



FCC ID: 2ARCQ-EM7565
Report No.: T180821D09-RP1

Page: 1 / 33
Rev.: 01

FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E

TEST REPORT

For

Nodegrid

Model No.: SR

Trade Name: ZPE

Issued to

ZPE Systems, Inc.
46757 Fremont Blvd., Fremont, CA 94538, USA

Issued by

Compliance Certification Services Inc.
Wugu Laboratory
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
Issued Date: November 29, 2018

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Report No.: T180821D09-RP1

Page: 2 / 33
Rev.: 01

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	November 29, 2018	Initial Issue	ALL	Allison Chen
01	December 21, 2018	1. Revised Description of test modes in section 4.2. 2. Revised test condition in section 4.2.1.	P.7	Allison Chen



Report No.: T180821D09-RP1

Page: 3 / 33
Rev.: 01

TABLE OF CONTENTS

1. TEST RESULT CERTIFICATION.....	4
2. EUT DESCRIPTION	5
3. TEST SUMMARY	6
4. TEST METHODOLOGY	7
4.1 EUT CONFIGURATION	7
4.2 DESCRIPTION OF TEST MODES.....	7
5. INSTRUMENT CALIBRATION.....	8
5.1 MEASURING INSTRUMENT CALIBRATION.....	8
5.2 MEASUREMENT EQUIPMENT USED.....	8
5.3 MEASUREMENT UNCERTAINTY	9
6. FACILITIES AND ACCREDITATIONS.....	10
6.1 FACILITIES.....	10
6.2 EQUIPMENT	10
7. SETUP OF EQUIPMENT UNDER TEST	11
7.1 SETUP CONFIGURATION OF EUT	11
7.2 SUPPORT EQUIPMENT	11
8. FCC PART 22 & 24 REQUIREMENTS	12
8.1 ERP & EIRP MEASUREMENT	12
8.2 SPURIOUS RADIATION MEASUREMENT	15
APPENDIX-A PHOTOGRAPHS OF TEST SETUP	A-1
APPENDIX 1 - PHOTOGRAPHS OF EUT	

1. TEST RESULT CERTIFICATION

Applicant: ZPE Systems, Inc.
46757 Fremont Blvd., Fremont, CA 94538, USA

Manufacturer: ZPE Systems, Inc.
46757 Fremont Blvd., Fremont, CA 94538, USA

Equipment Under Test: Nodegrid

Trade Name: ZPE

Model: SR

Date of Test: October 1 ~ 2, 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 22 Subpart H & Part 24 Subpart E	No non-compliance noted

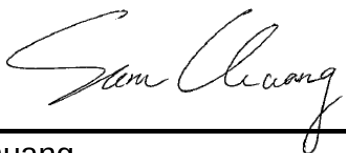
We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA-603-E and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule FCC PART 22 Subpart H and PART 24 Subpart E

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Tested by:



Sam Chuang
Manager
Compliance Certification Services Inc.



Jerry Chuang
Engineer
Compliance Certification Services Inc.



Report No.: T180821D09-RP1

Page: 5 / 33

Rev.: 01

2. EUT DESCRIPTION

Product	Nodegrid
Model No.	SR
Model Discrepancy	N/A
Trade Name	ZPE
Received Date	August 21, 2018
Power Supply	Power from AC adapter or internal Power Supply
Frequency Range	WCDMA Band II: 1852.4 ~ 1907.6 MHz WCDMA Band V: 826.4 ~ 846.6MHz
Transmit Power (ERP & EIRP Power)	WCDMA Band II: 29.68 dBm WCDMA Band V: 23.20 dBm
Antenna Gain	External Antenna Band II: 3 dBi Band V: 1.8 dBi

Remark:

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. For test mode WCDMA, HSUPA and HSDPA were pretest. The worst case was WCDMA in this test report



Report No.: T180821D09-RP1

Page: 6 / 33
Rev.: 01

3. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
-	2	Antenna Requirement	Pass
2.1046	-	Average Power	N/A
22.913(a), 24.232(c)	8.1	ERP and EIRP Measurement	Pass
2.1049	-	Occupied Bandwidth Measurement	N/A
22.917(a), 24.238(a)	-	Conducted Band Edge	N/A
22.913(d), 24.232(d)	-	Peak to Average Ratio	N/A
22.917(a), 24.238(a)	-	Conducted Spurious Emission	N/A
22.917(a), 24.238(a)	8.2	Spurious Radiation Measurement	Pass
2.1055, 22.355, 24.235	-	Frequency Stability v.s. temperature measurement	N/A

4. TEST METHODOLOGY

Both conducted and radiated testing were performed according to TIA-603-E and FCC CFR 47, Part 2, Part 22 Subpart H and Part 24 Subpart E, KDB 971168 D01 Power Meas License Digital Systems.

4.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

4.2 DESCRIPTION OF TEST MODES

The EUT (model: SR) had been tested under operating condition.

EUT staying in continuous transmitting mode was programmed.

After verification, all tests carried out are with the worst-case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode and receiving radiated spurious emission above 1GHz, which worst case was in CH Mid mode only.

WCDMA Band II:

Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.

WCDMA Band V:

Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

4.2.1 The worst mode of measurement

Radiated Emission Measurement	
Test Condition	Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT Power by adapter.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Remark:

1. The worst mode was record in this test report.
2. The EUT pre-scanned in three axis ,X,Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case (X-Plane) were recorded in this report.



Report No.: T180821D09-RP1

Page: 8 / 33

Rev.: 01

5. INSTRUMENT CALIBRATION

5.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

5.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Wugu Fully Chamber					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Bilog Antenna	Sunol Sciences	JB1	A052609	03/14/2018	03/13/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	23452	06/29/2018	06/28/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	33960	06/29/2018	06/28/2019
Digital Radio Communication Tester	R&S	CMU200	116604	07/19/2018	07/18/2019
Digital Thermo-Hygro Meter	WISEWIND	1110	D06	02/08/2018	02/07/2019
Horn Antenna	SCHWARZBECK	BBHA 9120D	779	03/14/2018	03/13/2019
Pre-Amplifier	Anritsu	MH648A	M89145	06/29/2018	06/28/2019
Pre-Amplifier	EMEC	EM01G26G	060570	06/29/2018	06/28/2019
Signal Analyzer	Agilent	N9010A	MY52220817	03/22/2018	03/21/2019
Wideband Radio Communication Tester	R&S	CMW 500	116875	04/20/2018	04/19/2019
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	EZ-EMC (CCS-3A1RE)				



Report No.: T180821D09-RP1

Page: 9 / 33
Rev.: 01

5.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	N/A
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

Remark: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

6. FACILITIES AND ACCREDITATIONS

6.1 FACILITIES

- ☐ No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
- ☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

6.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."



Report No.: T180821D09-RP1

Page: 11 / 33
Rev.: 01

7. SETUP OF EQUIPMENT UNDER TEST

7.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

7.2 SUPPORT EQUIPMENT

No	Equipment	Brand	Model	Series No.	FCC ID	Data Cable
	N/A					

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

8. FCC PART 22 & 24 REQUIREMENTS

8.1 ERP & EIRP MEASUREMENT

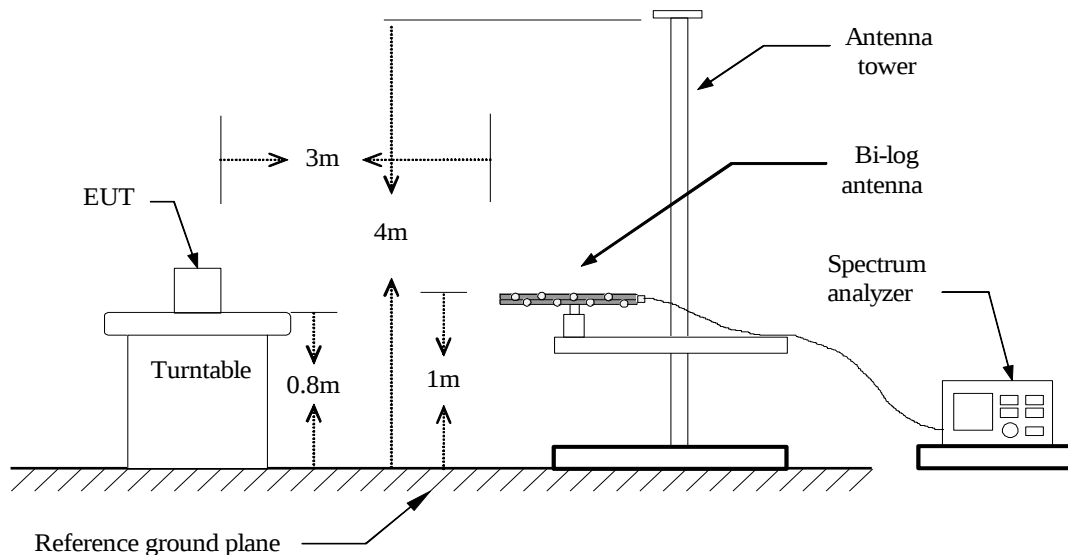
LIMIT

According to FCC 22.913(a): The Effective Radiated Power (ERP) of mobile transmitters must not exceed 7 Watts.

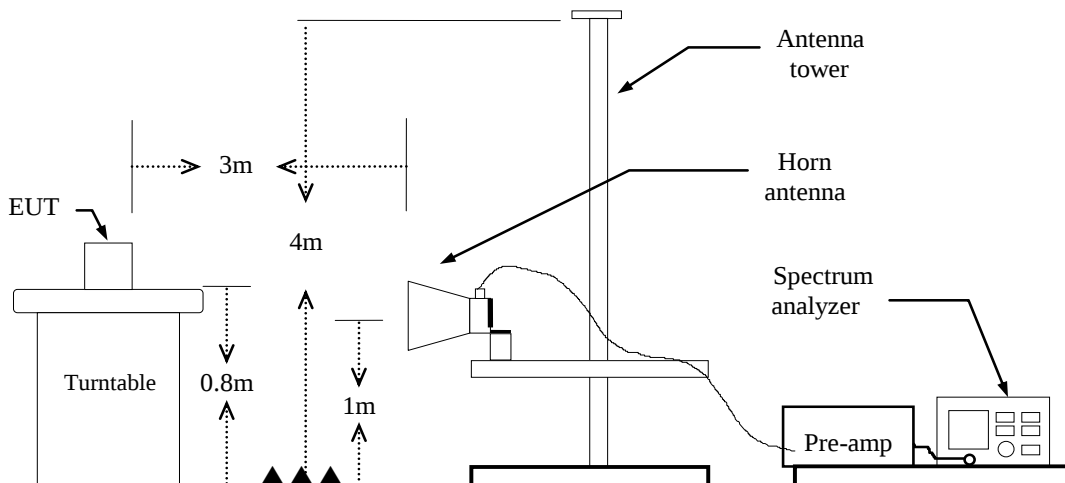
According to FCC 24.232(c): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

Test Configuration

Below 1 GHz

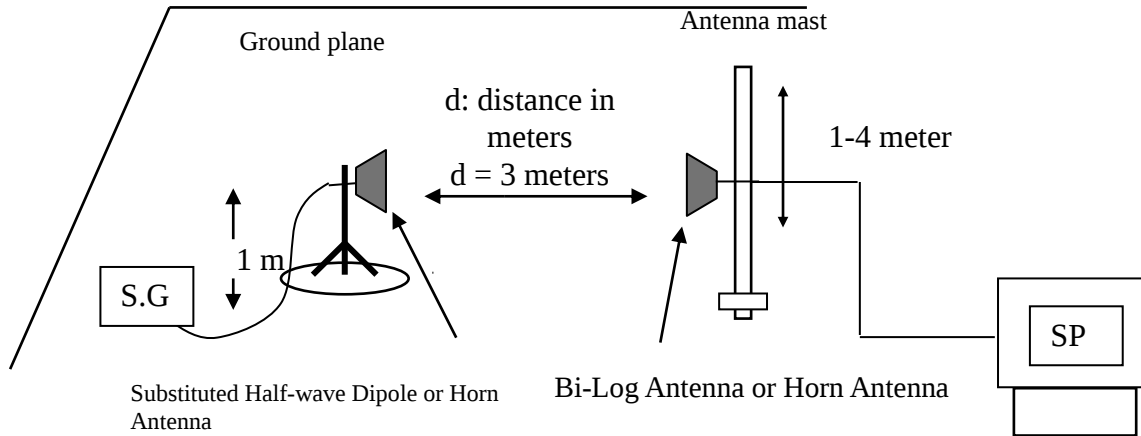


Above 1 GHz



Report No.: T180821D09-RP1

For Substituted Method Test Set-UP



TEST PROCEDURE

1. The EUT was placed on a non-conductive rotating platform (0.8m for below 1G and above 1G) in a semi-chamber. The radiated emission at the fundamental frequency was measured at 3m and SA with RMS detector per section 5, KDB 971168 D01 Power Meas License Digital Systems.
2. During the measurement, the call box parameters were set to get the maximum output power of the EUT. The maximum emission was recorded from spectrum analyzer power level (LVL) from 360 degrees rotation of turntable and the test antenna raised and lowered over a range from 1m to 4m in both horizontally and vertically polarized orientations.
3. EIRP was measured method according to TIA/EIA-603-E. The EUT was replaced by the substitution antenna at same location, and then record the maximum Analyzer reading through raised and lowered the test antenna.

$$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)} - 2.15$$

$$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$



Report No.: T180821D09-RP1

Page: 14 / 33

Rev.: 01

TEST RESULTS

No non-compliance noted.

WCDMA 12.2K RMC

Test Mode	Channel	Vertical		Horizontal	
		EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
WCDMA 12.2K RMC (Band II)	Lowest	7.47	0.0056	28.58	0.7211
	Middle	7.01	0.0050	29.39	0.8690
	Highest	4.63	0.0029	29.68	0.9290

Test Mode	Channel	Vertical		Horizontal	
		ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
WCDMA 12.2K RMC (Band V)	Lowest	4.60	0.0029	22.72	0.1871
	Middle	4.39	0.0027	23.20	0.2089
	Highest	2.08	0.0016	22.98	0.1986

8.2 SPURIOUS RADIATION MEASUREMENT

Limit

FCC §22.917(a), Band V

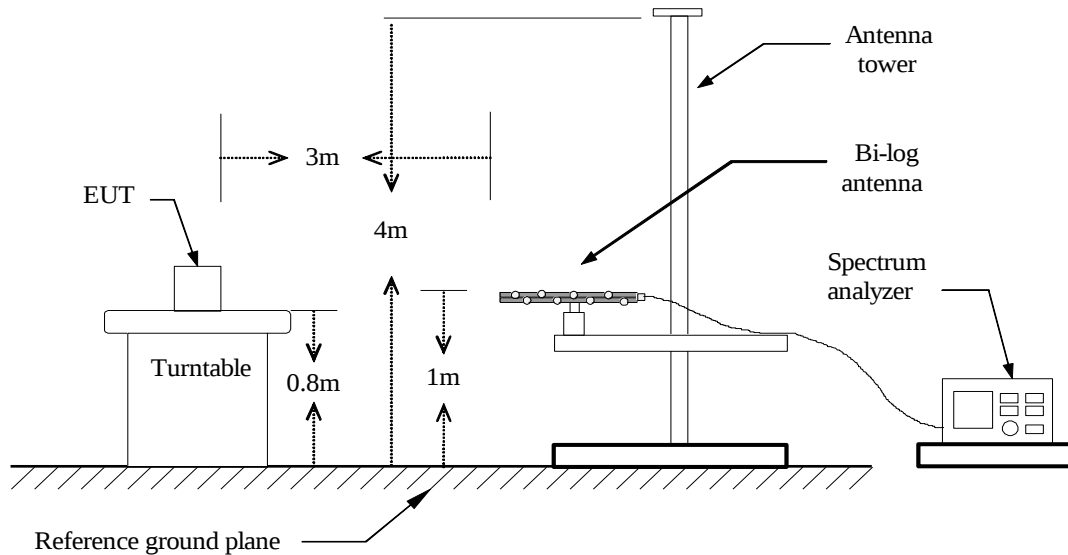
For operations in the 824-849 MHz band, out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

FCC §24.238(a), Band II

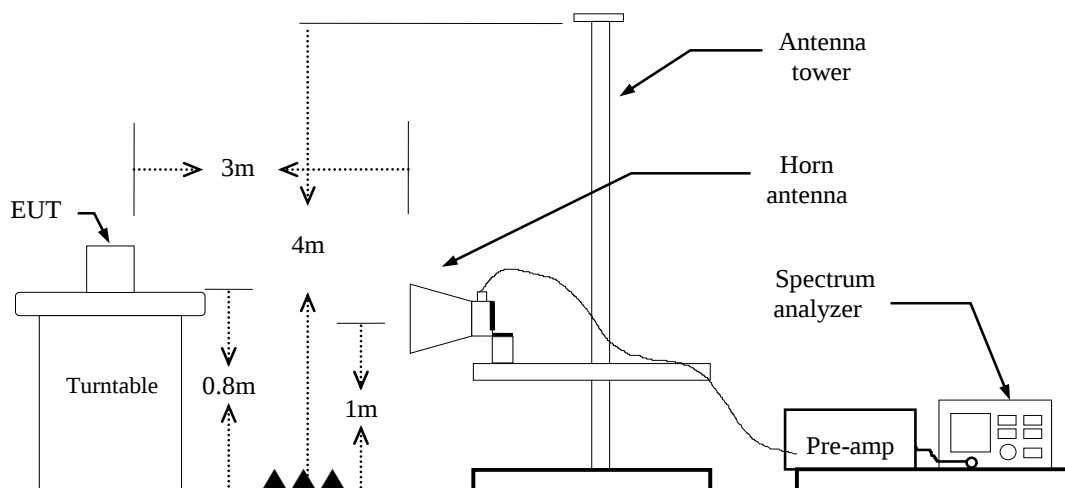
For operations in the 1850-1910 and 1930-1950 MHz band, out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

Test Configuration

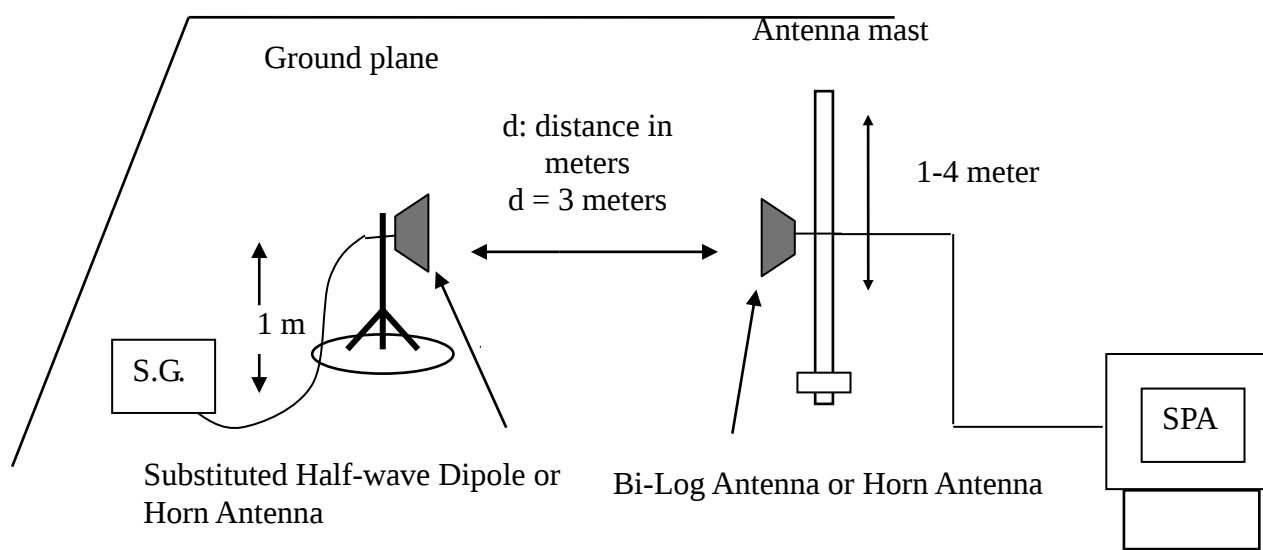
Below 1 GHz



Above 1 GHz



Substituted Method Test Set-up





Report No.: T180821D09-RP1

Page: 17 / 33

Rev.: 01

TEST PROCEDURE

1. According to KDB 971168 D01 Power Meas License Digital Systems and TIA-603-E section 2.2.12.
2. The EUT was placed on a turntable
 - (1) Below 1G : 0.8m
 - (2) Above 1G : 0.8m
 - (3) EUT set 3m from the receiving antenna
 - (4) The table was rotated 360 degrees of the highest spurious emission to determine the position.
3. Set the spectrum analyzer , RBW=1MHz, VBW=3MHz.
4. A horn antenna was driven by a signal generator.
5. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission

ERP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB) - 2.15

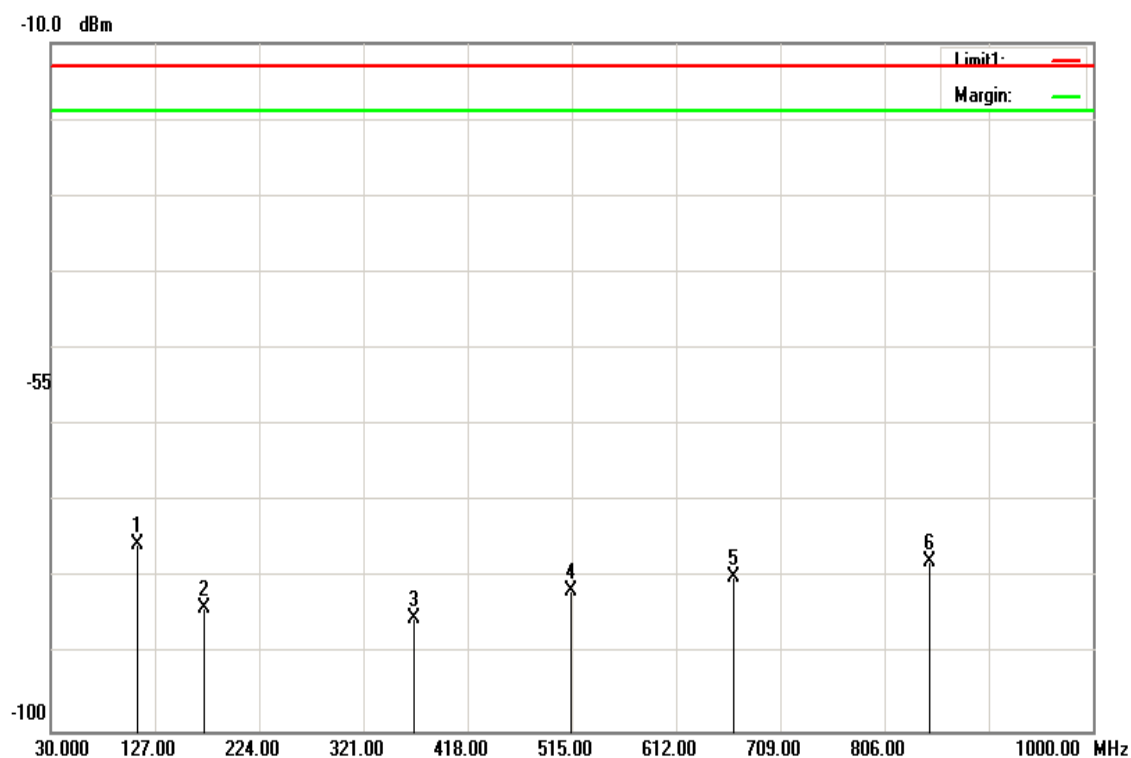
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

TEST RESULTS

Refer to the attached tabular data sheets.

Radiated Spurious Emission Measurement Result / Below 1GHz

Operation Mode:	WCDMA 12.2k RMC Band II / TX /Mid CH	Test Date:	October 1, 2018
Temperature:	23°C	Tested by:	Jerry Chuang
Humidity:	41 %RH	Polarity:	Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
110.9950	-74.53	1.04	-75.57	-13.00	-62.57	V
172.5900	-82.55	1.3	-83.85	-13.00	-70.85	V
368.0450	-83.41	1.92	-85.33	-13.00	-72.33	V
514.0300	-79.36	2.28	-81.64	-13.00	-68.64	V
665.3500	-77.16	2.6	-79.76	-13.00	-66.76	V
848.1950	-74.94	2.97	-77.91	-13.00	-64.91	V

Operation Mode: WCDMA 12.2k RMC Band II / TX /Mid CH

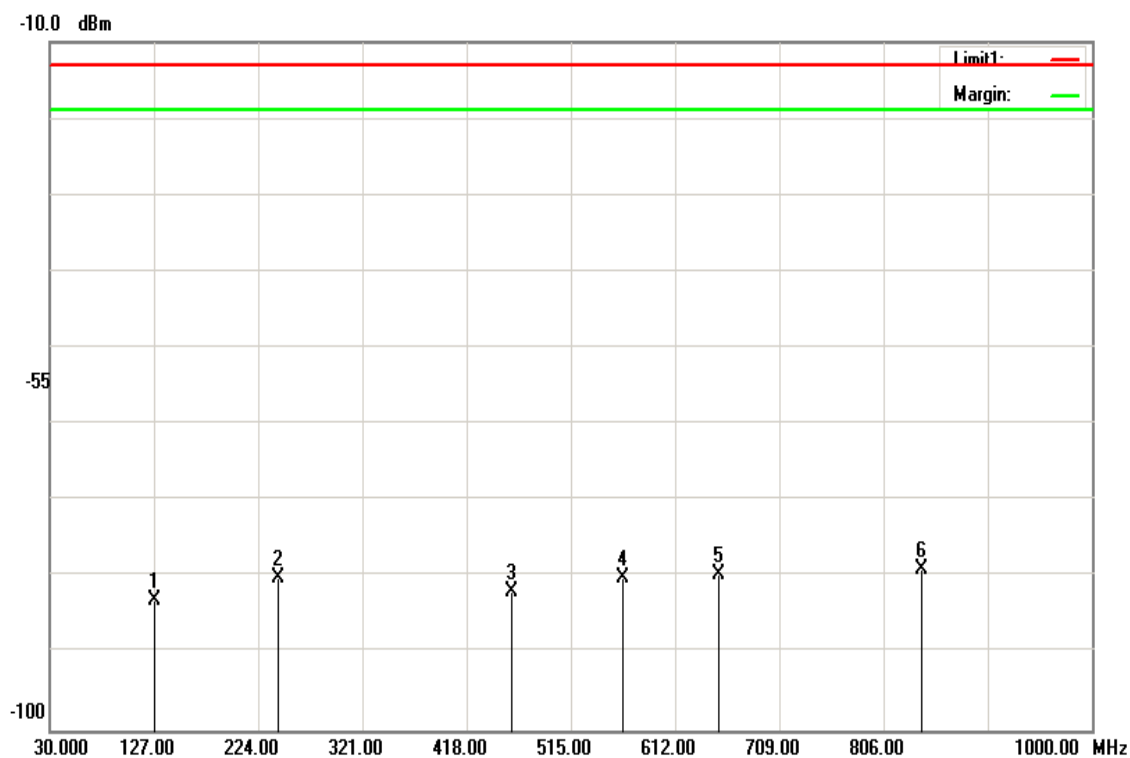
Test Date: October 1, 2018

Temperature: 23°C

Tested by: Jerry Chuang

Humidity: 41 %RH

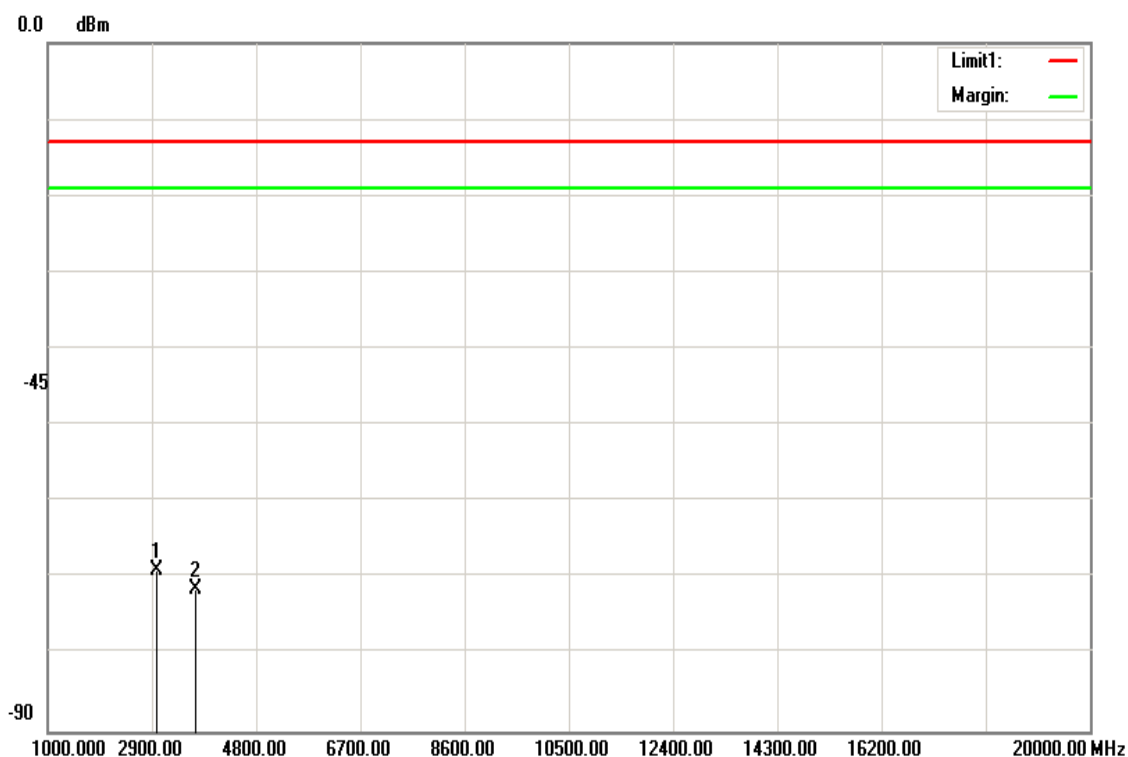
Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
128.4550	-81.83	1.12	-82.95	-13.00	-69.95	H
242.9150	-78.6	1.54	-80.14	-13.00	-67.14	H
459.7100	-79.71	2.15	-81.86	-13.00	-68.86	H
563.9850	-77.76	2.39	-80.15	-13.00	-67.15	H
652.7400	-77.16	2.58	-79.74	-13.00	-66.74	H
841.8900	-75.93	2.95	-78.88	-13.00	-65.88	H

Above 1GHz

Operation Mode: WCDMA 12.2k RMC Band II / TX / Low CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Ver.

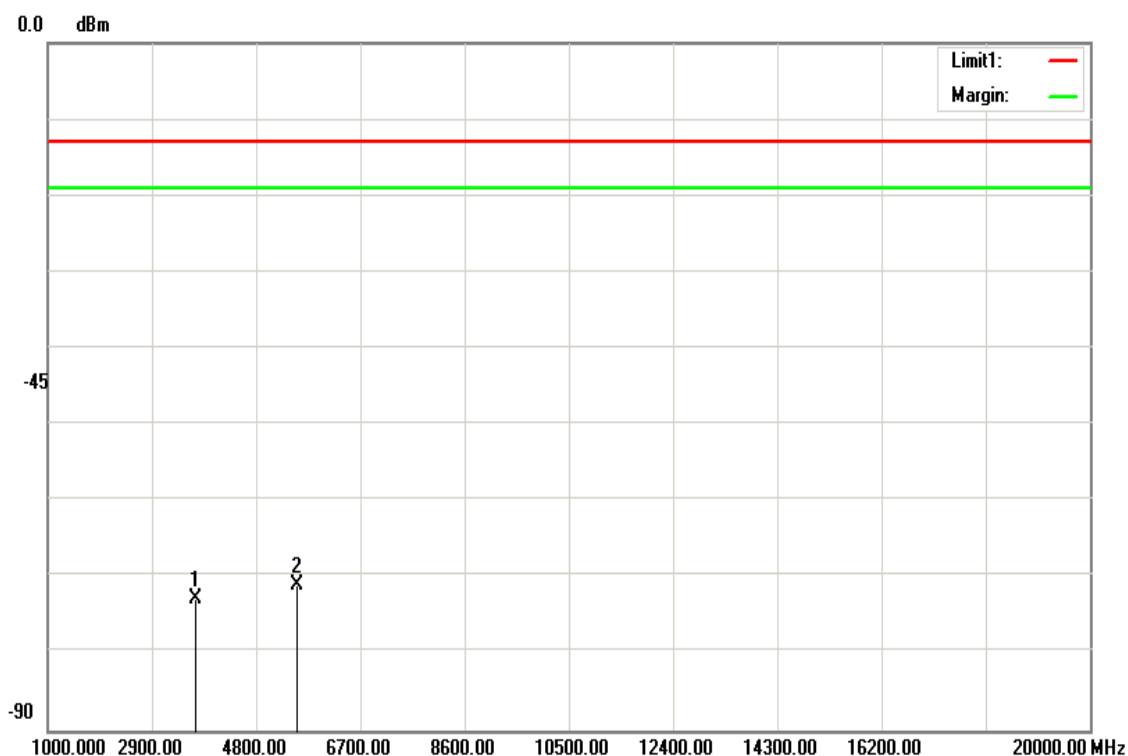


Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2995.000	-63.04	5.9	-68.94	-13.00	-55.94	V
3704.800	-64.83	6.63	-71.46	-13.00	-58.46	V
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Operation Mode: WCDMA 12.2k RMC Band II / TX / Low CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3704.800	-66.25	6.63	-72.88	-13.00	-59.88	H
5557.200	-62.59	8.29	-70.88	-13.00	-57.88	H
N/A						

Remark:

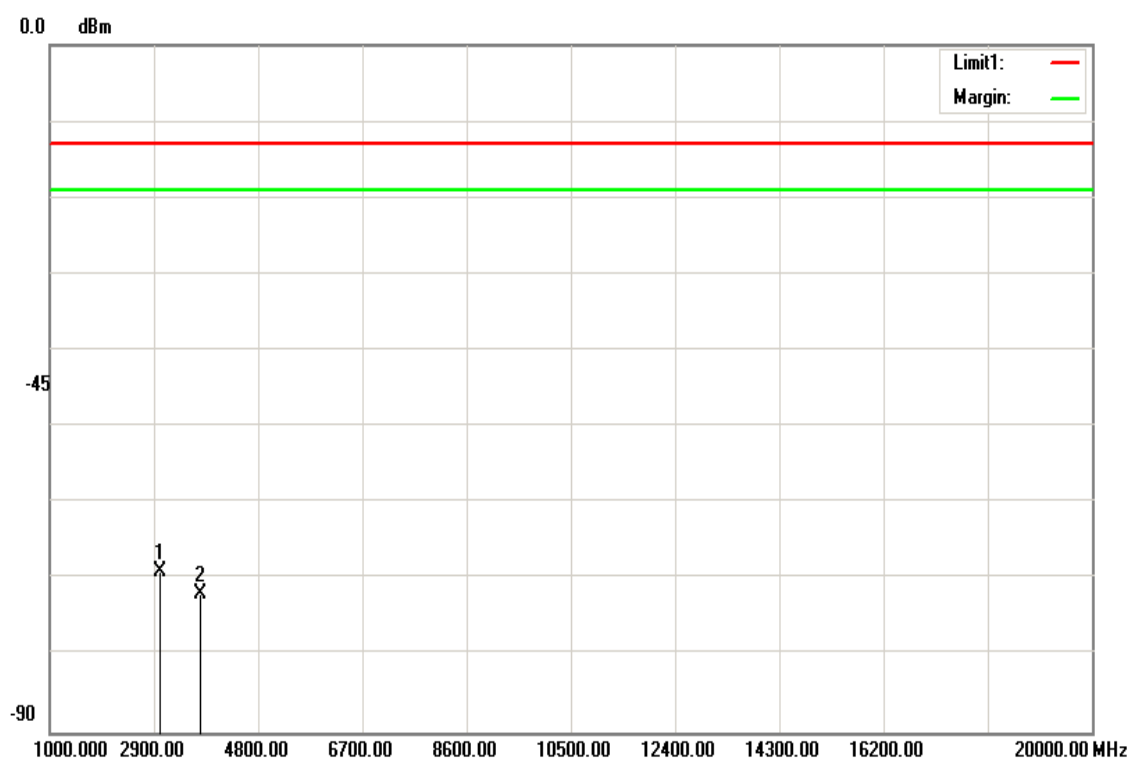
- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 22 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band II / TX / Mid CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3002.000	-63.04	5.91	-68.95	-13.00	-55.95	V
3760.000	-65.11	6.68	-71.79	-13.00	-58.79	V
N/A						

Remark:

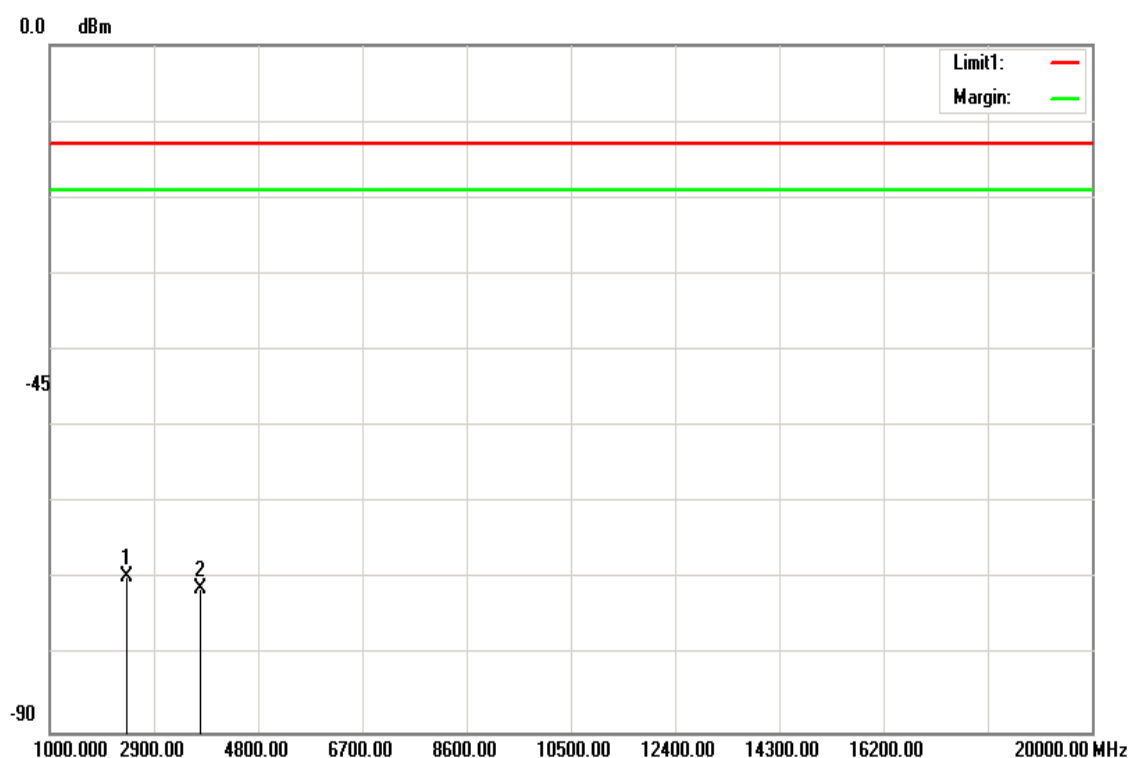
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 23 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band II / TX / Mid CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2410.500	-64.49	5.22	-69.71	-13.00	-56.71	H
3760.000	-64.45	6.68	-71.13	-13.00	-58.13	H
N/A						

Remark:

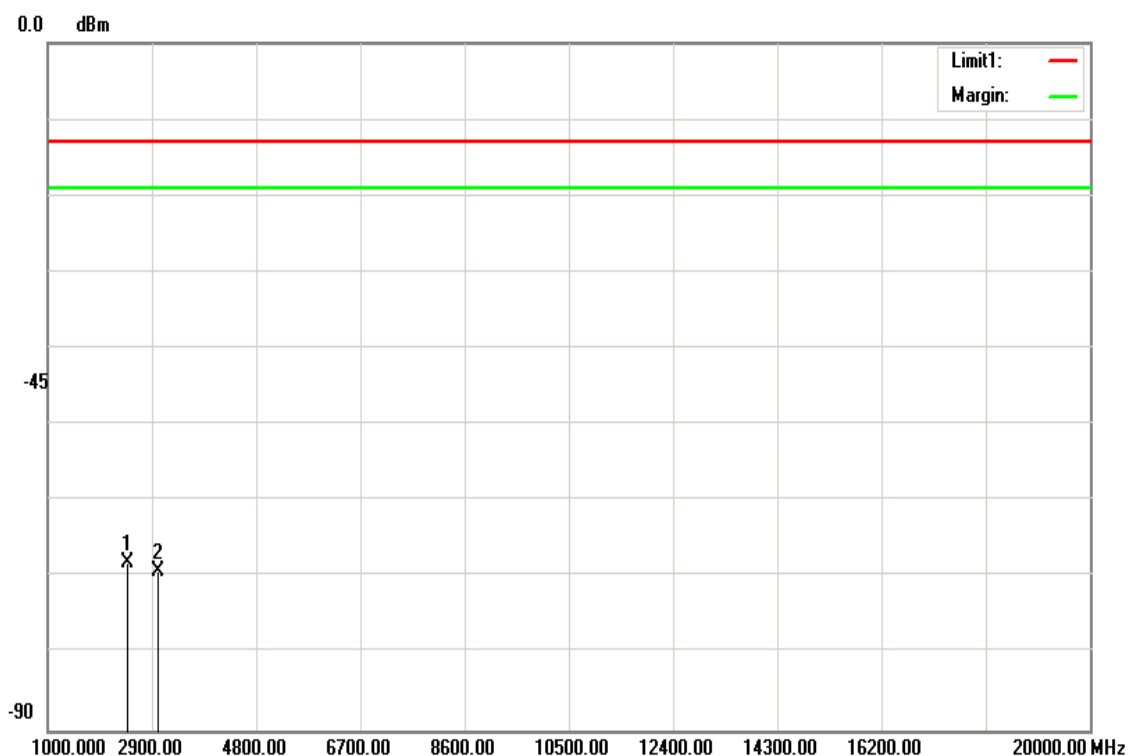
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 24 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band II / TX / High CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Ver.

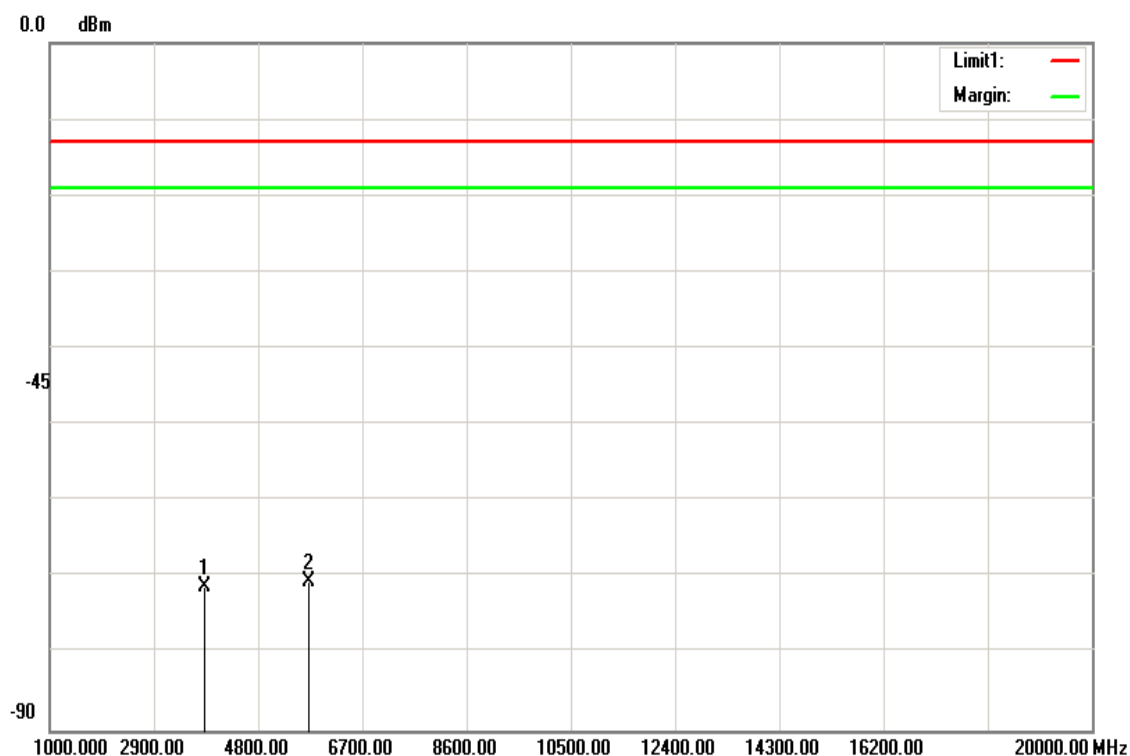


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2459.500	-62.87	5.28	-68.15	-13.00	-55.15	V
3002.000	-63.24	5.91	-69.15	-13.00	-56.15	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Operation Mode: WCDMA 12.2k RMC Band II / TX / High CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Hor.



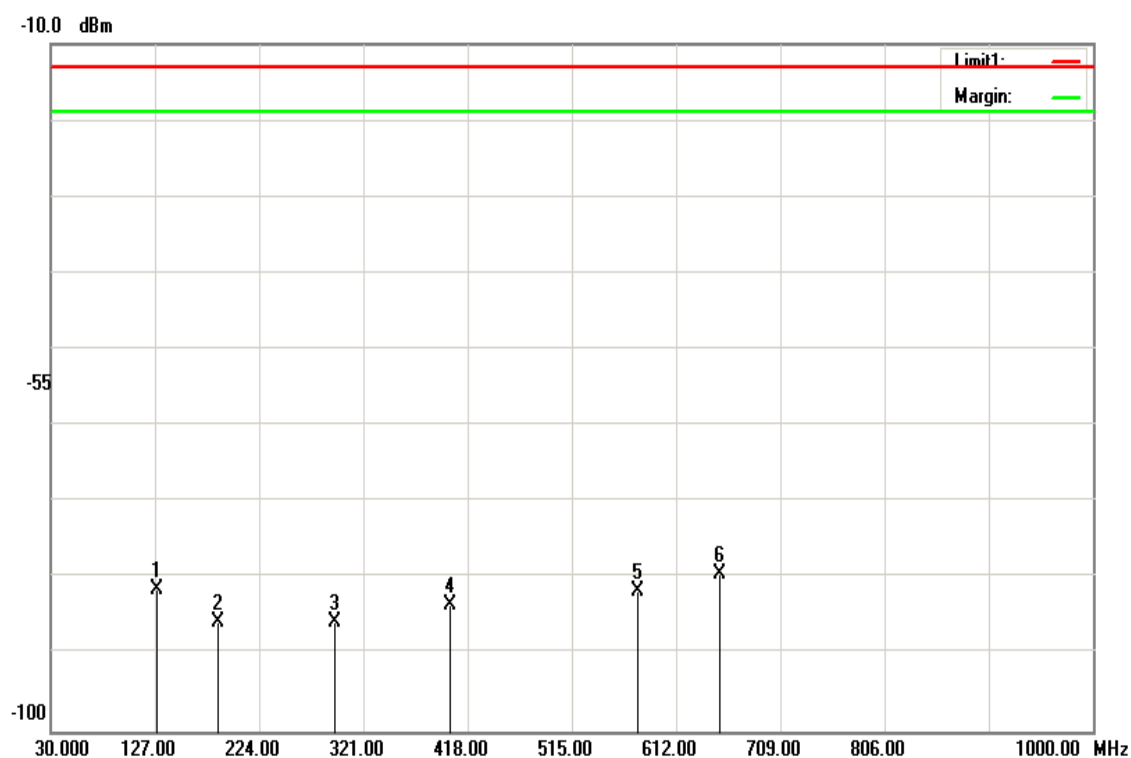
Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3814.000	-64.43	6.74	-71.17	-13.00	-58.17	H
5721.000	-62.12	8.44	-70.56	-13.00	-57.56	H
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Radiated Spurious Emission Measurement Result / Below 1GHz

Operation Mode: WCDMA 12.2k RMC Band V / TX /Mid CH
Temperature: 23°C
Humidity: 41 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
128.9400	-80.2	1.13	-81.33	-13.00	-68.33	V
186.6550	-84.45	1.35	-85.80	-13.00	-72.80	V
294.3250	-84.06	1.71	-85.77	-13.00	-72.77	V
401.9950	-81.54	2.01	-83.55	-13.00	-70.55	V
576.1100	-79.28	2.42	-81.70	-13.00	-68.70	V
652.7400	-76.91	2.58	-79.49	-13.00	-66.49	V



Report No.: T180821D09-RP1

Page: 27 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band V /
TX /Mid CH

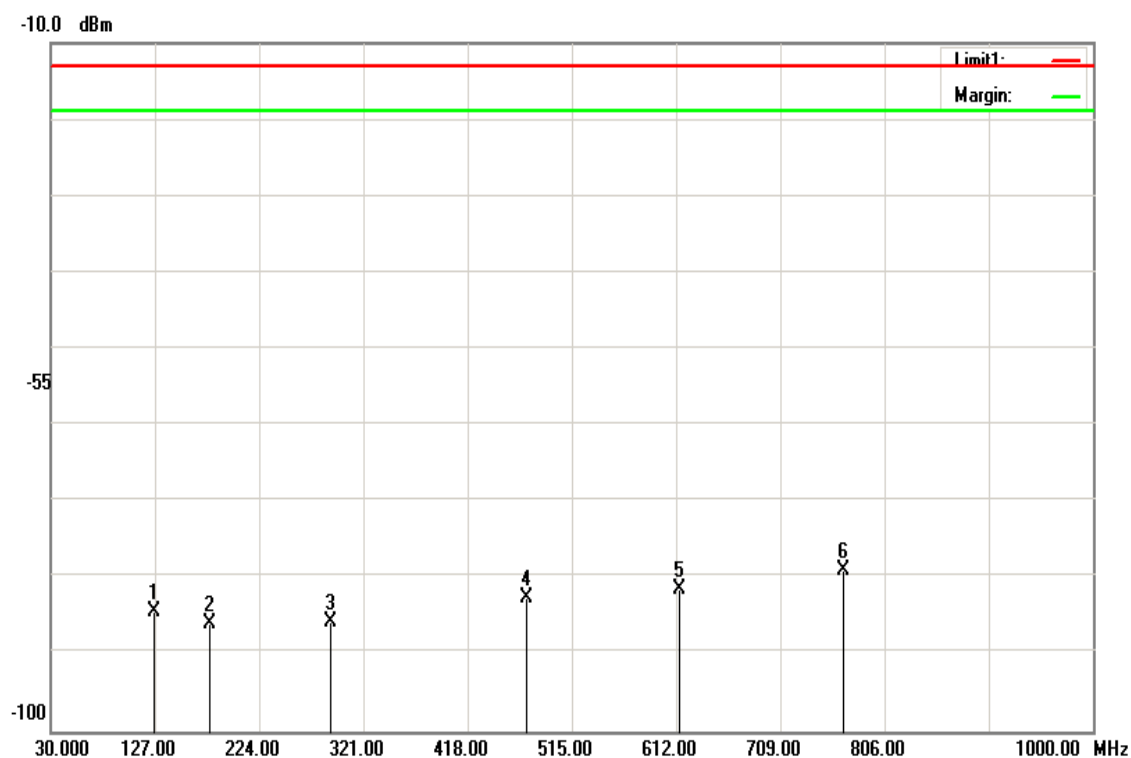
Test Date: October 2, 2018

Temperature: 23°C

Tested by: Jerry Chuang

Humidity: 41 %RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
126.0300	-83.16	1.11	-84.27	-13.00	-71.27	H
178.8950	-84.55	1.33	-85.88	-13.00	-72.88	H
289.9600	-84.01	1.69	-85.70	-13.00	-72.70	H
473.2900	-80.3	2.19	-82.49	-13.00	-69.49	H
615.3950	-79.03	2.5	-81.53	-13.00	-68.53	H
767.6850	-76.1	2.81	-78.91	-13.00	-65.91	H



Above 1GHz

Operation Mode: WCDMA 12.2k RMC Band V
/ TX / Low CH

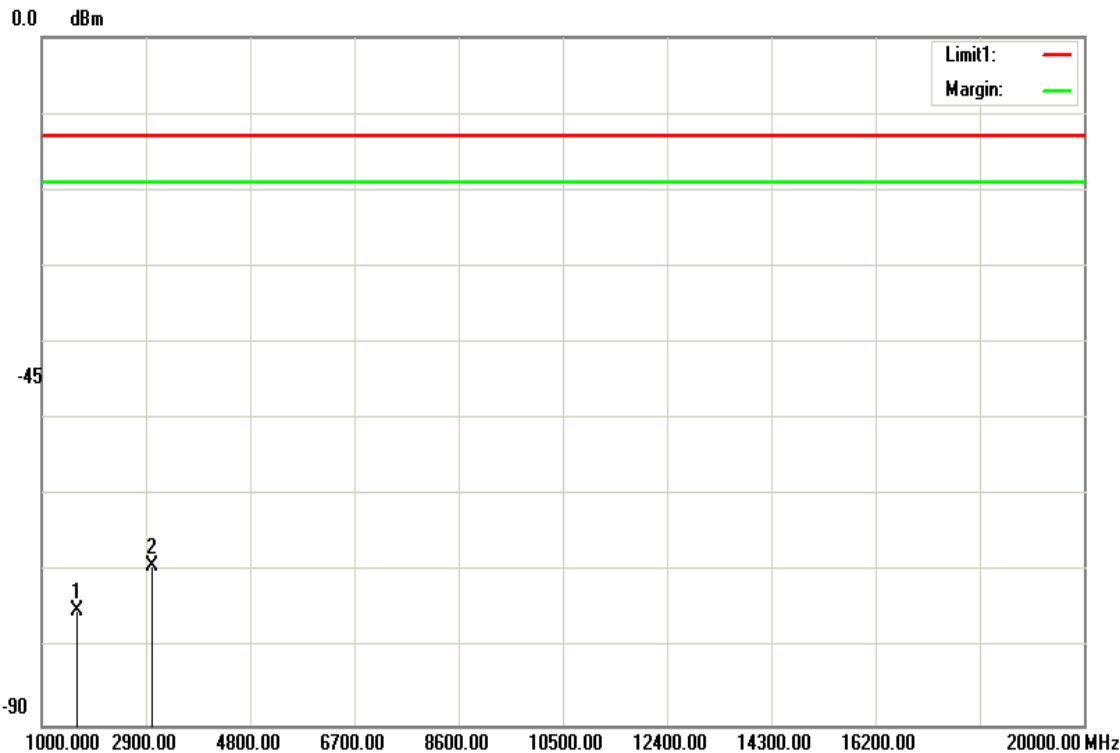
Test Date: October 2, 2018

Temperature: 22°C

Tested by: Jerry Chuang

Humidity: 40 %RH

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1652.800	-70.82	4.2	-75.02	-13.00	-62.02	V
3002.000	-63.38	5.91	-69.29	-13.00	-56.29	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 29 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band V
/ TX / Low CH

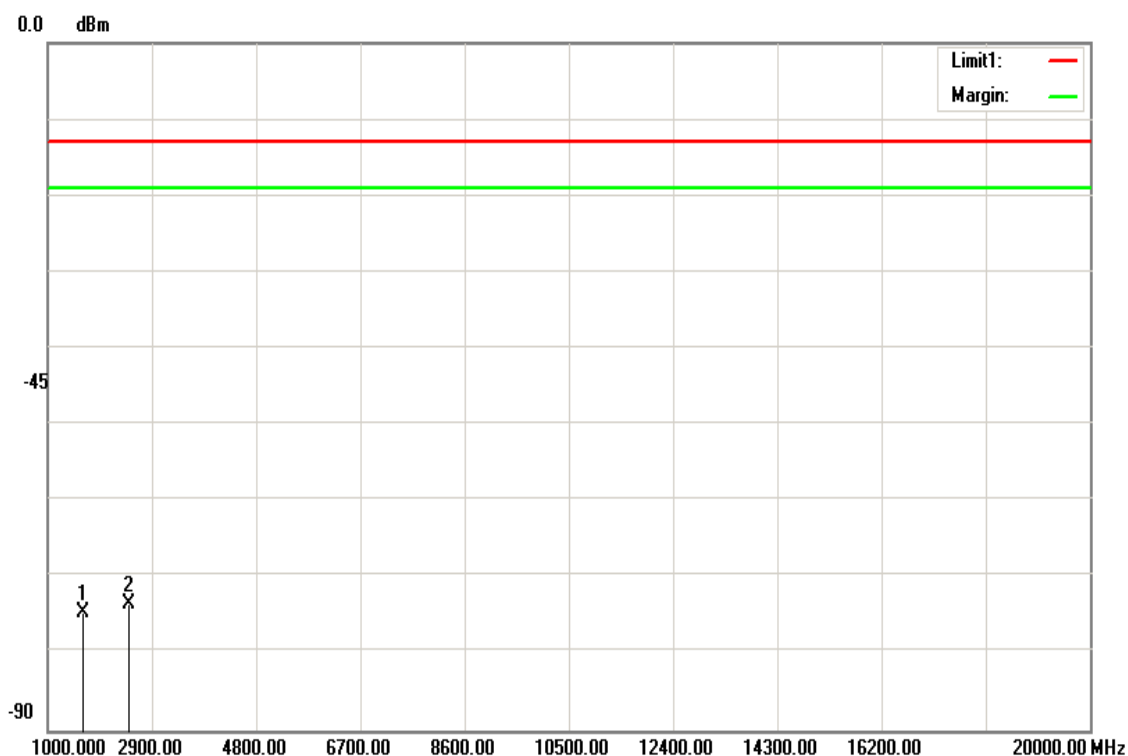
Test Date: October 2, 2018

Temperature: 22°C

Tested by: Jerry Chuang

Humidity: 40 %RH

Polarity: Hor.

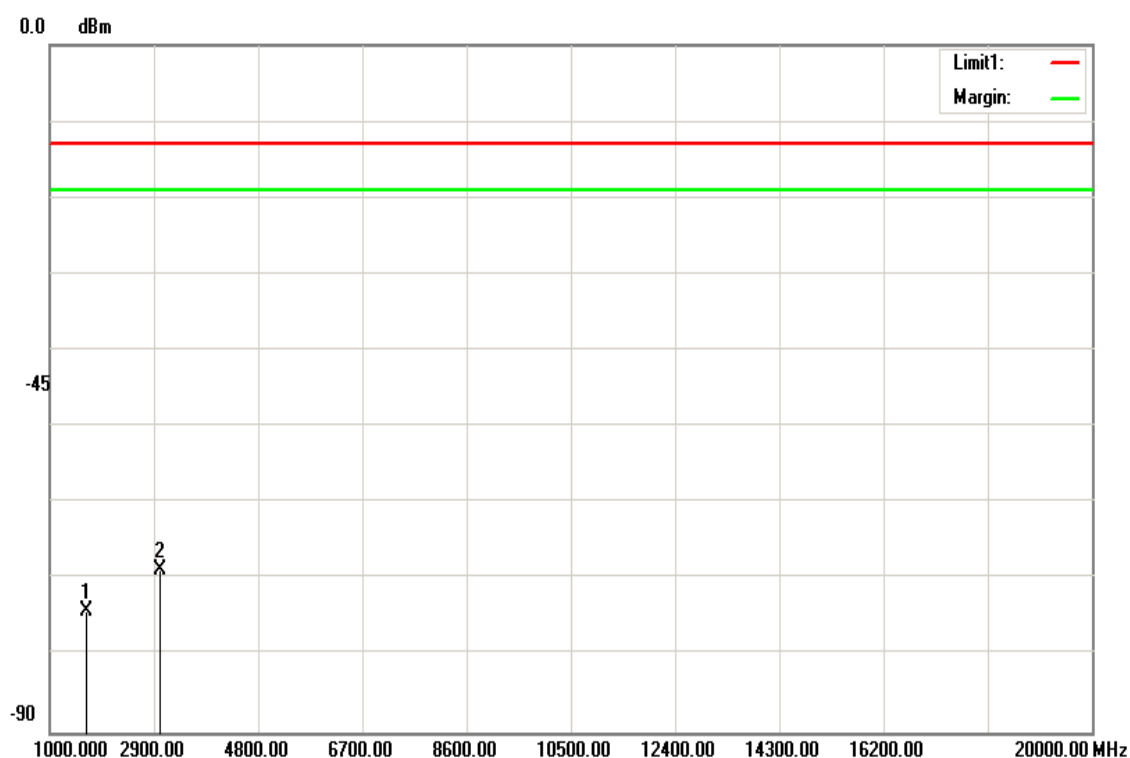


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1652.800	-70.41	4.2	-74.61	-13.00	-61.61	H
2479.200	-68.12	5.3	-73.42	-13.00	-60.42	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Operation Mode: WCDMA 12.2k RMC Band V / TX / Mid CH
Temperature: 22°C
Humidity: 40 %RH
Test Date: October 2, 2018
Tested by: Jerry Chuang
Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1672.800	-69.88	4.23	-74.11	-13.00	-61.11	V
3002.000	-62.73	5.91	-68.64	-13.00	-55.64	V
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 31 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band V
/ TX / Mid CH 4182

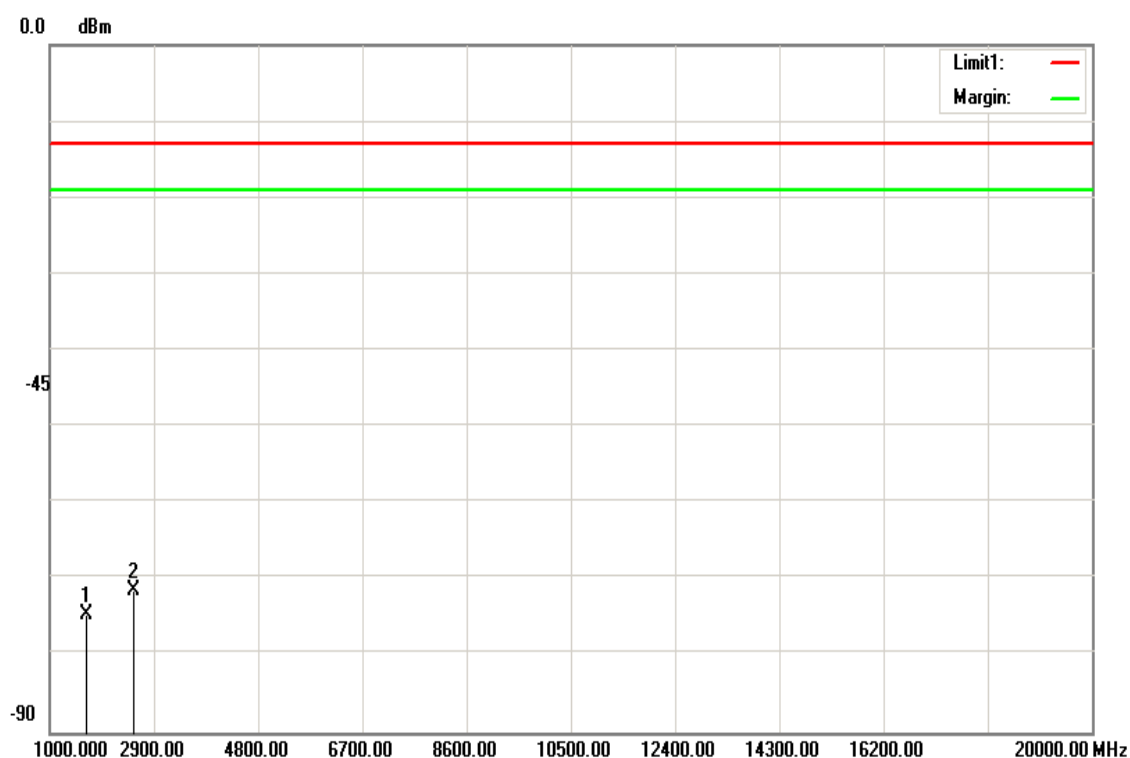
Test Date: October 2, 2018

Temperature: 22°C

Tested by: Jerry Chuang

Humidity: 40 %RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1672.800	-70.34	4.23	-74.57	-13.00	-61.57	H
2522.500	-65.98	5.36	-71.34	-13.00	-58.34	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 32 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band V
/ TX /High CH

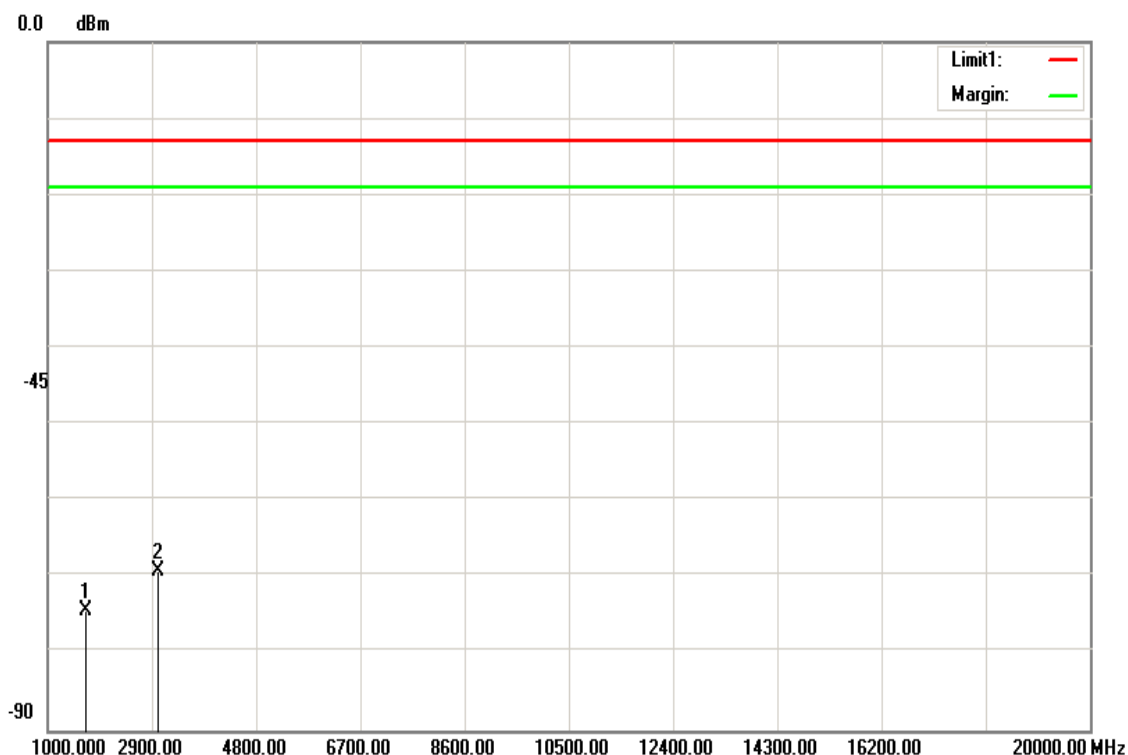
Test Date: October 2, 2018

Temperature: 22°C

Tested by: Jerry Chuang

Humidity: 40 %RH

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1693.200	-70.19	4.26	-74.45	-13.00	-61.45	V
3002.000	-63.38	5.91	-69.29	-13.00	-56.29	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T180821D09-RP1

Page: 33 / 33
Rev.: 01

Operation Mode: WCDMA 12.2k RMC Band V
/ TX /High CH

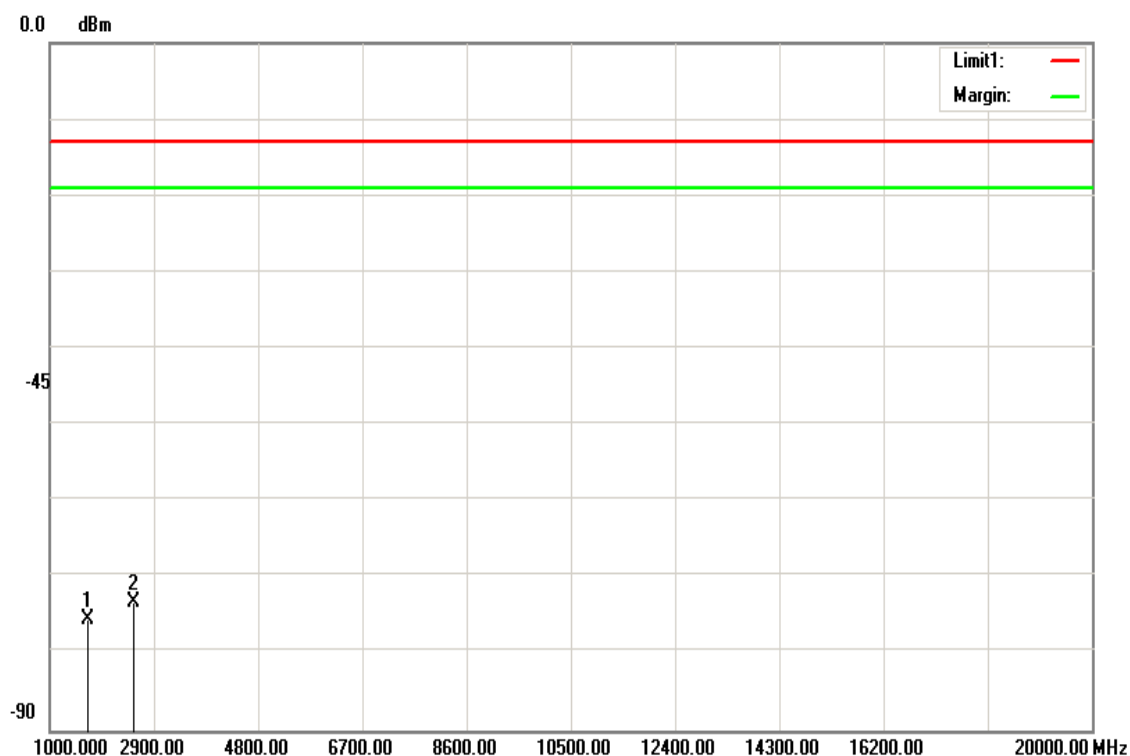
Test Date: October 2, 2018

Temperature: 22°C

Tested by: Jerry Chuang

Humidity: 40 %RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1693.200	-71.27	4.26	-75.53	-13.00	-62.53	H
2539.800	-67.8	5.38	-73.18	-13.00	-60.18	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

- End of Test Report -