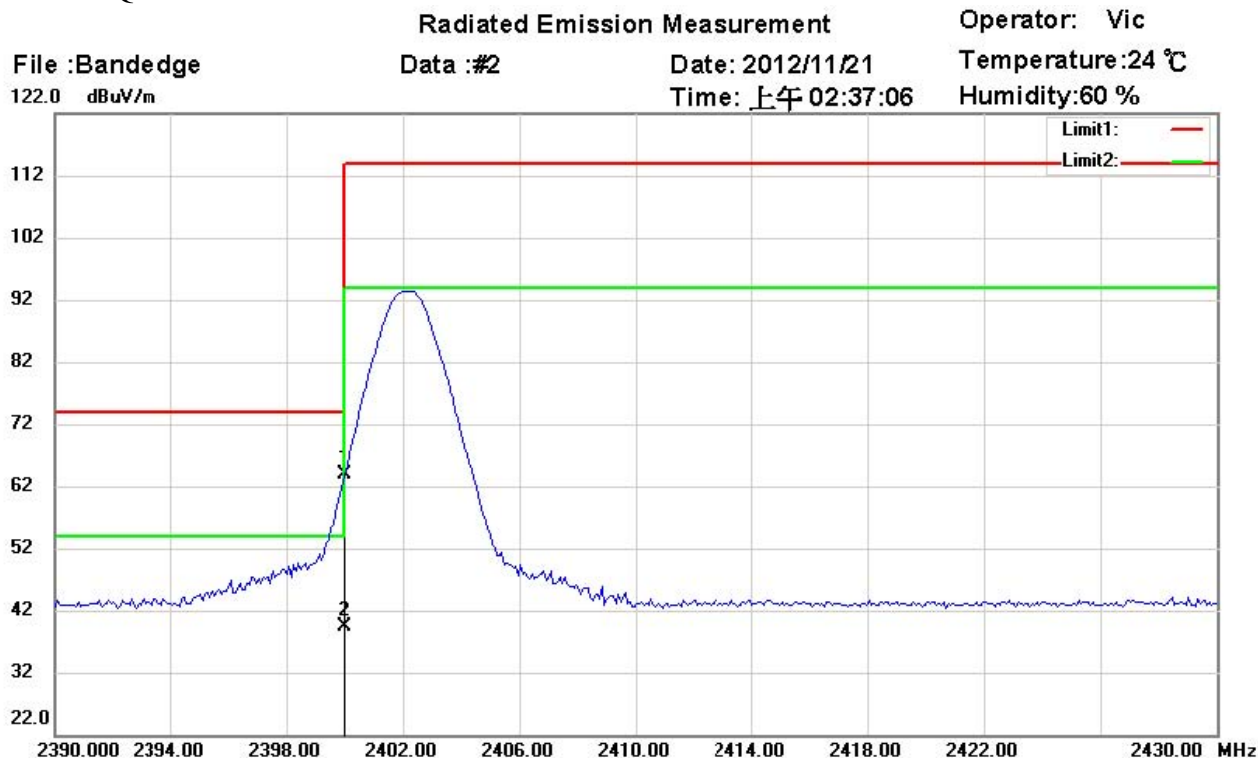
Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	2400.000	28.87	peak	37.07	65.94	74.00	100	265	-8.06	
	2400.000	2.47	AVG	37.07	39.54	54.00	100	265	-14.46	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701



Site : Chamber_01

Condition : FCC 15.249 PK (Bandedge)

EUT : W6M21211-12878

M/N: PB-2701

Test Mode : 2402.1MHz

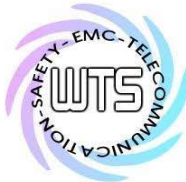
Note :

Polarization: *Vertical*

Power : 110VAC

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	2400.000	26.90	peak	37.07	63.97	74.00	100	155	-10.03	
	2400.000	2.35	AVG	37.07	39.42	54.00	100	155	-14.58	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Radiated Emission Measurement

Operator: Vic

File :Bandedge

Data :#1

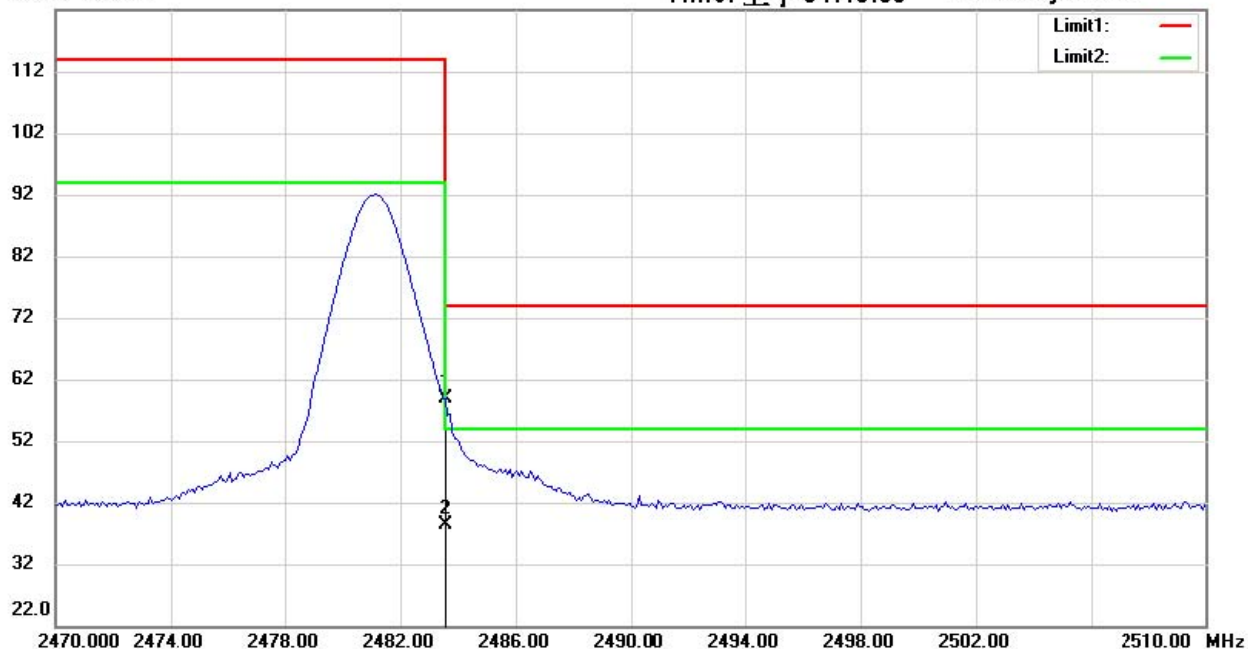
Date: 2012/11/22

Temperature:24 °C

122.0 dBuV/m

Time: 上午 01:45:55

Humidity:60 %



Site : Chamber_01

Condition : FCC 15.249 PK (Bandedge)

Polarization: *Horizontal*

EUT : W6M21211-12878

Power : 110VAC

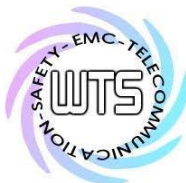
M/N: PB-2701

Distance: 3m

Test Mode : 2481.1MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	2483.500	21.69	peak	37.28	58.97	74.00	100	265	-15.03	
	2483.500	1.03	AVG	37.28	38.31	54.00	100	265	-15.69	



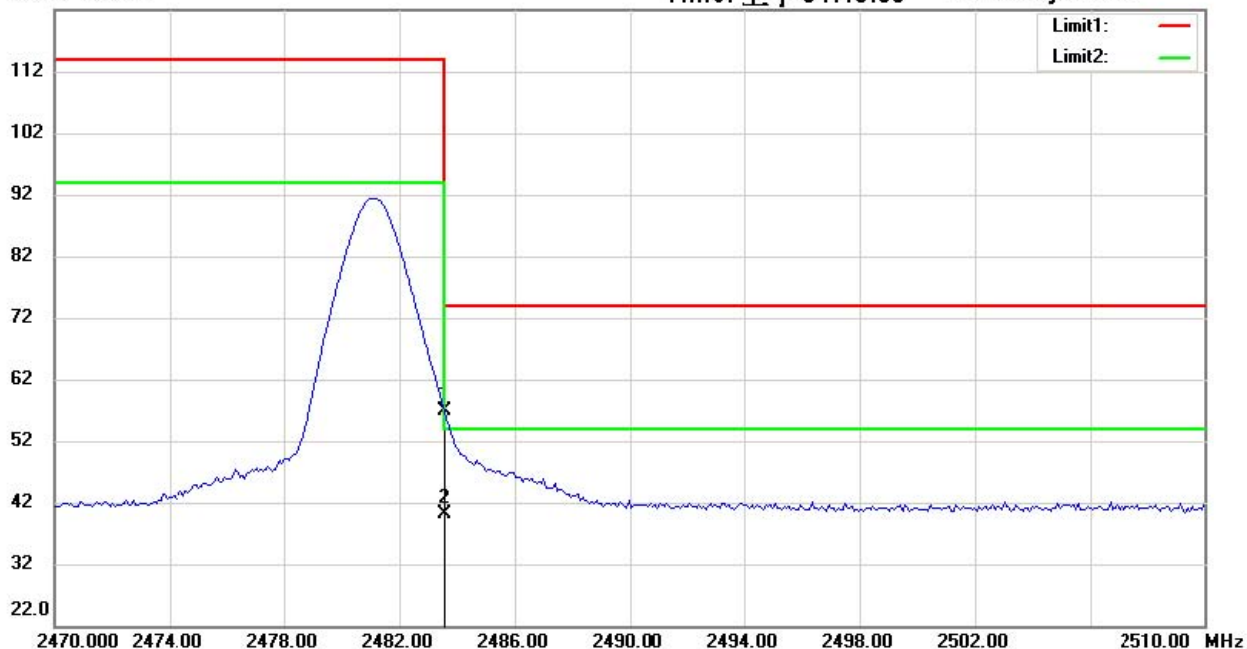
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Radiated Emission Measurement

File :Bandedge Data :#2 Date: 2012/11/22 Operator: Vic
 122.0 dBuV/m Time: 上午 01:48:35 Temperature:24 °C
 Humidity:60 %



Site : Chamber_01

Condition : FCC 15.249 PK (Bandedge)

EUT : W6M21211-12878

M/N: PB-2701

Test Mode : 2481.1MHz

Note :

Polarization: *Vertical*

Power : 110VAC

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	2483.500	19.64	peak	37.28	56.92	74.00	100	120	-17.08	
*	2483.500	2.96	AVG	37.28	40.24	54.00	100	120	-13.76	

Limit:

Frequency Range (MHz)	Limit (dBμV/m)	
	Peak	Average
902 – 928		
2400 – 2483.5		
5725 – 5875	74	54
24000 - 24250		

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 044



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

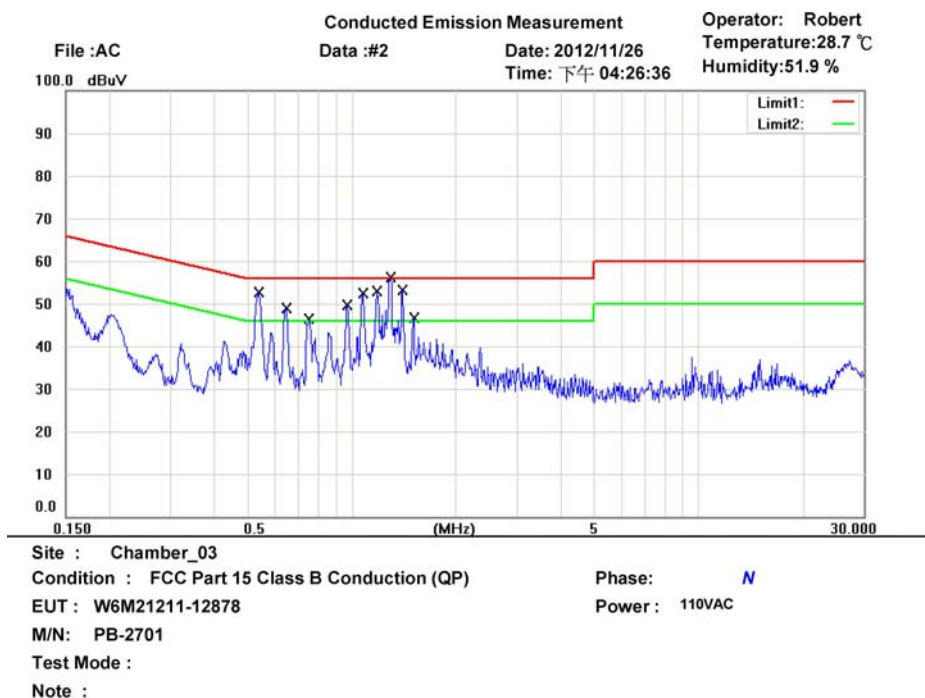
FCC ID: WXQPB-2701

3.8 Power Line Conducted Emission

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

Frequency	Level (dBμV)	
	quasi-peak	average
150 kHz	lower limit line	Lower limit line



Mk.	Frequency (MHz)	Reading (dBμV)	Detector	Corrected factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Comment
*	0.5382	41.15	QP	10.00	51.15	56.00	-4.85	
	0.5382	22.94	AVG	10.00	32.94	46.00	-13.06	
	0.6462	36.63	QP	9.99	46.62	56.00	-9.38	
	0.6462	20.90	AVG	9.99	30.89	46.00	-15.11	
	0.7542	33.68	QP	9.98	43.66	56.00	-12.34	
	0.7542	22.02	AVG	9.98	32.00	46.00	-14.00	
	0.9724	29.77	QP	9.96	39.73	56.00	-16.27	
	0.9724	21.75	AVG	9.96	31.71	46.00	-14.29	
	1.0737	40.68	QP	9.96	50.64	56.00	-5.36	
	1.0737	25.32	AVG	9.96	35.28	46.00	-10.72	
	1.1817	38.56	QP	9.97	48.53	56.00	-7.47	
	1.1817	26.25	AVG	9.97	36.22	46.00	-9.78	
	1.2920	40.88	QP	9.97	50.85	56.00	-5.15	
	1.2920	25.13	AVG	9.97	35.10	46.00	-10.90	
	1.3977	40.43	QP	9.97	50.40	56.00	-5.60	
	1.3977	21.49	AVG	9.97	31.46	46.00	-14.54	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: **N**

EUT : W6M21211-12878

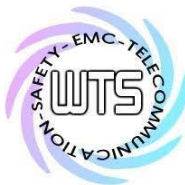
Power : 110VAC

M/N: PB-2701

Test Mode :

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	1.5035	34.10	QP	9.98	44.08	56.00	-11.92	
	1.5035	17.28	AVG	9.98	27.26	46.00	-18.74	



Worldwide Testing Services(Taiwan) Co., Ltd.

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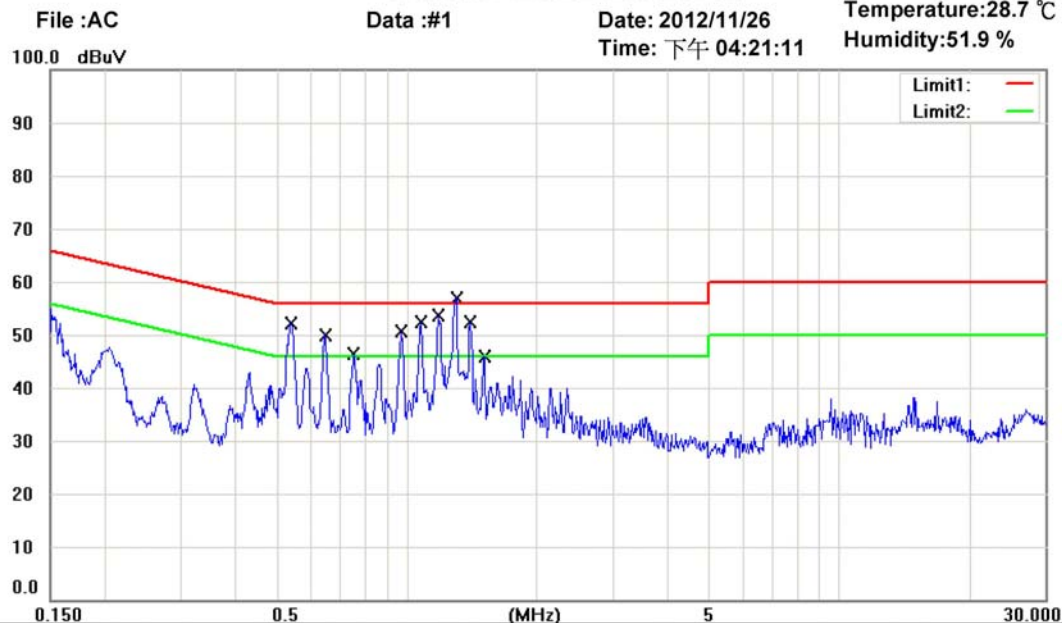
FCC ID: WXQPB-2701

Conducted Emission Measurement

Operator: Robert

Temperature: 28.7 °C

Humidity: 51.9 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M21211-12878

Power : 110VAC

M/N: PB-2701

Test Mode :

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.5404	39.67	QP	10.13	49.80	56.00	-6.20	
	0.5404	23.19	AVG	10.13	33.32	46.00	-12.68	
	0.6462	36.81	QP	10.13	46.94	56.00	-9.06	
	0.6462	20.52	AVG	10.13	30.65	46.00	-15.35	
	0.7520	34.08	QP	10.13	44.21	56.00	-11.79	
	0.7520	22.87	AVG	10.13	33.00	46.00	-13.00	
	0.9725	33.21	QP	10.13	43.34	56.00	-12.66	
	0.9725	23.48	AVG	10.13	33.61	46.00	-12.39	
*	1.0760	40.72	QP	10.14	50.86	56.00	-5.14	
	1.0760	26.24	AVG	10.14	36.38	46.00	-9.62	
	1.1840	38.98	QP	10.14	49.12	56.00	-6.88	
	1.1840	26.31	AVG	10.14	36.45	46.00	-9.55	
	1.2965	37.64	QP	10.15	47.79	56.00	-8.21	
	1.2965	23.12	AVG	10.15	33.27	46.00	-12.73	
	1.4023	36.63	QP	10.16	46.79	56.00	-9.21	
	1.4023	19.71	AVG	10.16	29.87	46.00	-16.13	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: **L1**

EUT : W6M21211-12878

Power : 110VAC

M/N: PB-2701

Test Mode :

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	1.5035	33.23	QP	10.17	43.40	56.00	-12.60	
	1.5035	19.06	AVG	10.17	29.23	46.00	-16.77	

Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor

2. The Correction Factor = Cable Loss + LISN Insertion Loss

3. Detector function in the form : PK = Peak, QP = Qusai Peak, AV = Average

4. All not in the table noted test results are more than 20 dB below the relevant limits.

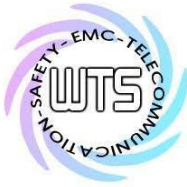
5. Measurement uncertainty = ± 1.10 dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

6. Up Line: QP Limit Line, Down Line: Ave Limit Line.

Limits:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Test equipment used: ETSTW-CE 001, ETSTW-CE 004, ETSTW-CE 006, ETSTW-RE045



Registration number: W6M21211-12878-P-15
FCC ID: WXQPB-2701

Appendix

Measurement diagrams

1. Fundamental Field Strength
2. Spurious Emissions radiated



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

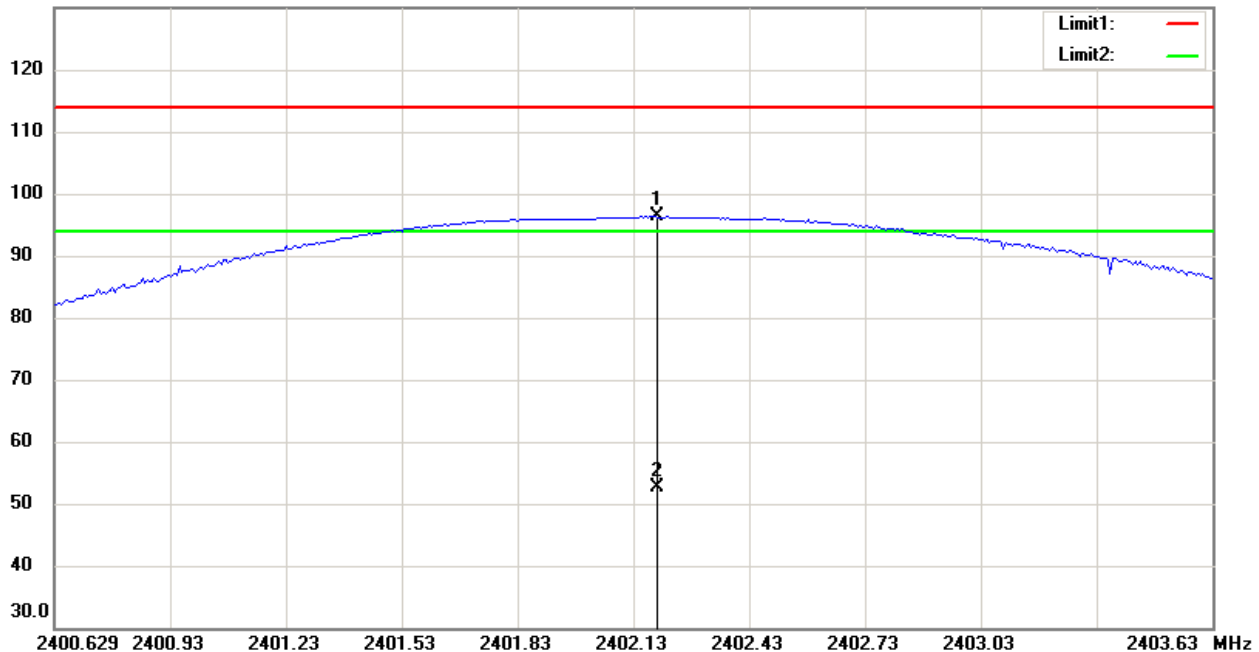
FCC ID: WXQPB-2701

Fundamental Field Strength

2402.1MHz

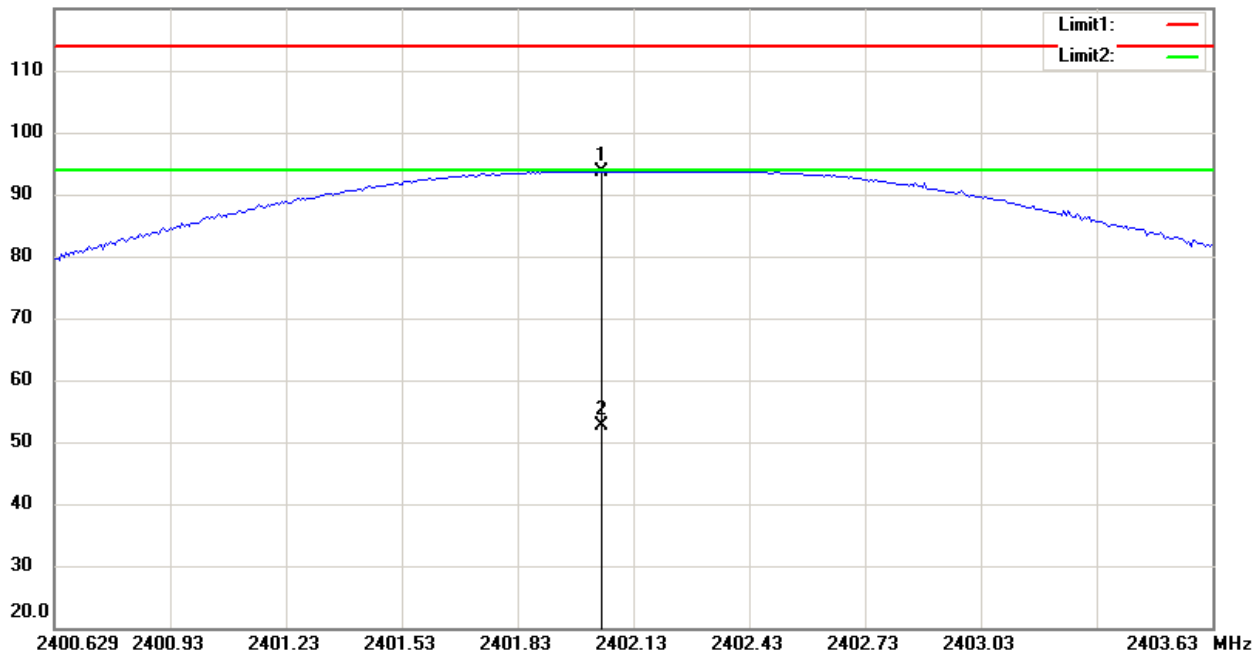
Antenna Polarization H

130.0 dBuV/m



Antenna Polarization V

120.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of field strength data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

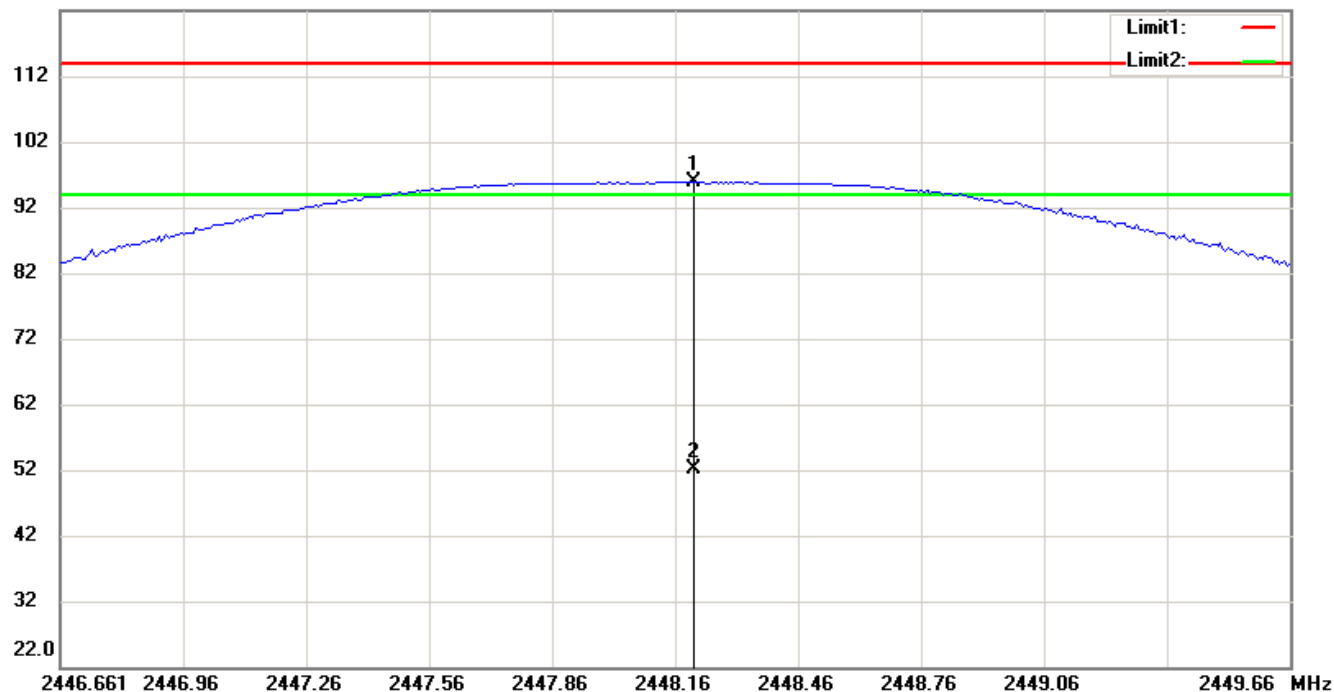
Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

2448.1MHz

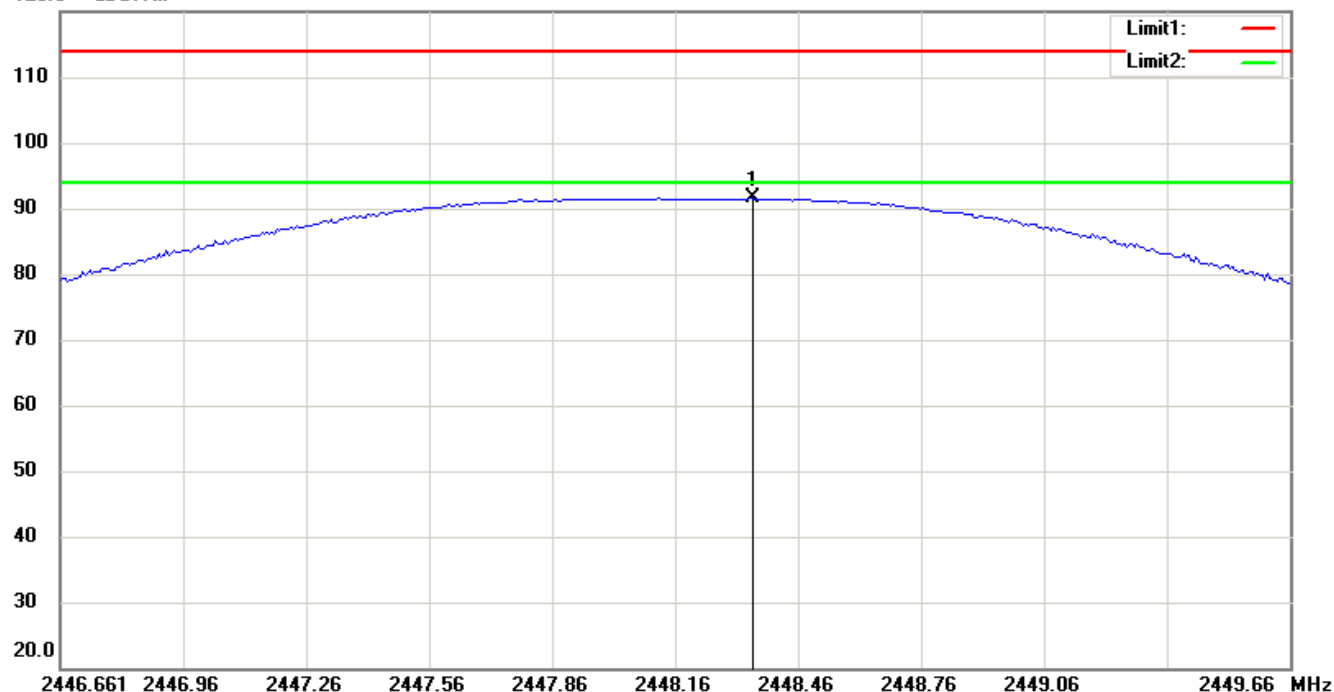
Antenna Polarization H

122.0 dBuV/m



Antenna Polarization V

120.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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3. For corrected test results are listed in the relevant table of field strength data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

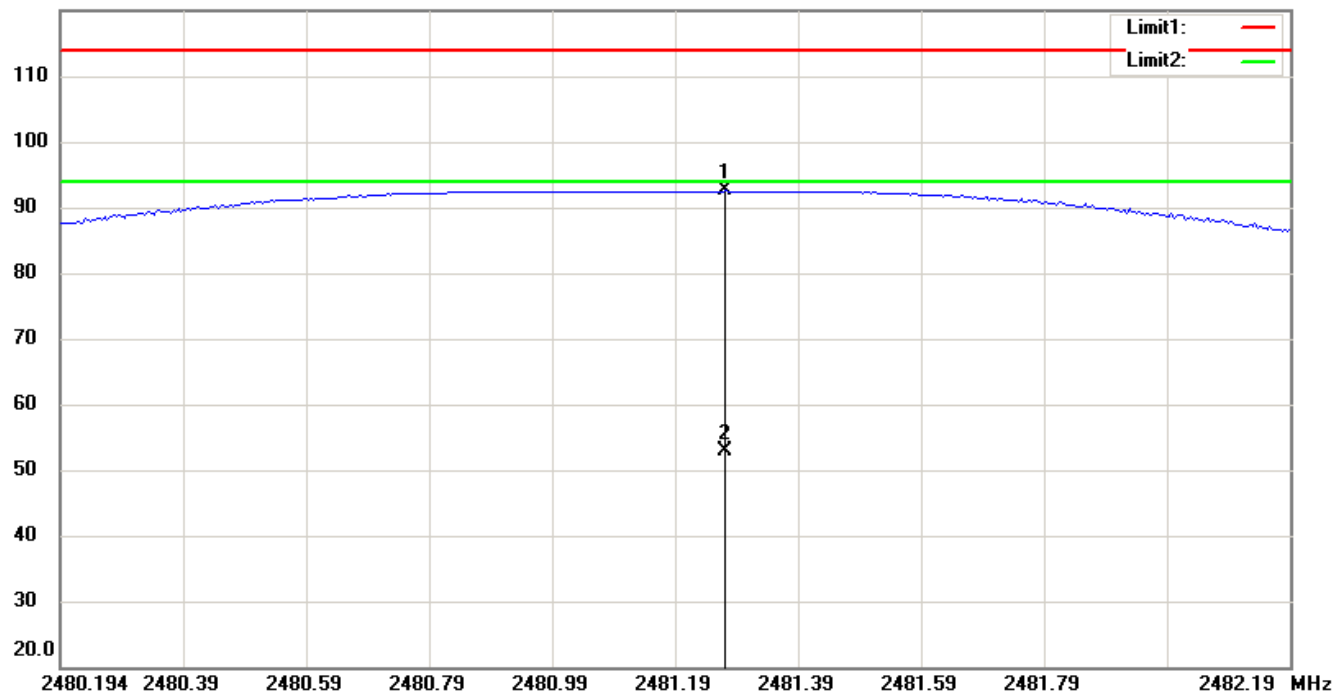
Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

2481.1MHz

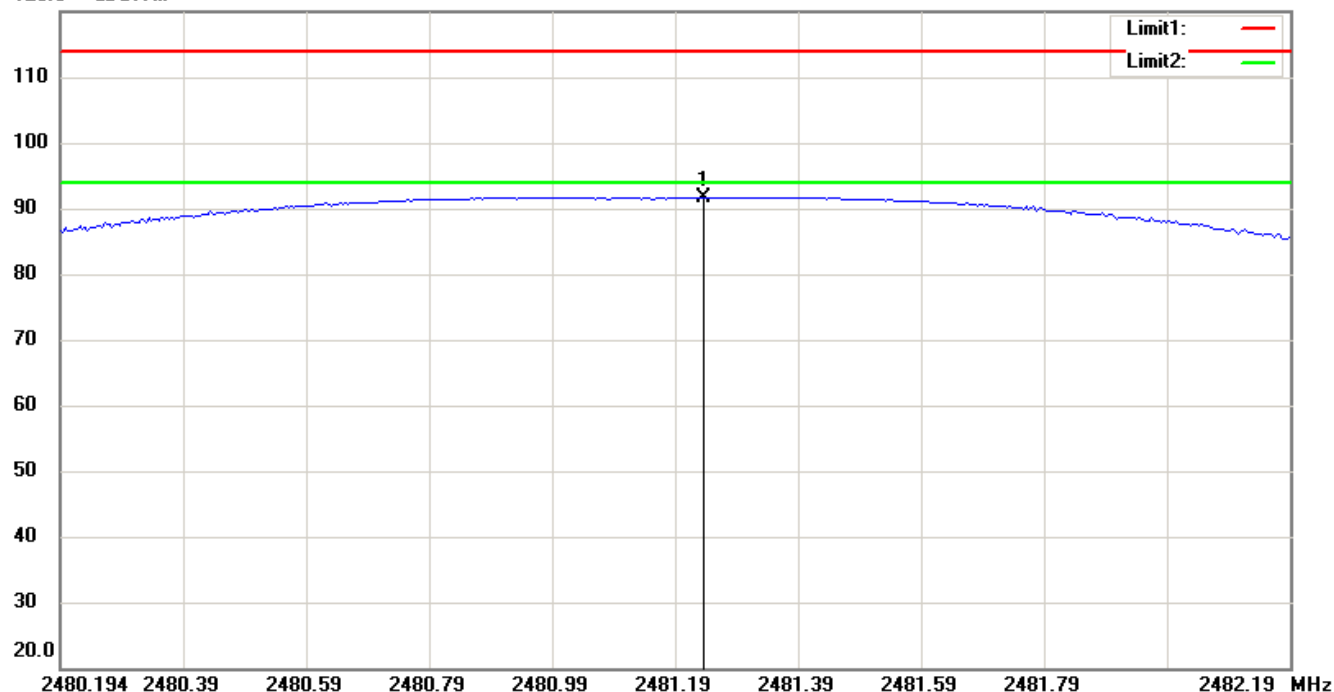
Antenna Polarization H

120.0 dBuV/m



Antenna Polarization V

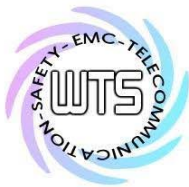
120.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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3. For corrected test results are listed in the relevant table of field strength data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

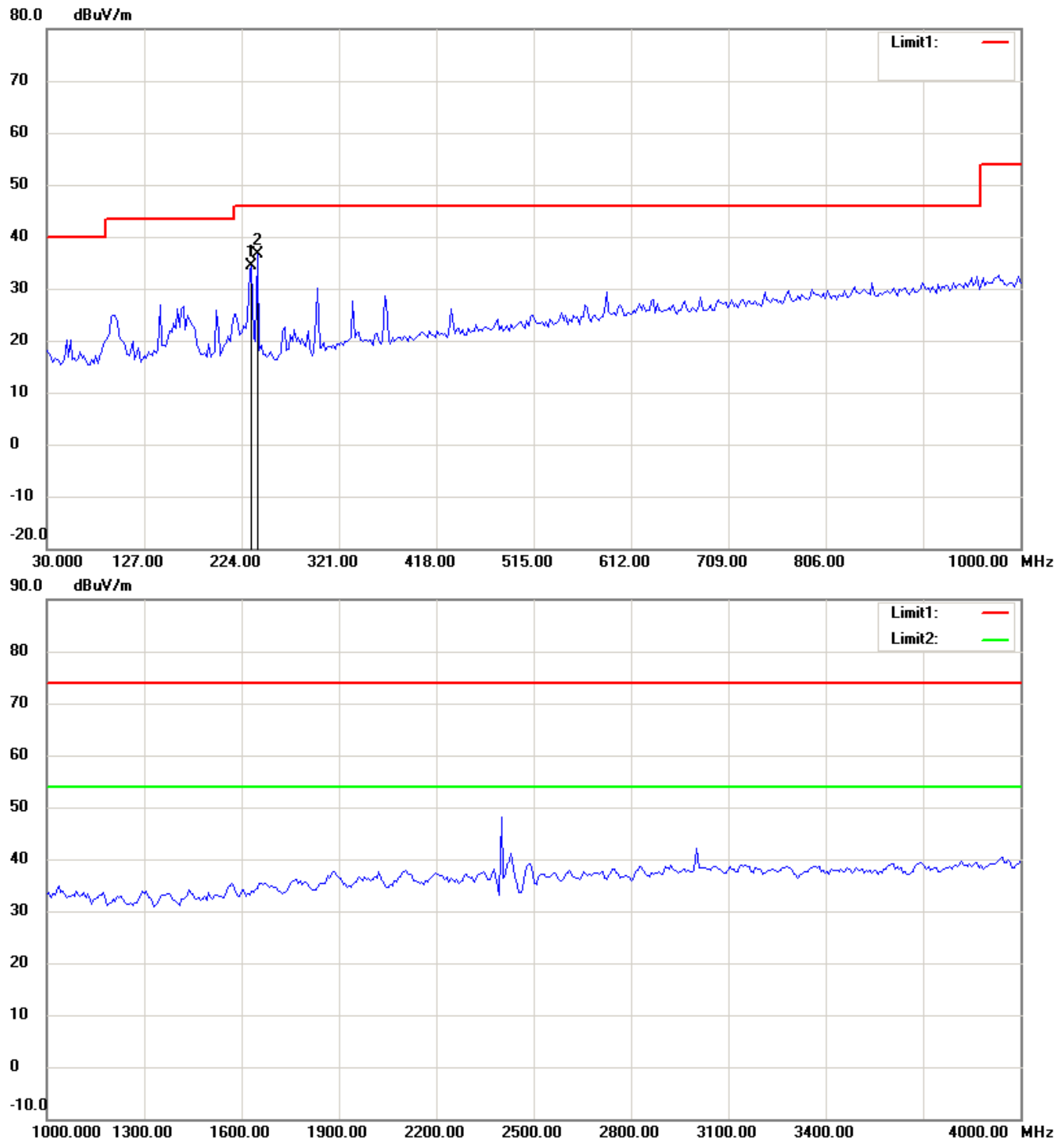
Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Spurious Emissions radiated

TX-2402.1MHz

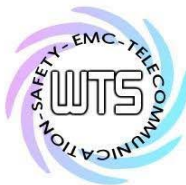
Antenna Polarization H



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

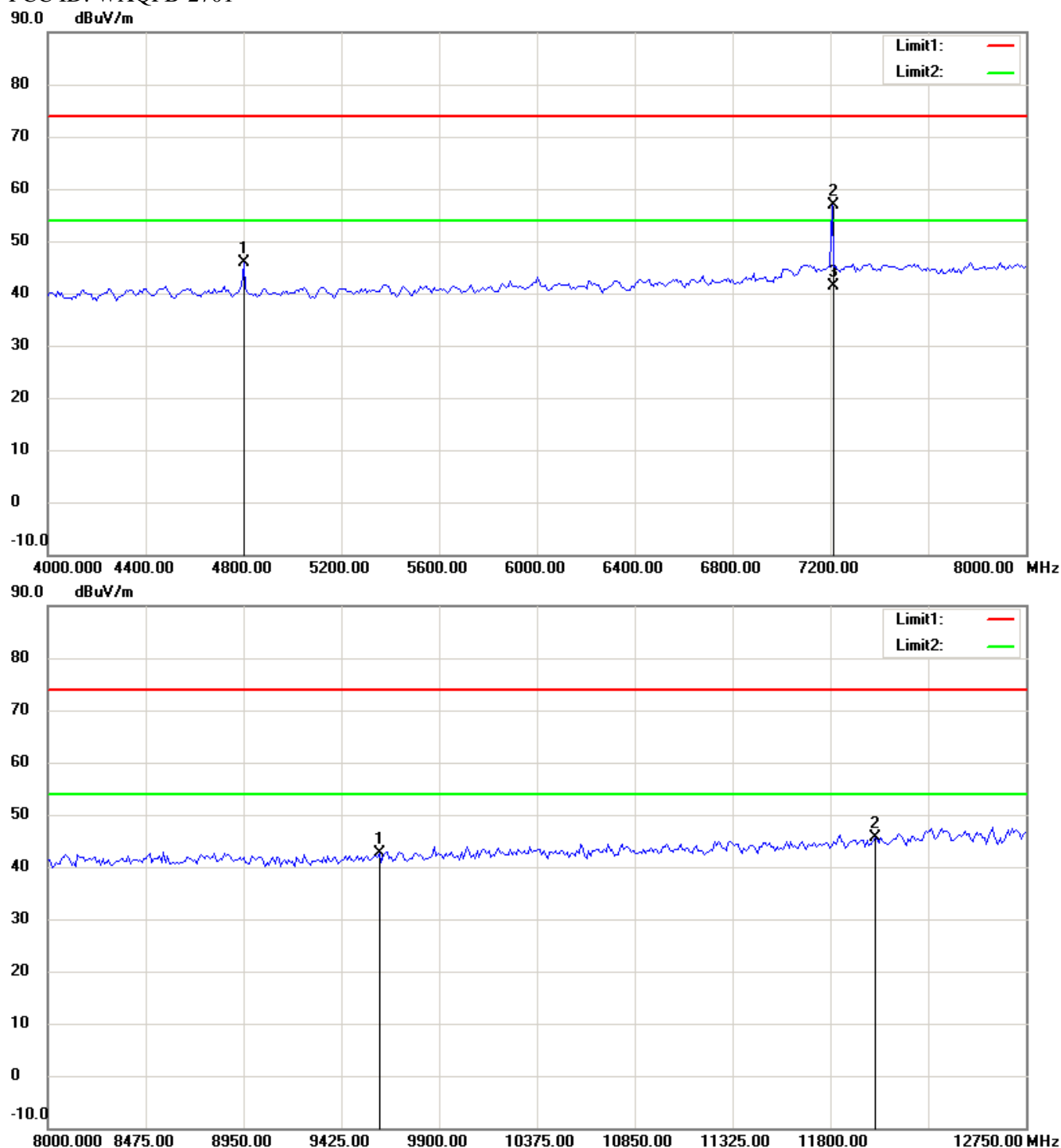
1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

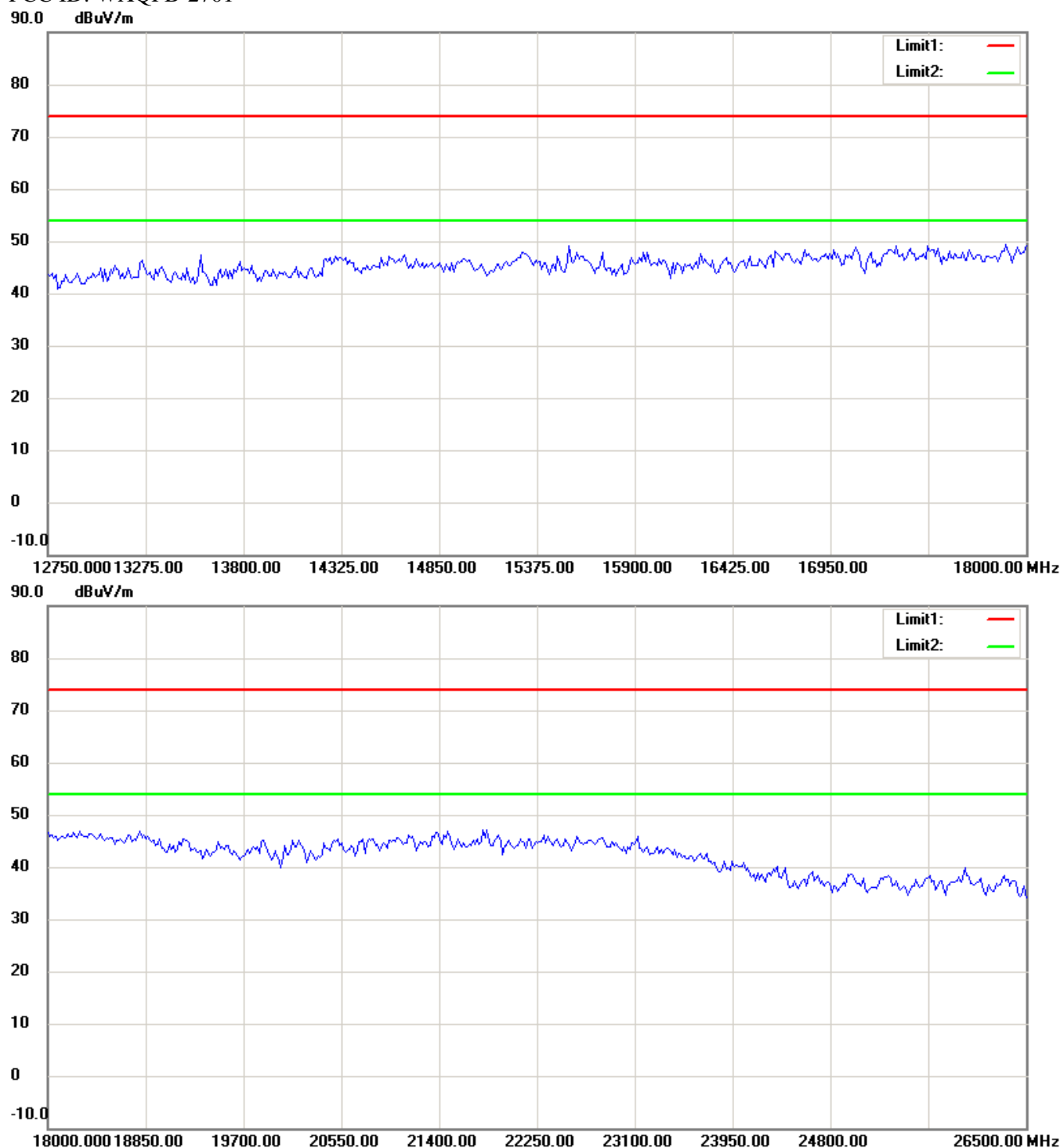
1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

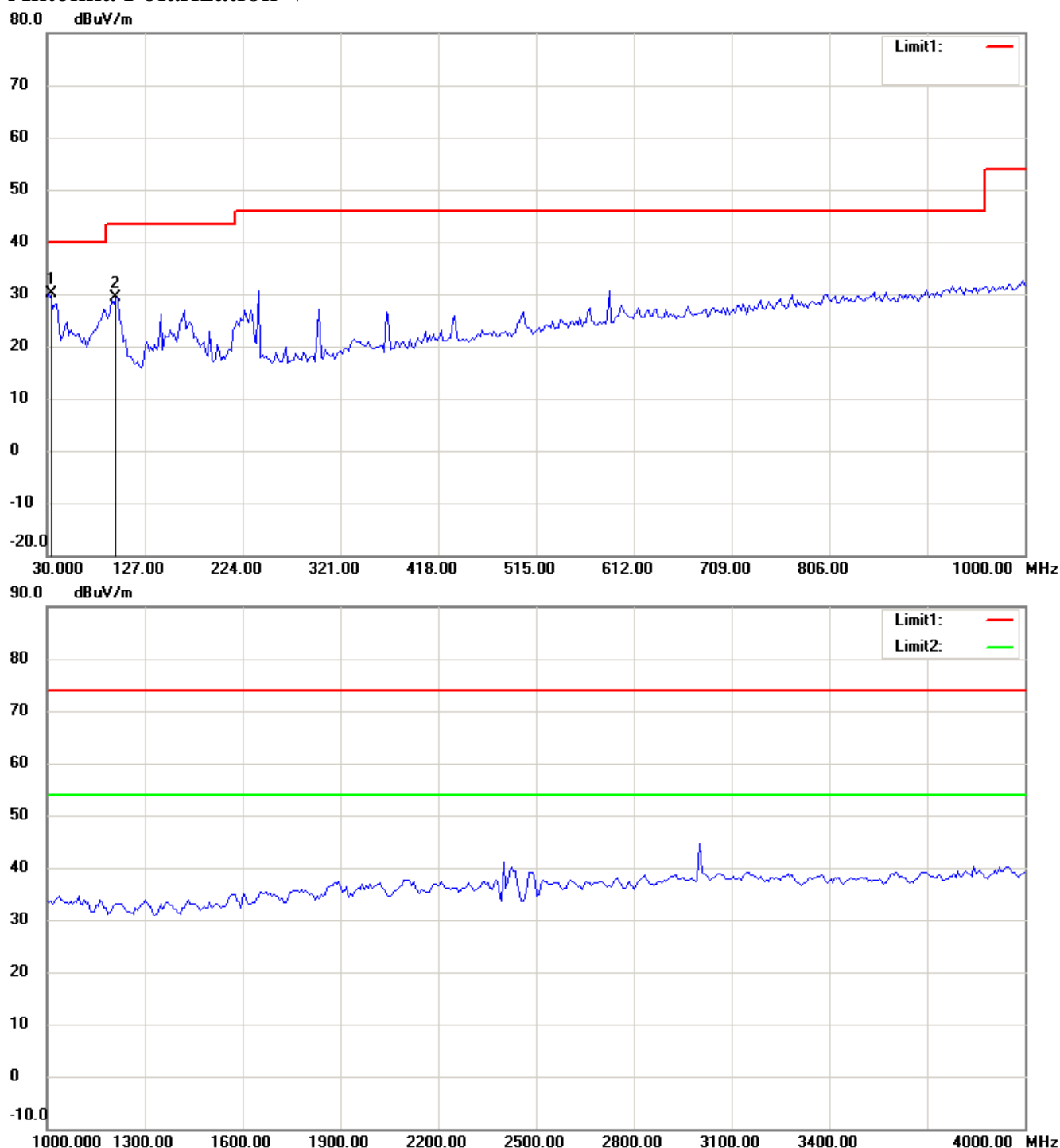


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Antenna Polarization V



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

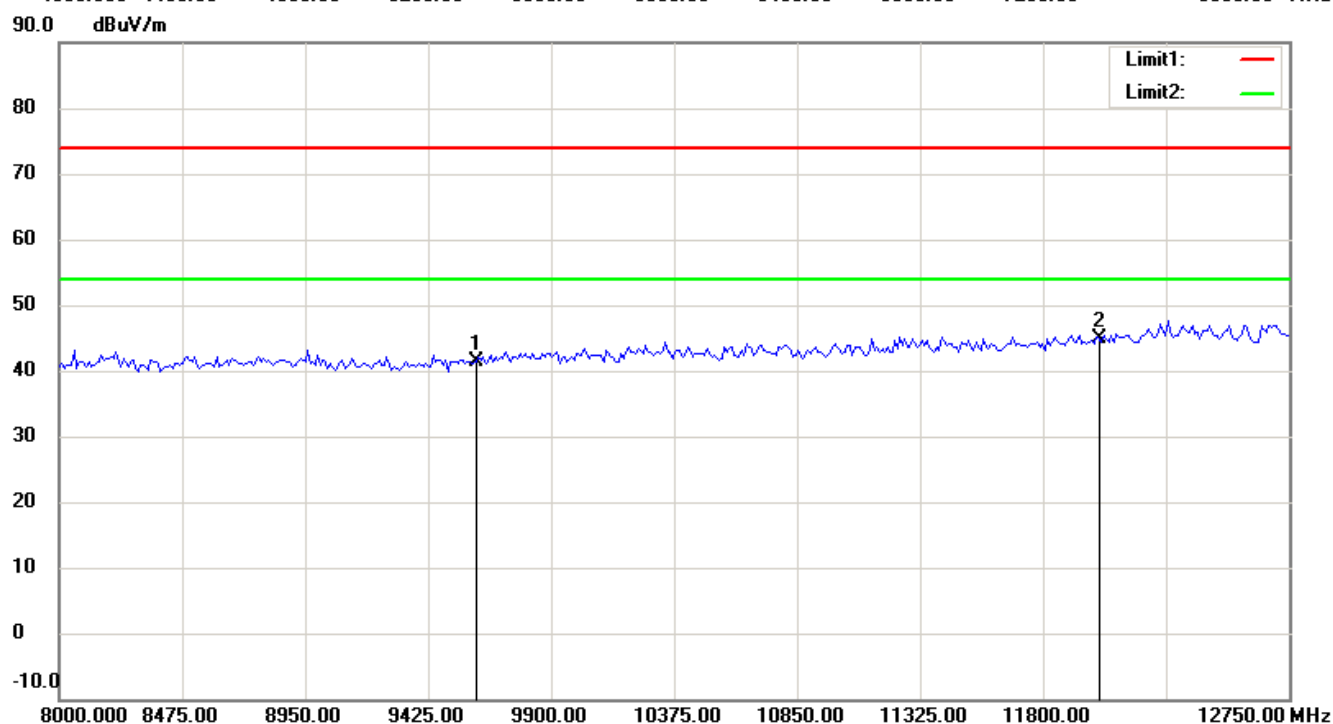
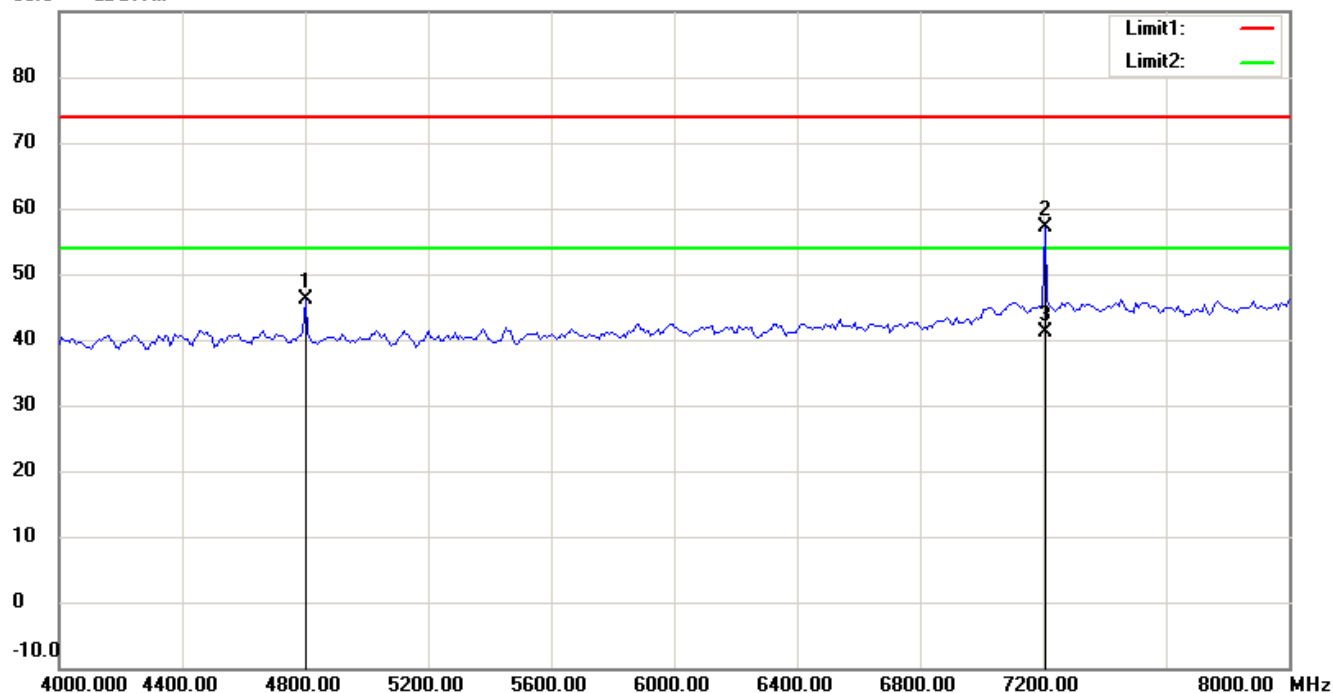


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

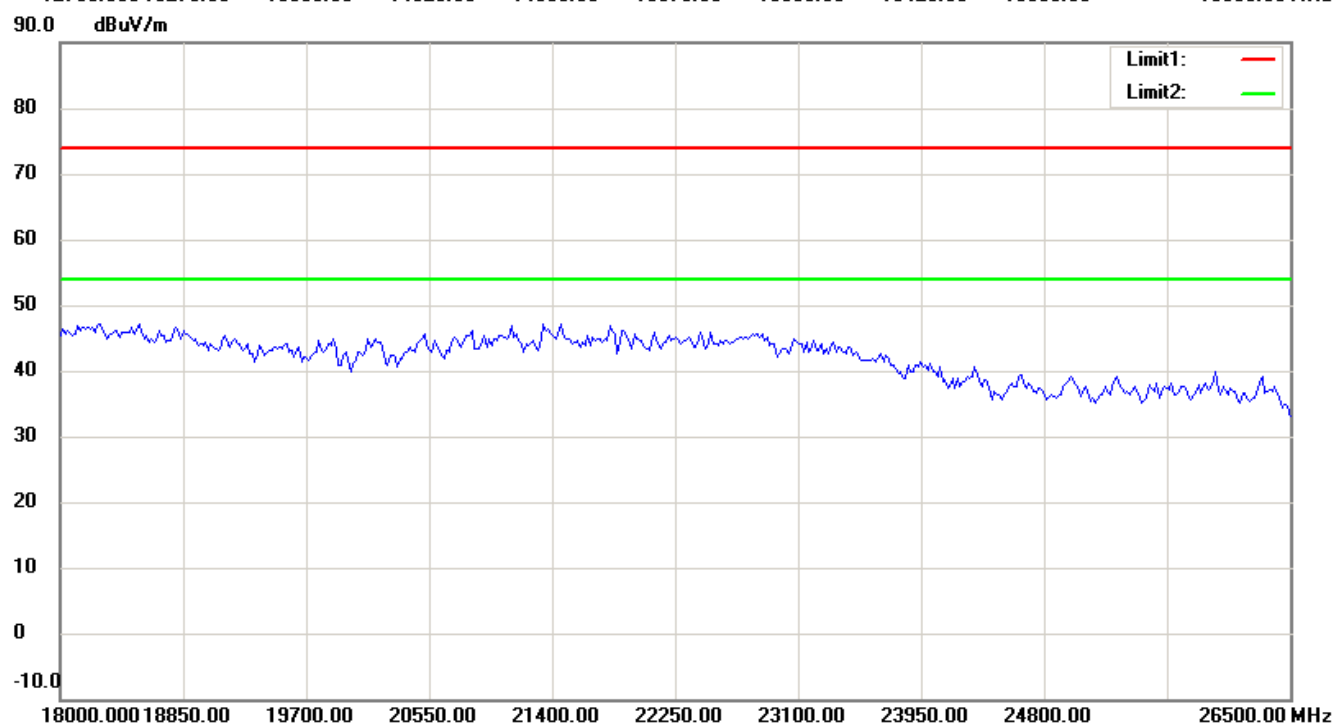
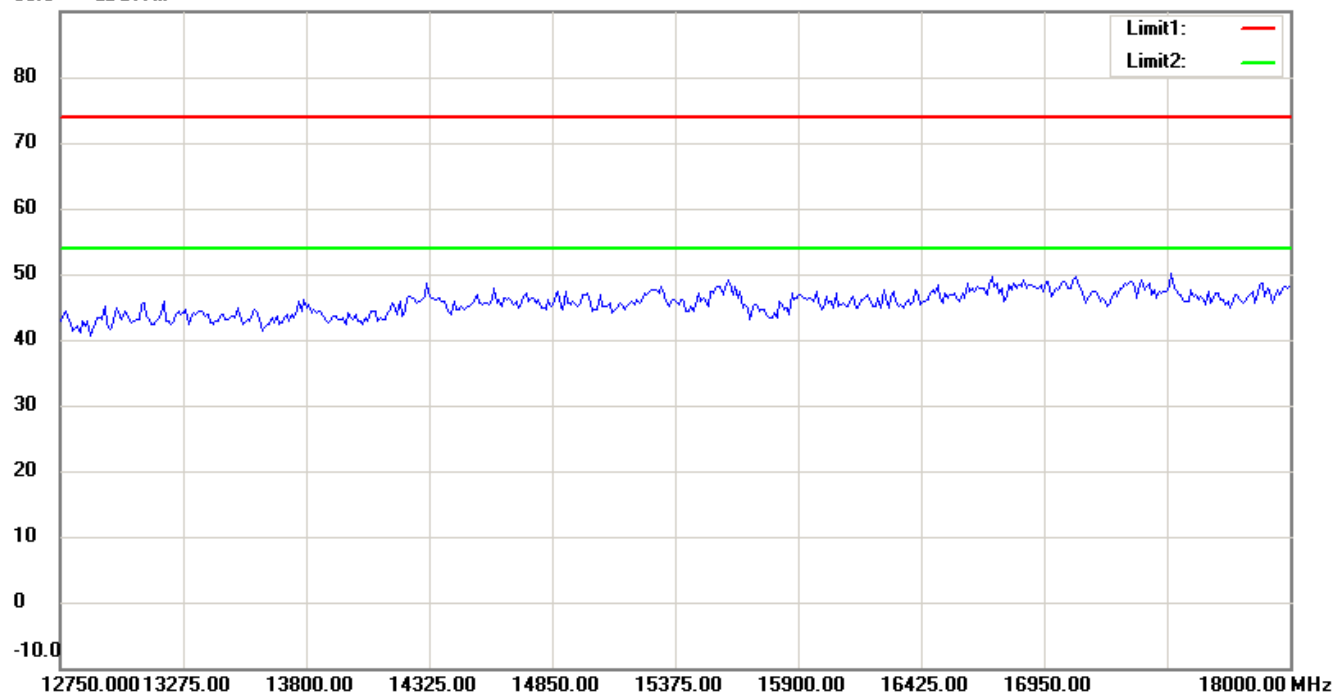


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.



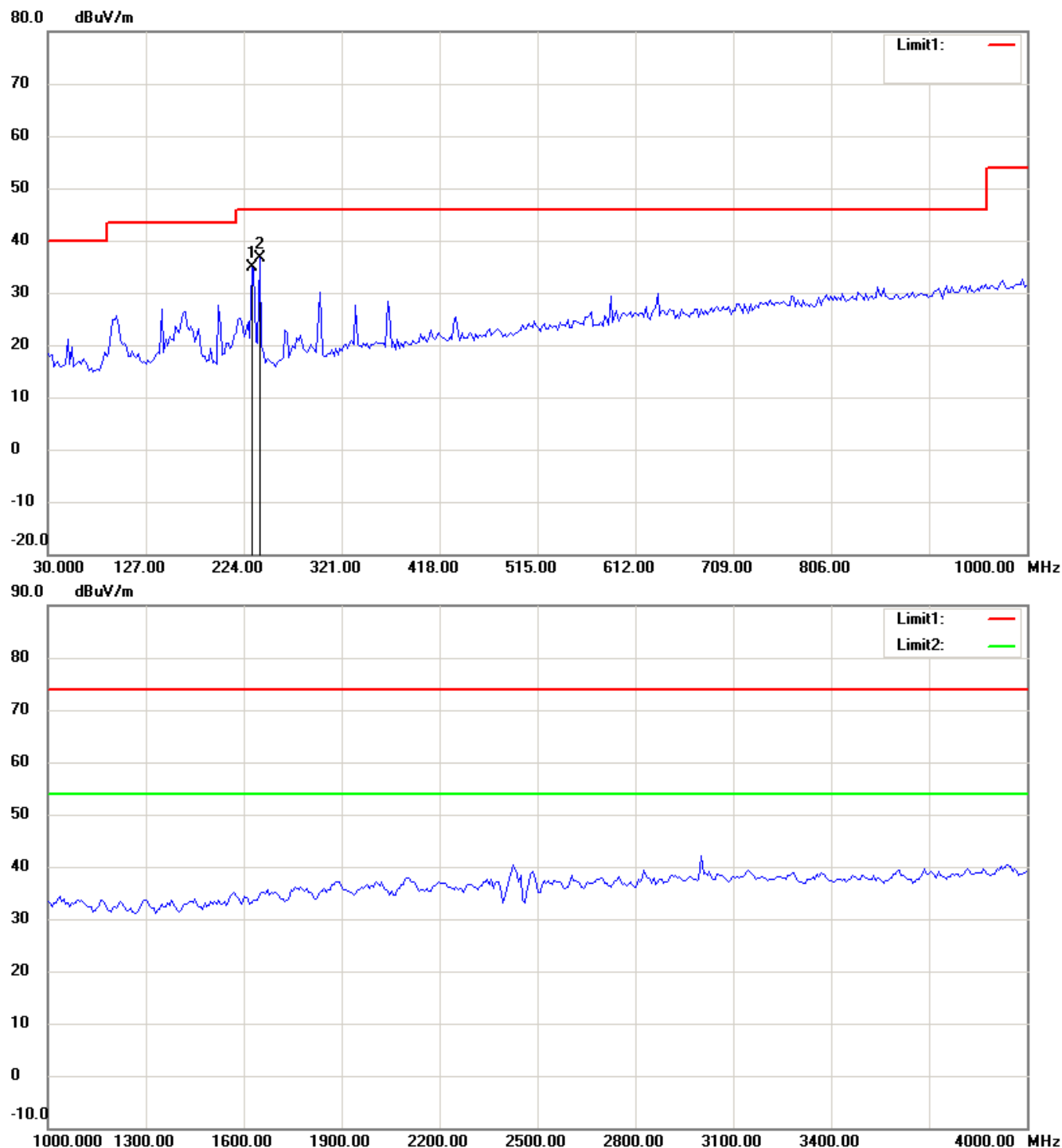
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

TX-2448.1MHz

Antenna Polarization H



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

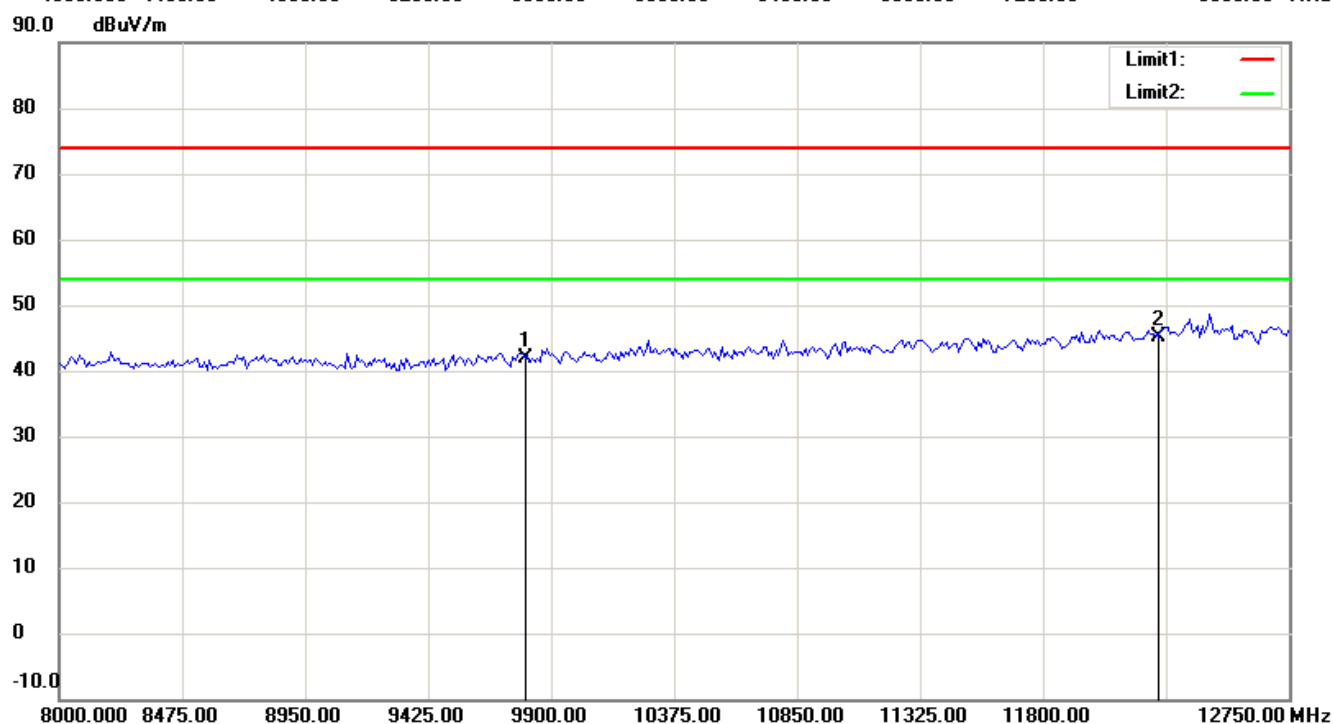
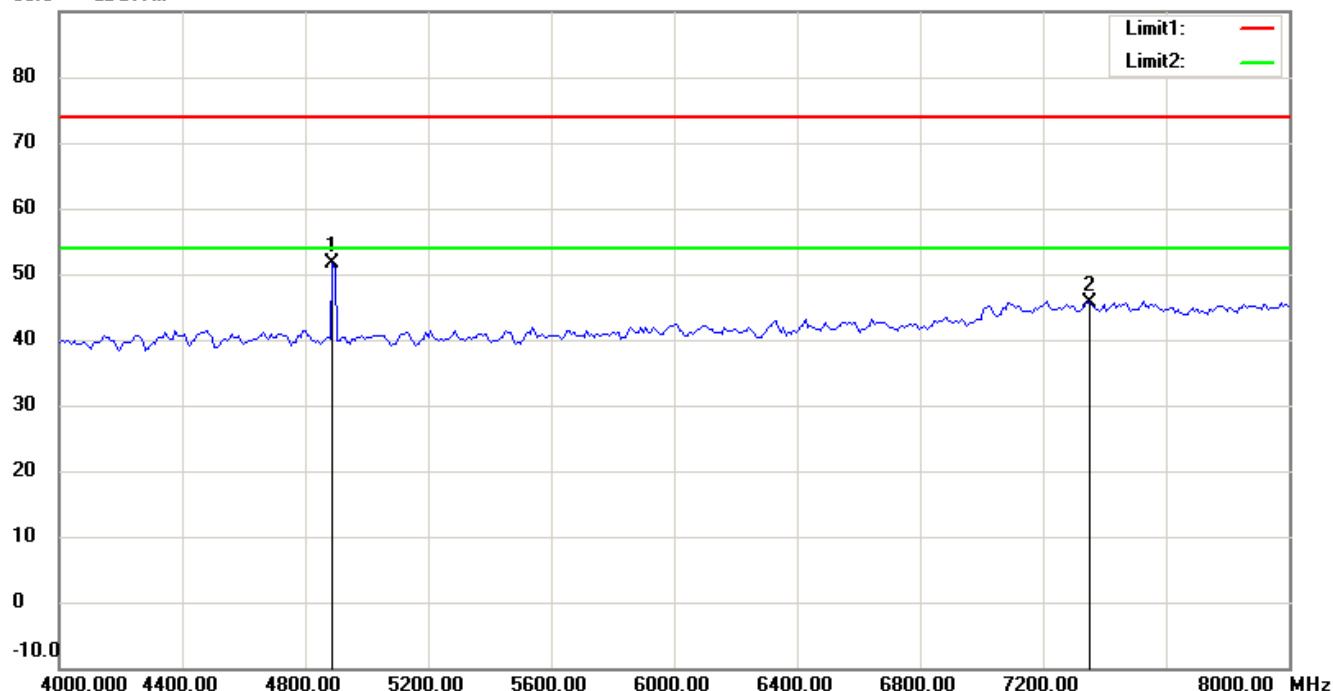


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

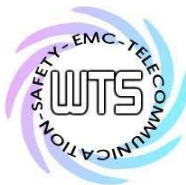
90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

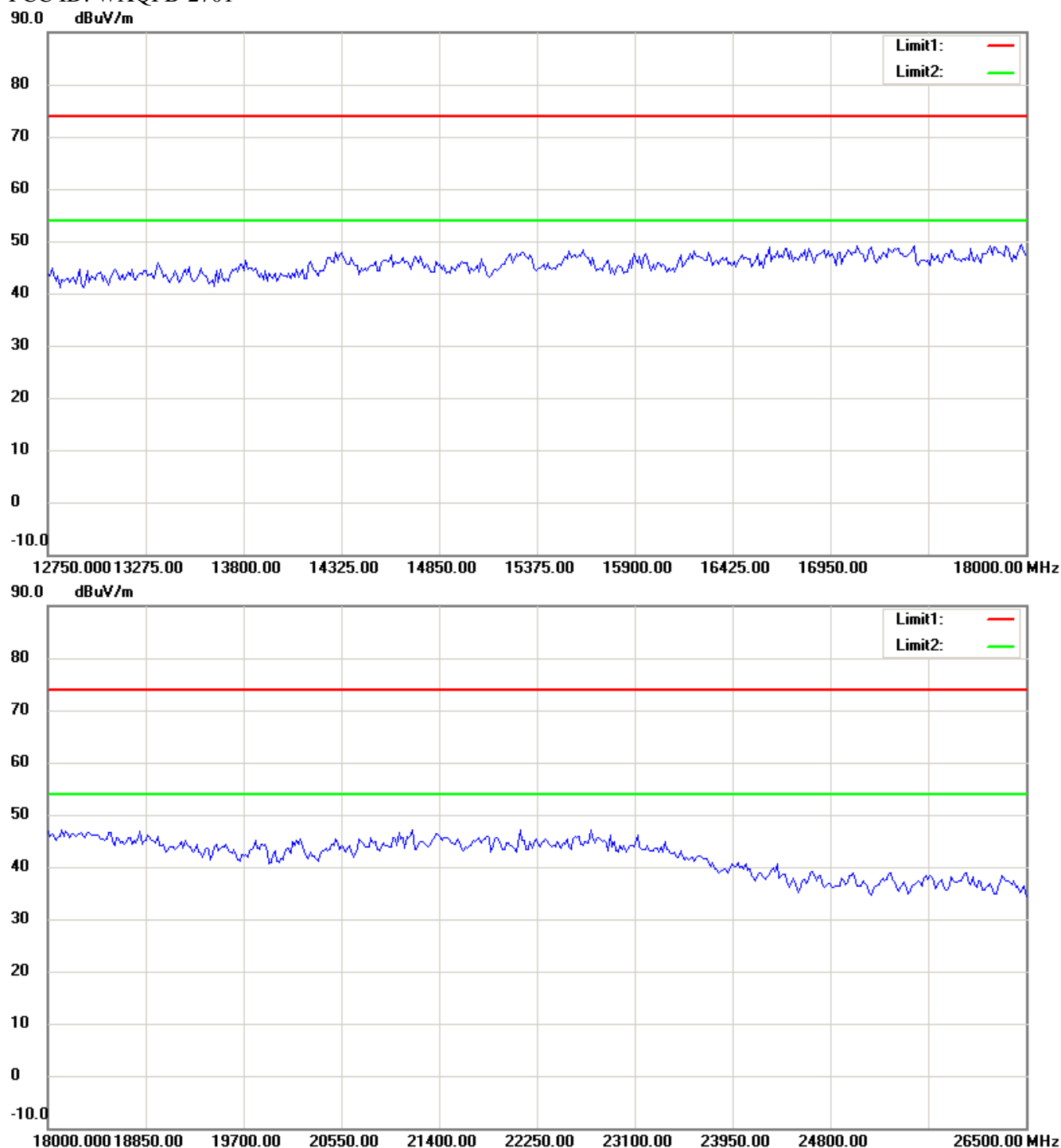
1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.



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Registration number: W6M21211-12878-P-15

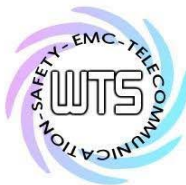
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Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

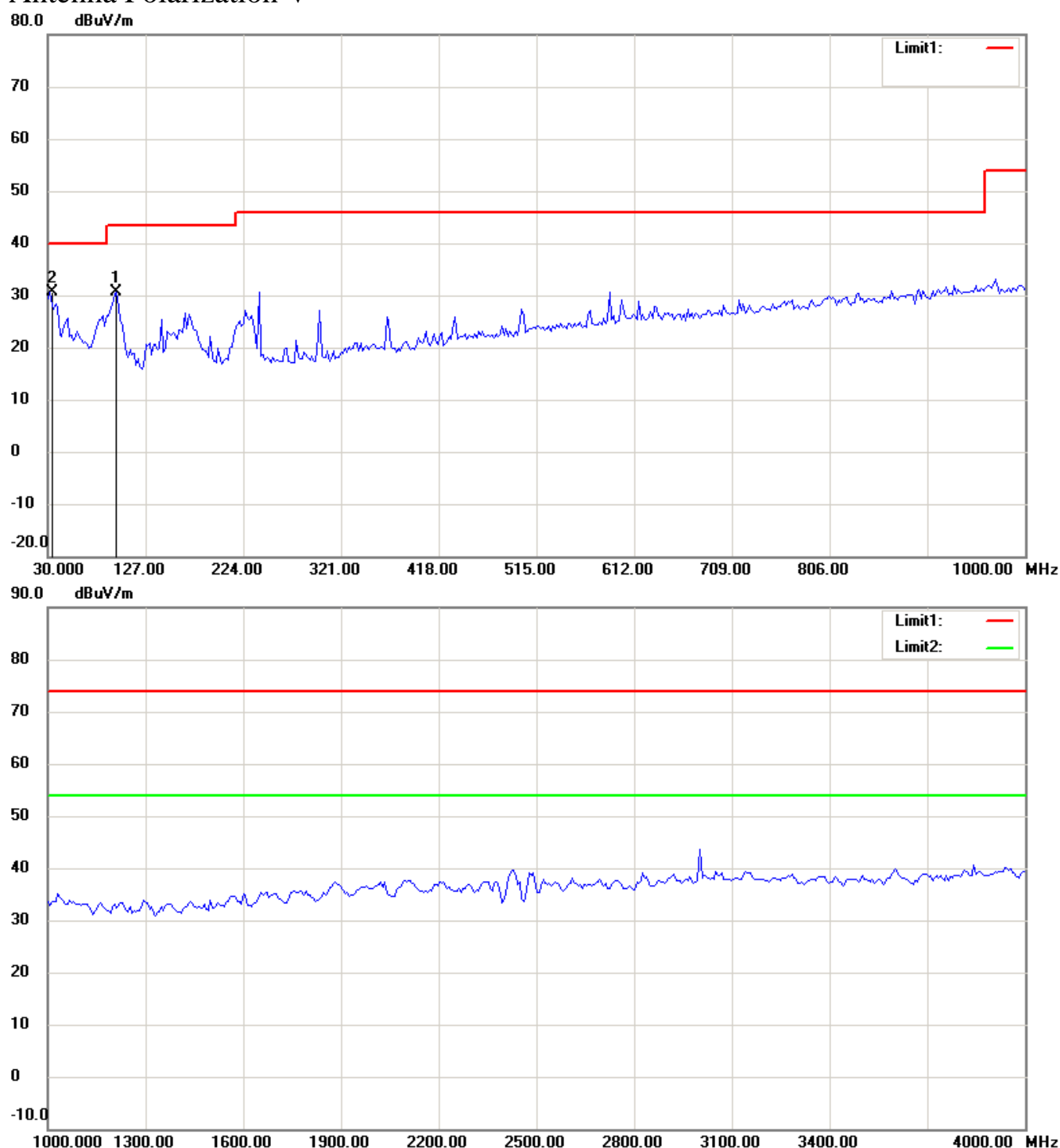
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2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

Antenna Polarization V



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

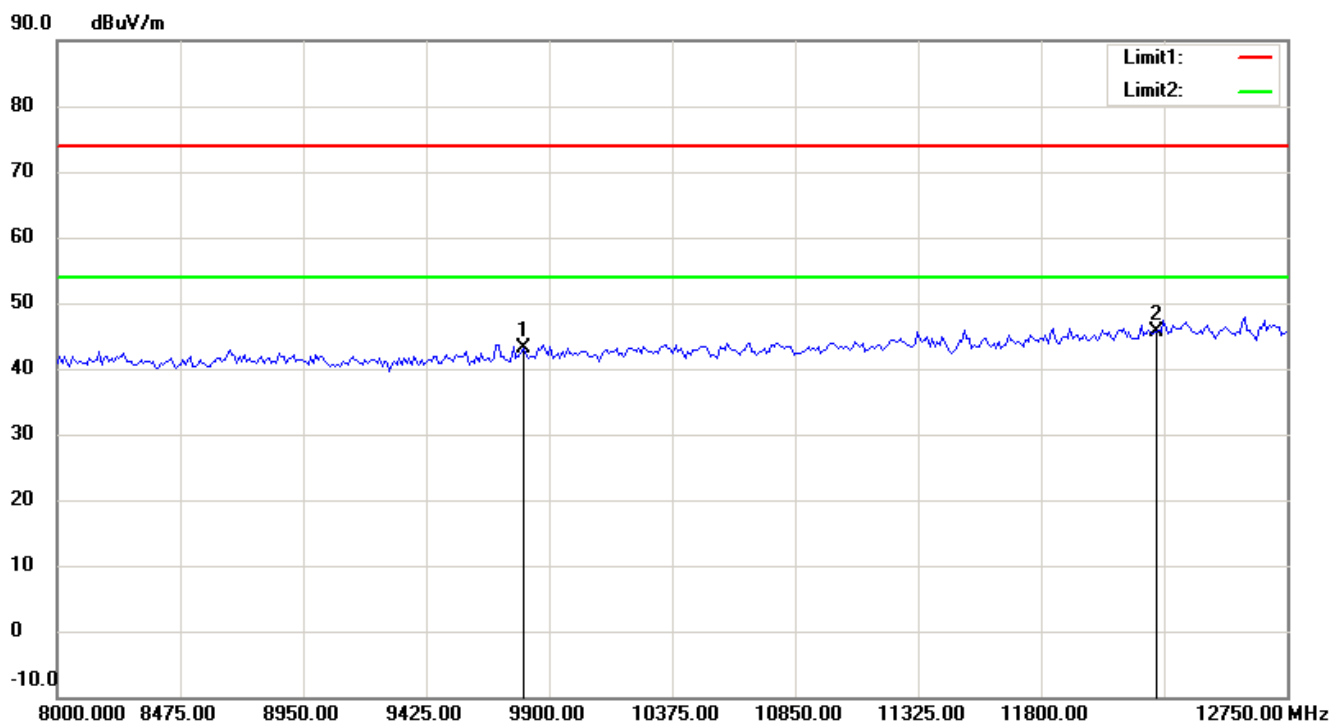
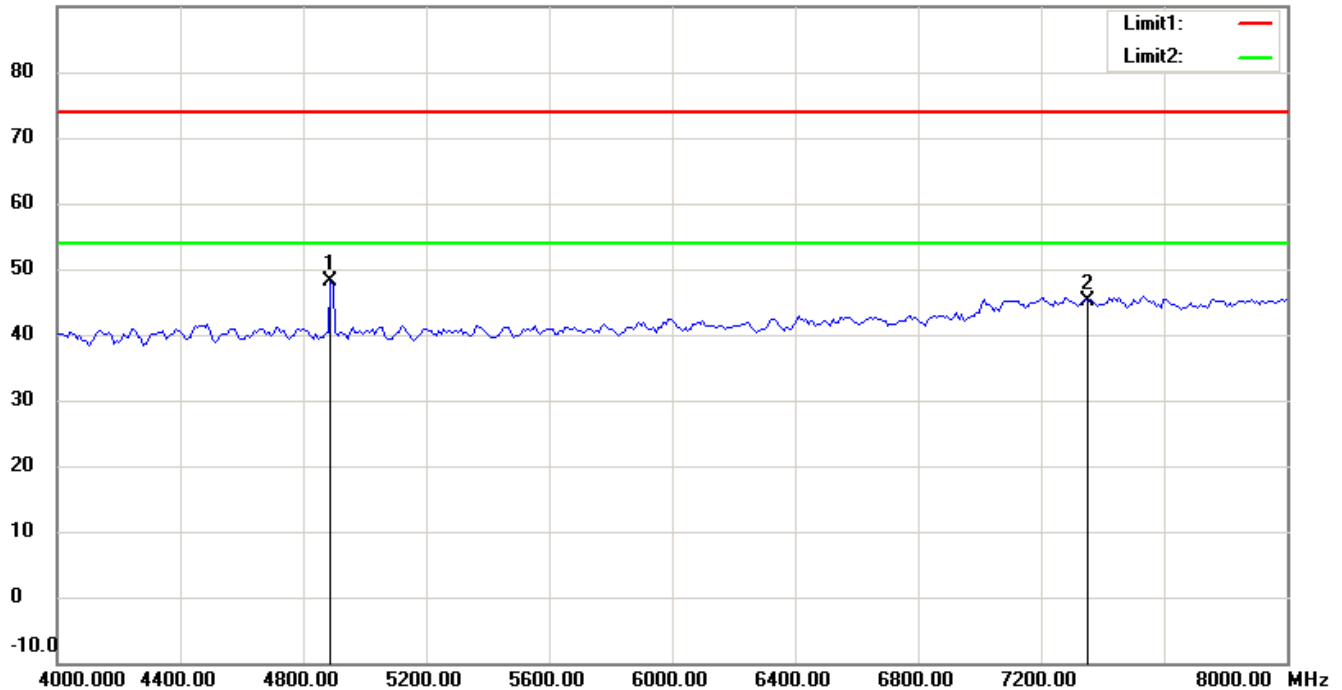


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

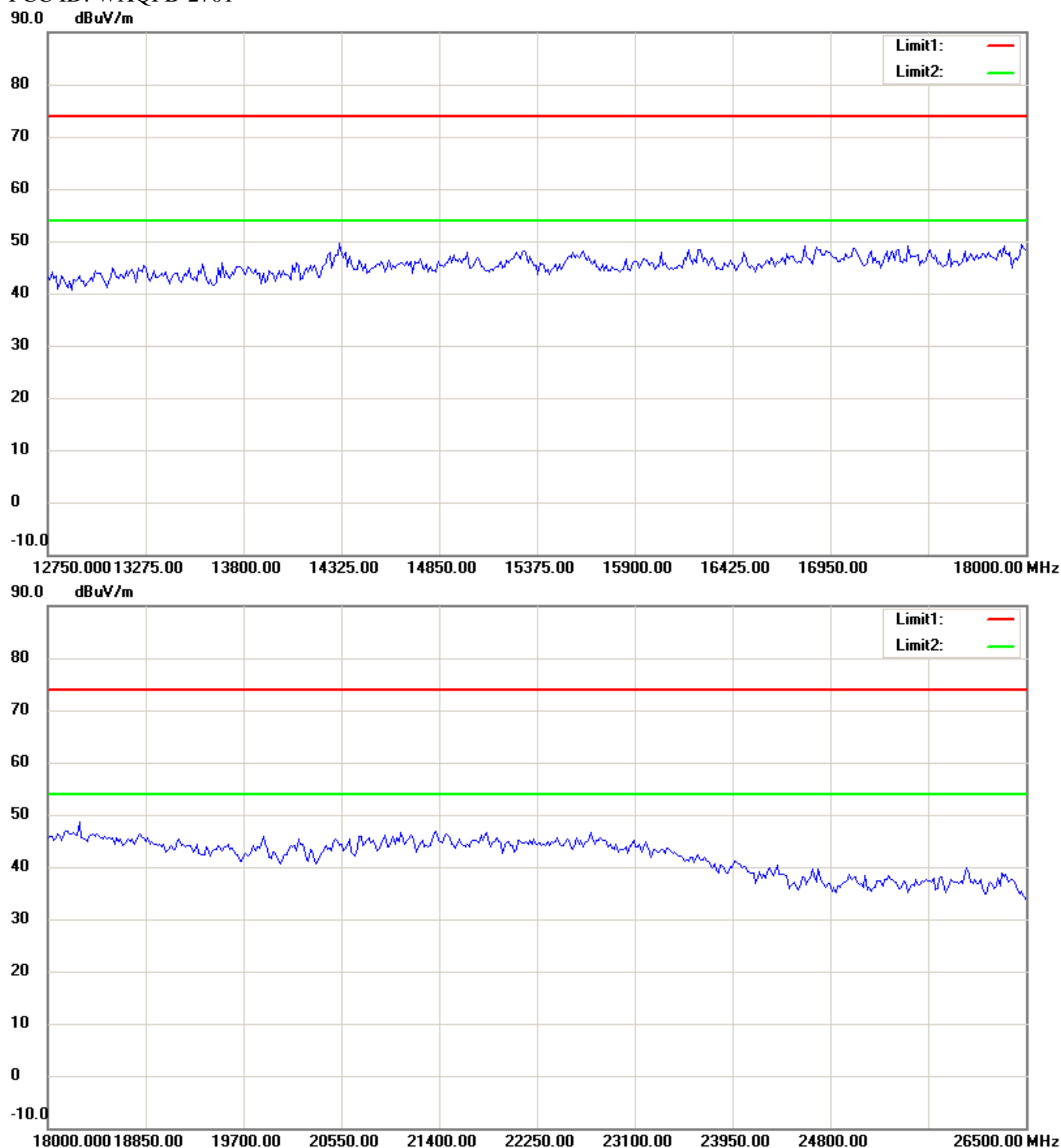
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2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

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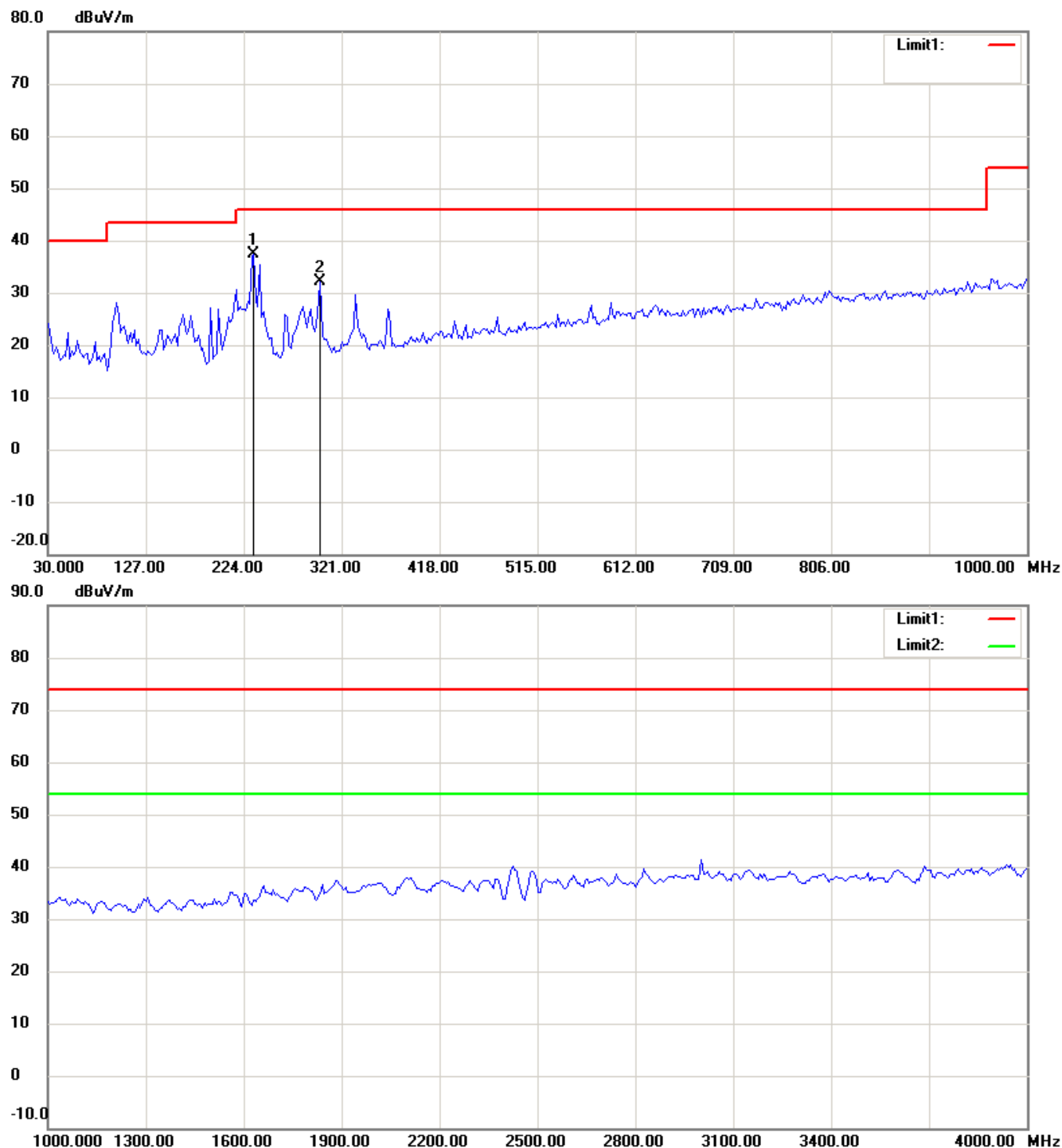
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

TX-2481.1MHz

Antenna Polarization H



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

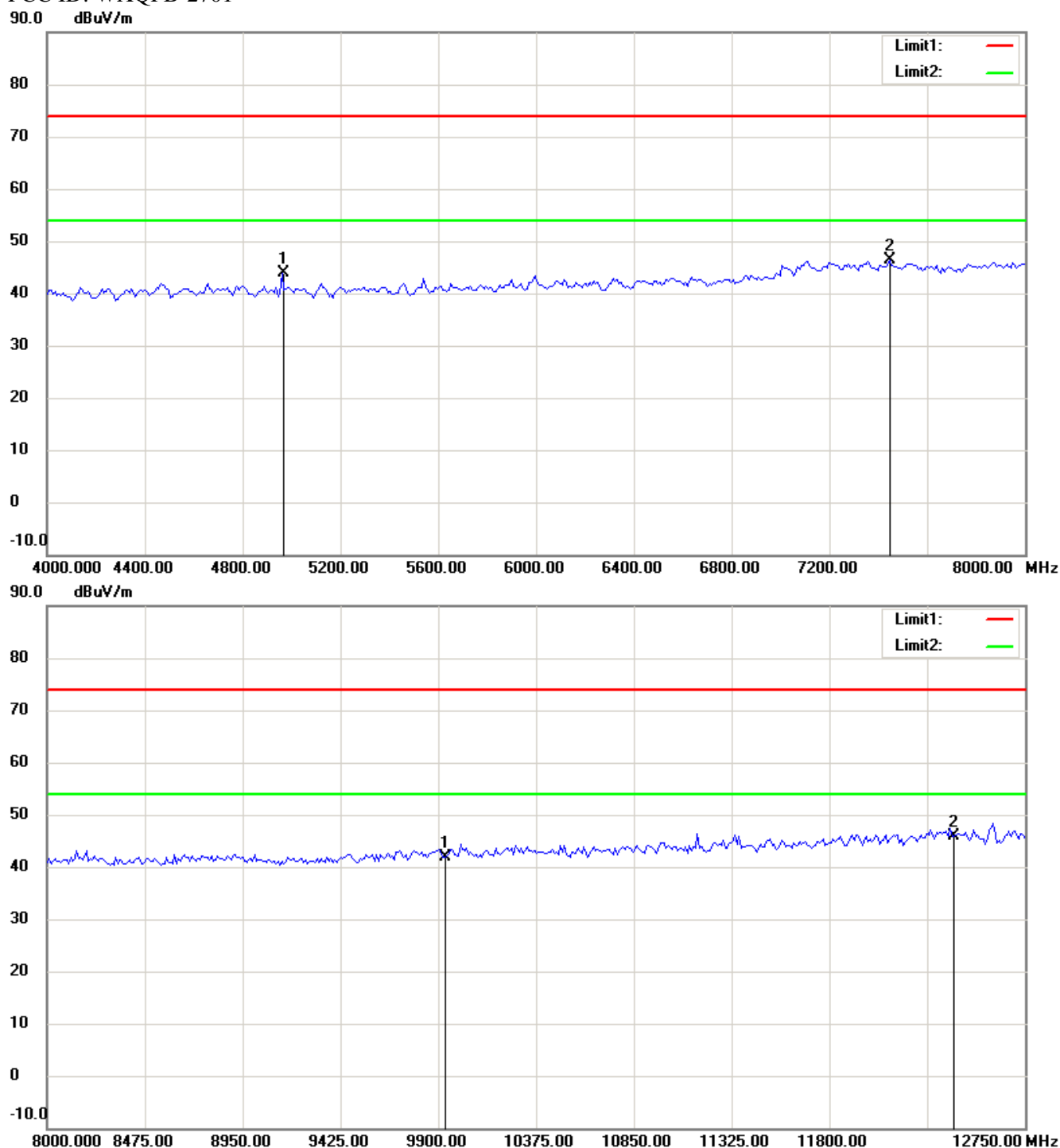
1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

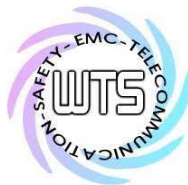
FCC ID: WXQPB-2701



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

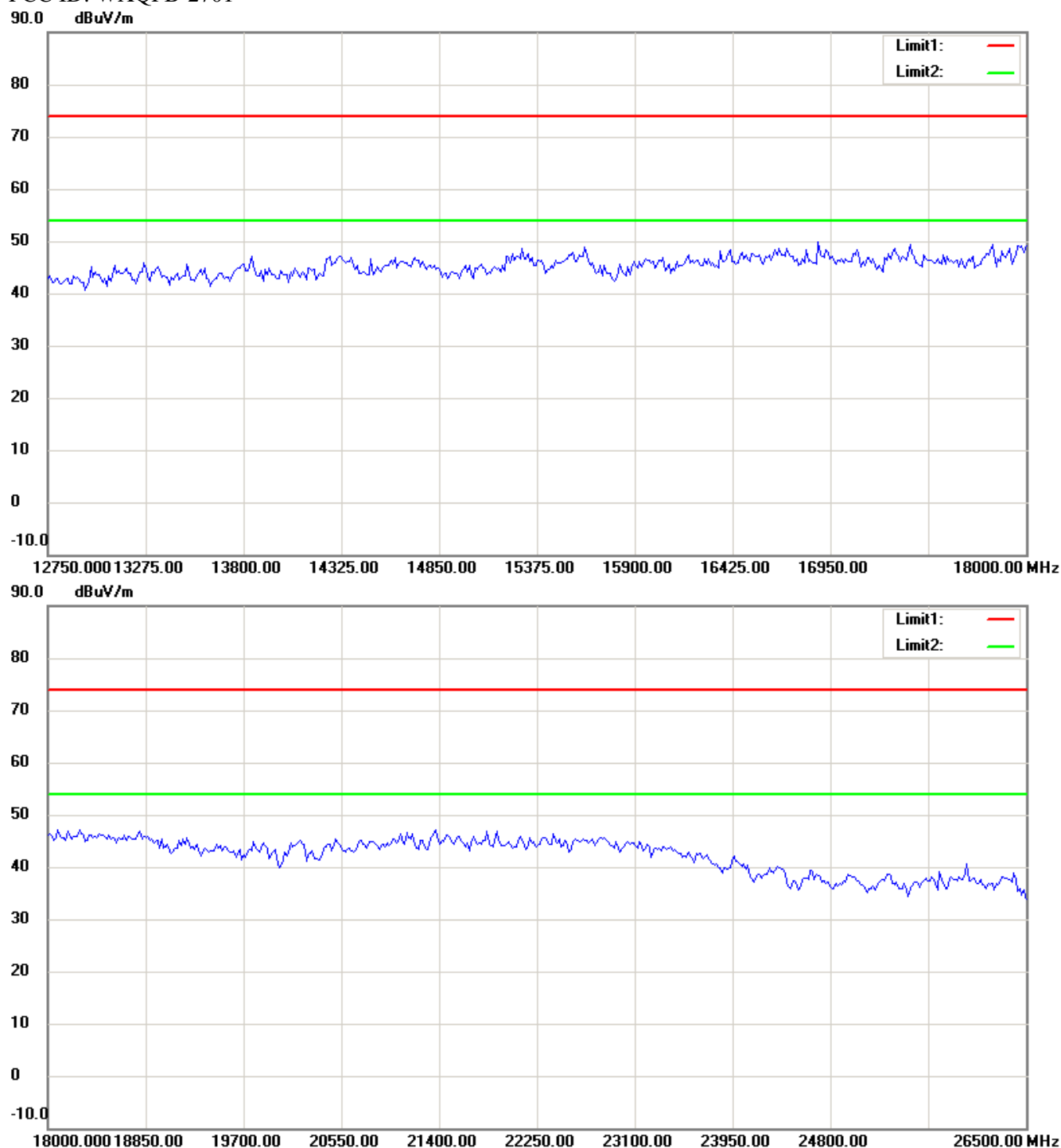
1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

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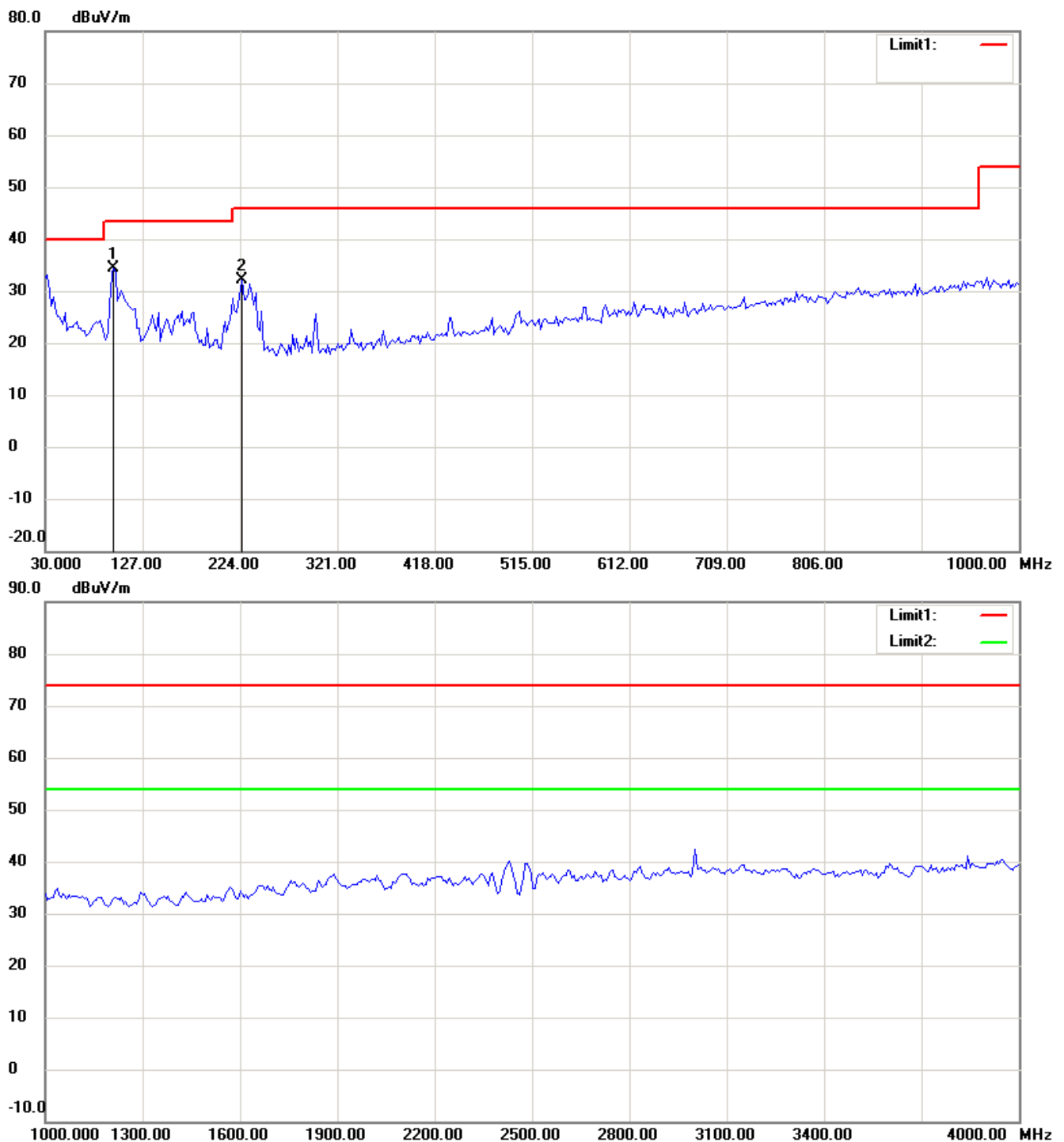


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

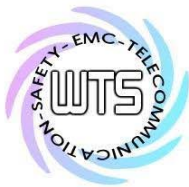
Antenna Polarization V



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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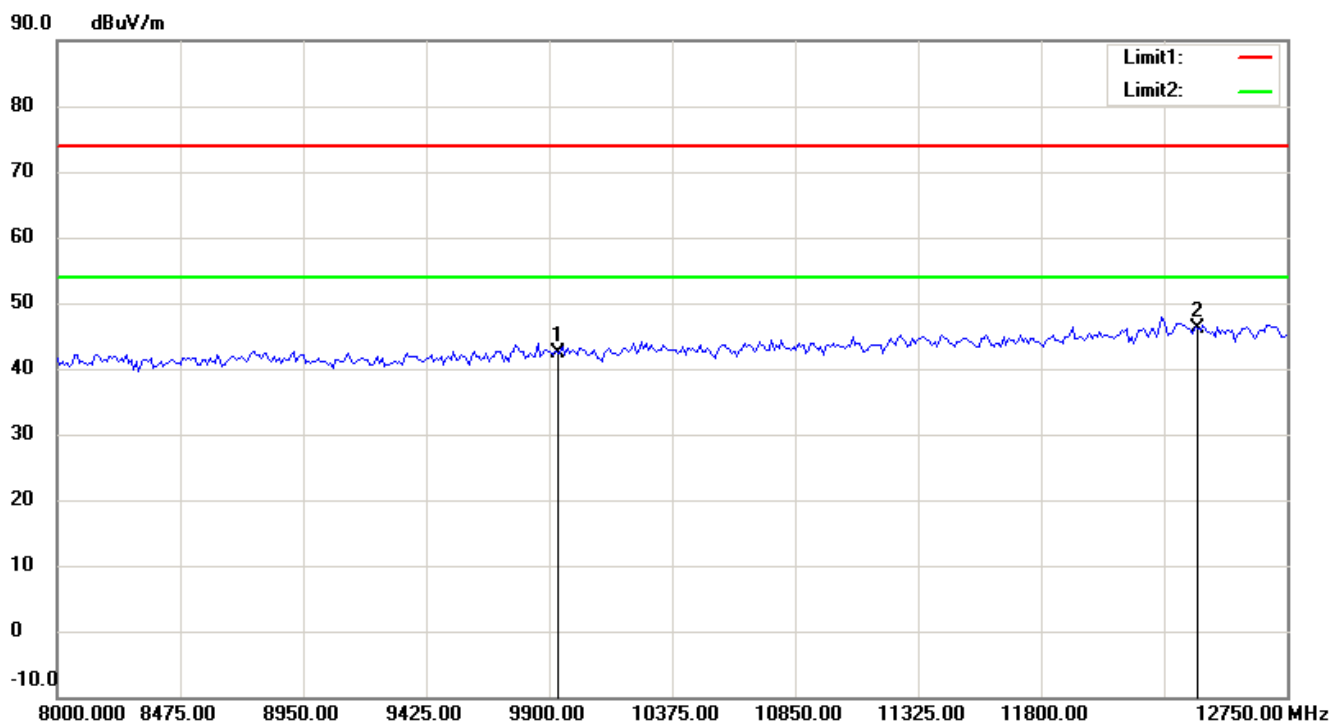
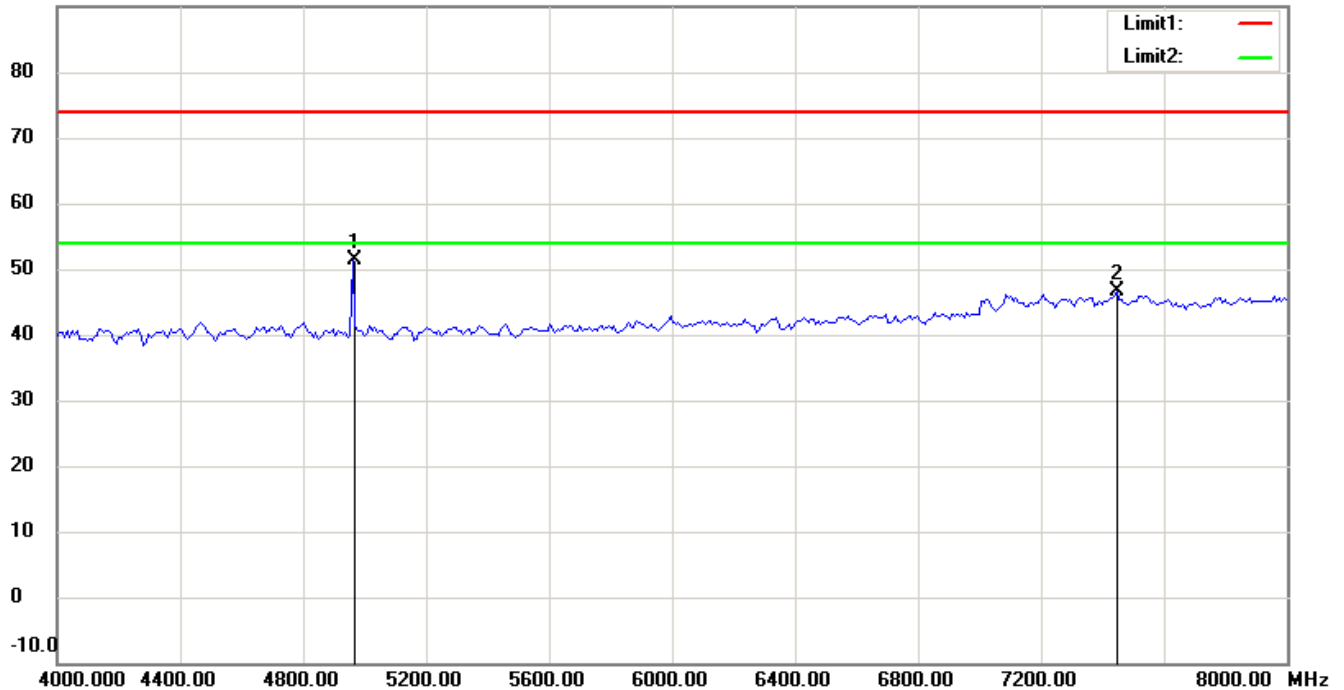


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
3. For corrected test results are listed in the relevant table of radiated test data of this test report.

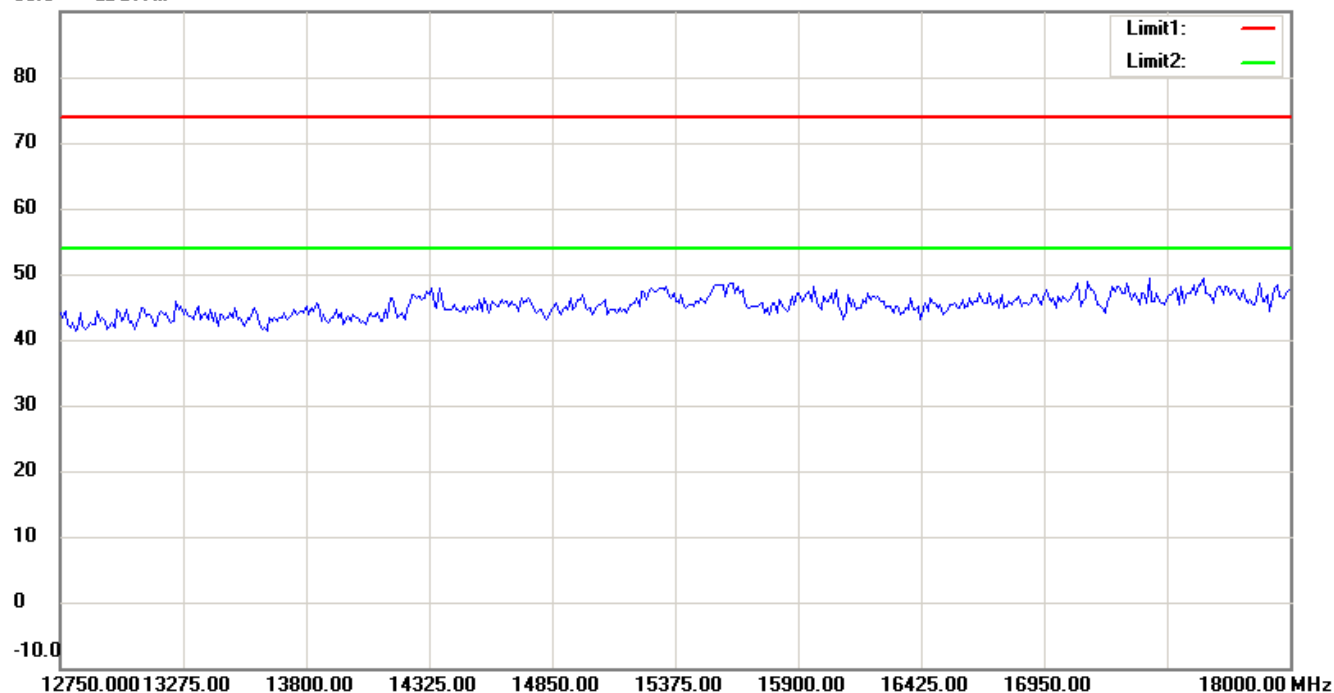


Worldwide Testing Services(Taiwan) Co., Ltd.

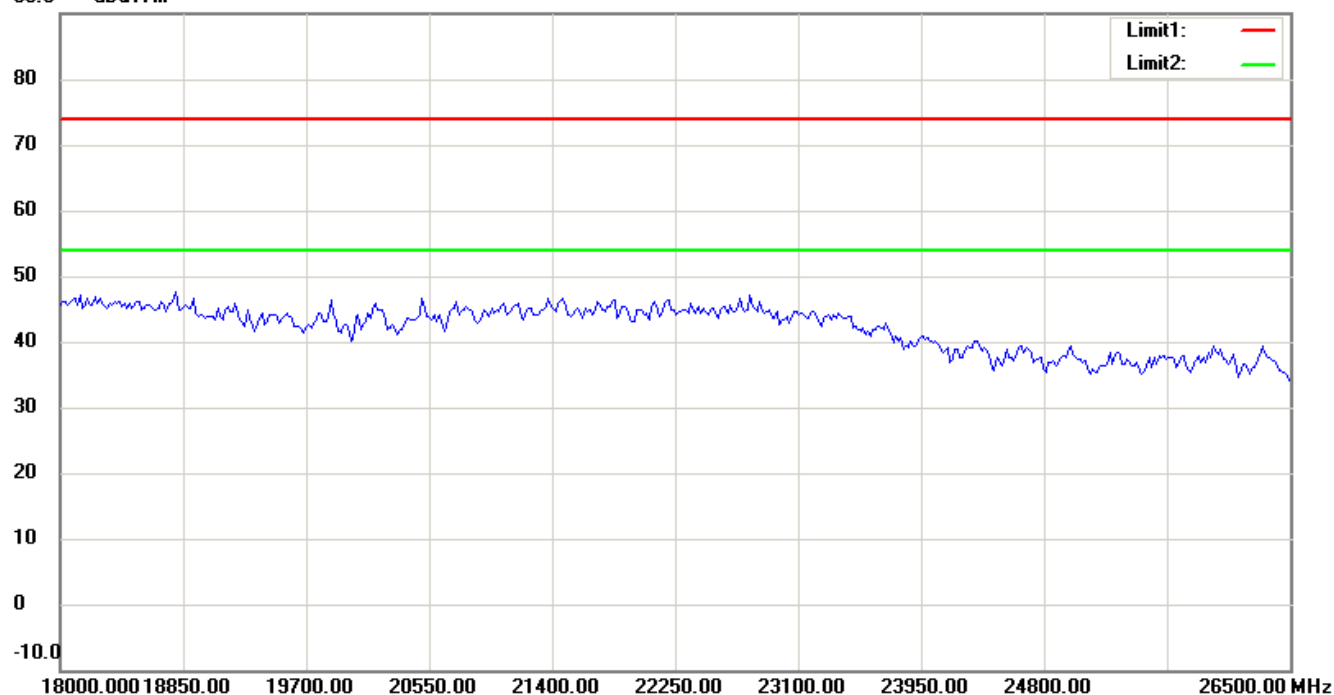
Registration number: W6M21211-12878-P-15

FCC ID: WXQPB-2701

90.0 dBuV/m



90.0 dBuV/m



Up Line: Peak Limit Line Down Line: Ave Limit Line

Note:

1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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