

RF Test Report

Applicant : OneLife Technologies Corp
Product Type : OnePulse
Trade Name : oneLife
Model Number : R03
Test Specification : FCC 47 CFR PART 24E
FCC 47 CFR PART 27
ANSI/TIA-603-E 2016
Receive Date : Jun. 20, 2018
Test Period : Oct. 22 ~ Nov. 01, 2018
Issue Date : Nov. 29, 2018

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Test Firm MRA designation number: TW0010

Note: This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.



Revision History

Rev.	Issue Date	Revisions	Revised By
00	Nov. 09, 2018	Initial Issue	Nina Lin
01	Nov. 29, 2018	Revised report information	Nina Lin

Verification of Compliance

Issued Date: Nov. 29, 2018

Applicant : OneLife Technologies Corp
Product Type : OnePulse
Trade Name : oneLife
Model Number : R03
FCC ID : 2AQKZR03
EUT Rated Voltage : DC 5 V
Test Voltage : DC 3.8 V
Applicable Standard : FCC 47 CFR PART 24E
FCC 47 CFR PART 27
ANSI/TIA-603-E 2016
Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C)
Tel : +886-3-2710188 / Fax : +886-3-2710190
Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>



A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : Fly Lu Reviewed By : Eric Ou Yang
(Manager) (Fly Lu) (Testing Engineer) (Eric Ou Yang)



TABLE OF CONTENTS

1	General Information	5
1.1.	EUT Description	5
1.2.	Mode of Operation	6
1.3.	EUT Test Step	8
1.4.	Configuration of Test System Details	8
1.5.	Test Instruments	9
1.6.	Test Site Environment	10
1.7.	Summary of Test Result	10
2	Measurement Procedure	11
2.1.	Conducted Output Average Power Test	11
2.2.	Effective Radiated Power / Equivalent Isotropic Radiated Power Test	12
2.3.	Radiated Emission Test	15
3	Test Results	17
	Conducted Output Average Power	17
	Effective Radiated Power / Equivalent Isotropic Radiated Power	20
	Radiated Emission	21



1 General Information

1.1. EUT Description

Applicant	OneLife Technologies Corp 5005 Newport Drive Suite 101 Rolling Meadows, IL 60008 United States		
Manufacturer	Shenzhen Yinuo Technologies,Ltd. Rm A605, Building AD, Gao Xin Qi Science Industry Park2 Liu Xian Yi Lu Bao An District, Shenzhen		
Product Type	OnePulse		
Trade Name	oneLife		
Model Number	R03		
FCC ID	2AQKZR03		
IMEI No.	015058000227190		
Operate Band	Frequency Range (MHz)	Modulation	Channel andwidth
	Cat M1		
Band 2	UL: 1850 ~ 1910	QPSK	1.4 MHz
	DL: 1930 ~ 1990	QPSK	
Band 4	UL: 1710 ~ 1755	QPSK	1.4 MHz
	DL: 2110 ~ 2155	QPSK	
Band 12	UL: 699 ~ 716	QPSK	1.4 MHz
	DL: 728 ~ 746	QPSK	
Type of Antenna	Internal antenna		
Antenna Gain	Band 2	0.62 dBi	
	Band 4	0.62 dBi	
	Band 12	0.62 dBi	
Operate Temp. Range	0 ~ 48 °C		

EUT Modify Description :

<p>Modify Description: The Product uses a grant LTE_Cat M1 Module to request a new ID. Original test data please see the attached test report.</p> <p>Based on KDB: 996369 to verify power which is smaller than the original power and test Radiated Emission</p> <p>Original Report : 4175716EMC01 Rev:1 Modify: 1811FR12</p>
--



Band	Channel Bandwidth	Modulation	Max. RF Output Power	E.R.P. /E.I.R.P.
			(W)	(W)
Band2	1.4 MHz	QPSK	0.184	0.202
Band4	1.4 MHz	QPSK	0.191	0.183
Band12	1.4 MHz	QPSK	0.179	0.176

1.2. Mode of Operation

Three channels had been tested for each channel bandwidth.

Band 2		
Channel Bandwidth	1.4 MHz	
	Channel	Frequency (MHz)
Low CH	18607	1850.7
Middle CH	18900	1880.0
High CH	19193	1909.3

Band 4		
Channel Bandwidth	1.4 MHz	
	Channel	Frequency (MHz)
Low CH	19957	1710.7
Middle CH	20175	1732.5
High CH	20393	1754.3

Band 12		
Channel Bandwidth	1.4 MHz	
	Channel	Frequency (MHz)
Low CH	23017	699.7
Middle CH	23095	707.5
High CH	23173	715.3

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.



During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission: 30 MHz to 26.5 GHz.

Band	Channel Bandwidth	Test Modes	
Band 2	1.4 MHz	<input type="checkbox"/> LTE(RB Size 1, RB Offset 0) Link <input checked="" type="checkbox"/> LTE(RB Size 1, RB Offset 2) Link <input type="checkbox"/> LTE(RB Size 1, RB Offset 5) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 0) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 1) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 3) Link <input type="checkbox"/> LTE(RB Size 6, RB Offset 0) Link	QPSK

Band	Channel Bandwidth	Test Modes	
Band 4	1.4 MHz	<input type="checkbox"/> LTE(RB Size 1, RB Offset 0) Link <input checked="" type="checkbox"/> LTE(RB Size 1, RB Offset 2) Link <input type="checkbox"/> LTE(RB Size 1, RB Offset 5) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 0) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 1) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 3) Link <input type="checkbox"/> LTE(RB Size 6, RB Offset 0) Link	QPSK

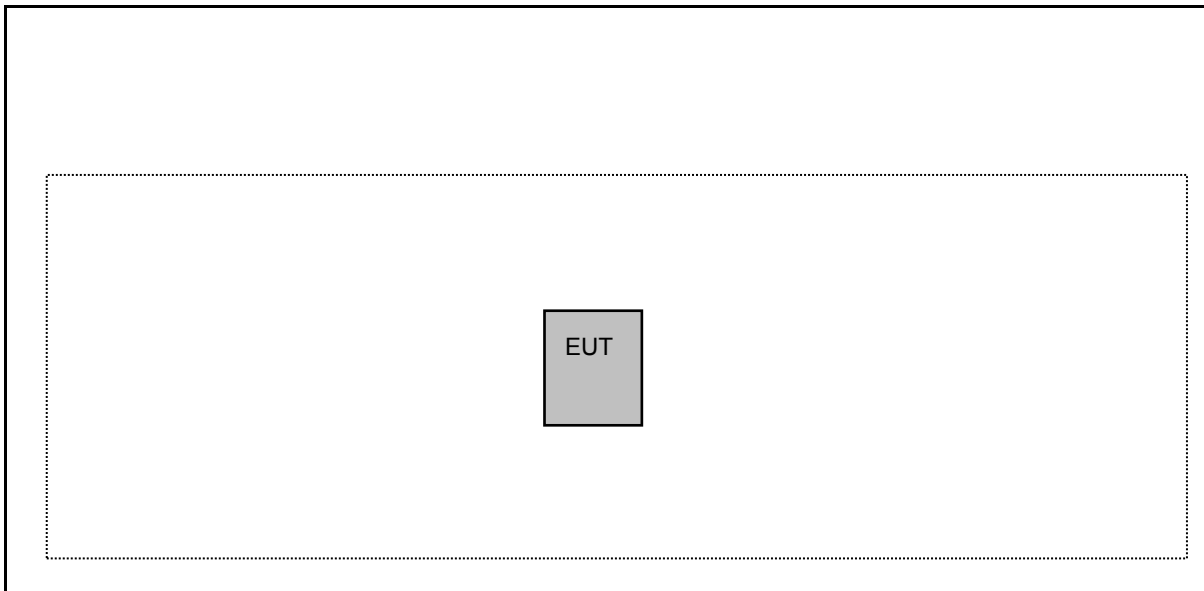
Band	Channel Bandwidth	Test Modes	
Band 12	1.4 MHz	<input type="checkbox"/> LTE(RB Size 1, RB Offset 0) Link <input checked="" type="checkbox"/> LTE(RB Size 1, RB Offset 2) Link <input type="checkbox"/> LTE(RB Size 1, RB Offset 5) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 0) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 1) Link <input type="checkbox"/> LTE(RB Size 3, RB Offset 3) Link <input type="checkbox"/> LTE(RB Size 6, RB Offset 0) Link	QPSK

1.3. EUT Test Step

1	Setup the EUT shown on "Configuration of Test System Details".
2	Turn on the power of all equipment.
3	EUT run test program test.

Measurement Software			
No.	Description	Software	Version
1	Radiated Emission	EZ EMC	1.1.4.4

1.4. Configuration of Test System Details



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	---	---	---	---	---



1.5. Test Instruments

For Conducted

Test Period: Oct. 22, 2018

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Cycle
Power Supply	KEITHLEY	2303	4045290	02/08/2018	1 year
Radio Communication Analyzer	Anritsu	MT8821C	6201300618	06/20/2018	1 year

For Spurious Radiation

Test Period: Oct. 29 ~ Nov. 01, 2018

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Cycle
Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	01/15/2018	1 year
Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/19/2018	1 year
Pre Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/10/2018	1 year
Pre Amplifier (1~26.5 GHz)	EMCI	EMC012645SE	980289	01/17/2018	1 year
Trilog Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	SB AC VULB	9168-0841	03/02/2018	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	08/23/2018	1 year
Broadband Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	9170	9170-320	08/07/2018	1 year
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	03/13/2018	1 year
Radio Communication Analyzer	Anritsu	MT8821C	6201300618	03/13/2018	1 year

Note: N.C.R. = No Calibration Request.



1.6. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	990

Test Setting Condition		
N.V.	Normal Voltage	DC 3.8 V
L.T.	Low Temperature	0 °C
N.T.	Normal Temperature	+25 °C
H.T.	High Temperature	+48 °C

1.7. Summary of Test Result

FCC Rule	Description	Result
§2.1046	Conducted Output Average Power	Pass
§24.232 §27.50	Equivalent Isotropic Radiated Power / Equivalent Radiated Power	Pass
§2.1055 §24.235 §27.54	Frequency Stability	N/A (Note)
§2.1049	Emission Bandwidth & Occupied Bandwidth	N/A (Note)
§24.232 §27.50	Peak to average ratio	N/A (Note)
§2.1051 §24.238 §27.53	Band Edge	N/A (Note)
§2.1051 §24.238 §27.53	Conducted Spurious Emissions	N/A (Note)
§2.1053 §24.238 §27.53	Radiated Spurious Emissions	Pass

Note: Refer to attached original test report. (report number : 4175716EMC01 Rev:1)

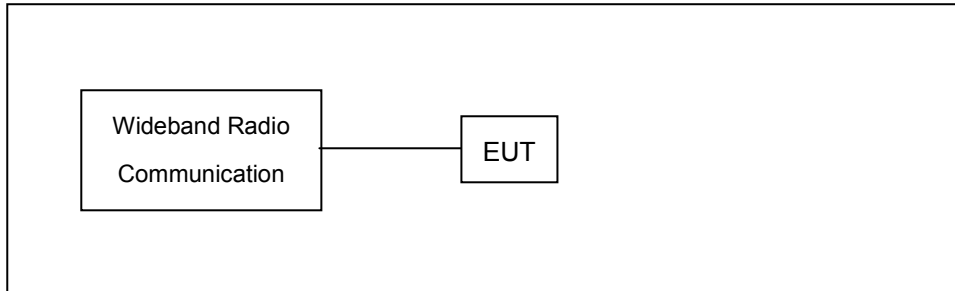
2 Measurement Procedure

2.1. Conducted Output Average Power Test

- **Limit**

N/A

- **Test Setup**



- **Test Procedure**

- The EUT was set up for the maximum power with simulator.
- Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

- **Uncertainty**

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

2.2. Effective Radiated Power / Equivalent Isotropic Radiated Power Test

■ Limit

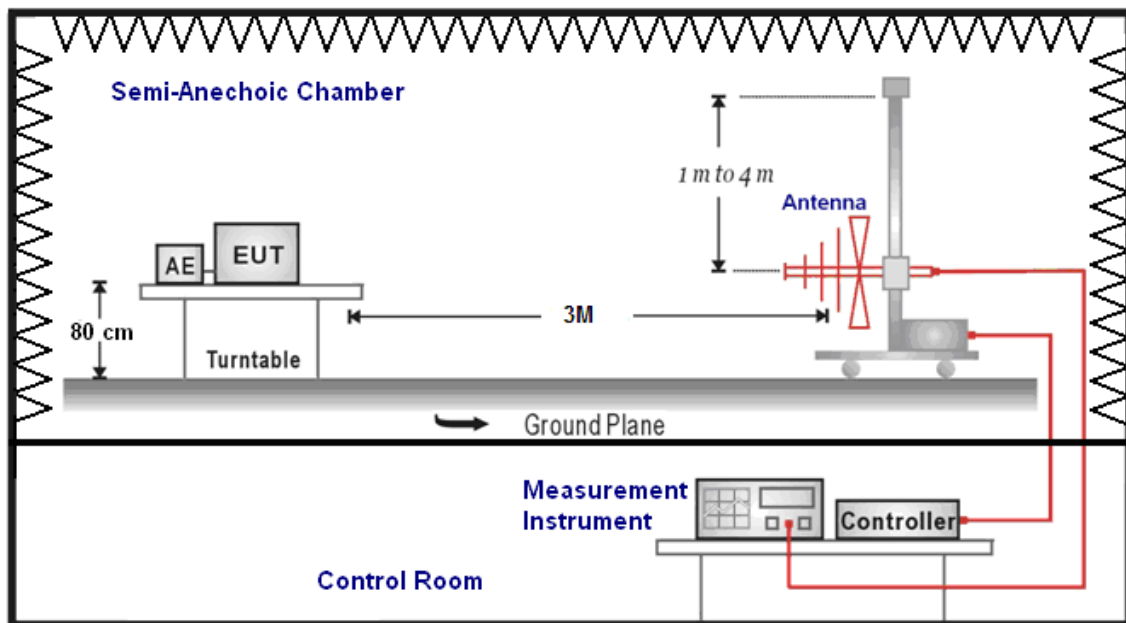
For FCC Part 27: The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 1 Watts.

For FCC Part 27.50(c)(10): Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP

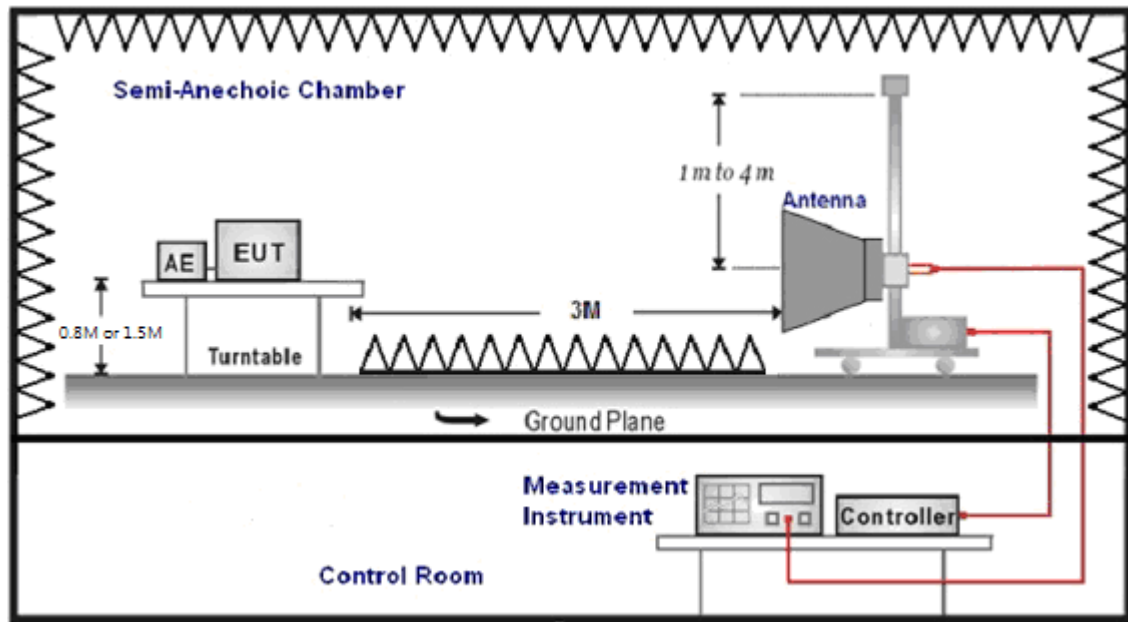
For FCC Part 24.232(b): The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

■ Test Setup

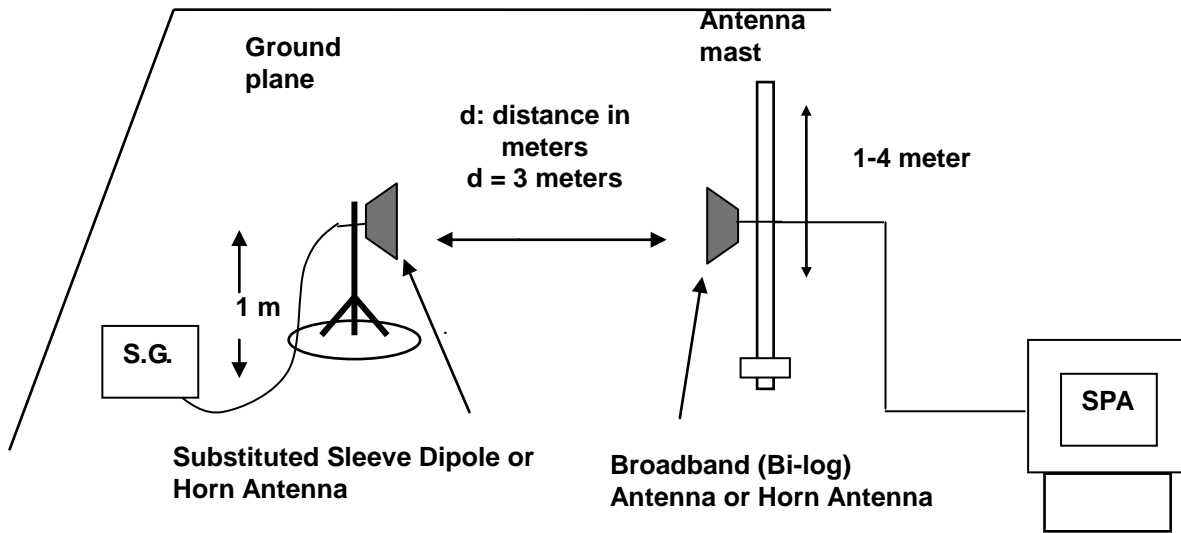
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP





■ **Test Procedure**

- a. The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- b. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G.
- d. $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- e. $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenna

■ **Uncertainty**

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.

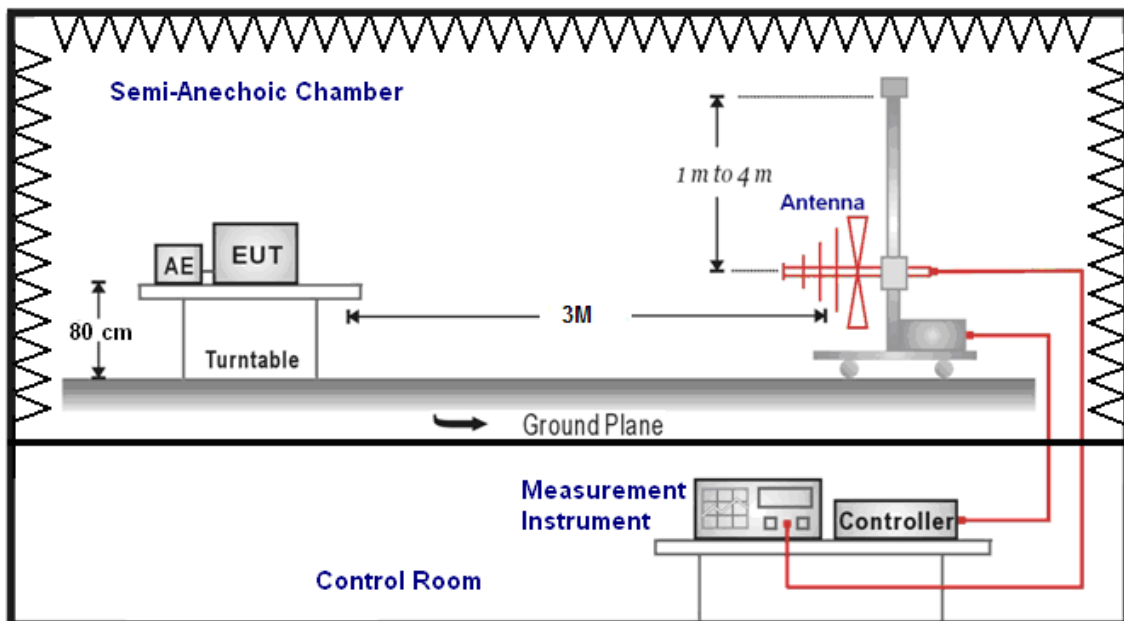
2.3. Radiated Emission Test

■ Limit

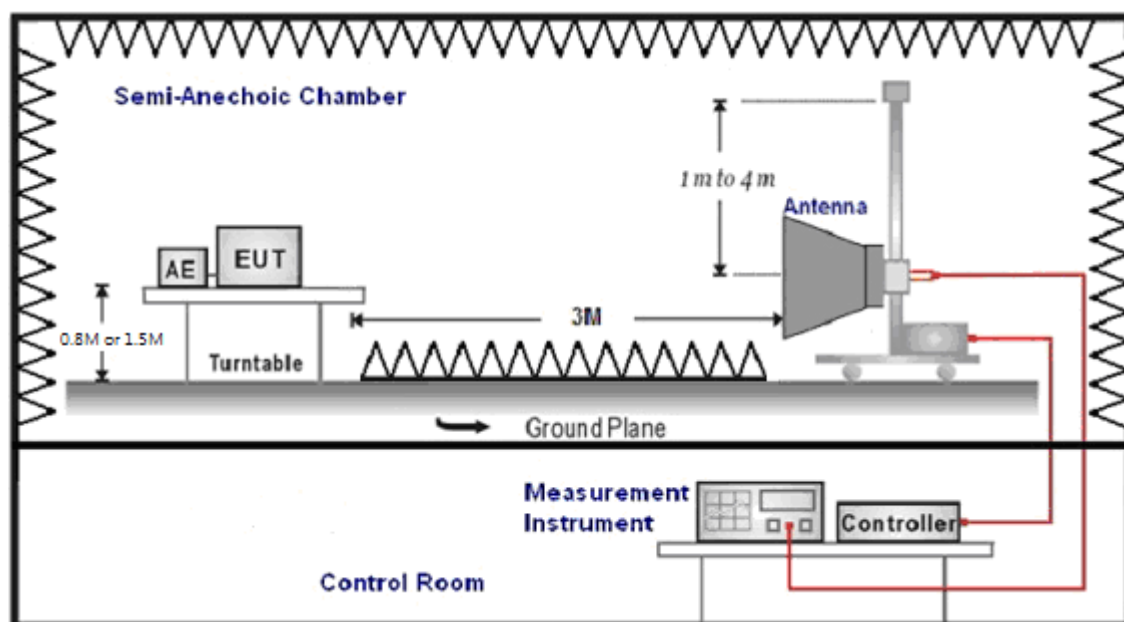
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13 dBm

■ Setup

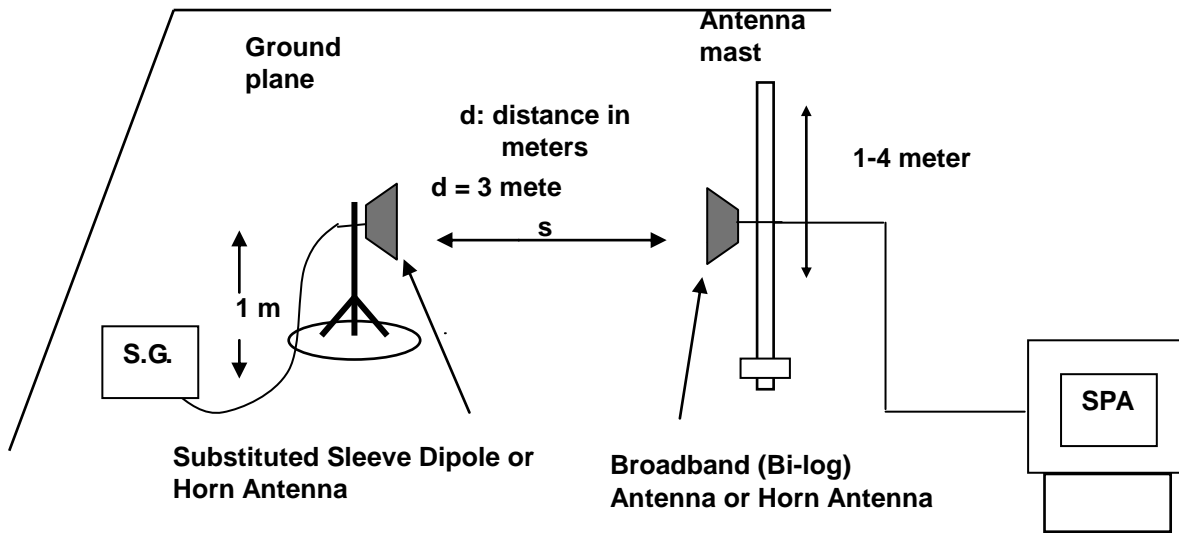
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



■ Test Procedure

- The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenn

■ Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.



3 Test Results

Conducted Output Average Power

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
Band2	1.4 MHz	QPSK	18607	1850.7	1	0	22.38	0.173
					1	2	22.47	0.177
					1	5	22.36	0.172
					3	0	22.42	0.175
					3	1	22.41	0.174
					3	3	22.45	0.176
					6	0	21.49	0.141
			18900	1880.0	1	0	22.48	0.177
					1	2	22.65	0.184
					1	5	22.46	0.176
					3	0	22.60	0.182
					3	1	22.51	0.178
					3	3	22.56	0.180
					6	0	21.57	0.144
			19193	1909.3	1	0	22.32	0.171
					1	2	22.47	0.177
					1	5	22.33	0.171
					3	0	22.34	0.171
					3	1	22.41	0.174
					3	3	22.46	0.176
					6	0	21.61	0.145



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
Band4	1.4 MHz	QPSK	19957	1710.7	1	0	22.55	0.180
					1	2	22.52	0.179
					1	5	22.54	0.179
					3	0	22.54	0.179
					3	1	22.54	0.179
					3	3	22.58	0.181
					6	0	21.60	0.145
			20175	1732.5	1	0	22.62	0.183
					1	2	22.80	0.191
					1	5	22.57	0.181
					3	0	22.68	0.185
					3	1	22.59	0.182
					3	3	22.78	0.190
					6	0	21.71	0.148
			20393	1754.3	1	0	22.46	0.176
					1	2	22.57	0.181
					1	5	22.44	0.175
					3	0	22.52	0.179
					3	1	22.61	0.182
					3	3	22.67	0.185
					6	0	21.79	0.151



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
Band12	1.4 MHz	QPSK	23017	699.7	1	0	22.37	0.173
					1	2	22.53	0.179
					1	5	22.28	0.169
					3	0	22.38	0.173
					3	1	22.40	0.174
					3	3	22.52	0.179
					6	0	21.54	0.143
			23095	707.5	1	0	22.12	0.163
					1	2	22.26	0.168
					1	5	22.41	0.174
					3	0	22.37	0.173
					3	1	22.25	0.168
					3	3	22.40	0.174
					6	0	21.32	0.136
			23173	715.3	1	0	22.25	0.168
					1	2	22.25	0.168
					1	5	22.22	0.167
					3	0	22.30	0.170
					3	1	22.27	0.169
					3	3	22.39	0.173
					6	0	21.60	0.145



Effective Radiated Power / Equivalent Isotropic Radiated Power

Band 2								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.I.R.P.		Limit (W)
						(dBm)	(W)	
1.4 M	QPSK	1850.7	H	12.60	8.30	20.90	0.123	≤ 2
			V	14.54	8.30	22.84	0.192	≤ 2
		1880.0	H	12.30	8.41	20.71	0.118	≤ 2
			V	14.65	8.41	23.06	0.202	≤ 2
		1909.3	H	11.59	8.53	20.12	0.103	≤ 2
			V	14.02	8.53	22.55	0.180	≤ 2

Band 4								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.I.R.P.		Limit (W)
						(dBm)	(W)	
1.4 M	QPSK	1710.7	H	12.42	7.77	20.19	0.104	≤ 1
			V	14.64	7.77	22.41	0.174	≤ 1
		1732.5	H	12.58	7.85	20.43	0.110	≤ 1
			V	14.78	7.85	22.63	0.183	≤ 1
		1754.3	H	14.07	7.94	22.01	0.159	≤ 1
			V	14.38	7.93	22.31	0.170	≤ 1

Band 12								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.R.P.		Limit (W)
						(dBm)	(W)	
1.4 M	QPSK	699.7	H	9.30	10.73	20.03	0.101	≤ 3
			V	11.69	10.73	22.42	0.175	≤ 3
		707.5	H	11.68	8.86	20.54	0.113	≤ 3
			V	13.60	8.85	22.45	0.176	≤ 3
		715.3	H	11.30	9.11	20.41	0.110	≤ 3
			V	13.35	9.10	22.45	0.176	≤ 3



Radiated Emission

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1850.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH18607		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3701.400	-43.95	13.98	-29.97	-13.00	-16.97	peak
2	5552.100	-60.55	18.90	-41.65	-13.00	-28.65	peak
3	7402.800	-65.46	24.27	-41.19	-13.00	-28.19	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

Example:-29.97=13.98 + (-43.95)

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1850.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH18607		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3701.400	-47.92	13.98	-33.94	-13.00	-20.94	peak
2	5552.100	-51.37	18.90	-32.47	-13.00	-19.47	peak
3	7402.800	-61.70	24.27	-37.43	-13.00	-24.43	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1880 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH18900		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-41.07	14.19	-26.88	-13.00	-13.88	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1880 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH18900		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-44.60	14.19	-30.41	-13.00	-17.41	peak
2	7520.000	-58.41	24.64	-33.77	-13.00	-20.77	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1909.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH19193		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3818.600	-38.62	14.39	-24.23	-13.00	-11.23	peak
2	7637.200	-59.91	24.84	-35.07	-13.00	-22.07	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1909.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 2_1.4 M_QPSK_CH19193		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3818.600	-40.85	14.39	-26.46	-13.00	-13.46	peak
2	7637.200	-57.20	24.84	-32.36	-13.00	-19.36	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1710.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH19957		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3421.400	-48.87	13.10	-35.77	-13.00	-22.77	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1710.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH19957		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3421.400	-47.96	13.10	-34.86	-13.00	-21.86	peak
2	6842.800	-57.46	22.54	-34.92	-13.00	-21.92	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1732.5 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH20175		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-56.52	13.20	-43.32	-13.00	-30.32	peak
2	5197.500	-54.11	18.23	-35.88	-13.00	-22.88	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1732.5 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH20175		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-52.85	13.20	-39.65	-13.00	-26.65	peak
2	6930.000	-59.69	22.73	-36.96	-13.00	-23.96	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1754.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH20393		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3508.600	-58.20	13.31	-44.89	-13.00	-31.89	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	1754.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 4_1.4 M_QPSK_CH20393		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3508.600	-57.16	13.31	-43.85	-13.00	-30.85	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	699.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23017		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1399.400	-58.06	6.44	-51.62	-13.00	-38.62	peak
2	2099.100	-55.30	9.25	-46.05	-13.00	-33.05	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	699.7 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23017		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1399.400	-57.94	6.44	-51.50	-13.00	-38.50	peak
2	2099.100	-59.79	9.25	-50.54	-13.00	-37.54	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	707.5 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23095		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-52.79	6.52	-46.27	-13.00	-33.27	peak
2	2122.500	-62.38	9.34	-53.04	-13.00	-40.04	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	707.5 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23095		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-55.32	6.52	-48.80	-13.00	-35.80	peak
2	2122.500	-53.31	9.34	-43.97	-13.00	-30.97	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	715.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23173		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1430.600	-67.05	6.59	-60.46	-13.00	-47.46	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Standard:	Part 24E&27	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.8 V
Frequency:	715.3 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	BAND 12_1.4 M_QPSK_CH23173		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB/m)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1430.600	-61.93	6.59	-55.34	-13.00	-42.34	peak

Note:1.Result (dBm) = Correct Factor (dB/m) + Reading(dBm).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).