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JQA File No.: KL80170086S Issue Date: June 13, 2017

# TEST REPORT

Applicant : SHARP CORPORATION, IoT Communication BU

Address : 2-13-1, Iida Hachihonmatsu, Higashi-Hiroshima City, Hiroshima,

739-0192, Japan

Products : Smart Phone

Model No. : 606SH

**Serial No.** : 004401/11/612130/8

004401/11/612129/0

FCC ID : APYHRO00250

**Test Standard** : CFR 47 FCC Rules and Regulations Part 24

Test Results : Passed

**Date of Test** : May 16 ~ 22, 2017



dem

Kousei Shibata

Manager

Japan Quality Assurance Organization

KITA-KANSAI Testing Center

SAITO EMC Branch

7-3-10, Saito-asagi, Ibaraki-shi, Osaka 567-0085, Japan

- The test results in this test report was made by using the measuring instruments which are traceable to national standards of measurement in accordance with ISO/IEC 17025.
- The applicable standard, testing condition and testing method which were used for the tests are based on the request of the applicant.
- The test results presented in this report relate only to the offered test sample.
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- VLAC does not approve, certify or warrant the product by this test report.



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### DEFINITIONS FOR ABBREVIATION AND SYMBOLS USED IN THIS TEST REPORT

EUT: Equipment Under TestEMC: Electromagnetic CompatibilityAE: Associated EquipmentEMI: Electromagnetic InterferenceN/A: Not ApplicableEMS: Electromagnetic Susceptibility

N/T : Not Tested

☑ - indicates that the listed condition, standard or equipment is applicable for this report.

 $\Box$  - indicates that the listed condition, standard or equipment is not applicable for this report.



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### 1 Description of the Equipment Under Test

1. Manufacturer : SHARP CORPORATION, IoT Communication BU

2-13-1, Iida Hachihonmatsu, Higashi-Hiroshima City, Hiroshima,

739-0192, Japan

2. Products : Smart Phone

3. Model No. : 606SH

4. Serial No. : 004401/11/612130/8

004401/11/612129/0

5. Product Type : Pre-production

6. Date of Manufacture : April, 2017

7. Power Rating : 4.0VDC (Lithium-ion Battery UBATIA270AFN1 3010mAh)

8. Grounding : None

9. Transmitting Frequency : 1850.2 MHz(512CH) – 1909.8MHz(810CH)
 10. Receiving Frequency : 1930.2 MHz(512CH) – 1989.8MHz(810CH)

11. Emission Designations : 244KGXW

12. Max. RF Output Power : 1.514 W(EIRP)

13. Category : Broadband PCS

14. EUT Authorization : Certification15. Received Date of EUT : May 15, 2017

#### 16. Channel Plan

The carrier spacing is 200 kHz.

The carrier frequency is designated by the absolute frequency channel number (ARFCN).

The carrier frequency is expressed in the equation shown as follows:

Transmitting Frequency (in MHz) =  $1850.2 + 0.2 \times (n - 512)$ Receiving Frequency (in MHz) =  $1930.2 + 0.2 \times (n - 512)$ 

where, n: channel number  $(512 \le n \le 810)$ 



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### 2 Summary of Test Results

Applied Standard : CFR 47 FCC Rules and Regulations Part 24

Subpart E - Broadband PCS

The EUT described in clause 1 was tested according to the applied standard shown above.

Details of the test configuration is shown in clause 6.

The conclusion for the test items of which are required by the applied standard is indicated under the test result.

 $\square$  - The test result was **passed** for the test requirements of the applied standard.

 $\square$  - The test result was **failed** for the test requirements of the applied standard.

 $\square$  - The test result was **not judged** the test requirements of the applied standard.

In the approval of test results,

- Determining compliance with the limits in this report was based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- No deviations were employed from the applied standard.

- No modifications were conducted by JQA to achieve compliance to the limitations.

Reviewed by:

Shigeru Kinoshita Assistant Manager

JQA KITA-KANSAI Testing Center

SAITO EMC Branch

Tested by:

Shigeru Osawa

Deputy Manager

JQA KITA-KANSAI Testing Center

Kigen Osawa

SAITO EMC Branch



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#### 3 Test Procedure

Test Requirements : CFR 47 FCC Rules and Regulations Part 2

§2.1046, §2.1047, §2.1049, §2.1051, §2.1053, §2.1055 and §2.1057

Test Procedure : ANSI/TIA-603-D-2010

FCC KDB 971168 D01 Power Meas License Digital Systems v02r02,

released October 17, 2014

#### 4 Test Location

Japan Quality Assurance Organization (JQA) KITA-KANSAI Testing Center 7-7, Ishimaru, 1-chome, Minoh-shi, Osaka, 562-0027, Japan SAITO EMC Branch 7-3-10, Saito-asagi, Ibaraki-shi, Osaka 567-0085, Japan

### 5 Recognition of Test Laboratory

JQA KITA-KANSAI Testing Center SAITO EMC Branch is accredited under ISO/IEC 17025 by following accreditation bodies and the test facility is registered by the following bodies.

VLAC Accreditation No. : VLAC-001-2 (Expiry date : March 30, 2018) VCCI Registration No. : A-0002 (Expiry date : March 30, 2018)

BSMI Registration No. : SL2-IS-E-6006, SL2-IN-E-6006, SL2-R1/R2-E-6006, SL2-A1-E-6006

(Expiry date: September 14, 2019)

IC Registration No. : 2079E-3, 2079E-4 (Expiry date: July 16, 2017)

Accredited as conformity assessment body for Japan electrical appliances and material law by METI. (Expiry date: February 22, 2019)



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# 6 Description of Test Setup

### 6.1 Test Configuration

The equipment under test (EUT) consists of:

	Item	Manufacturer	Model No.	Serial No.	FCC ID
A	Smart Phone	Sharp	606SH	004401/11/612130/8 *1) 004401/11/612129/0 *2)	APYHRO00250
В	AC Adapter	Sharp	SHCEJ1		N/A
C	Stereo Handsfree	Sharp			N/A
D	DTV Antenna	Sharp			N/A

<sup>\*1)</sup> Used for Field Strength of Spurious Emission

The auxiliary equipment used for testing:

None

Type of Cable:

No.	Description	Identification (Manu. etc.)	Connector Shielded	Cable Shielded	Ferrite Core	Length (m)
1	USB conversion cable			NO	NO	1.5
2	Handsfree Cable			NO	NO	1.5
3	DTV Antenna Cable			NO	NO	0.1

<sup>\*2)</sup> Used for Antenna Conducted Emission



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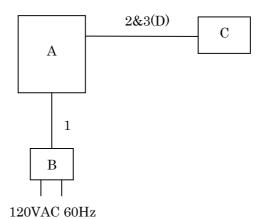
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# 6.2 Test Arrangement (Drawings)

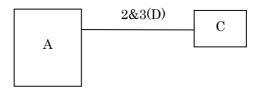
a) Single Unit



b) AC Adapter used



c) Earphone used





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### 6.3 Operating Condition

Power Supply Voltage : 4.0 VDC (for Battery)

120 VAC, 60 Hz (For AC Adapter)

The test were carried under one modulation type shown as follows:

Modulation Burst Signal: DATA TSC 5 in accordance with GSM 05.02.

(Maximum Power Setting)

The tests were carried under the worst channel (maximum power).

(Ref. JQA File number: KL80160047R, FCC ID: APYHRO00237)

1. Conducted: 1850.200 MHz (512 ch)

2. Radiated: 1909.800 MHz (810 ch)

The Radiated Emission test were carried under 3 test configurations shown in clause 6.2. In all tests, the fully charged battery is used for the EUT.

Other Clock Frequency 19.2MHz, 27MHz, 27.12MHz

The EUT was rotated through three orthogonal axis (X, Y and Z axis) in radiated measurement. The EUT with temporary antenna port was used in conducted measurement.



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### 7 Test Requirements

#### 7.0 Re-use of Measured Data

#### 7.0.1 Introduction

This application re-use data collected on a similar device. The subjected device of this application (Model No.: 606SH, FCC ID: APYHRO00250) is electrically identical to the reference device (Model No.: 507SH, FCC ID: APYHRO00237) for the portions of the circuitry corresponding to the data being re-used.

The FCC ID: APYHRO00237 test data shall remain representative of FCC ID: APYHRO00250.

A statement that the applicant takes full responsibility that the test data as referenced in this section represent compliance for this FCC ID: APYHRO00250.

#### 7.0.2 Difference Section

The device of this application is electrically identical to the reference device other than the FeliCa Block. Please refer to the Comparison List Between 507SH and 606SH.

### 7.0.3 Spot Check Verification Data Section

The spot check verification tests were carried under the worst channel (maximum power).

(Ref. JQA File number: KL80160047R, FCC ID: APYHRO00237)

Conducted: 1850.200 MHz (512 ch)
 Radiated: 1909.800 MHz (810 ch)

Test Item	Reference Model	Spot Check Model
	(FCC ID: APYHRO00237)	(FCC ID: APYHRO00250)
RF Power Output	1052.0 mW (at 1850.2 MHz)	849.2 mW (at 1850.2 MHz)
EIRP RF Power Output	1.698 W (at 1909.8 MHz)	1.514 W (at 1909.8 MHz)
Field Strength of Spurious	<-34.0 dBm	<-34.2 dBm
Radiation	(at 17188.2 MHz)	(at 17188.2 MHz)

### Summary of the Test Results

Test Item	FCC Specification	Reference of the Test Report	Results	Remarks
RF Power Output	Section 24.232(c)	Section 7.1	Passed	•
ERP / EIRP RF Power	Section 24.232(c)	Section 7.2	Passed	-
Output				
Modulation Characteristics	-	-	-	-
Occupied Bandwidth	Section 24.238	Section 7.4	Not Tested	-
Spurious Emissions at	Section 24.238	Section 7.5	Not Tested	-
Antenna Terminals				
Band-Edge Emission	Section 24.238	Section 7.6	Not Tested	-
Field Strength of Spurious	Section 24.238	Section 7.7	Passed	-
Radiation				
Frequency Stability	Section 24.235	Section 7.8	Not Tested	-



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# 7.0.4 Reference Detail Section

Equipment Class	FCC ID	Test Report Title	Report Section
PCE	APYHRO00250	APYHRO00237_TestReport_KL80160047R	All sections
(PCS1900)		(PCE)	applicable



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				1 450 11 01
7.1 RF Power Output (§	§2.1046)			
For the requirements,	☑ - Applicable □ - Not Applica		□ - Not tested by	y applicant request.]
7.1.1 Test Results				
For the standard,	☑ - Passed	$\square$ - Failed	$\square$ - Not judged	
Transmitter Power is		_	849.2 mW	at <u>1850.200</u> MHz
Uncertainty of Measurement Results $\pm 0.9$ dB(20				
Remarks:				



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### 7.1.2 Test Instruments

Shielded Room S4								
Type	Model	Serial No. (ID)	Manufacturer	Cal. Due				
Power Meter	N1911A	GB45100291 (B-63)	Agilent	2017/07/10				
Power Sensor	N1921A	US44510470 (B-64)	Agilent	2017/07/10				
Attenuator	43KC-20	1418003 (D-41)	Anritsu	2017/07/10				
RF Cable	SUCOFLEX102	14253/2 (C-52)	HUBER+SUHNER	2017/08/02				

NOTE: The calibration interval of the above test instruments is 12 months.

### 7.1.3 Test Method and Test Setup (Diagrammatic illustration)

The Conducted RF Power Output was measured with a power meter, one attenuator and a short, low loss cable.





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### 7.1.4 Test Data

(GSM-PCS1900)

Test Date: May 16, 2017 Temp.: 25 °C, Humi: 43 %

Transmitting Frequency		Correction Factor Meter Reading (Peak)		Results (Peak)		
СН	[MHz]	[dB]	[dBm]	[dBm]	[mW]	
512	1850.200	20.39	8.90	29.29	849.2	

Calculated result at  $1850.200 \, \mathrm{MHz}$ , as the maximum level point shown on underline:

Correction Factor = 20.39 dB +) Meter Reading = 8.90 dBm Result = 29.29 dBm = 849.2 mW

NOTE: The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.



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# 7.2 ERP / EIRP RF Power Output

For the requirements,	☑ - Applicable □ - Not Applica		□ - Not tested b	y appl	icant reque	st.]
7.2.1 Test Results						
For the standard,	☑ - Passed	$\square$ - Failed	$\square$ - Not judged			
Min. Limit Margin		_	1.2 dB	at	1909.8	MHz
Uncertainty of Measure	ement Results				± 1.8	dB(2σ)
Remarks: <u>The maxim</u> result is wi	num EIRP is 1.8 thin the range o	_	<del>-</del>	osition	. The meas	urement

### 7.2.2 Test Instruments

Anechoic Chamber A2							
Type	Model	Serial No. (ID)	Manufacturer	Cal. Due			
Test Receiver	ESU 26	100170 (A-6)	Rohde & Schwarz	2018/02/28			
Signal Generator	E8257D	MY45140309 (B-39)	Agilent	2017/08/08			
Power Meter	N1911A	GB45100291 (B-63)	Agilent	2017/07/10			
Power Sensor	N1921A	US44510470 (B-64)	Agilent	2017/07/10			
Horn Antenna (TX)	91888-2	560 (C-40-1)	EATON	2017/06/12			
Horn Antenna (RX)	91888-2	562 (C-41-1)	EATON	2017/06/12			
Attenuator (TX)	2-10	BA6214 (D-79)	Weinschel	2017/11/21			
Attenuator (RX)	2-10	BF7557 (D-80)	Weinschel	2017/11/21			
RF Cable (RX)	SUCOFLEX104	267479/4 (C-66)	HUBER+SUHNER	2018/01/10			
RF Cable (TX)	SUCOFLEX102E	6683/2E (C-70)	HUBER+SUHNER	2017/11/21			

NOTE: The calibration interval of the above test instruments is 12 months.



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# 7.2.3 Test Method and Test Setup (Diagrammatic illustration)

#### Step 1:

In order to obtain the maximum emission, the EUT was placed at the height 1.5 m on the non-conducted support and was varying at three orthogonal axes, at the distance 3 m from the receiving antenna and rotated around 360 degrees.

The receiving antenna height was varied from 1 m to 4 m.

The EUT on the table was placed to be maximum emission against at the receiving antenna polarized (vertical and horizontal).

Then the meter reading of the spectrum analyzer at the maximum emission was A dB( $\mu$ V).

#### Step 2:

The EUT was replaced to substitution antenna at the same polarized under the same condition as step 1.

The RF power was fed to the transmitting antenna through the RF amplifier from the signal generator.

In order to obtain the maximum emission level, the height of the receiving antenna was varied from 1 m to 4 m.

The level of maximum emission was A  $dB(\mu V)$ , same as the recorded level in the step 1.

Then the RF power into the substitution horn antenna was P (dBm).

The ERP/EIRP output power was calculated in the following equation.

ERP (dBm) = P (dBm) - Balun loss of the tuned dipole antenna (dB) + Cable loss (dB)EIRP (dBm) = P (dBm) + Gh (dBi)

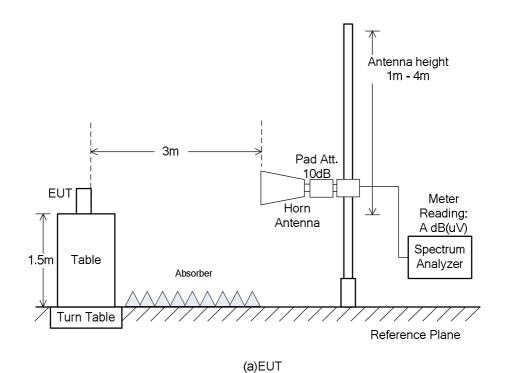
where, Gh (dBi): Gain of the substitution horn antenna.



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- Side View -



Antenna height 1 m - 4 m Meter Reading B dBm 3m Pad Att 10dB Power Horn Meter Antenna Horn  $\vee$ Meter Antenna Reading A dB(uV) Signal 1.5m Generator Spectrum Absorber Analyzei Turn Table Reference Plane

(b) Substitution Horn Antenna



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### 7.2.4 Test Data

### (GSM-PCS1900)

<u>Test Date: May 22, 2017</u> <u>Temp.: 25 °C, Humi: 47 %</u>

+ 1.2

#### 1. Measurement Results

810

Trans mitting Frequency		Emission Measurement [dB(uV)]		Substitution Measurement [dB(uV)]		Supplied Power to Substitution Antenna	Gain of Substitution Antenna	
СН	[MHz]	Hori. (Mh)	Vert. (Mv)	Hori. (Msh)	Vert. (Msv)	[dBm]	[dBi]	
810	1909.800	94.7	94.9	72.6	72.6	- 5.0	14.5	
2. Calculati	ion Results							
Transmi CH	itting Frequency [MHz]	Peak EII Hori. (EIRPh)	RP [dBm] Vert. (EIRPv)		Peak EIRP W]	Limits [dB m]	Margin [dB]	

1.514

33.0

Calculated result at 1909.800 MHz, as the worst point shown on underline:

31.6

Emission Measurment (Mv) = 94.9 dB(uV)
Substitution Measurement (Msv) = -72.6 dB(uV)
Supplied Power to Substitution Antenna = -5.0 dBm
+) Gain of Substitution Antenna = 14.5 dB

Result (EIRPv) = 31.8 dBm = 1.514 W

31.8

Minimum Margin: 33.0 - 31.8 = 1.2 (dB)

1909.800

NOTE: Setting of measuring instrument(s):

Detector Function	Resolution B.W.	V.B.W.	Sweep Time
Peak	$1\mathrm{MHz}$	$3\mathrm{MHz}$	20 msec.



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7.3 Modula	ation Charact	ceristics (§2.1047	7)				
For the red	quirements,	<ul><li>□ - Applicable</li><li>☑ - Not Application</li></ul>		. □ - Not t	ested by ap	oplicant reque	st.]
7.4 Occupi	ed Bandwidt	h (§2.1049)					
For the red	quirements,	☑ - Applicable ☐ - Not Applica		. ☑ - Not t	ested by ap	oplicant reque	st.]
7.5 Spurio	us Emissions	at Antenna Ter	minals (§2.105	1)			
For the rec	quirements,	☑ - Applicable □ - Not Applica		. ☑ - Not t	ested by ap	oplicant reque	st.]
7.6 Band-I	Edge Emissio	n (§2.1051)					
For the rec	quirements,	☑ - Applicable □ - Not Applica		. ☑ - Not t	ested by ap	oplicant reque	st.]
7.7 Field S	strength of Sp	ourious Radiation	n (§2.1053)				
For the red	quirements,	☑ - Applicable ☐ - Not Applica		. □ - Not t	ested by ap	oplicant reque	st.]
7.7.1 Test l	Results						
For the sta	andard,		$\square$ - Failed	□ - Not j	udged		
Min. Limit	t Margin			>21.2	_ dB at	17188.200	MHz
Uncertain	ty of Measure	ement Results			1000 MHz z – 18 GHz z – 40 GHz	$\begin{array}{c} \pm \ 1.6 \\ \pm \ 1.8 \\ \pm \ 2.7 \end{array}$	_ dB(2σ) _ dB(2σ) _ dB(2σ)
Remarks:							



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### 7.7.2 Test Instruments

Anechoic Chamber A2							
Туре	Model	Serial No. (ID)	Manufacturer	Cal. Due			
Test Receiver	ESU 26	100170 (A-6)	Rohde & Schwarz	2018/02/28			
Signal Generator	E8257D	MY45140309 (B-39)	Agilent	2017/08/08			
Power Meter	N1911A	GB45100291 (B-63)	Agilent	2017/07/10			
Power Sensor	N1921A	US44510470 (B-64)	Agilent	2017/07/10			
Biconical Antenna	VHA9103/BBA9106	2355 (C-30)	Schwarzbeck	2017/05/18			
Log-periodic Antenna	UHALP9108-A1	0694 (C-31)	Schwarzbeck	2017/05/18			
Dipole Antenna (TX)	KBA-511A	0-273-2 (C-17)	Kyoritsu	2017/05/24			
Dipole Antenna (TX)	KBA-611	0-248-2 (C-20)	Kyoritsu	2017/05/24			
RF Cable	S 10162 B-11 etc.	(H-4)	HUBER+SUHNER	2018/04/02			
Pre-Amplifier	TPA0118-36	1010 (A-37)	TOYO	2018/05/14			
Horn Antenna	91888-2	562 (C-41-1)	EATON	2017/06/12			
Horn Antenna	91889-2	568 (C-41-2)	EATON	2017/06/12			
Horn Antenna	3160-04	9903-1053 (C-55)	EMCO	2017/06/13			
Horn Antenna	3160-05	9902-1061 (C-56)	EMCO	2017/06/13			
Horn Antenna	3160-06	9712-1045 (C-57)	EMCO	2017/06/13			
Horn Antenna	3160-07	9902-1113 (C-58)	EMCO	2017/06/13			
Horn Antenna	3160-08	9904-1099 (C-59)	EMCO	2017/06/13			
Horn Antenna	3160-09	9808-1117 (C-48)	EMCO	2017/06/15			
Attenuator	2-10	AW7937 (D-40)	Weinschel	2017/10/24			
Attenuator	54A-10	W5713 (D-29)	Weinschel	2017/08/02			
Attenuator	2-10	BA6214 (D-79)	Weinschel	2017/11/21			
RF Cable	SUCOFLEX102E	6683/2E (C-70)	HUBER+SUHNER	2017/11/21			
RF Cable	SUCOFLEX104	267479/4 (C-66)	HUBER+SUHNER	2018/01/10			
RF Cable	SUCOFLEX104	267414/4 (C-67)	HUBER+SUHNER	2018/01/10			
RF Cable		3041/2EA	HILDED - CHILNED	2010/01/10			
<u> </u>	SUCOFLEX102EA	(C-69)	HUBER+SUHNER	2018/01/10			

NOTE: The calibration interval of the above test instruments is 12 months.



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### 7.7.3 Test Method and Test Setup (Diagrammatic illustration)

Step 1) The spurious radiation for transmitter were measured at the distance 3 m away from the EUT which was placed on a non-conducted support 0.8 m in height and was varying at three orthogonal axes. The receiving antenna was oriented for vertical polarization and varied from 1 m to 4 m until the maximum emission level was detected on the measuring instrument. The EUT was rotated 360 degrees until the maximum emission was received. The measurement was also repeated with the receiving antenna in the horizontal polarization.

This test was carried out using the half-wave dipole antenna for up to 1GHz and using the horn antenna for above 1 GHz.

Step 2)

### A) Up to 1 GHz

The ERP measurement was carried out with according to Step 2 in Clause 7.2.3. Then the RF power in the substitution antenna half-wave dipole antenna for up to 1 GHz and the substitution horn antenna for above 1 GHz.

The ERP is calculated in the following equation.

ERP(dBm) = P (dBm) - (Balun Loss of the half-wave dipole Ant. (dB) ) + Cable Loss(dB)

B) Above 1 GHz

The ERP is calculated from the maximum emission level by the following formula.

$$\frac{e^2}{120\pi} = \frac{eirp}{4\pi d^2} \quad \cdots \text{(Eq. 1)}$$

$$erp = eirp - Gd - (Eq. 2)$$

Where, e[V/m]:: Field Strength at measuring distance(d=3m)

eirp[W]: Equivalent Isotropic Radiated Power

erp[W]: Effective Radiated Power

Gd(dBi): Gain of the substitution half-wave dipole antenna(2.15dBi)

$$eirp = \frac{(de)^2}{30} = \frac{3}{10}e^2$$

$$\therefore 10 \log(eirp) = 20 \log(e) + 10 \log(3/10) = 20 \log(e) - 5.23$$

$$10\log(eirp) = EIRP[dBm] - 30$$

$$20\log(e) = E[dB(\mu V / m)] - 120$$

$$\therefore EIRP = E - 120 + 30 - 5.23 = E - 95.23$$

$$ERP[dBm] = EIRP - 2.15 = E - 97.38$$

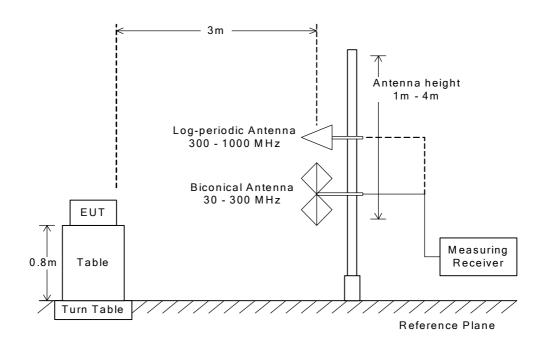
The respective calculated ERP of the spurious and harmonics were compared with the ERP of fundamental frequency by specified attenuation limits, 43+10log<sub>10</sub> (TP in watt)[dB]. Where, TP = Transmitter power at the ANT OUT under test configuration as the hands free unit used.

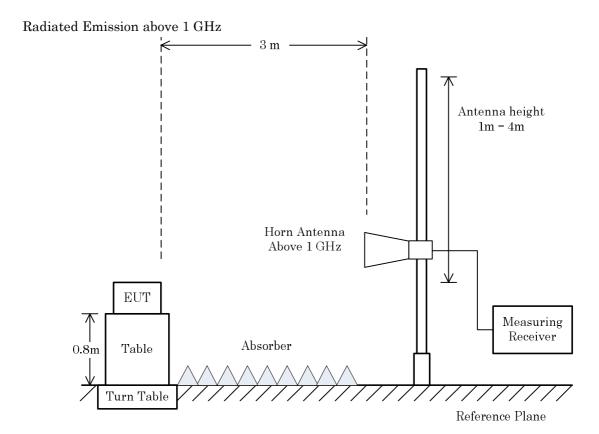


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### Radiated Emission 30 MHz to 1000 MHz





NOTE

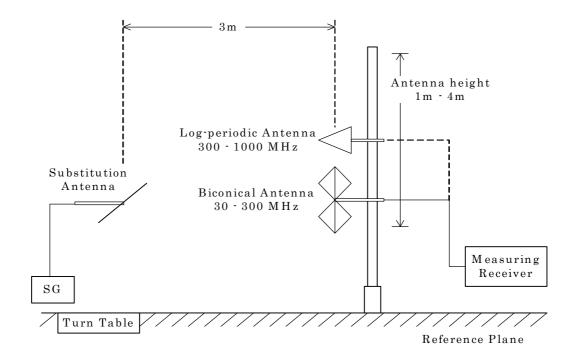
The antenna height is scanned depending on the EUT's size and mounting height.



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### Radiated Emission 30 to 1000 MHz - Substitution Method





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#### 7.7.4 Test Data

(GSM-PCS1900)

Test Date: May 18,2017 Temp.: 23 °C, Humi: 43 % Test Date: May 22, 2017 Temp.: 25 °C, Humi: 47 %

**Test Configuration: Single Unit** 

Trans mitting Frequency		Measured ERP Frequency [dBm]			Limits [dBm]	Margin [dB]	Remarks
СН	[MHz]	[MHz]	Hori.	Vert.			
810	1909.800	3819.600	-41.1	-43.2	-13.0	+28.1	С
		5729.400	< -47.1	< -47.1	-13.0	> +34.1	C
		7639.200	< -45.6	< -45.6	-13.0	> +32.6	C
		9549.000	< -41.5	< -41.5	-13.0	> +28.5	C
		11458.800	< -40.2	< -40.2	-13.0	> +27.2	C
		13368.600	< -38.7	< -38.7	-13.0	> +25.7	С
		15278.400	< -37.3	< -37.3	-13.0	> +24.3	C
		17188.200	< -34.2	< -34.2	-13.0	> +21.2	С
		19098.000	< -39.9	< -39.9	-13.0	> +26.9	С

Calculated result at 17188.2 MHz, as the worst point shown on underline: Minimum Margin: -13.0 - (<-34.2) = >21.2 (dB)

### NOTES

- 1. Test Distance: 3 m
- 2. The spectrum was checked from  $30~\mathrm{MHz}$  to the tenth harmonic of the highest fundamental frequency.
- 3. All emissions not reported were more than 20 dB below the applied limits.
- 4. Applied limits : -13.0 [dBm] =  $10\log(\text{TP[mW]})$   $(43 + 10\log(\text{tp[W]}))$  =  $10\log(\text{TP[mW]})$   $(43 + (10\log(\text{TP[mW]}))$  30)) where, tp[W] = TP[mW] / 1000: Transmitter power at anttena terminal
- 5. The symbol of "<" means "or less".
- 6. The symbol of ">" means "more than".
- 7. Setting of measuring instrument(s):

	Detector Function	RES B.W.	V.B.W.	Sweep Time
A	Peak	$10\mathrm{kHz}$	$30~\mathrm{kHz}$	20 msec.
В	Peak	$100\mathrm{kHz}$	$300\mathrm{kHz}$	20 msec.
С	Peak	1 MHz	$3\mathrm{MHz}$	20 msec.

### 7.8 Frequency Stability (§2.1055)

For the requirements, ☐ - Applicable [ ☐ - Tested. ☐ - Not tested by applicant request. ] ☐ - Not Applicable