



REPORT No. : SZ14080041W04

# FCC RF TEST REPORT

**APPLICANT** : SZ DJI TECHNOLOGY CO., LTD  
**PRODUCT NAME** : Remote Control  
**MODEL NAME** : NPVT581  
**TRADE NAME** : DJI  
**BRAND NAME** : DJI  
**FCC ID** : SS3-WM300U58G  
**STANDARD(S)** : 47 CFR Part 15 Subpart C  
**ISSUE DATE** : 2014-10-20



**SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.**

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### Test Report Declaration

Applicant	SZ DJI TECHNOLOGY CO., LTD
Applicant Address	17th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China
Manufacturer	SZ DJI TECHNOLOGY CO., LTD
Manufacturer Address	17th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China
Product Name	Remote Control
Model Name	NPVT581
Brand Name	DJI
HW Version	1.01
SW Version	1.0.2.24
Test Standards	47 CFR Part 15 Subpart C
Test Date	2014-08-18 to 2014-09-19
Test Result	PASS

Tested by : Nie Quan  
Nie Quan

Reviewed by : Qiu Xiaojun  
Qiu Xiaojun

Approved by : Zeng Dexin  
Zeng Dexin



## Test Report Declaration

Applicant	SZ DJI TECHNOLOGY CO., LTD
Applicant Address	17th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China
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Test Result	PASS

Tested by : \_\_\_\_\_

Nie Quan

Reviewed by : \_\_\_\_\_

Qiu Xiaojun

Approved by : \_\_\_\_\_

Zeng Dexin





# 1. Technical Information

Note: Provide by applicant.

## 1.1. Applicant Information

Company:	SZ DJI TECHNOLOGY CO., LTD
Address:	17th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China

## 1.2. Equipment under Test (EUT) Description

Brand Name:	DJI
Trade Name:	DJI
Model Name:	NPVT581
Frequency Range:	5728MHz~5844MHz
Channel Number:	16
Modulation Type:	GFSK
Antenna Type:	Dipole Antenna
Antenna Gain:	2.0dBi

### NOTE:

The antenna connector of EUT is designed with permanent attachment and no consideration of replacement. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%

Channel list			
Channel No.	Frequency/MHz	Channel No.	Frequency/MHz
1	5728	9	5793
2	5733	10	5801
3	5742	11	5804
4	5750	12	5810
5	5757	13	5818
6	5759	14	5827
7	5773	15	5835
8	5784	16	5844



### 1.2.1. Identification of all used EUTs

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
A01	1.01	1.0.2.24

### 1.3. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C (Bluetooth, 2.4GHz ISM band radiators) for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-13 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	15.203	Antenna Requirement	<b><u>PASS</u></b>
2	15.247(b)	Peak Output Power	<b><u>PASS</u></b>
3	15.247(a)	Bandwidth	<b><u>PASS</u></b>
4	15.247(d)	Conducted Spurious Emission and Band Edge	<b><u>PASS</u></b>
5	15.207	Conducted Emission	<b><u>PASS</u></b>
6	15.209 ,15.247(d)	Radiated Emission	<b><u>PASS</u></b>
7	15.247(e)	Power spectral density (PSD)	<b><u>PASS</u></b>

The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.4 2009.

These RF tests were performed according to the method of measurements prescribed in KDB558074 D01 v03r02 (05/06/2014).



### 1.3.1. Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106





## 2. 47 CFR PART 15C REQUIREMENTS

### 2.1. Antenna requirement

#### 2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

#### 2.1.2. Result: Compliant

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

### 2.2. Peak Output Power

#### 2.2.1. Requirement

According to FCC section 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: The maximum peak conducted output power of the intentional radiator shall not exceed 1 Watt.

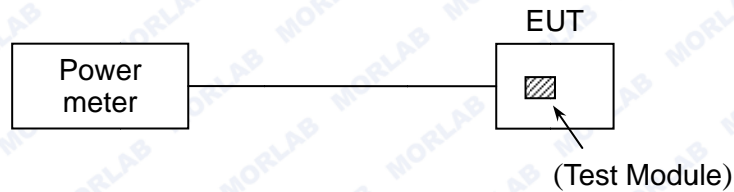
#### 2.2.2. Test Description

KDB 558074 Section 9.1.3 was used in order to prove compliance.

The measured output power was calculated by the reading of the Power Meter and calibration.

#### A. Test Setup:





The EUT (Equipment under the test) which is powered by the Battery is coupled to the Power Meter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in power meter.

**B. Equipments List:**

Please reference ANNEX A(1.4).

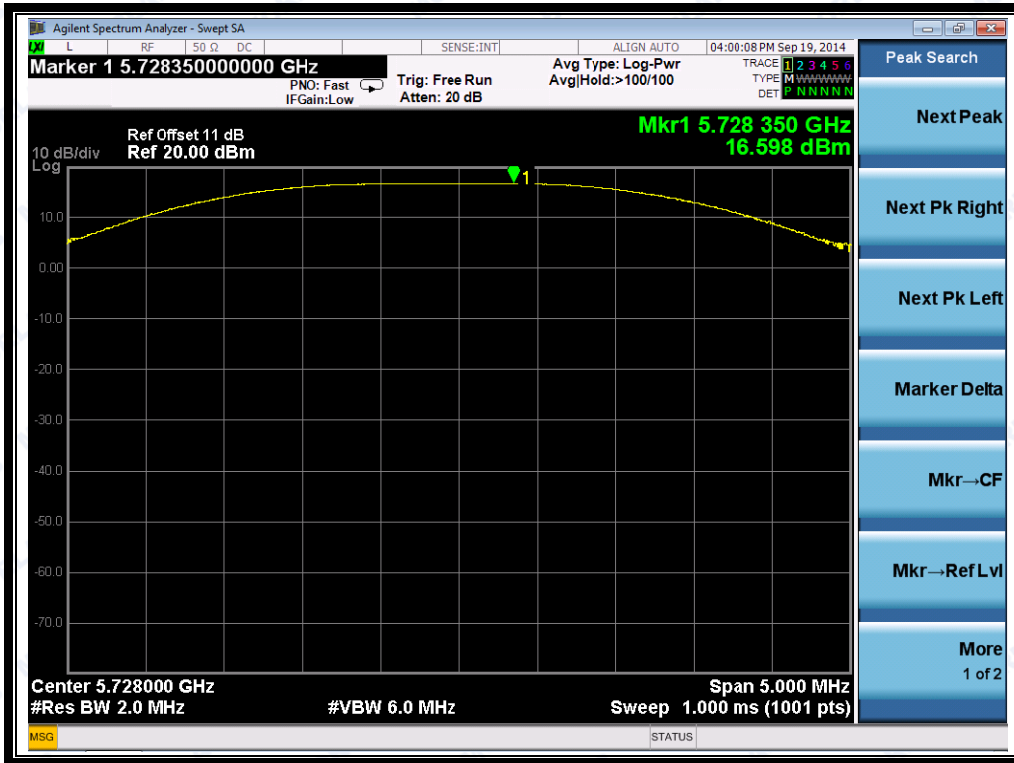
**2.2.3. Test Result**

The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

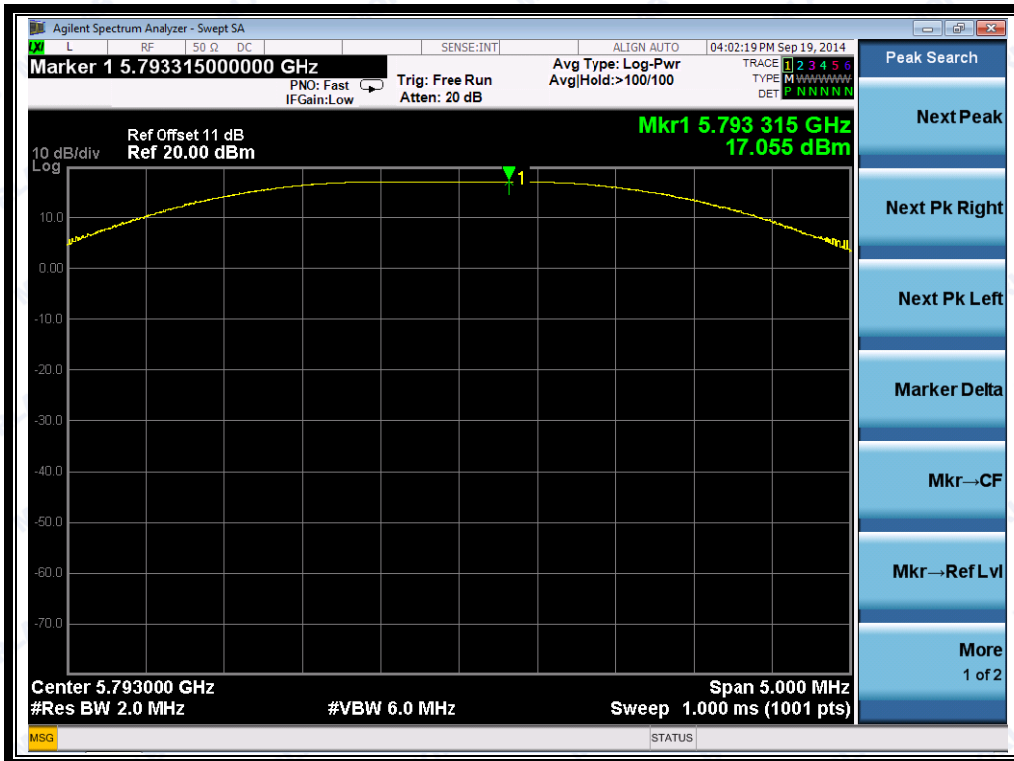
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured Output Peak Power		Refer to Plot	Limit		Verdict
		dBm	W		dBm	W	
1	5728	16.598	0.045688	Plot A	30	1	PASS
9	5784	17.055	0.050757	Plot B			PASS
16	5844	17.918	0.061920	Plot C			PASS

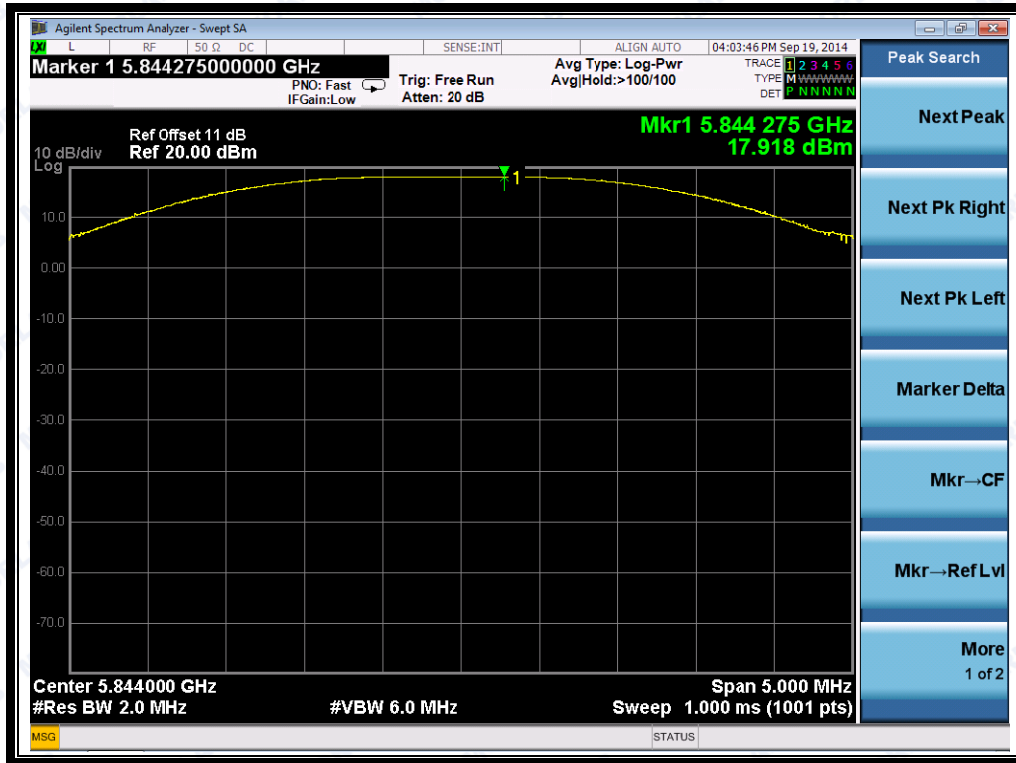
**B. Test Plots:**



(Plot A: Channel 1: 5728MHz)



(Plot B: Channel 9: 5784MHz)



(Plot C: Channel 16: 5844MHz)



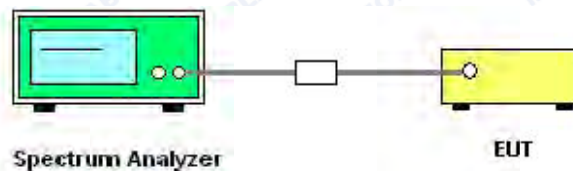
## 2.3. Bandwidth

### 2.3.1. Requirement

According to FCC section 15.247(a) (2), Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### 2.3.2. Test Description

#### A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

KDB 558074 Section 8.1 Option 1 was used in order to prove compliance.

#### B. Equipments List:

Please reference ANNEX A(1.4).

### 2.3.3. Test Result

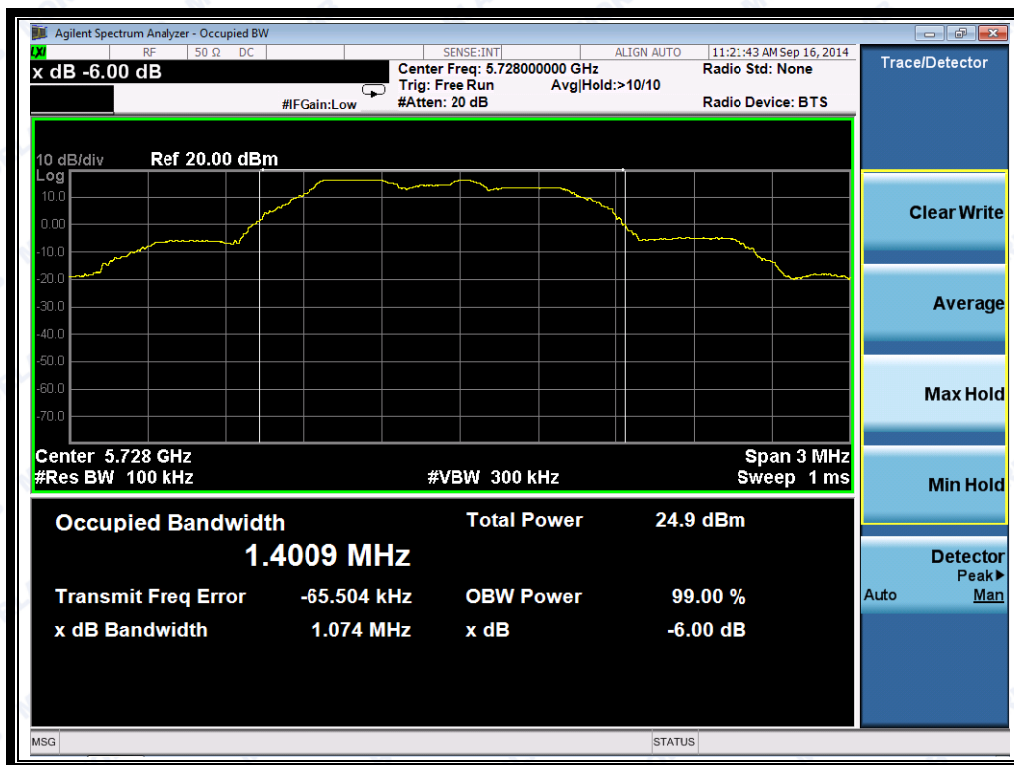
The lowest, middle and highest channels are selected to perform testing to record the 6 dB bandwidth of the Module.



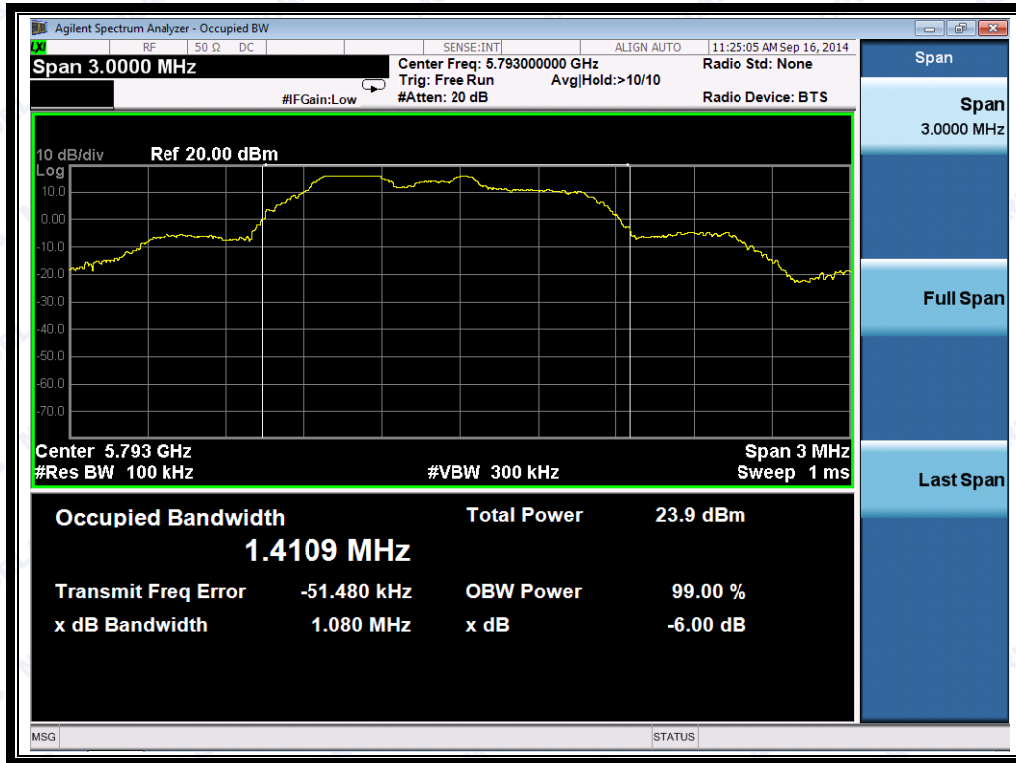
**A. Test Verdict:**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits(kHz)	Result
1	5728	1.074	Plot A	≥500	PASS
9	5784	1.080	Plot B	≥500	PASS
16	5844	1.103	Plot C	≥500	PASS

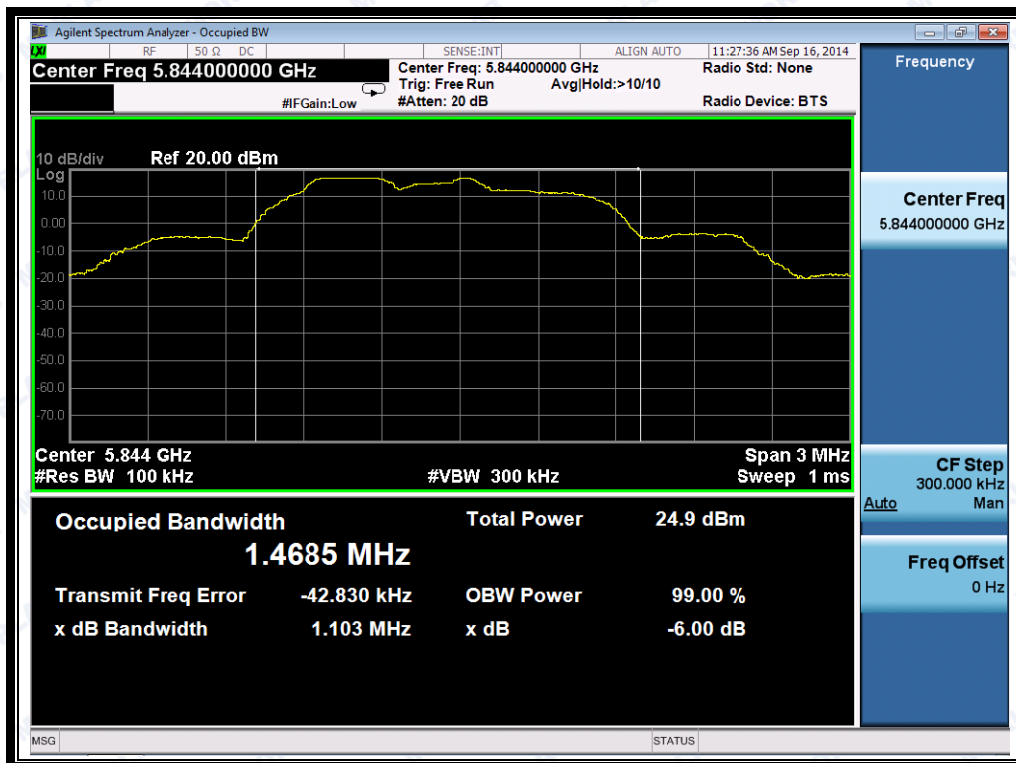
**B. Test Plots**



(Plot A: Channel 1: 5728MHz)



(Plot B: Channel 9: 5784 MHz)



(Plot C: Channel 16: 5844MHz)



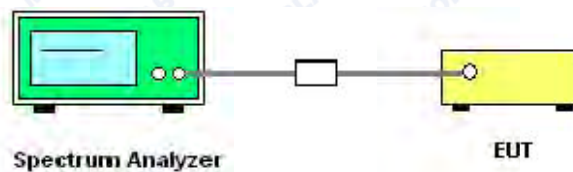
## 2.4. Conducted Spurious Emissions and Band Edge

### 2.4.1. Requirement

According to FCC section 15.247(c), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

### 2.4.2. Test Description

#### A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

KDB 558074 Section 11.0 was used in order to prove compliance.

#### B. Equipments List:

Please reference ANNEX A(1.4).

### 2.4.3. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions.

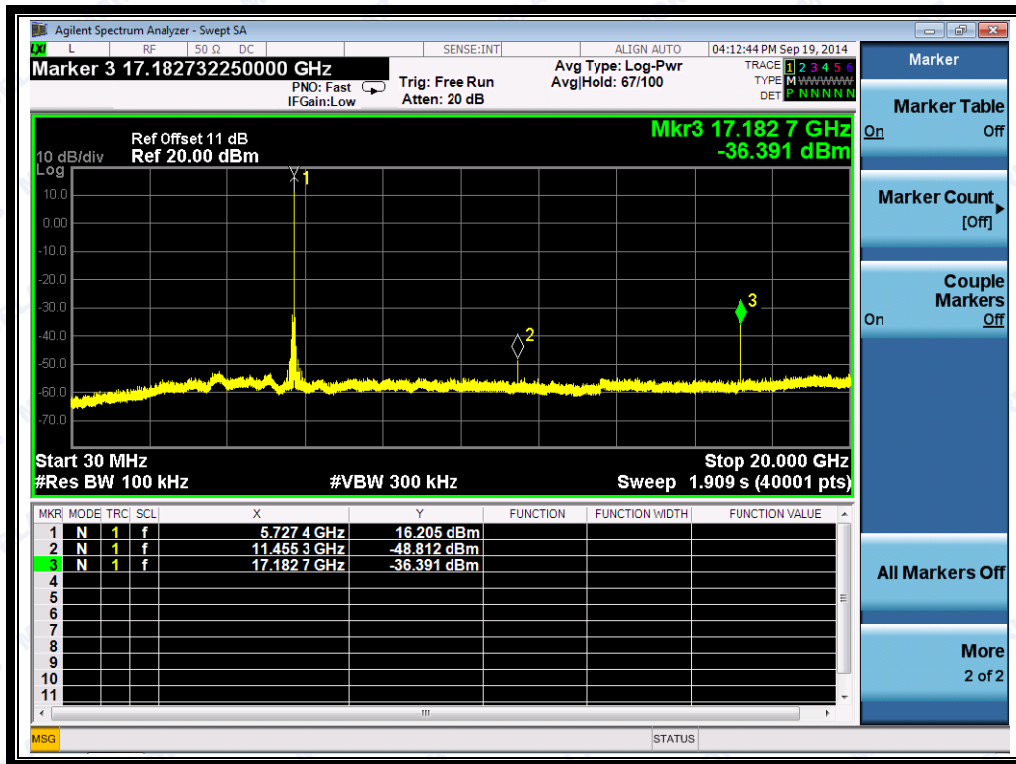


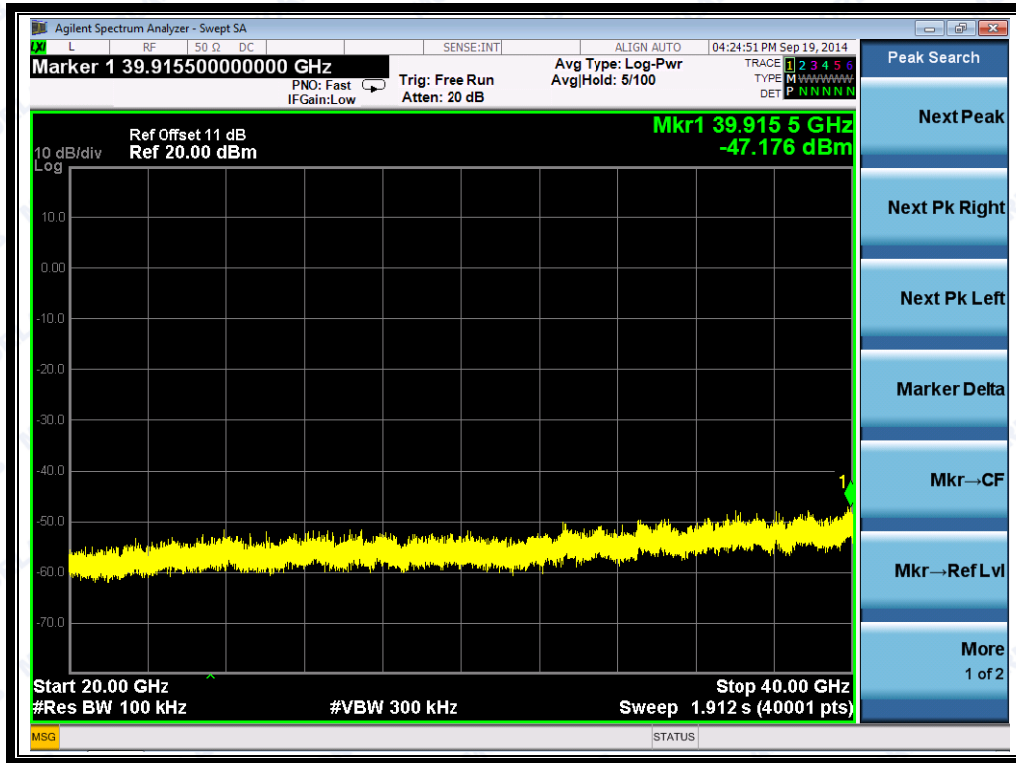
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Refer to Plot	Limit (dBm)		Verdict
				Carrier Level	Calculated -20dBc Limit	
1	5728	-36.391	Plot A.1	16.205	-3.8	PASS
9	5784	-38.351	Plot B.1	17.052	-3.0	PASS
16	5844	-36.800	Plot C.1	17.576	-2.4	PASS

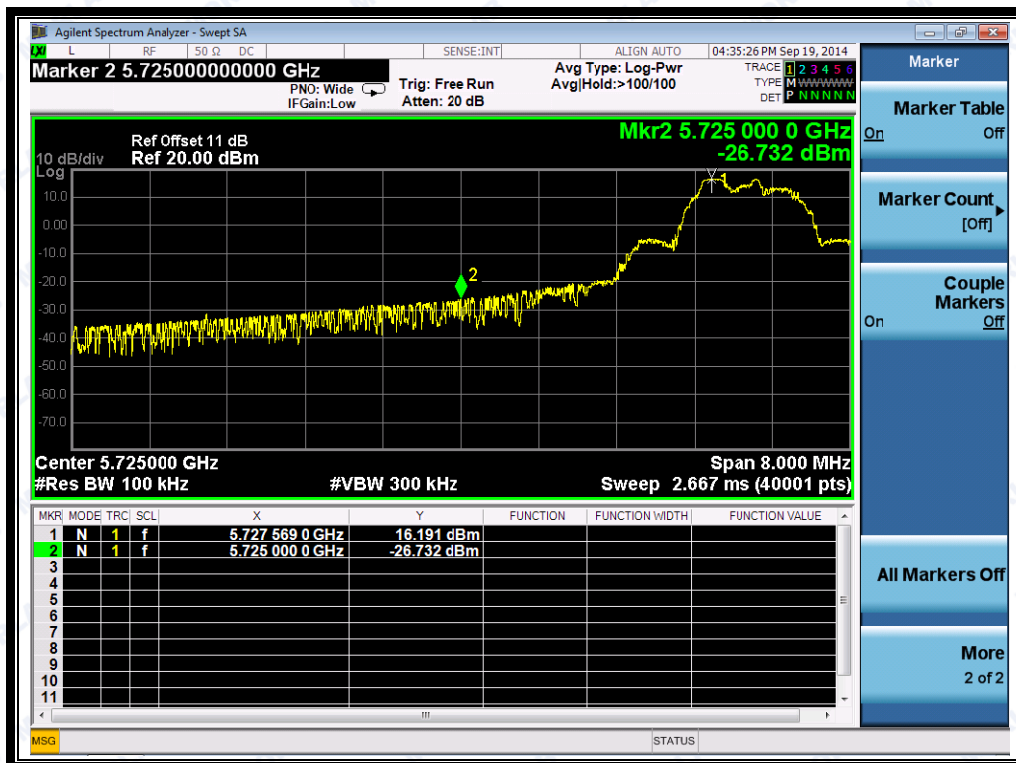
**B. Test Plots:**

**Note:** the power of the Module transmitting frequency should be ignored.



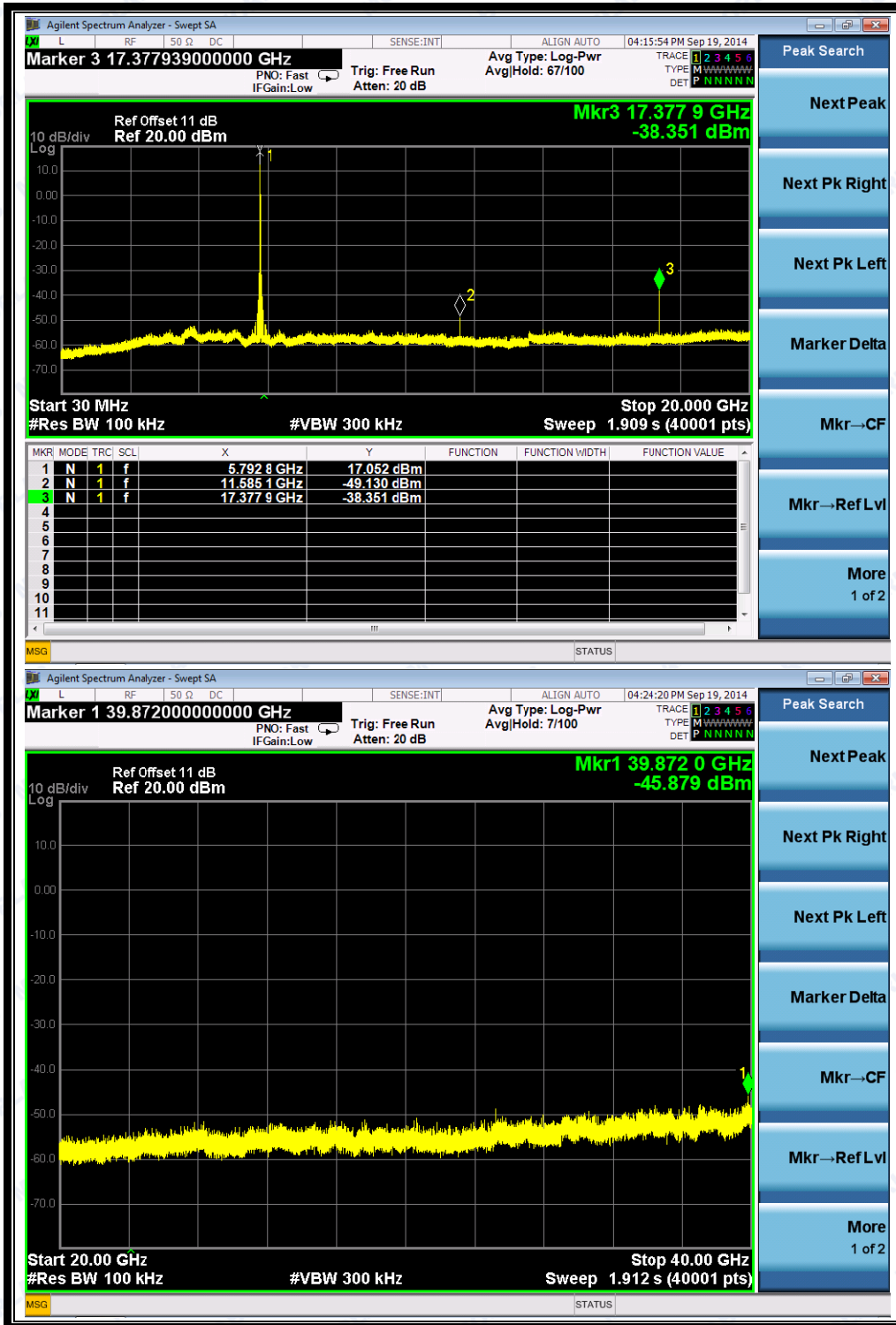


(Plot A.1: Channel = 1, 30MHz to 40GHz)

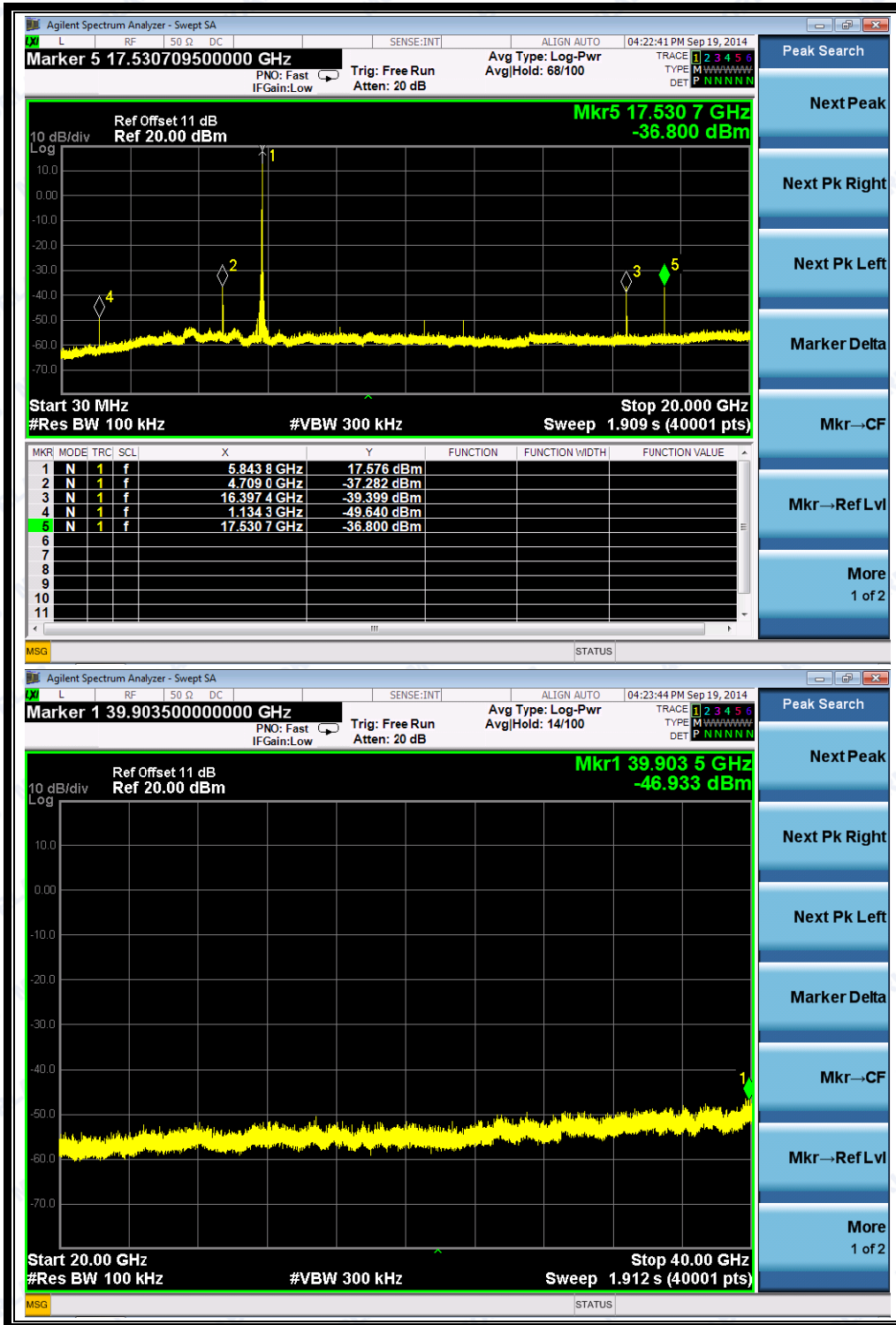


(Band Edge@ Channel = 1)





(Plot B.1: Channel = 9, 30MHz to 25GHz)



(Plot C.1: Channel = 16, 30MHz to 25GHz)



(Band Edge@ Channel = 16)

## 2.5. Power spectral density (PSD)

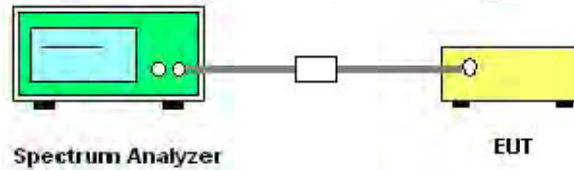
### 2.5.1. Requirement

According to FCC section 15.247(e), the same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

### 2.5.2. Test Description

#### A. Test Set:





The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

KDB 558074 Section 10.2 was used in order to prove compliance.

**B. Equipments List:**

Please reference ANNEX A(1.4).

**2.5.3. Test Result**

**A. Test Verdict:**

Spectral power density (dBm/3kHz)					
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Refer to Plot	Limit (dBm/3kHz)	Verdict
1	5728	5.681	Plot A	8	PASS
9	5784	6.125	Plot B	8	PASS
16	5844	6.981	Plot C	8	PASS
Measurement uncertainty: ±1.3dB					

**B. Test Plots:**



(Plot A: Channel = 1)



(Plot B: Channel = 8)



(Plot C: Channel = 16)





## 2.6. Conducted Emission

### 2.6.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 $\mu$ H/50 $\Omega$  line impedance stabilization network (LISN).

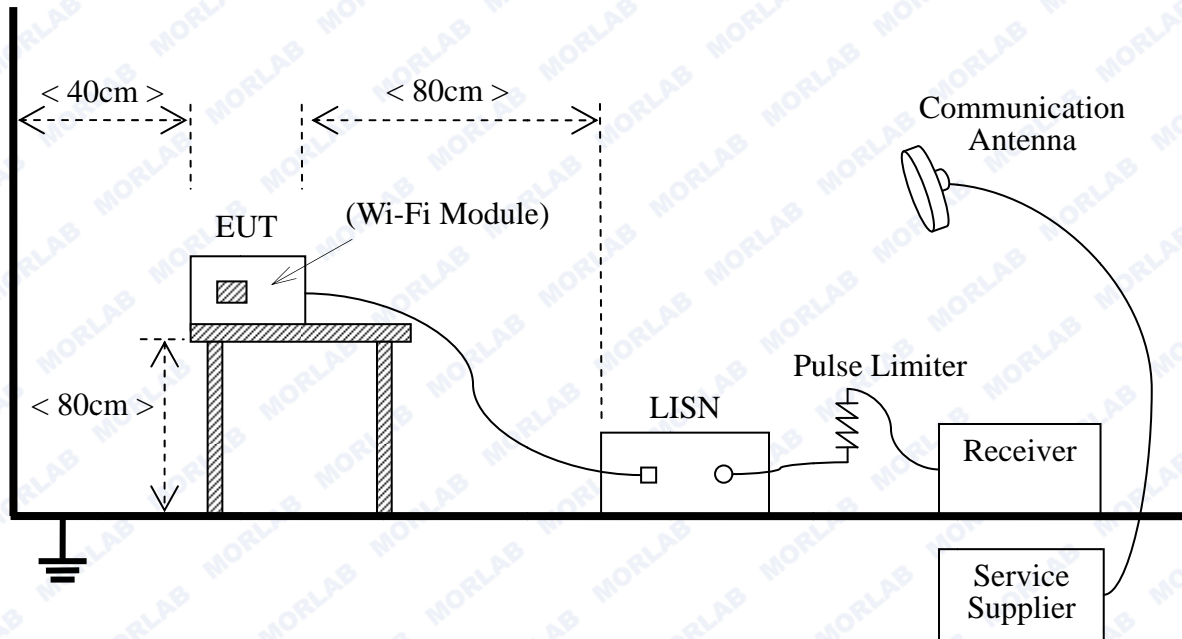
Frequency range (MHz)	Conducted Limit (dB $\mu$ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

**NOTE:**

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

### 2.6.2. Test Description

#### A. Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.4:2009

The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply.

**B. Equipments List:**

Please reference ANNEX A(1.4).

**2.6.3. Test Result**

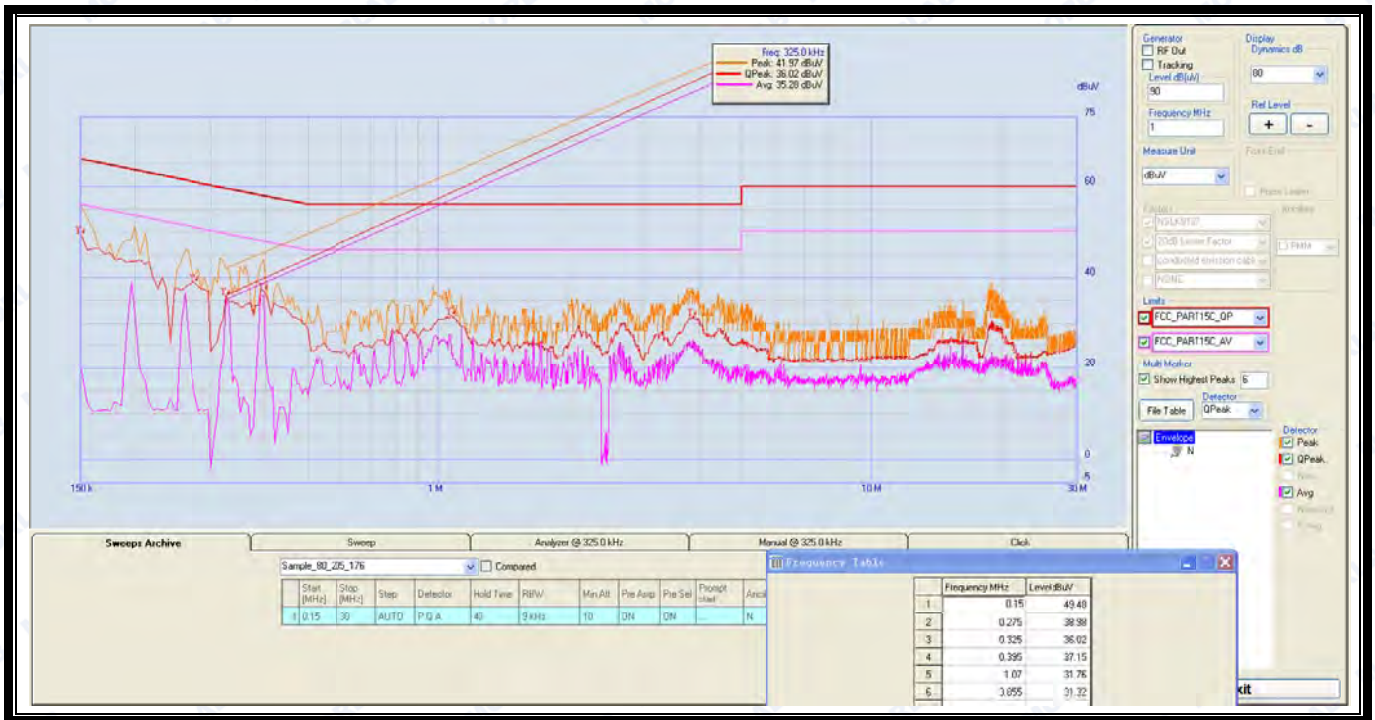
The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Note: All test modes are performed, only the worst case is recorded in this report.

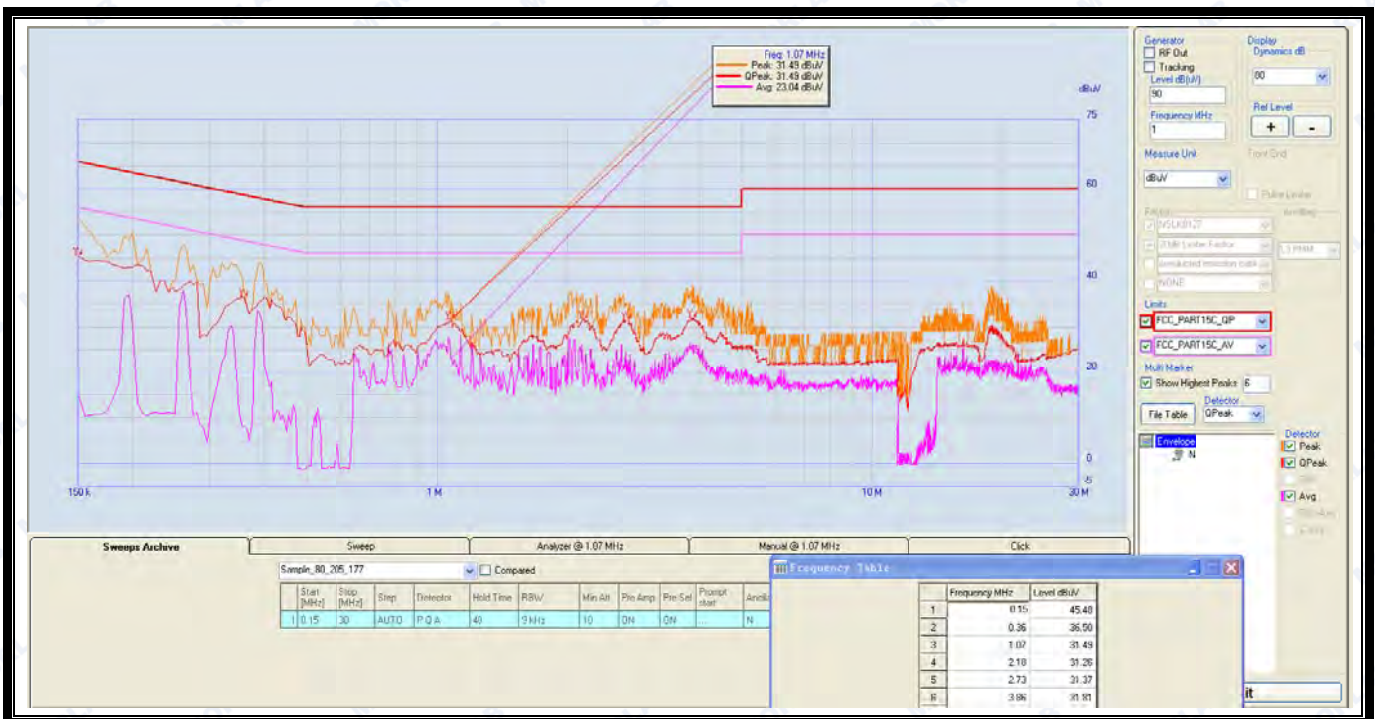
**A. Test setup:**

The EUT configuration of the emission tests is EUT + Link.

**B. Test Plots:**



(Plot A: L Phase)



(Plot B: N Phase)





## 2.7. Radiated Emission

### 2.7.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

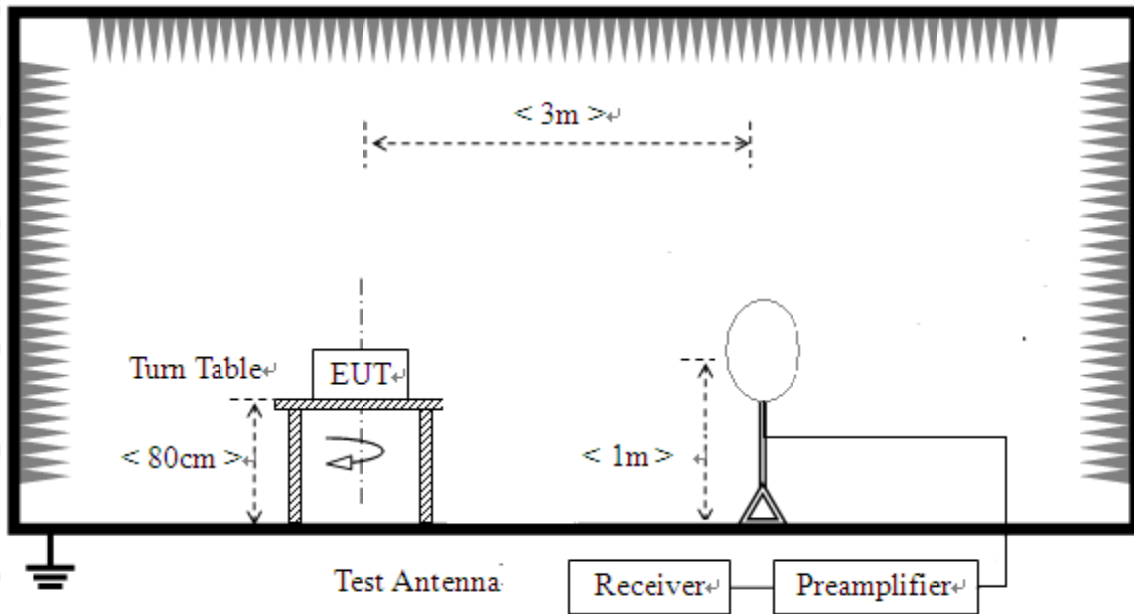
1. For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
2. For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK)

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

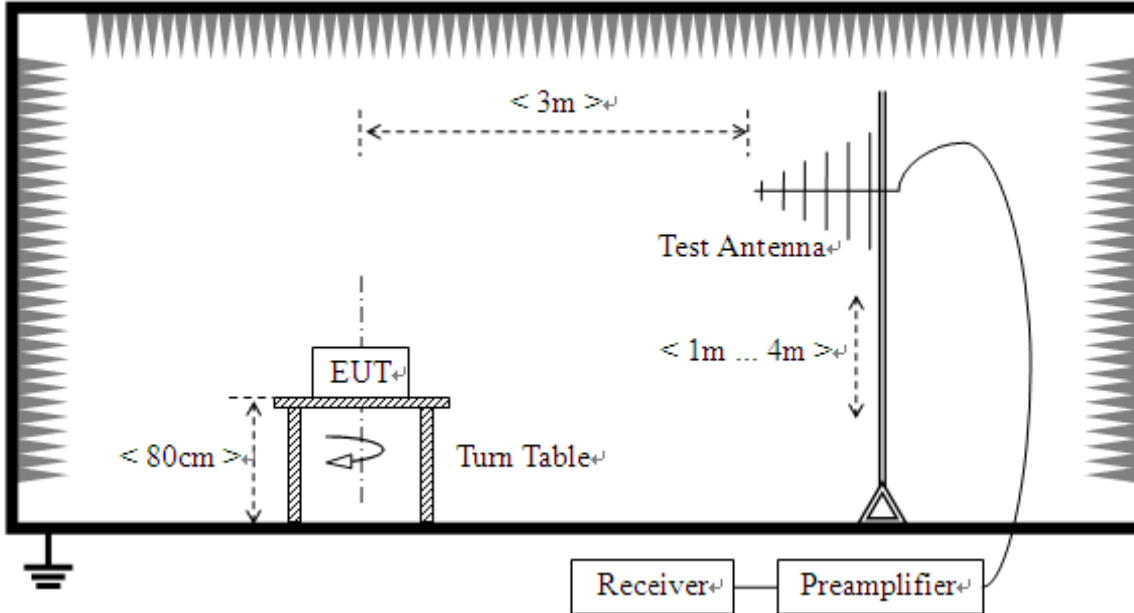
### 2.7.2. Test Description

#### A. Test Setup:

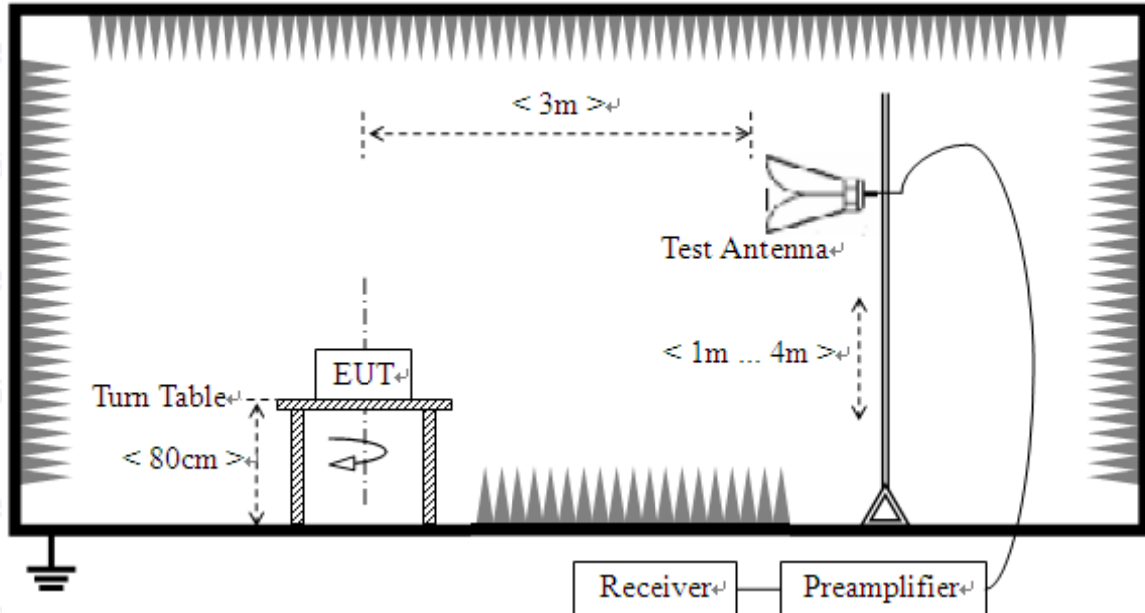
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



## 3) For radiated emissions above 1GHz



The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.4 (2009). The EUT was set-up on insulator 80cm above the Ground Plane. The set-up and test methods were according to ANSI C63.4.

The EUT of the EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

- (a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- (b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 2GHz) and Horn Test Antenna (above 2GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

### B. Equipments List:

Please reference ANNEX A(1.4).





### 2.7.3. Test Result

According to ANSI C63.4 selection 4.2.2, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak limit, it is unnecessary to perform an quasi-peak measurement.

The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V/m]} = U_R + A_T + A_{\text{Factor}} \text{ [dB]}; A_T = L_{\text{Cable loss}} \text{ [dB]} - G_{\text{preamp}} \text{ [dB]}$$

$A_T$ : Total correction Factor except Antenna

$U_R$ : Receiver Reading

$G_{\text{preamp}}$ : Preamplifier Gain

$A_{\text{Factor}}$ : Antenna Factor at 3m

During the test, the total correction Factor  $A_T$  and  $A_{\text{Factor}}$  were built in test software.

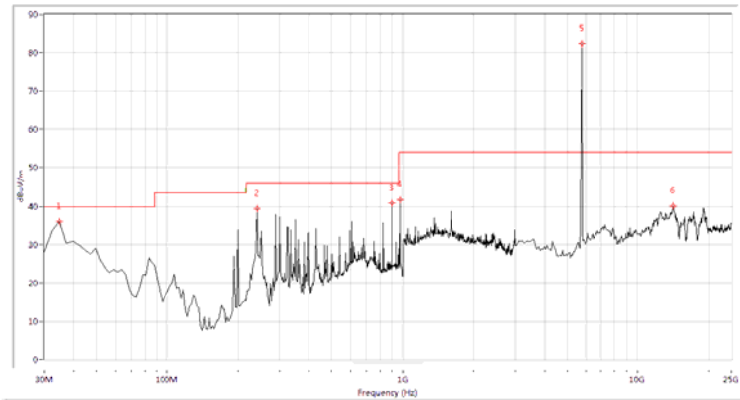
**Note:** All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

The low frequency, which started from 9KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

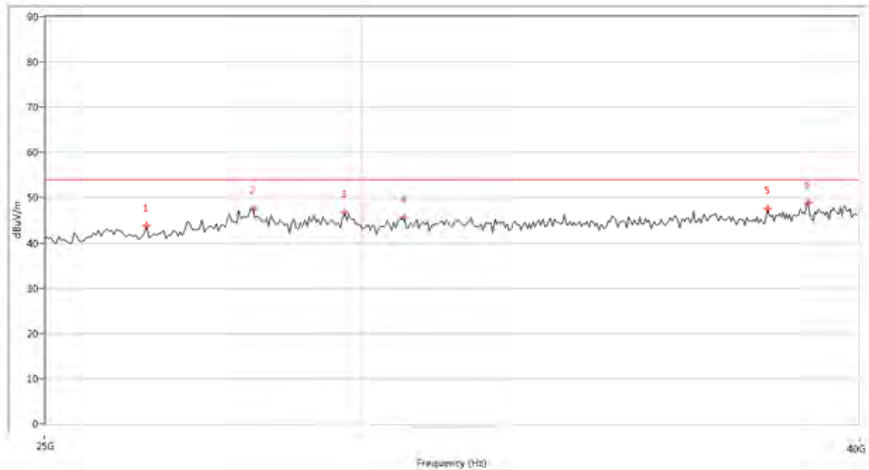
#### A. Test Plots for the Whole Measurement Frequency Range:



Plots for Channel = 1

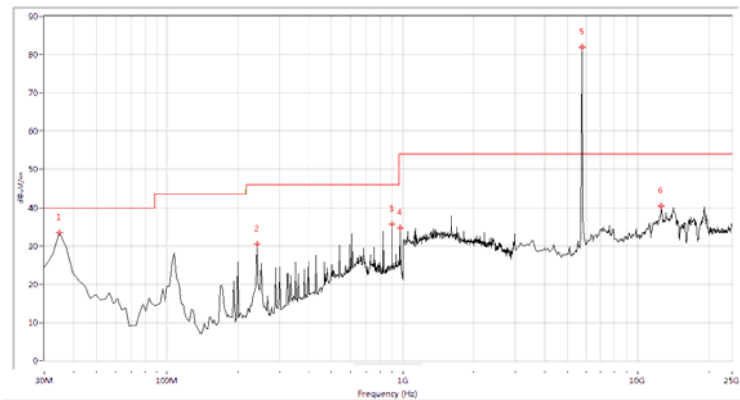


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	36.05	33.97	N.A	N.A	40.0	N.A	Horizontal	PASS
240.449	39.34	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
898.404	40.73	38.64	N.A	N.A	46.0	N.A	Horizontal	PASS
970.973	41.73	N.A	N.A	N.A	54.0	N.A	Horizontal	PASS
5728.000	82.33	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
14192.020	40.08	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

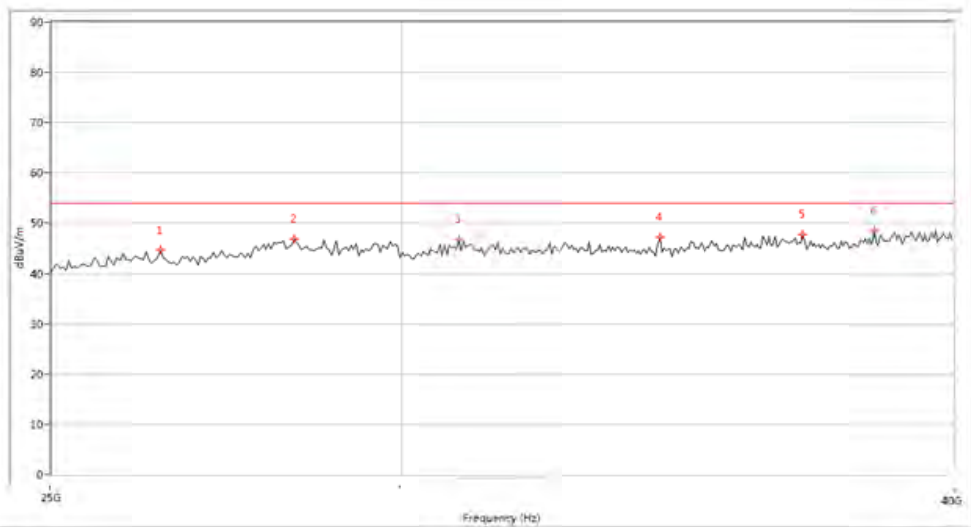


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26491.626	43.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28174.955	47.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29716.322	46.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30764.060	45.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37943.264	47.54	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
38870.781	48.76	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	33.49	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
240.449	30.44	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
898.404	35.66	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
970.973	34.82	N.A	N.A	N.A	54.0	N.A	Vertical	PASS
5728.000	82.07	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12600.998	40.46	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



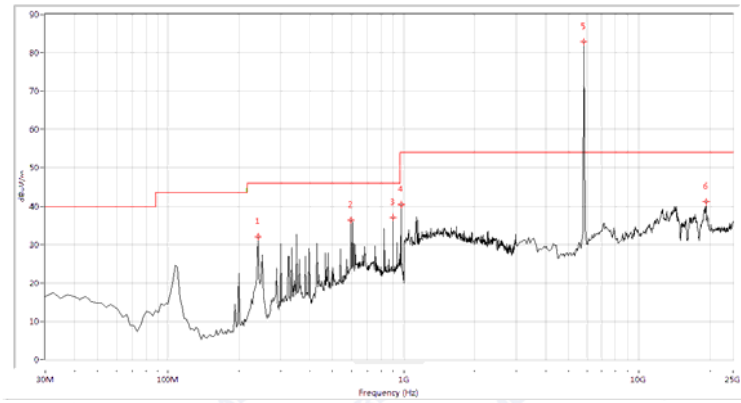
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26455.885	44.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28361.658	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30916.022	46.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34315.421	47.22	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36977.007	47.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38393.152	48.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

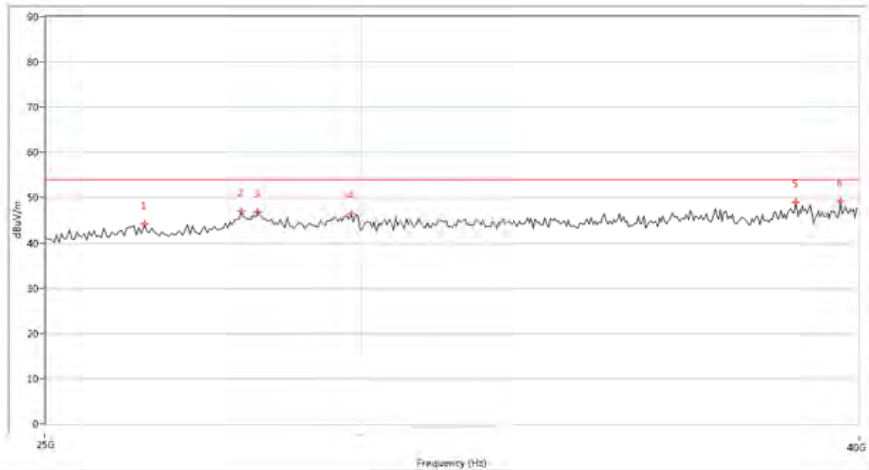




Plot for Channel = 9

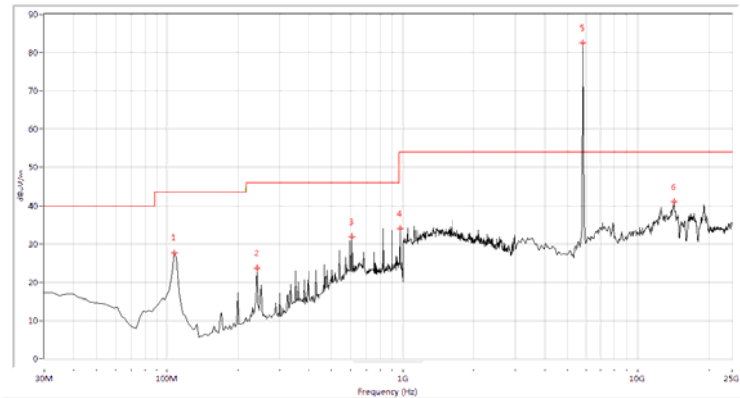


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
240.449	32.12	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
598.454	36.39	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
898.404	37.00	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
970.973	40.44	N.A	N.A	N.A	54.0	N.A	Horizontal	PASS
5784.000	82.81	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
19239.401	41.10	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

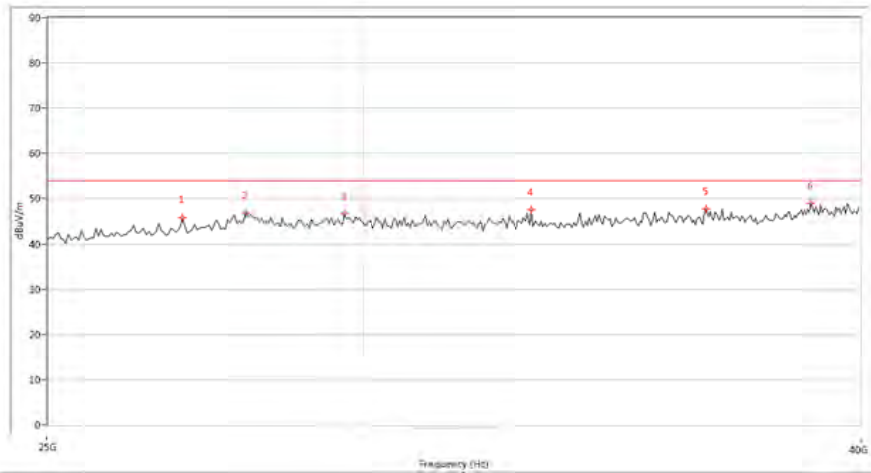


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26415.885	44.15	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
27992.252	47.02	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28253.436	46.88	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29842.544	46.46	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
38507.855	49.04	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39518.853	49.20	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
107.406	27.61	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
240.449	23.68	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
610.549	31.83	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
970.973	33.95	N.A	N.A	N.A	54.0	N.A	Vertical	PASS
5784.000	82.54	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
14246.883	40.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

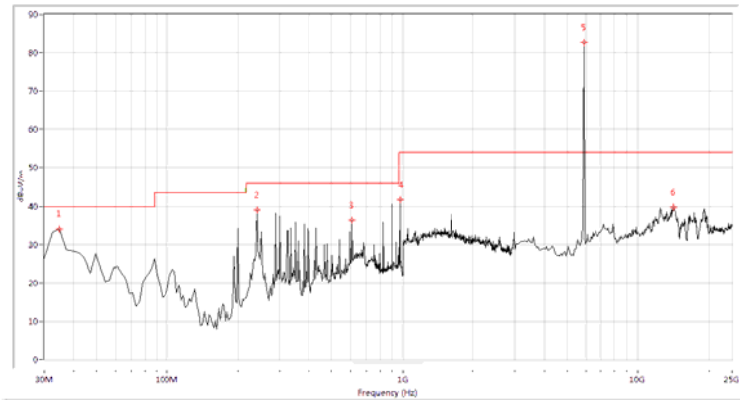


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27019.995	45.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28024.993	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29657.581	46.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33073.980	47.58	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36509.601	47.81	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38817.781	48.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

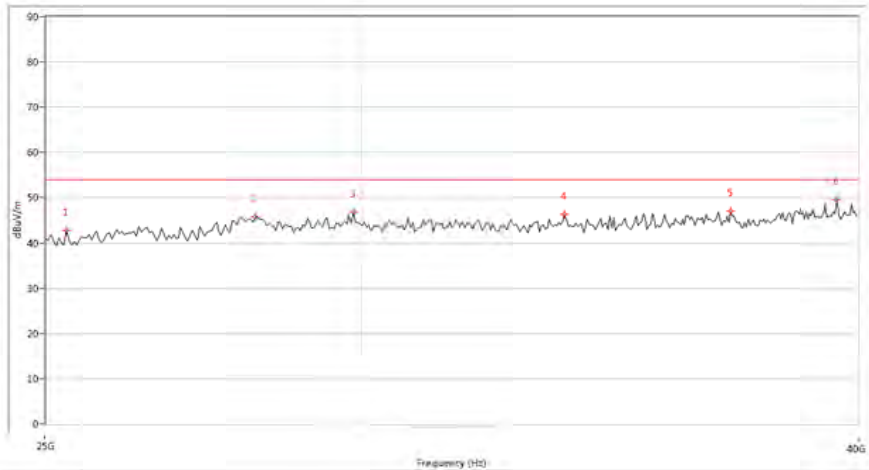
(Antenna Vertical, 30MHz to 40GHz)



Plot for Channel = 16



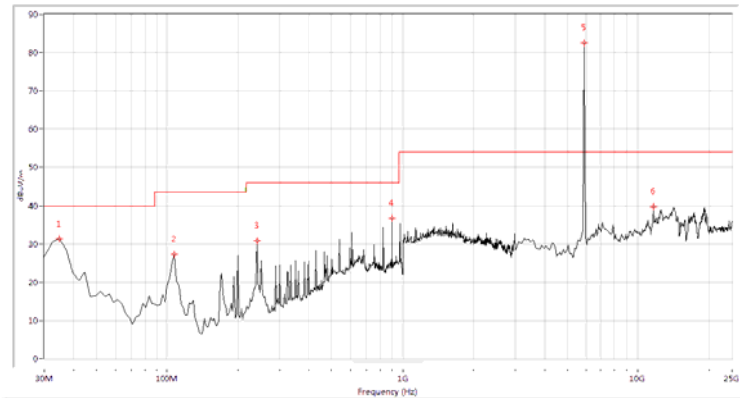
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	34.10	33.01	N.A	N.A	40.0	N.A	Horizontal	PASS
240.449	38.95	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
610.549	36.34	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
970.973	41.73	N.A	N.A	N.A	54.0	N.A	Horizontal	PASS
5844.000	82.76	N.A	N.A	54.0	N.A	54.0	Horizontal	N.A
14192.020	39.69	N.A	N.A	54.0	N.A	54.0	Horizontal	PASS



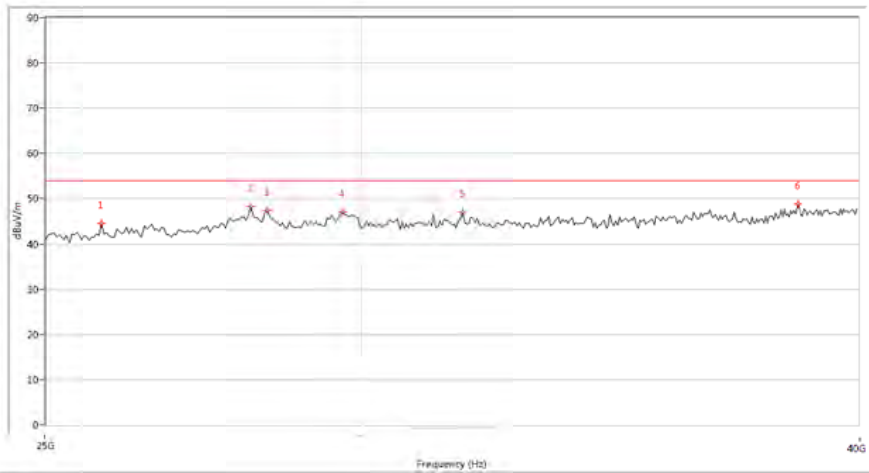
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25291.925	42.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28211.696	45.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29826.284	46.84	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
33735.312	46.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37159.711	47.07	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39514.372	49.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)





Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	31.33	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
107.406	27.32	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
240.449	30.79	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
898.404	36.75	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
5844.000	82.50	N.A	N.A	54.0	N.A	54.0	Vertical	N.A
11668.329	39.83	N.A	N.A	54.0	N.A	54.0	Vertical	PASS



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25824.294	44.52	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28114.214	48.36	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28430.399	47.44	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29617.581	47.07	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31809.798	47.11	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38617.596	48.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)



## Annex A General Information

### 1.1 Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

### 1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

### 1.3 Facilities and Accreditations

Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L3572.

All measurement facilities used to collect the measurement data are located at FL.1, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10 2009, ANSI C63.4 2009 and CISPR Publication 22; the FCC registration number is 695796.

The IC registration number is 7183A-2.



## 1.4 Test Equipments Utilized

### 1.4.1 Conducted Test Equipments

Conducted Test Equipment						
No	Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
1	Spectrum Analyzer	US44210471	E7405A	Agilent	2014.02.26	2015.02.25
2	Power Splitter	NW521	1506A	Weinschel	2014.02.26	2015.02.25
3	Attenuator 1	(n.a.)	10dB	Resnet	2014.02.26	2015.02.25
4	Attenuator 2	(n.a.)	3dB	Resnet	2014.02.26	2015.02.25
5	USB Wideband Power Sensor	MY52280010	U2021XA	Agilent	2014.02.26	2015.02.25
6	EXA Signal Analyzer	MY51440152	N9010A	Agilent	2014.02.26	2015.02.25
7	RF cable	CB01	RF01	Morlab	N/A	N/A
8	Coaxial cable	CB02	RF02	Morlab	N/A	N/A
9	SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

### 1.4.2 Conducted Emission Test Equipments

Conducted Emission Test Equipments						
No	Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
1	Receiver	US44210471	E7405A	Agilent	2014.02.26	2015.02.25
2	LISN	812744	NSLK 8127	Schwarzbeck	2014.02.26	2015.02.25
3	Service Supplier	100448	CMU200	R&S	2014.02.26	2015.02.25
4	Pulse Limiter (20dB)	9391	VTSD 9561-D	Schwarzbeck	2014.02.26	2015.02.25
5	Coaxial cable(BNC)	CB01	EMC01	Morlab	N/A	N/A

### 1.4.3 Radiated Test Equipments

Radiated Test Equipments						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal.Due Date





1	System Simulator	100448	CMU200	R&S	2014.02.26	2015.02.25
2	Receiver	US44210 471	E7405A	Agilent	2014.02.26	2015.02.25
3	Test Antenna - Bi-Log	9163-274	9m*6m*6m	Albatross	2014.02.26	2015.02.25
4	Test Antenna - Horn	9120D-96 3	VULB 9163	Schwarzbeck	2014.02.26	2015.02.25
5	Test Antenna - Horn	71688	BBHA 9120D	Schwarzbeck	2014.02.26	2015.02.25
6	Test Antenna - Loop	1519-022	HL050S7	R&S	2014.02.26	2015.02.25
7	Coaxial cable (N male)	CB02	EMC02	Morlab	N/A	N/A
8	Coaxial cable (N male)	CB03	EMC03	Morlab	N/A	N/A

#### 1.4.4 Climate Chamber

##### Climate Chamber

No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Climate Chamber	2004012	HL4003T	Yinhe	2014.02.26	2015.02.25

#### 1.4.5 Vibration Table

##### Vibration Table

No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Vibration Table	N/A	ACT2000- S015L	CMI-COM	2014.02.26	2015.02.25

#### 1.4.6 Anechoic Chamber

##### Anechoic Chamber

No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Anechoic Chamber	N/A	9m*6m*6m	Albatross	2014.02.26	2015.02.25

\*\*\*\*\* END OF REPORT \*\*\*\*\*