



## FCC TEST REPORT

Report No:STS2101178W05

Issued for

SOURCENEXT CORPORATION

Shiodome City Center 33F, 1-5-2 Higashi Shinbashi  
Minato-ku, Tokyo 105-7133, Japan

<b>Product Name:</b>	POCKETALK
<b>Brand Name:</b>	POCKETALK
<b>Model Name:</b>	W1PGK
<b>Series Model:</b>	W1PGG,W1PGW,W1PWG,W1PWK, W1PWW,W1PGR,W1PGP
<b>FCC ID:</b>	2AOJA-W1P
<b>Test Standard:</b>	FCC Part 15.407

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, all test data presented in this report is only applicable to presented test sample.

Shenzhen STS Test Services Co., Ltd.  
A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,  
Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China  
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail:sts@stsapp.com





## TEST RESULT CERTIFICATION

**Applicant's name** ..... : SOURCENEXT CORPORATION  
Address ..... : Shiodome City Center 33F, 1-5-2 Higashi Shinbashi Minato-ku, Tokyo 105-7133, Japan  
**Manufacturer's Name** ..... : JENESIS(SHENZHEN)CO.,LTD  
Address ..... : No.401-1, Building2, Runheng High-Tech Industrial Park, Liuxian 3rd Road No.1, XingDong, Xinan Avenue, Bao'an District, Shenzhen, China

### Product description

Product Name ..... : POCKETALK  
Brand Name ..... : POCKETALK  
Model Name ..... : W1PGK  
Series Model ..... : W1PGG,W1PGW,W1PWG,W1PWK,W1PWW,W1PGR,W1PGP

**Test Standards** ..... : FCC Part15.407

Test procedure ..... ANSI C63.10-2013

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of STS, this document only be altered or revised by STS, personal only, and shall be noted in the revision of the document.

**Date of Test** ..... :

Date (s) of performance of tests ..... : 24 Jan. 2021~04 Feb. 2021

Date of Issue ..... : 04 Feb. 2021

Test Result ..... : **Pass**

Testing Engineer : 

(Chris Chen)

Technical Manager : 

(Sean She)

Authorized Signatory : 

(Vita Li)





Table of Contents	Page
<b>1 . SUMMARY OF TEST RESULTS</b>	<b>5</b>
1.1 TEST FACTORY	5
1.2 MEASUREMENT UNCERTAINTY	5
<b>2 . GENERAL INFORMATION</b>	<b>6</b>
2.1 GENERAL DESCRIPTION OF THE EUT	6
2.2 DESCRIPTION OF TEST MODES	9
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	10
2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	11
2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
<b>3 . EMC EMISSION TEST</b>	<b>14</b>
3.1 CONDUCTED EMISSION MEASUREMENT	14
3.2 RADIATED EMISSION AND ( BANDEDGE) MEASUREMENT	18
<b>APPENDIX - PHOTOS OF TEST SETUP</b>	<b>25</b>

Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	04 Feb. 2021	STS2101178W05	ALL	Initial Issue





## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

§ 15.407, KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

FCC Part 15.407		
FCC standard	Test Item	Results
15.207	AC Conducted Emission	PASS
15.209	Radiated Emission Measurement	PASS

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) All tests are according to ANSI C63.10-2013

### 1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

### 1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated>6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	POCKETALK																		
Trade Name	POCKETALK																		
Model Name	W1PGK																		
Series Model	W1PGG,W1PGW,W1PWG,W1PWK,W1PWW,W1PGR,W1PGP																		
Model Difference	The structure of the circuit is the same, only the name of the model is different																		
Product Description	<p>The EUT is a POCKETALK W</p> <table border="1"><tr><td rowspan="6">Operation Frequency:</td><td>IEEE 802.11n(HT20) 5.180GHz-5.240GHz</td></tr><tr><td>IEEE 802.11n(HT40) 5.190GHz-5.230GHz</td></tr><tr><td>IEEE 802.11a/ n (HT20)5.260GHz-5.320GHz</td></tr><tr><td>IEEE 802.11n (HT40)5.270GHz-5.310GHz</td></tr><tr><td>IEEE 802.11a/ n (HT20)5.500GHz-5.700GHz</td></tr><tr><td>IEEE 802.11n (HT40)5.510GHz-5.670GHz</td></tr><tr><td rowspan="6">Modulation Type:</td><td>IEEE 802.11a/ n (HT20)5.745GHz-5.825GHz</td></tr><tr><td>IEEE 802.11a/ n (HT40)5.755GHz-5.795GHz</td></tr><tr><td>802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM</td></tr><tr><td>802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM</td></tr><tr><td>Antenna Designation:</td><td>See Note 2</td></tr><tr><td>Max.Output Power(Conducted):</td><td>10.85dBm</td></tr><tr><td>Duty Cycle:</td><td>&gt;98%</td></tr></table> <p>More details of EUT technical specification, please refer to the User's Manual.</p>	Operation Frequency:	IEEE 802.11n(HT20) 5.180GHz-5.240GHz	IEEE 802.11n(HT40) 5.190GHz-5.230GHz	IEEE 802.11a/ n (HT20)5.260GHz-5.320GHz	IEEE 802.11n (HT40)5.270GHz-5.310GHz	IEEE 802.11a/ n (HT20)5.500GHz-5.700GHz	IEEE 802.11n (HT40)5.510GHz-5.670GHz	Modulation Type:	IEEE 802.11a/ n (HT20)5.745GHz-5.825GHz	IEEE 802.11a/ n (HT40)5.755GHz-5.795GHz	802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM	802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM	Antenna Designation:	See Note 2	Max.Output Power(Conducted):	10.85dBm	Duty Cycle:	>98%
Operation Frequency:	IEEE 802.11n(HT20) 5.180GHz-5.240GHz																		
	IEEE 802.11n(HT40) 5.190GHz-5.230GHz																		
	IEEE 802.11a/ n (HT20)5.260GHz-5.320GHz																		
	IEEE 802.11n (HT40)5.270GHz-5.310GHz																		
	IEEE 802.11a/ n (HT20)5.500GHz-5.700GHz																		
	IEEE 802.11n (HT40)5.510GHz-5.670GHz																		
Modulation Type:	IEEE 802.11a/ n (HT20)5.745GHz-5.825GHz																		
	IEEE 802.11a/ n (HT40)5.755GHz-5.795GHz																		
	802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM																		
	802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM																		
	Antenna Designation:	See Note 2																	
	Max.Output Power(Conducted):	10.85dBm																	
Duty Cycle:	>98%																		
Test Channel	Please refer to the Note 2.																		
Battery	Battery(rating): Rated Voltage: 3.7V Charge Limit: 4.2V Capacity :2200mAh																		
Hardware version number	PT2_MB_V1.0																		
Software version number	3.1.2																		
Connecting I/O Port(s)	Please refer to the User's Manual																		

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



1.

Operation Frequency of channel			
5.180GHz-5.240GHz		5.500GHz-5.720GHz	
Channel	Frequency	Channel	Frequency
36	5180	100	5500
38	5190	102	5510
40	5200	104	5520
42	5210	108	5540
44	5220	110	5550
46	5230	112	5560
48	5240	116	5580
		118	5590
5.260GHz-5.320GHz		120	5600
Channel	Frequency	124	5620
52	5260	126	5630
54	5270	128	5640
56	5280	132	5660
58	5290	134	5670
60	5300	136	5680
62	5310	140	5700
64	5320		
5.745GHz-5.825GHz			
Channel	Frequency		
149	5745		
151	5755		
153	5765		
157	5785		
159	5795		
161	5805		
165	5825		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Carrier Frequency Channel

5GHz:

For 802.11a/n (HT20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
36	5180	52	5260
40	5200	60	5300
48	5240	64	5320

For 802.11a/n (HT20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
100	5500	149	5745
116	5580	157	5785
140	5700	165	5825



For 802.11n (HT40)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
38	5190	54	5270
46	5230	62	5310

For 802.11n (HT40)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
102	5510	151	5755
110	5550	159	5795
134	5670		

2.	Ant.	Brand	Model Name	Ant Type	Connector	Gain (dBi)	NOTE
	A	POCKETALK	W1PGK	PIFA Antenna	N/A	5.2G: 0dBi 5.3G: -2.2dBi 5.6G: -2.7dBi 5.8G: 0dBi	WLAN Ant.



## 2.2 DESCRIPTION OF TEST MODES

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

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11a HT20 CH52&CH60&CH64	6 Mbps
Mode 2	TX IEEE 802.11a HT20 CH100&CH116&CH140	6 Mbps
Mode 3	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 4	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 5	TX IEEE 802.11n HT20 CH52&CH60&CH64	MCS 0
Mode 6	TX IEEE 802.11n HT20 CH100&CH116&CH140	MCS 0
Mode 7	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 8	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 9	TX IEEE 802.11n HT40 CH54 &CH62	MCS 0
Mode 10	TX IEEE 802.11n HT40 CH102&CH110&CH134	MCS 0
Mode 11	TX IEEE 802.11n HT40 CH151&CH159	MCS 0

Note: (1) The measurements are performed at the highest, middle, lowest available channels.

(2) We tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/ 60Hz is shown in the report.

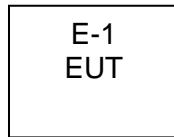
(3) The battery is fully-charged during the radiated and RF conducted test.

### AC Conducted Emission

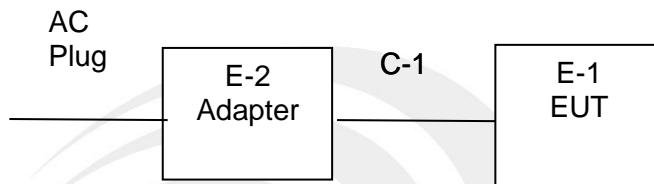
Test Case	
AC Conducted Emission	Mode 12: Keeping TX + WLAN Link

## 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Conducted Emission Test





## 2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

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

### Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

### Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-2	Adapter	HUAWEI	HW-050450C00	N/A	N/A
C-1	USB Cable	N/A	N/A	110cm	NO

#### Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".



## 2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

### Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	R&S	FSV 40-N	101823	2020.10.10	2021.10.09
Active loop Antenna	ZHINAN	ZN30900C	16035	2019.07.11	2021.07.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2019.10.15	2021.10.14
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2020.10.10	2021.10.09
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

### Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
LISN	R&S	ENV216	101242	2020.10.12	2021.10.11
LISN	EMCO	3810/2NM	23625	2020.10.12	2021.10.11
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			



## RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Power Sensor	Keysight	U2021XA	MY55520005	2020.10.10	2021.10.09
			MY55520006	2020.10.10	2021.10.09
			MY56120038	2020.10.10	2021.10.09
			MY56280002	2020.10.10	2021.10.09
Signal Analyzer	Agilent	N9020A	MY51110105	2020.03.05	2021.03.04
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
MIMO Power measurement test Set	Keysight	U2021XA	MY55520005	2020.10.10	2021.10.09
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			





### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

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

FREQUENCY (MHz)	Class B (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	CISPR
5.0 -30.0	60.00	50.00	CISPR

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

Note:

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

The following table is the setting of the receiver

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

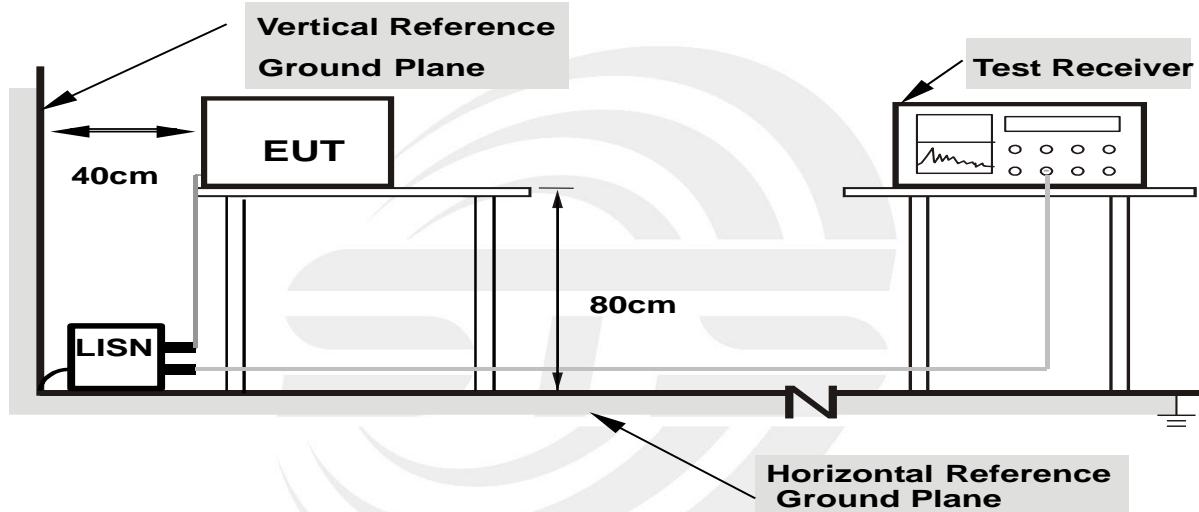
### 3.1.2 TEST PROCEDURE

- a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN is at least 80 cm from the nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.1.4 TEST SETUP



**Note:**

1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.5 EUT OPERATING CONDITIONS

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

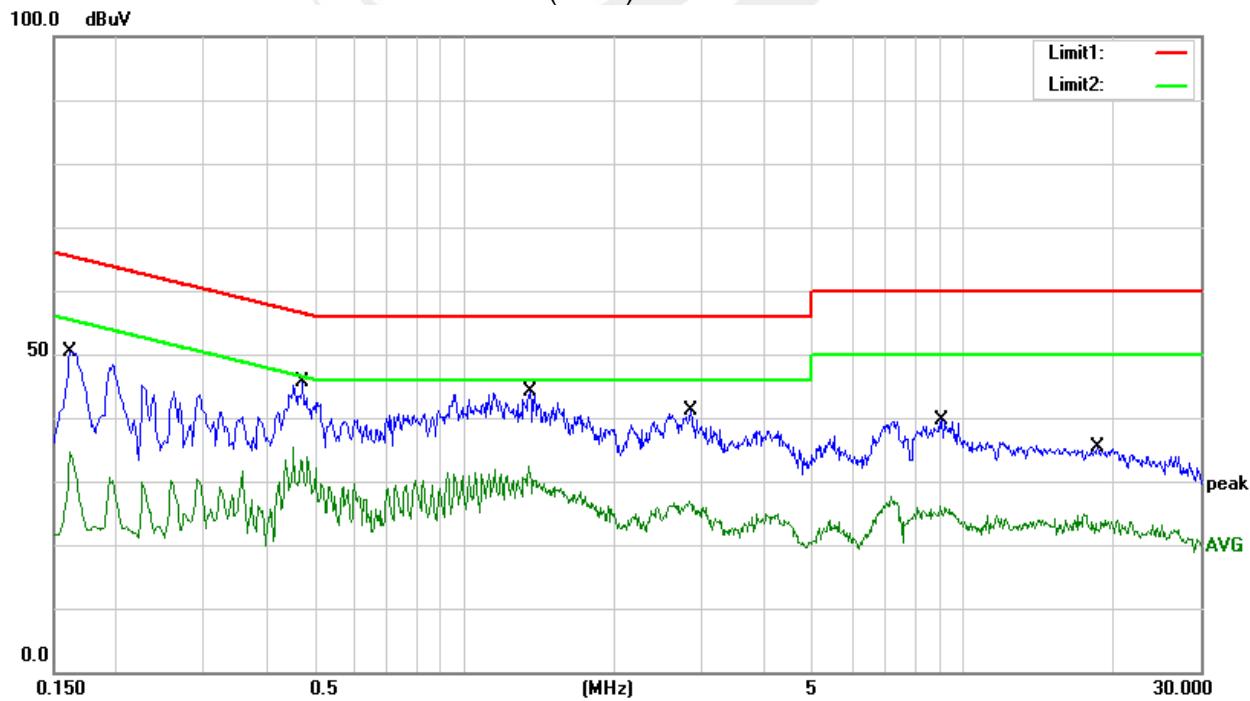
### 3.1.6 TEST RESULTS

Temperature:	22 °C	Relative Humidity:	36%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode :	Mode 12		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1620	30.05	20.32	50.37	65.36	-14.99	QP
0.1620	14.20	20.32	34.52	55.36	-20.84	AVG
0.4740	25.16	20.51	45.67	56.44	-10.77	QP
0.4740	12.87	20.51	33.38	46.44	-13.06	AVG
1.3540	23.80	20.33	44.13	56.00	-11.87	QP
1.3540	12.07	20.33	32.40	46.00	-13.60	AVG
2.8420	20.73	20.45	41.18	56.00	-14.82	QP
2.8420	6.46	20.45	26.91	46.00	-19.09	AVG
9.0820	18.72	20.82	39.54	60.00	-20.46	QP
9.0820	5.03	20.82	25.85	50.00	-24.15	AVG
18.6300	12.73	22.54	35.27	60.00	-24.73	QP
18.6300	1.44	22.54	23.98	50.00	-26.02	AVG

#### Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor )–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



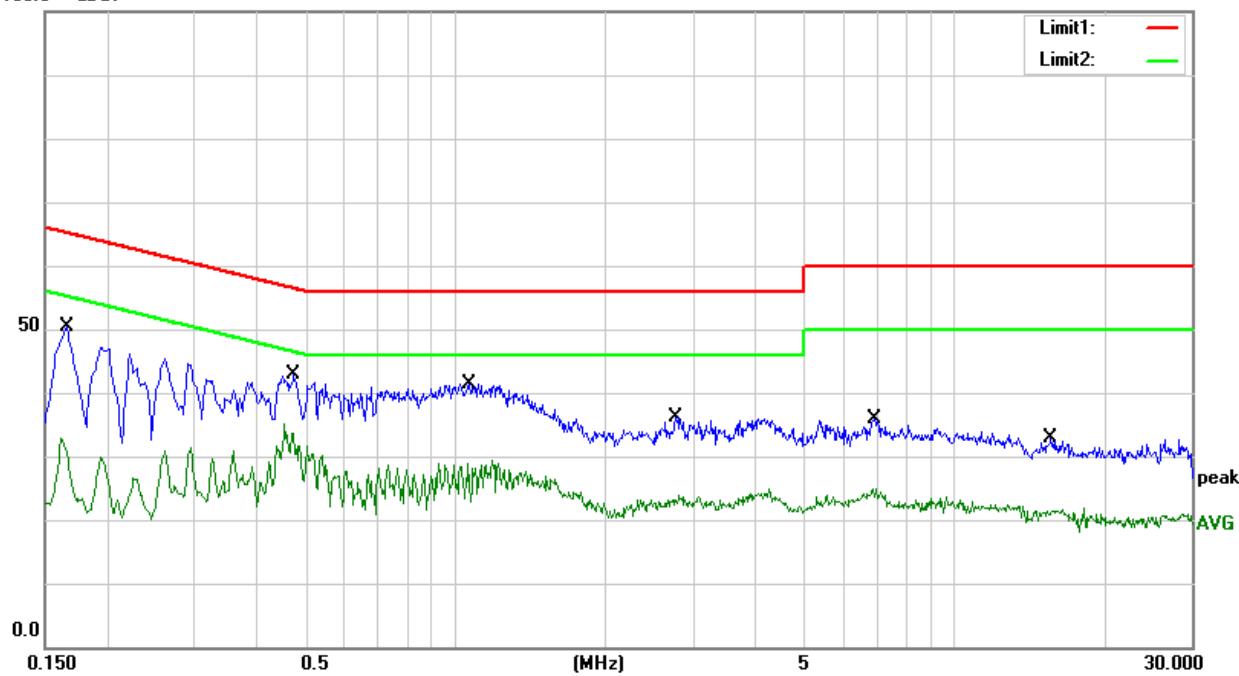
Temperature:	22 °C	Relative Humidity:	36%
Test Voltage	AC 120V/60Hz	Phase:	N
Test Mode	Mode 12		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1660	29.93	20.33	50.26	65.16	-14.90	QP
0.1660	7.87	20.33	28.20	55.16	-26.96	AVG
0.4740	22.32	20.51	42.83	56.44	-13.61	QP
0.4740	13.21	20.51	33.72	46.44	-12.72	AVG
1.0700	21.17	20.30	41.47	56.00	-14.53	QP
1.0700	8.59	20.30	28.89	46.00	-17.11	AVG
2.7740	15.66	20.43	36.09	56.00	-19.91	QP
2.7740	3.42	20.43	23.85	46.00	-22.15	AVG
6.9220	15.19	20.58	35.77	60.00	-24.23	QP
6.9220	4.20	20.58	24.78	50.00	-25.22	AVG
15.6540	11.15	21.75	32.90	60.00	-27.10	QP
15.6540	-0.31	21.75	21.44	50.00	-28.56	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor )–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBuV





### 3.2 RADIATED EMISSION AND ( BANDEDGE) MEASUREMENT

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

In case the emission fall within the restricted band specified on 15.407(b)7& 15.205/209(a), then the limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier harmonic (Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz



Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

### 3.2.2 TEST PROCEDURE

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

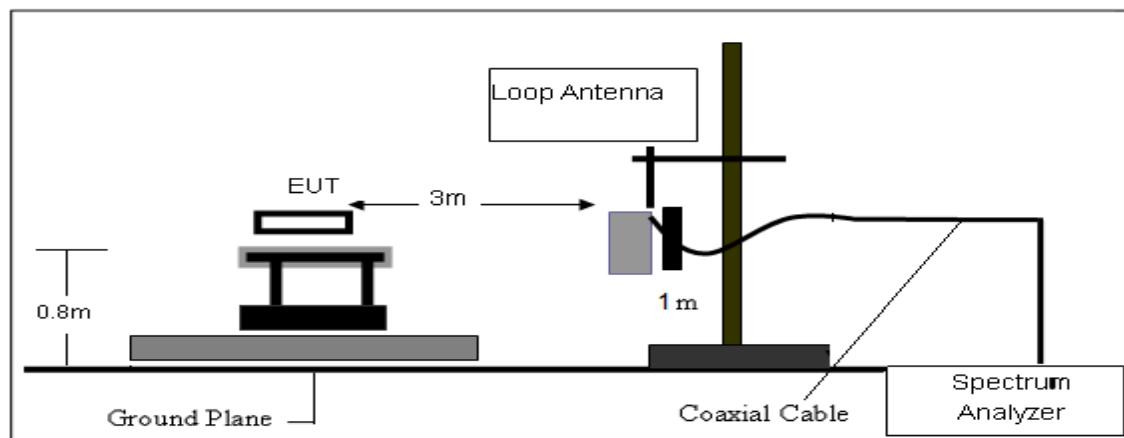
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

### 3.2.2 DEVIATION FROM TEST STANDARD

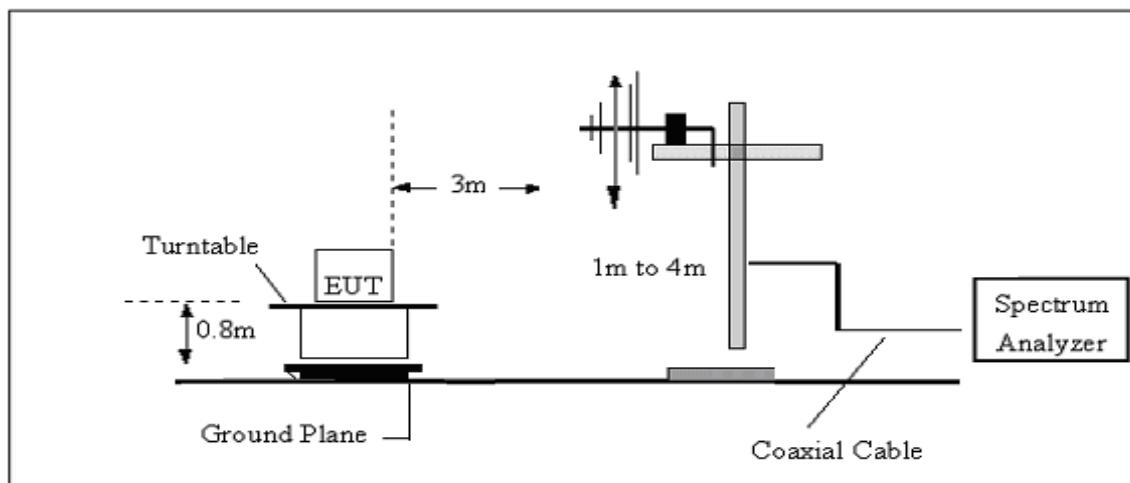
No deviation

### 3.2.3 TEST SETUP

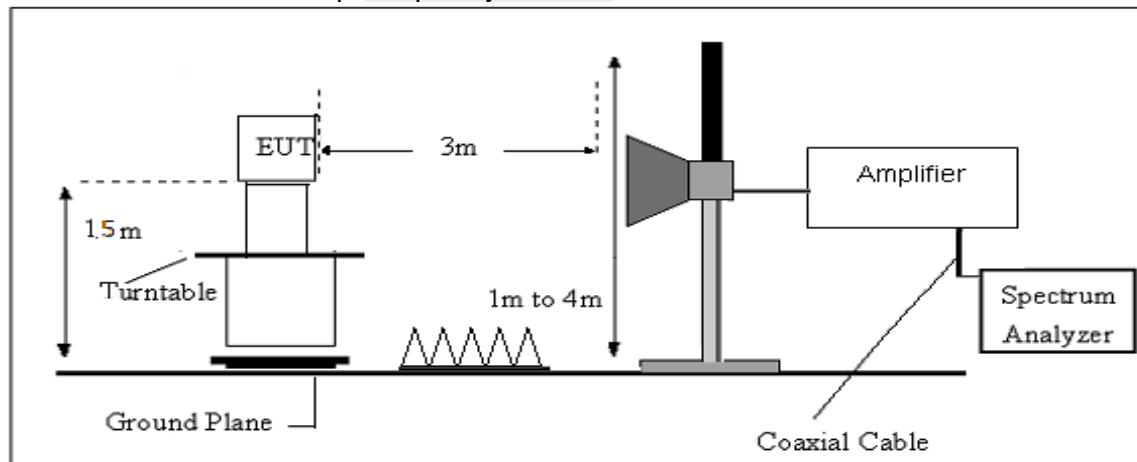
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



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



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





### 3.2.4 EUT OPERATING CONDITIONS

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

### 3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency (MHz)	FS (dB $\mu$ V/m)	RA (dB $\mu$ V/m)	AF (dB)	CL (dB)	AG (dB)	Factor (dB)
300	40	58.1	12.2	1.6	31.9	-18.1

Factor=AF+CL-AG



### 3.2.6 TEST RESULTS (Between 9KHz – 30 MHz)

Temperature:	23 °C	Relative Humidity:	46%
Test Voltage :	DC 3.7V from Battery	Polarization :	--
Test Mode :	TX Mode		

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

Note:

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

Distance extrapolation factor = $40 \log(\text{specific distance}/\text{test distance})$ (dB);  
Limit line = specific limits(dBuV) + distance extrapolation factor.

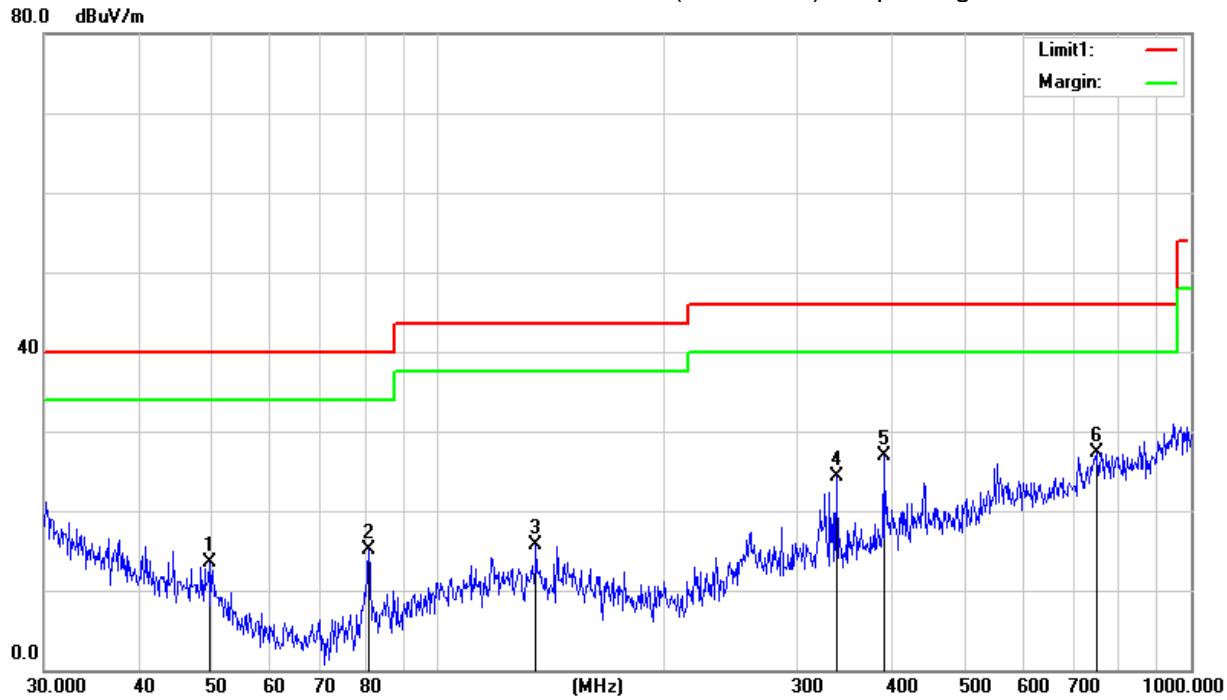
### 3.2.7 TEST RESULTS (Between 30MHz – 1GHz)

Temperature	23 °C	Relative Humidity:	46%
Test Voltage	DC 3.7V from Battery	Polarization	Horizontal
Test Mode	Mode 1-11(Mode 1 worst mode)		

Frequency	Reading	Correct	Result	Limit	Margin	Remark
(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
49.7068	34.99	-21.50	13.49	40.00	-26.51	QP
80.9274	37.97	-22.84	15.13	40.00	-24.87	QP
135.0320	34.19	-18.45	15.74	43.50	-27.76	QP
338.4001	40.02	-15.64	24.38	46.00	-21.62	QP
390.7225	40.83	-13.86	26.97	46.00	-19.03	QP
750.1082	32.24	-4.93	27.31	46.00	-18.69	QP

Remark:

1. Margin = Result (Result =Reading + Factor )–Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



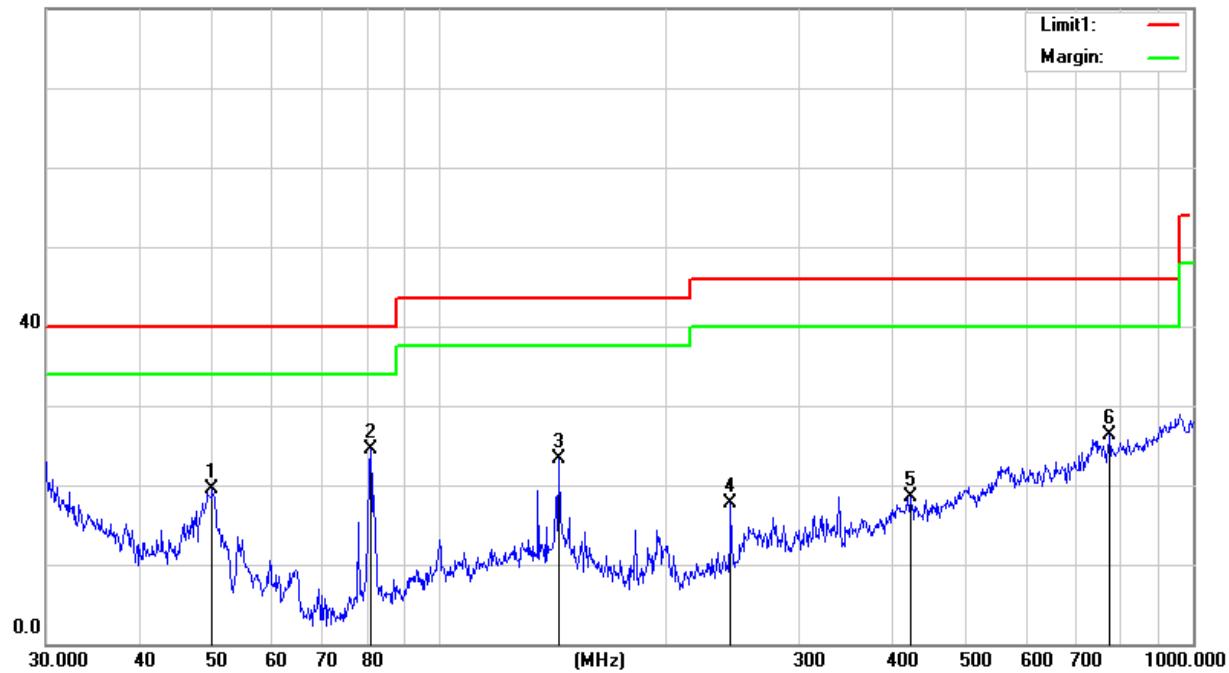
Temperature	23 °C	Relative Humidity:	46%
Test Voltage	DC 3.7V from Battery	Polarization	Vertical
Test Mode	Mode 1-11(Mode 1 worst mode)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
49.8813	41.13	-21.59	19.54	40.00	-20.46	QP
80.9274	47.36	-22.84	24.52	40.00	-15.48	QP
143.8293	41.82	-18.48	23.34	43.50	-20.16	QP
243.3771	36.30	-18.63	17.67	46.00	-28.33	QP
422.0577	30.87	-12.45	18.42	46.00	-27.58	QP
774.1584	31.70	-5.46	26.24	46.00	-19.76	QP

**Remark:**

1. Margin = Result (Result =Reading + Factor )-Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

80.0 dBuV/m



**APPENDIX - PHOTOS OF TEST SETUP**

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

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

