

FCC 47 CFR PART 22H and 24E

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Trade Name : HTC
Model Number : PM66100
Test Specification : FCC 47 CFR PART 22H: Oct, 2011
FCC 47 CFR PART 24E: Oct, 2011
ANSI/TIA-603-C-2004
Application Purpose : Original
Receive Date : Jun. 25, 2012
Issue Date : Jul. 24, 2012

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jul. 24, 2012	Initial Issue	

Verification of Compliance

Issued Date: 07/24/2012

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Trade Name : HTC
Model Number : PM66100
FCC ID : NM8PM66100
EUT Rated Voltage : DC 5.0V, 1.0A
Test Voltage : 120 Vac / 60 Hz
Applicable : FCC 47 CFR PART 22H: Oct, 2011
Standard : FCC 47 CFR PART 24E: Oct, 2011
ANSI/TIA-603-C-2004

Application : Original
Purpose

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.

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<http://www.atl-lab.com.tw/e-index.htm>



The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2009 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 22H, Part 24E.

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

Approved By : 

(Manager)

(Murphy Wang)

Reviewed By : 

(Testing Engineer)

(Fly Lu)

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1 General Information

1.1. EUT Description

Applicant	HTC Corporation				
Applicant Address	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan				
Manufacturer	HTC Corporation				
Manufacturer Address	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan				
Product Type	Smartphone				
Trade Name	HTC				
Model Number	PM66100				
IMEI Number	Sample 1 st : 358835040010180, Sample 2 nd : 358835040025634				
FCC ID	NM8PM66100				
Mode	GSM/GPRS/ EGPRS/ DTM	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		850	824.2 ~ 848.8	869.2 ~ 893.8	GMSK/8PSK
	WCDMA/ HSDPA/ HSUPA	1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8	GMSK/8PSK
		Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK		
Channel Control	Auto				
Type of Antenna	PIFA Antenna				
Antenna Gain (dBi)	GSM/GPRS/EGPRS 850 : -5.2 dBi GSM/GPRS/EGPRS 1900 : 0.5 dBi WCDMA/ HSDPA/ HSUPA Band V : -5 dBi				
Max. RF Output power	GSM/GPRS 850 : 33.59 dBm / 2.286 W EGPRS 850 : 27.09 dBm / 0.512 W DTM 850 : 31.00 dBm / 1.259 W GSM/GPRS 1900 : 30.15 dBm / 1.035 W EGPRS 1900 : 26.01 dBm / 0.399 W DTM 1900 : 27.75 dBm / 0.596 W WCDMA/ HSDPA/ HSUPA Band V : 25.80 dBm / 0.380 W				
Max. ERP/EIRP	GSM/GPRS 850 : 23.82 dBm / 0.241 W EGPRS 850 : 20.52 dBm / 0.113 W GSM/GPRS 1900 : 27.57 dBm / 0.571 W EGPRS 1900 : 26.35 dBm / 0.432 W WCDMA/ HSDPA/ HSUPA Band V : 12.39 dBm / 0.017 W				
Emission Designator	GSM/GPRS 850 : 246KGXW EGPRS 850 : 246KG7W GSM/GPRS 1900 : 247KGXW EGPRS 1900 : 248KG7W WCDMA/ HSDPA/ HSUPA Band V : 4M20F9W				

1.2. Mode of Operation

ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: GSM 850 Link
Mode 2: GSM 1900 Link
Mode 3: WCDMA Band V Link
Mode 4: EGPRS 850 Link
Mode 5: EGPRS 1900 Link

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.

By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "X axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

Tested System Details

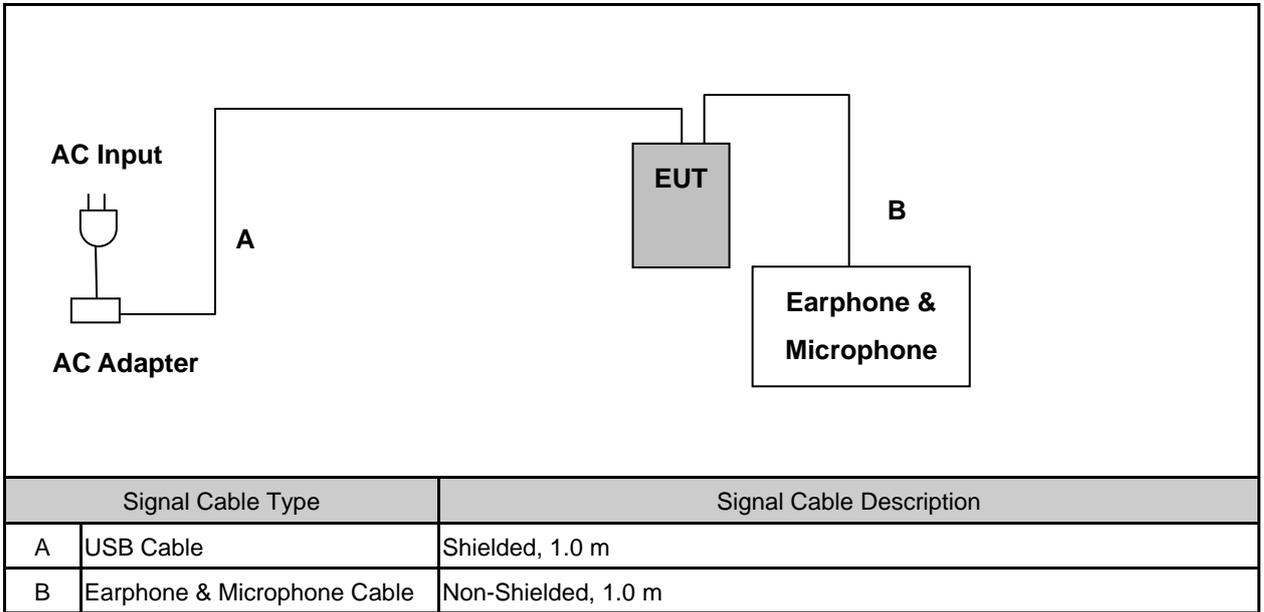
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model Number	Serial Number	Power Cord
1.	Universal Radio Communication Tester	R&S	CMU200	109369	Non-Shielded, 1.8m

1.3. EUT Exercise Software

1.	Setup the EUT and Base Station (CMU200) as shown on 1.4.
2.	Turn on the power of all equipment.

1.4. Configuration of Test System Details



1.5. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

1.6. Summary of Test Result

Description	FCC Rule	IC Rule	Limit	Result
Conducted Output Power	§2.1046	N/A	N/A	Pass
Effective Radiated Power	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	< 7 Watts for FCC (<6.3 Watts for IC)	Pass
Equivalent Isotropic Radiated Power	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	< 2 Watts	Pass
Occupied Bandwidth	§2.1049 §22.917(a) §24.238(a)	RSS-Gen (4.6.1)	N/A	Pass
Band Edge Measurement	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1)RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Conducted Spurious Emission	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Field Strength of Spurious Radiation	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1) RSS-Gen (4.10)	< 43+10log ₁₀ (P[Watts])	Pass
Frequency Stability for Temperature & Voltage	§2.1055 §22.355 §24.235	RSS-132(4.3) RSS-133(6.3)	< 2.5 ppm	Pass

2 RF Output Power Test

2.1. Limit

N/A

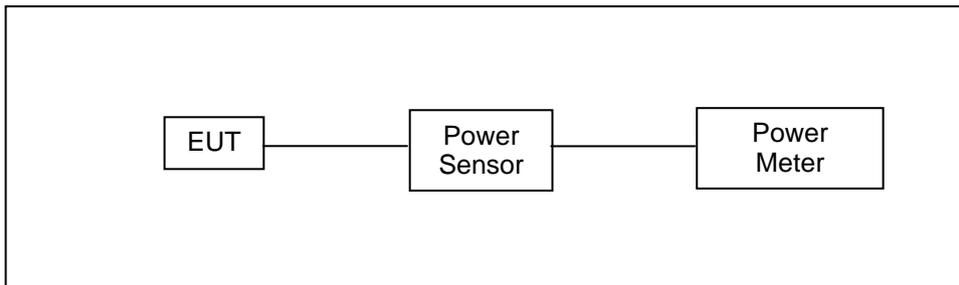
2.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	03/16/2012	(2)
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	12/15/2011	(2)
Wideband Power Meter	Agilent	N1921A	MY45241957	12/15/2011	(2)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

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

2.3. Test Setup



2.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

1. The transmitter output was connected to power meter and base station through power divider.
2. Set base station for EUT at GSM 850: PCL=5 and PCS 1900: PCL=0.
3. Set base station for EUT at WCDMA Band V and WCDMA Band II, power level was set to maximum.
4. Select lowest, middle, and highest channels for each band.

2.5. Uncertainty

The measurement uncertainty is defined as for RF output power measurement is 1.2 dB.

2.6. Test Result

Model Number	PM66100					
Test Item	RF Output Power					
Date of Test	07/09/2012			Test Site	TE05	
Bands	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
GSM 850	-----	824.2	33.46	2.218	33.59	2.286
		836.6	33.43	2.203	33.56	2.270
		848.8	33.17	2.075	33.30	2.138
GRRS 850	4Down1Up	824.2	33.43	2.203	33.56	2.270
		836.6	33.41	2.193	33.54	2.259
		848.8	32.81	1.910	32.94	1.968
	3Down2Up	824.2	32.35	1.718	32.48	1.770
		836.6	32.49	1.774	32.62	1.828
		848.8	32.00	1.585	32.13	1.633
	2Down3Up	824.2	30.89	1.227	31.02	1.265
		836.6	30.82	1.208	30.95	1.245
		848.8	30.71	1.178	30.84	1.213
	1Down4Up	824.2	29.27	0.845	29.40	0.871
		836.6	29.28	0.847	29.41	0.873
		848.8	29.14	0.820	29.27	0.845
EGPRS 850	4Down1Up	824.2	26.96	0.497	27.09	0.512
		836.6	26.92	0.492	27.05	0.507
		848.8	26.82	0.481	26.95	0.495
	3Down2Up	824.2	25.50	0.355	25.63	0.366
		836.6	25.40	0.347	25.53	0.357
		848.8	25.37	0.344	25.50	0.355
	2Down3Up	824.2	25.42	0.348	25.55	0.359
		836.6	25.37	0.344	25.50	0.355
		848.8	25.30	0.339	25.43	0.349
	1Down4Up	824.2	24.34	0.272	24.47	0.280
		836.6	24.32	0.270	24.45	0.279
		848.8	24.22	0.264	24.35	0.272
DTM 850	GSM+GPRS 2Down3Up	824.2	30.90	1.230	31.00	1.259
		836.6	30.80	1.202	31.00	1.259
		848.8	30.70	1.175	30.90	1.230
	GSM+EGPRS 2Down3Up	824.2	25.40	0.347	30.90	1.230
		836.6	25.40	0.347	30.90	1.230
		848.8	25.30	0.339	30.80	1.202

Note: The peak power testing result was used peak detector.

Model Number	PM66100					
Test Item	RF Output Power					
Date of Test	07/09/2012			Test Site	TE05	
Bands	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
GSM 1900	-----	1850.20	29.99	0.998	30.12	1.028
		1880.00	30.02	1.005	30.15	1.035
		1909.80	29.83	0.962	29.96	0.991
GRRS 1900	4Down1Up	1850.20	29.85	0.966	29.98	0.995
		1880.00	29.94	0.986	30.07	1.016
		1909.80	29.70	0.933	29.83	0.962
	3Down2Up	1850.20	29.28	0.847	29.41	0.873
		1880.00	29.41	0.873	29.54	0.899
		1909.80	29.16	0.824	29.29	0.849
	2Down3Up	1850.20	27.68	0.586	27.81	0.604
		1880.00	27.80	0.603	27.93	0.621
		1909.80	27.58	0.573	27.71	0.590
	1Down4Up	1850.20	26.18	0.415	26.31	0.428
		1880.00	26.31	0.428	26.44	0.441
		1909.80	26.11	0.408	26.24	0.421
EGPRS 1900	4Down1Up	1850.20	25.87	0.386	26.00	0.398
		1880.00	25.88	0.387	26.01	0.399
		1909.80	25.67	0.369	25.80	0.380
	3Down2Up	1850.20	24.79	0.301	24.92	0.310
		1880.00	24.87	0.307	25.00	0.316
		1909.80	24.73	0.297	24.86	0.306
	2Down3Up	1850.20	24.81	0.303	24.94	0.312
		1880.00	24.82	0.303	24.95	0.313
		1909.80	24.69	0.294	24.82	0.303
	1Down4Up	1850.20	23.33	0.215	23.46	0.222
		1880.00	23.29	0.213	23.42	0.220
		1909.80	23.17	0.207	23.30	0.214
DTM 1900	GSM+GPRS 2Down3Up	1850.20	27.35	0.543	27.45	0.556
		1880.00	27.40	0.550	27.55	0.569
		1909.80	27.15	0.519	27.35	0.543
	GSM+EGPRS 2Down3Up	1850.20	24.55	0.285	27.75	0.596
		1880.00	24.55	0.285	27.75	0.596
		1909.80	24.35	0.272	27.45	0.556

Note: The peak power testing result was used peak detector.

Model Number	PM66100					
Test Item	RF Output Power					
Date of Test	07/09/2012			Test Site	TE05	
Bands	Sub-Test	Frequency (MHz)	Burst Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
WCDMA Band V	-----	826.4	22.42	0.175	25.62	0.365
		836.6	22.46	0.176	25.66	0.368
		846.6	22.60	0.182	25.80	0.380
HSDPA Band V	1	826.4	22.57	0.181	25.77	0.378
		836.6	22.59	0.182	25.78	0.378
		846.6	22.52	0.179	25.72	0.373
	2	826.4	22.48	0.177	25.54	0.358
		836.6	22.56	0.180	25.72	0.373
		846.6	22.50	0.178	25.68	0.370
	3	826.4	22.08	0.161	25.28	0.337
		836.6	22.18	0.165	25.38	0.345
		846.6	22.09	0.162	25.29	0.338
	4	826.4	22.00	0.158	25.20	0.331
		836.6	22.08	0.161	25.25	0.335
		846.6	22.07	0.161	25.27	0.337
HSUPA Band V	1	826.4	20.88	0.122	24.08	0.256
		836.6	20.98	0.125	24.18	0.262
		846.6	20.11	0.103	23.31	0.214
	2	826.4	18.79	0.076	21.99	0.158
		836.6	18.91	0.078	22.11	0.163
		846.6	18.20	0.066	21.40	0.138
	3	826.4	19.79	0.095	22.99	0.199
		836.6	19.98	0.100	23.18	0.208
		846.6	19.05	0.080	22.25	0.168
	4	826.4	18.79	0.076	21.99	0.158
		836.6	18.98	0.079	22.18	0.165
		846.6	18.18	0.066	21.38	0.137
	5	826.4	20.84	0.121	24.04	0.254
		836.6	20.93	0.124	24.13	0.259
		846.6	20.02	0.100	23.23	0.210

Note: The peak power testing result was used peak detector.

3 Effective Radiated Power / Equivalent Isotropic Radiated Power Test

3.1. Limit

For FCC Part 22.913(a)(2): The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

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

3.2. Test Instruments

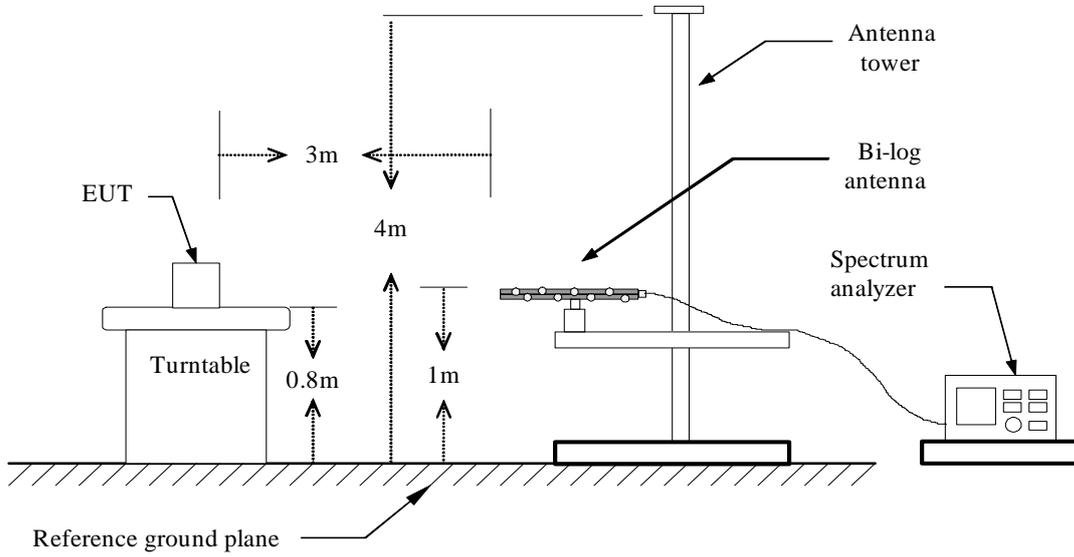
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/16/2012	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/16/2012	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/22/2012	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/22/2012	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	06/29/2012	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/15/2012	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/21/2012	(1)
Test Site	ATL	TE01	888001	12/20/2011	(1)

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

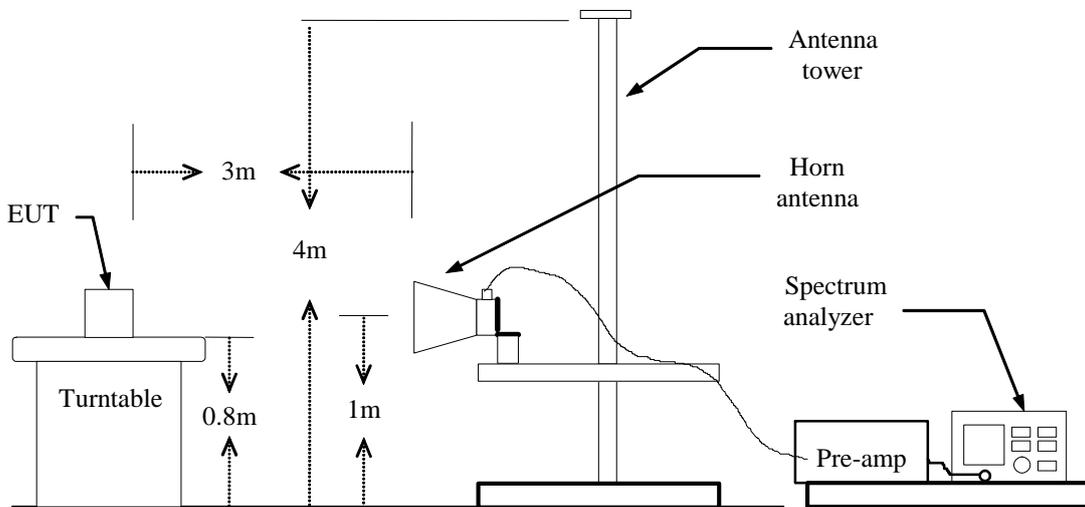
Note: N.C.R. = No Calibration Request.

3.3. Setup

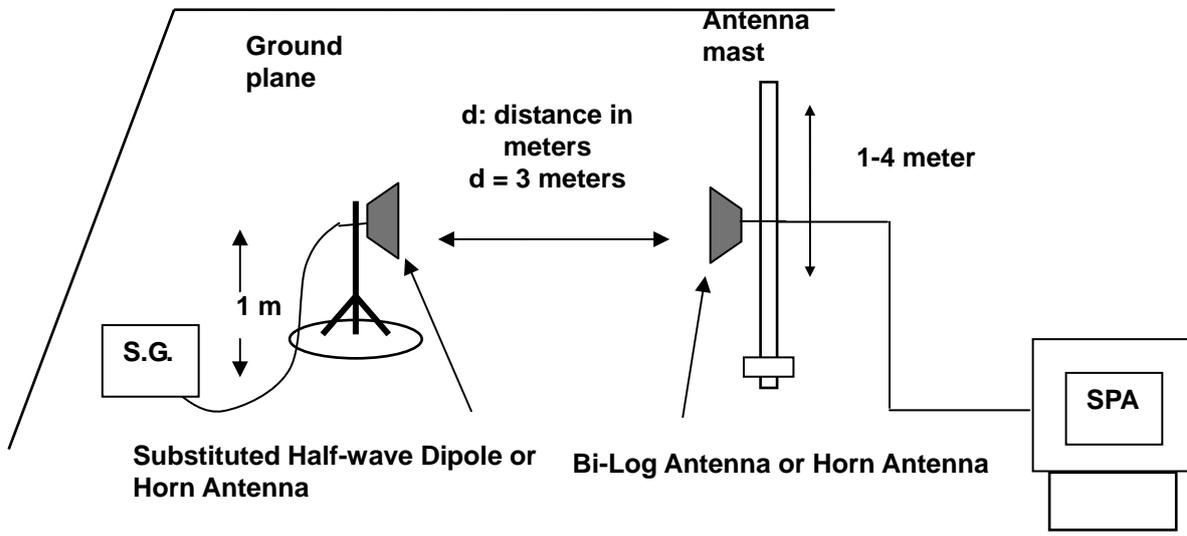
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



3.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement of the EUT, the resolution bandwidth was set to 3MHz and the average bandwidth was set to 3MHz. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824-849MHz, and EIRP in frequency band 1851.25 –1910MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (824-849MHz) or horn antenna (1851.25-1910MHz) connected to a signal generator. The spectrum analyzer reading was recorded and ERP/EIRP was calculated as follows:

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

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

3.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is ± 3.072 dB.

3.6. Test Result

Model Number	PM66100						
Test Item	ERP/EIRP						
Test Mode	Mode 1 (Sample 1 st)						
Date of Test	07/09/2012				Test Site	TE01	
Bands	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction factor (dBm)	ERP		Limit
					(dBm)	(W)	
GSM 850	824.2	H	3.26	11.95	15.21	0.033	< 7W
		V	12.53	11.29	23.82	0.241	< 7W
	836.6	H	2.14	12.07	14.21	0.026	< 7W
		V	11.34	11.34	22.68	0.185	< 7W
	848.8	H	3.82	12.51	16.33	0.043	< 7W
		V	9.61	11.47	21.08	0.128	< 7W
EGPRS 850	824.2	H	0.71	11.95	12.66	0.018	< 7W
		V	9.23	11.29	20.52	0.113	< 7W
	836.6	H	-0.62	12.07	11.45	0.014	< 7W
		V	8.19	11.34	19.53	0.090	< 7W
	848.8	H	0.69	12.50	13.19	0.021	< 7W
		V	6.62	11.46	18.08	0.064	< 7W

Model Number	PM66100						
Test Item	ERP/EIRP						
Test Mode	Mode 2 (Sample 1 st)						
Date of Test	07/09/2012				Test Site	TE01	
Bands	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction factor (dBm)	EIRP		Limit
					(dBm)	(W)	
GSM 1900	1850.20	H	17.08	10.49	27.57	0.571	< 2W
		V	15.14	8.33	23.47	0.222	< 2W
	1880.00	H	16.50	10.51	27.01	0.502	< 2W
		V	15.47	8.57	24.04	0.254	< 2W
	1909.80	H	15.77	10.52	26.29	0.426	< 2W
		V	15.88	8.81	24.69	0.294	< 2W
EGPRS 1900	1850.20	H	15.78	10.49	26.27	0.424	< 2W
		V	12.85	8.33	21.18	0.131	< 2W
	1880.00	H	15.84	10.51	26.35	0.432	< 2W
		V	14.22	8.57	22.79	0.190	< 2W
	1909.80	H	14.89	10.52	25.41	0.348	< 2W
		V	14.49	8.81	23.30	0.214	< 2W

Note: 1. ERP/EIRP = Read Level + Correction factor.

2. For WCDMA signals, a peak detector is used with RBW = VBW = 5MHz.

3. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW= 1 MHz.

Model Number	PM66100						
Test Item	ERP/EIRP						
Test Mode	Mode 3 (Sample 1 st)						
Date of Test	07/09/2012				Test Site	TE01	
Bands	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction factor (dBm)	ERP		Limit
					(dBm)	(W)	
WCDMA Band V	826.4	H	-7.57	11.99	4.42	0.003	< 7W
		V	0.52	11.31	11.83	0.015	< 7W
	836.6	H	-7.36	12.08	4.72	0.003	< 7W
		V	0.78	11.34	12.12	0.016	< 7W
	846.6	H	-7.67	12.43	4.76	0.003	< 7W
		V	0.95	11.44	12.39	0.017	< 7W

Note: 1. ERP/EIRP = Read Level + Correction factor.

2. For WCDMA signals, a peak detector is used with RBW = VBW = 5MHz.

3. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW= 1 MHz.

4 Occupied Bandwidth Test

4.1. Limit

The Occupied Bandwidth Limit:

N/A.

The Band Edge Limit:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

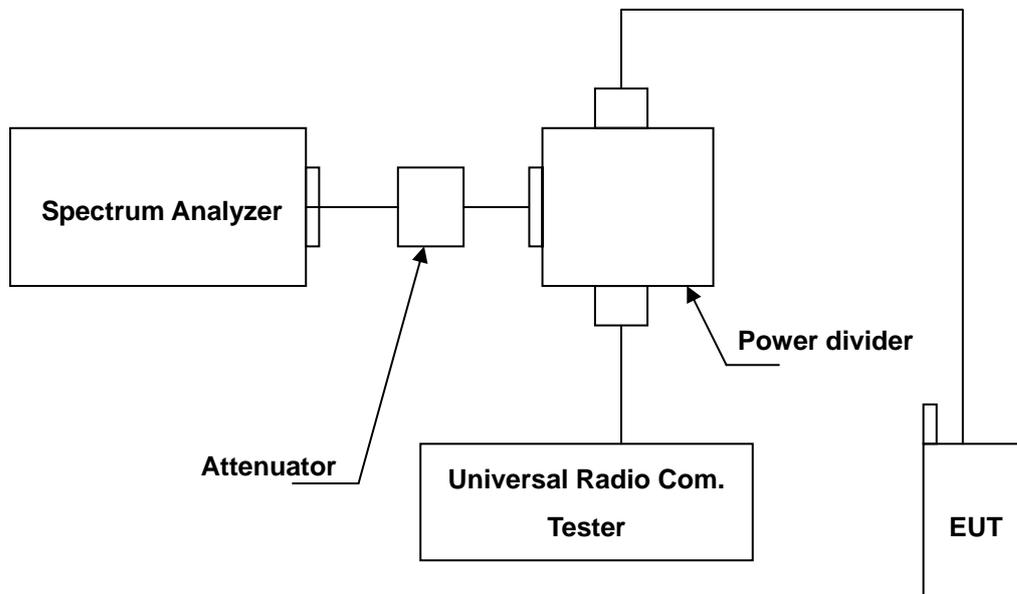
4.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/10/2012	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	03/16/2012	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

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

4.3. Setup



4.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The occupied bandwidth of middle channel for the highest and lowest RF powers was measured.
3. The band edge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.
4. The band edge setting:
 - a. RB=10 kHz; VB=30 kHz for GSM 850 and PCS 1900.
 - b. RB=100 kHz; VB=300 kHz for WCDMA Band V and WCDMA Band II.

4.5. Uncertainty

The measurement uncertainty is defined as $\pm 10\text{Hz}$

4.6. Test Result

99% Occupied Bandwidth

Model Number	PM66100		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1 (Sample 1 st)		
Date of Test	06/27/2012	Test Site	TE05
Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	245.3398	RBW:10kHz , VBW:30kHz
190	836.6	245.7035	RBW:10kHz , VBW:30kHz
251	848.8	245.5168	RBW:10kHz , VBW:30kHz

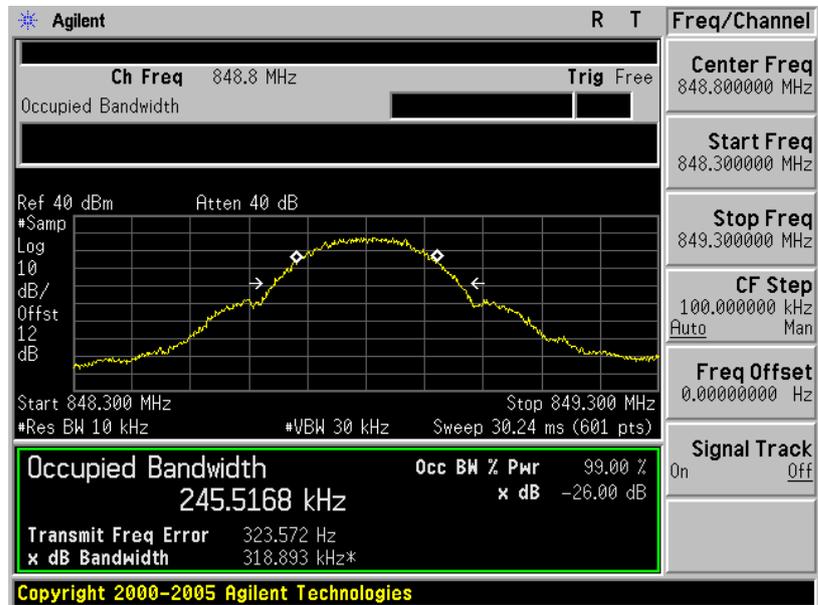
Channel 128



Channel 190



Channel 251

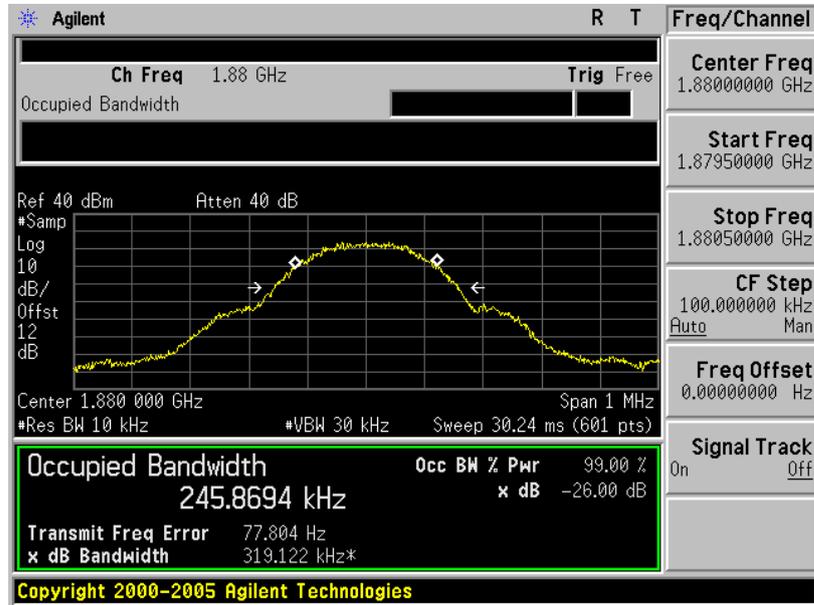


Model Number	PM66100		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2 (Sample 1 st)		
Date of Test	06/27/2012	Test Site	TE05
Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	245.9788	RBW:10kHz , VBW:30kHz
661	1880.00	245.8694	RBW:10kHz , VBW:30kHz
810	1909.80	242.8107	RBW:10kHz , VBW:30kHz

Channel 512



Channel 661

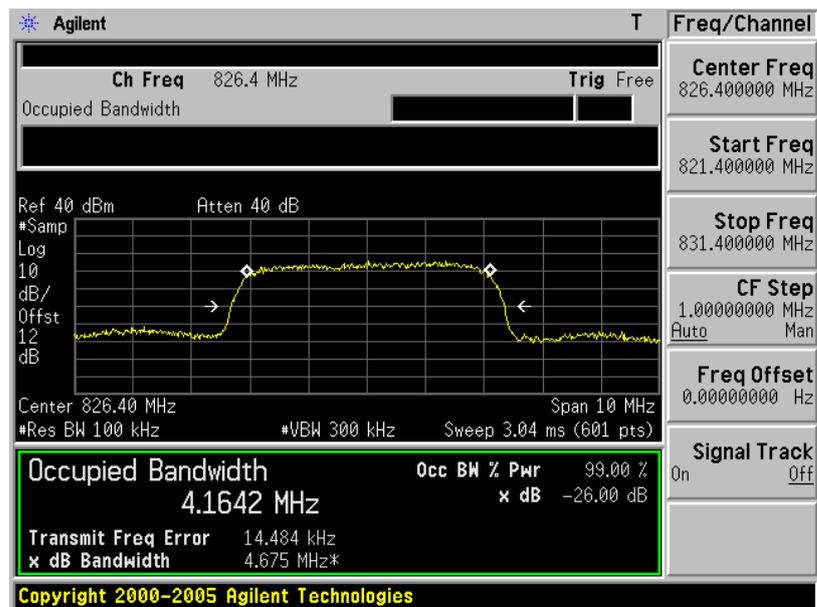


Channel 810

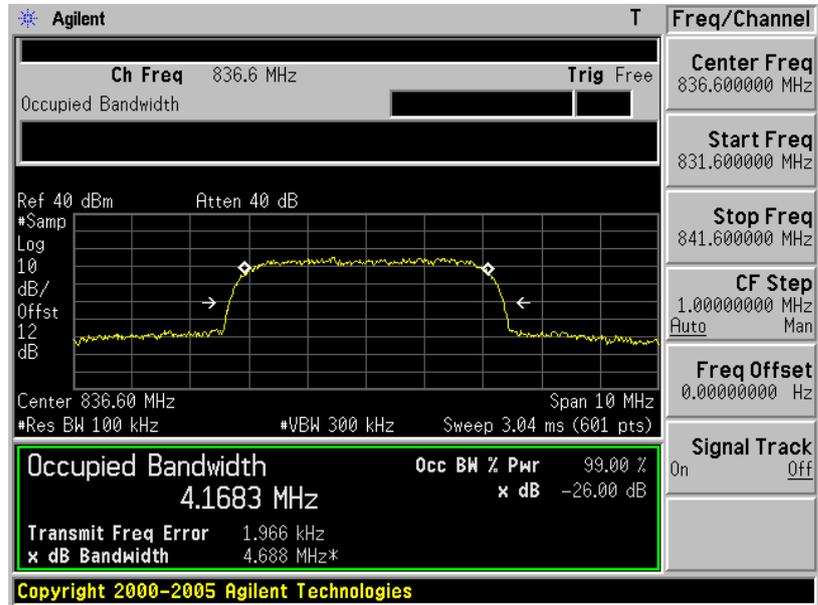


Model Number	PM66100		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3 (Sample 1 st)		
Date of Test	06/27/2012	Test Site	TE05
Channel No.	Frequency (MHz)	99% Bandwidth (MHz)	Note
4132	826.4	4.1642	RBW:100kHz , VBW:300kHz
4182	836.6	4.1683	RBW:100kHz , VBW:300kHz
4233	846.6	4.1994	RBW:100kHz , VBW:300kHz

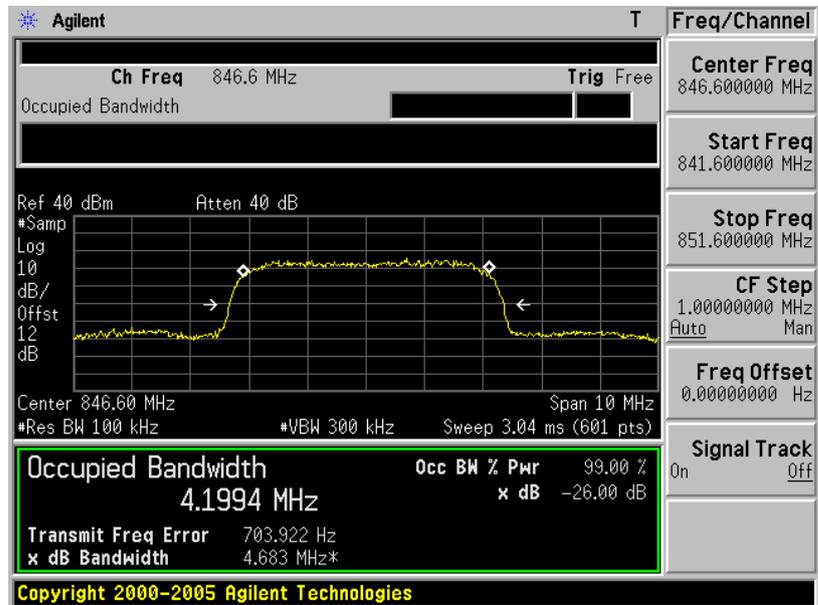
Channel 4132



Channel 4182



Channel 4233



Model Number	PM66100		
Test Item	Occupied Bandwidth		
Test Mode	Mode 4 (Sample 1 st)		
Date of Test	06/27/2012	Test Site	TE05
Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	246.7809	RBW:10kHz , VBW:30kHz
190	836.6	244.9196	RBW:10kHz , VBW:30kHz
251	848.8	244.8951	RBW:10kHz , VBW:30kHz

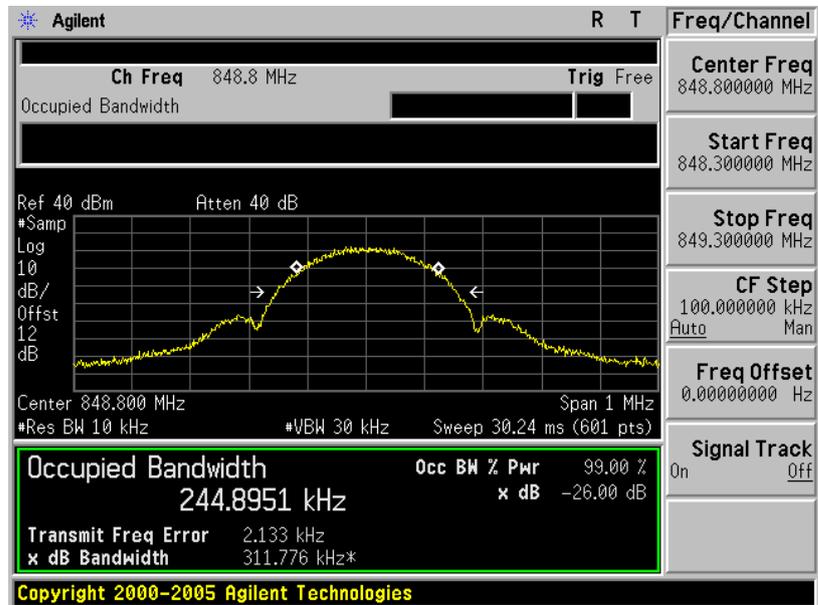
Channel 128



Channel 190



Channel 251

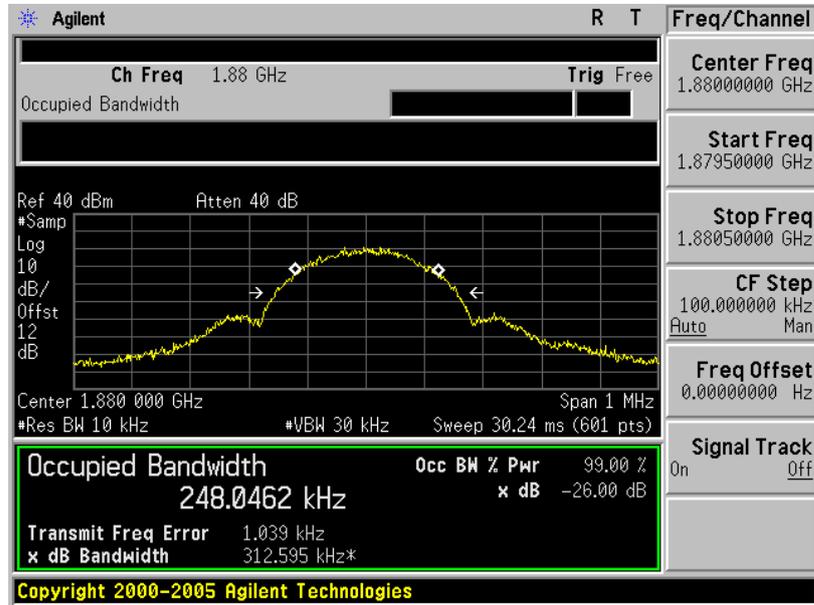


Model Number	PM66100		
Test Item	Occupied Bandwidth		
Test Mode	Mode 5 (Sample 1 st)		
Date of Test	06/27/2012	Test Site	TE05
Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	244.8990	RBW:10kHz , VBW:30kHz
661	1880.00	248.0462	RBW:10kHz , VBW:30kHz
810	1909.80	244.9474	RBW:10kHz , VBW:30kHz

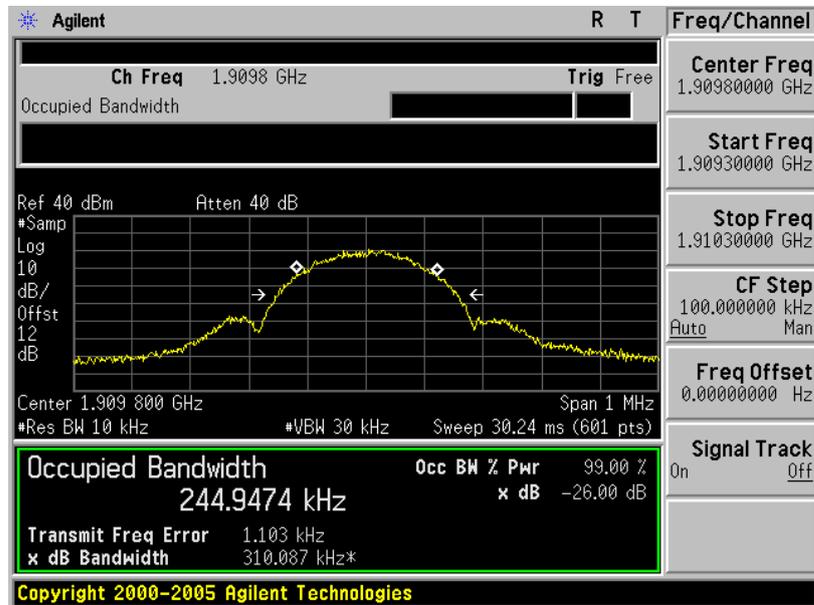
Channel 512



Channel 661



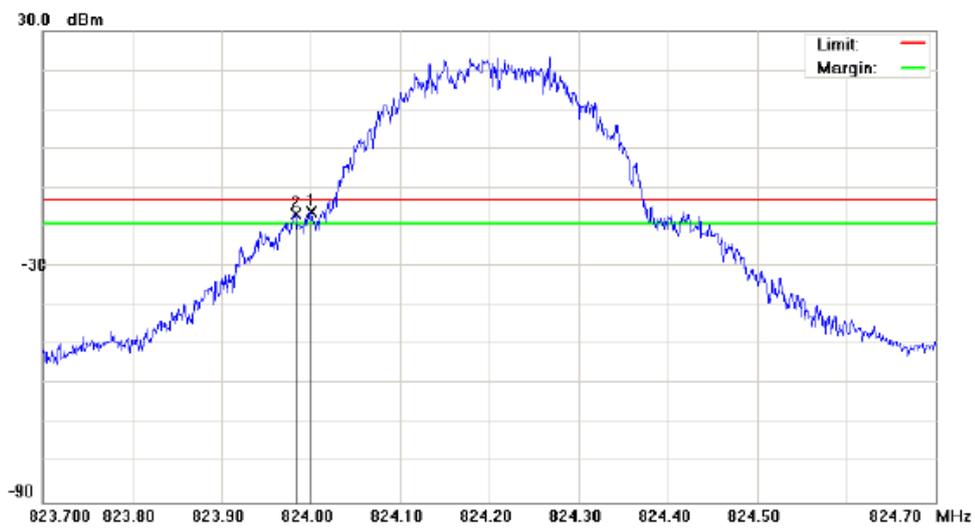
Channel 810



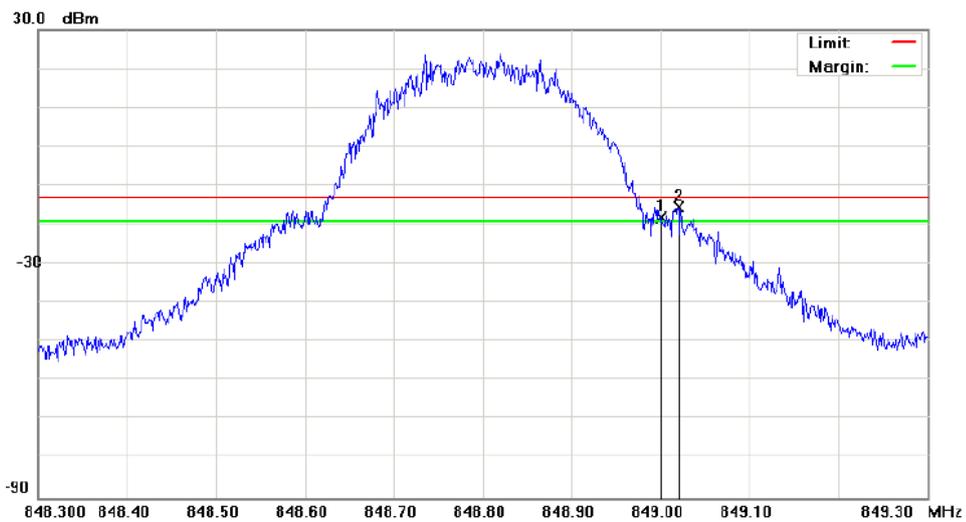
Band Edge

Model Number	PM66100				
Test Item	Band Edge				
Test Mode	Mode 1 (Sample 1 st)				
Date of Test	06/27/2012		Test Site	TE05	
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	128	824.0000	-16.02	-13	Pass
Higher	251	849.0000	-18.23	-13	Pass

Lower Band

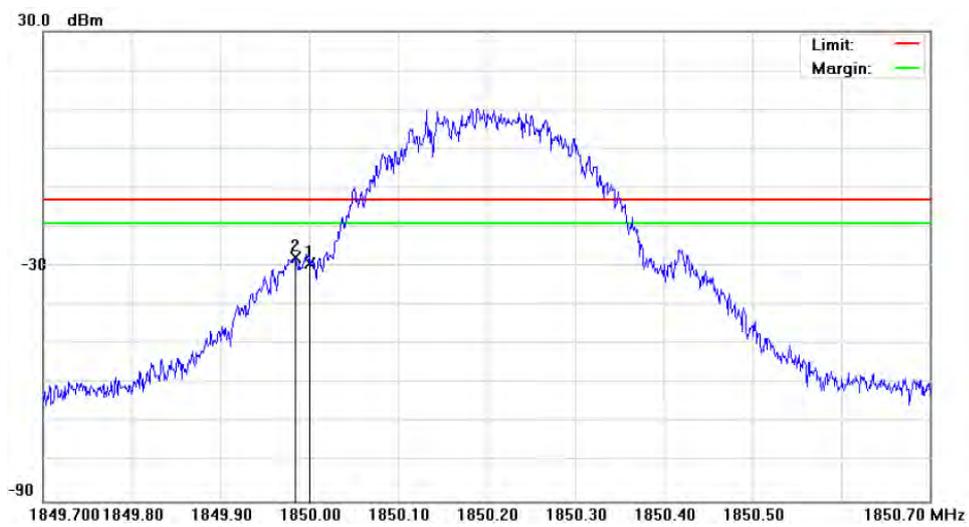


Higher Band

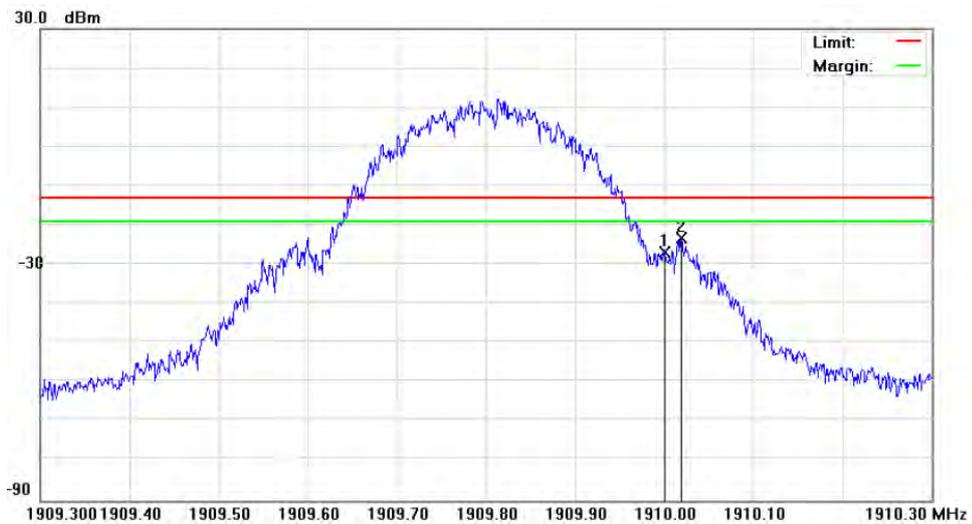


Model Number	PM66100				
Test Item	Band Edge				
Test Mode	Mode 2 (Sample 1 st)				
Date of Test	06/27/2012		Test Site	TE05	
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	512	1850.000	-29.16	-13	Pass
Higher	810	1910.000	-26.88	-13	Pass

Lower Band

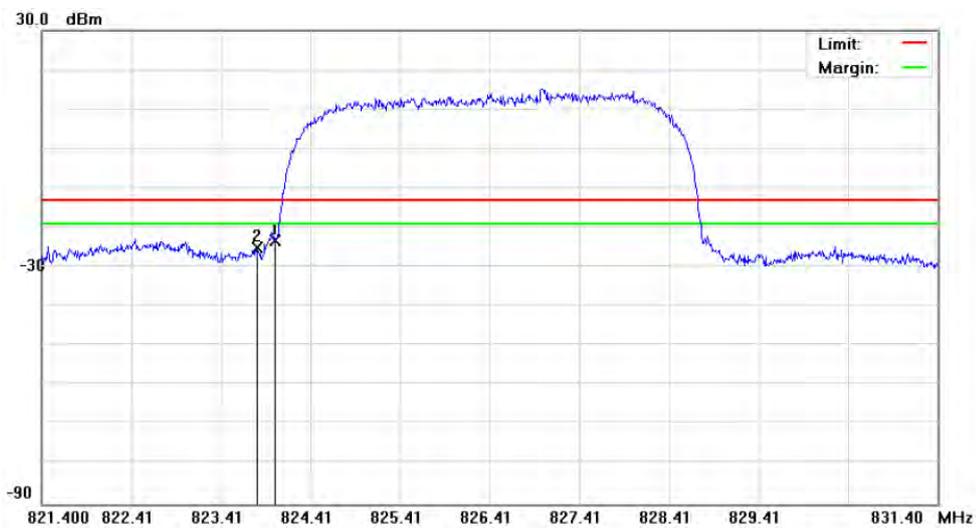


Higher Band

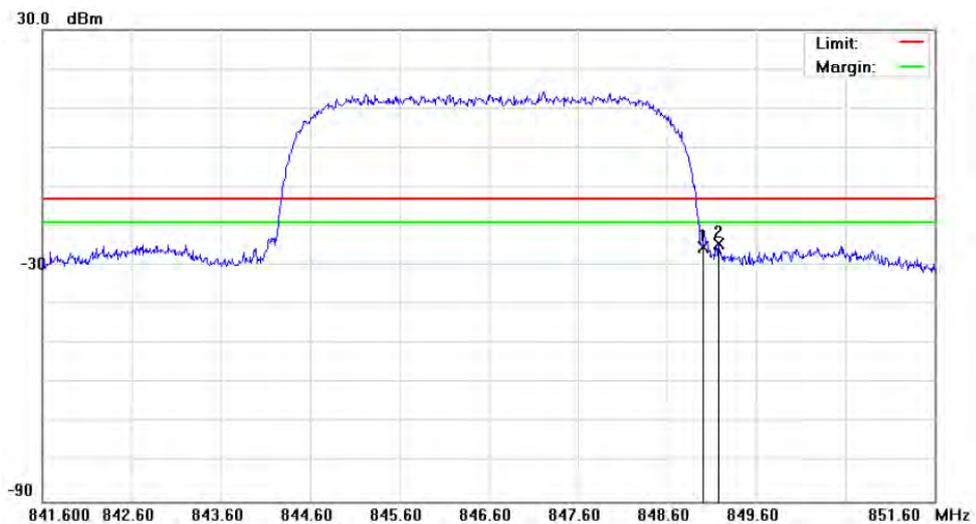


Model Number	PM66100				
Test Item	Band Edge				
Test Mode	Mode 3 (Sample 1 st)				
Date of Test	06/27/2012		Test Site	TE05	
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	4132	824.0000	-23.23	-13	Pass
Higher	4233	849.0000	-25.49	-13	Pass

Lower Band



Higher Band



5 Conducted Spurious Emission Test

5.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

5.2. Test Instruments

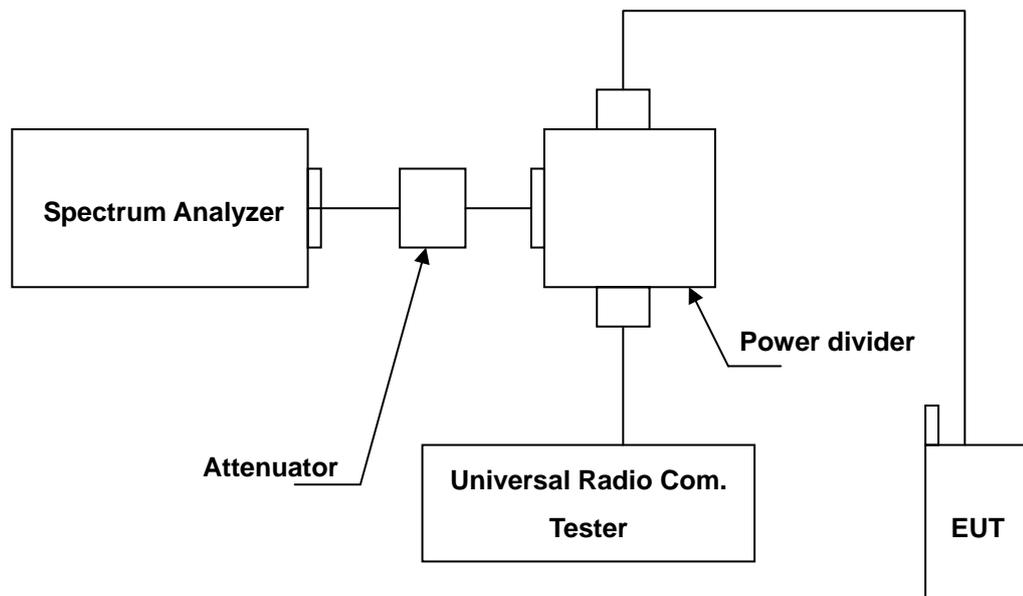
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/16/2011	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	03/16/2012	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

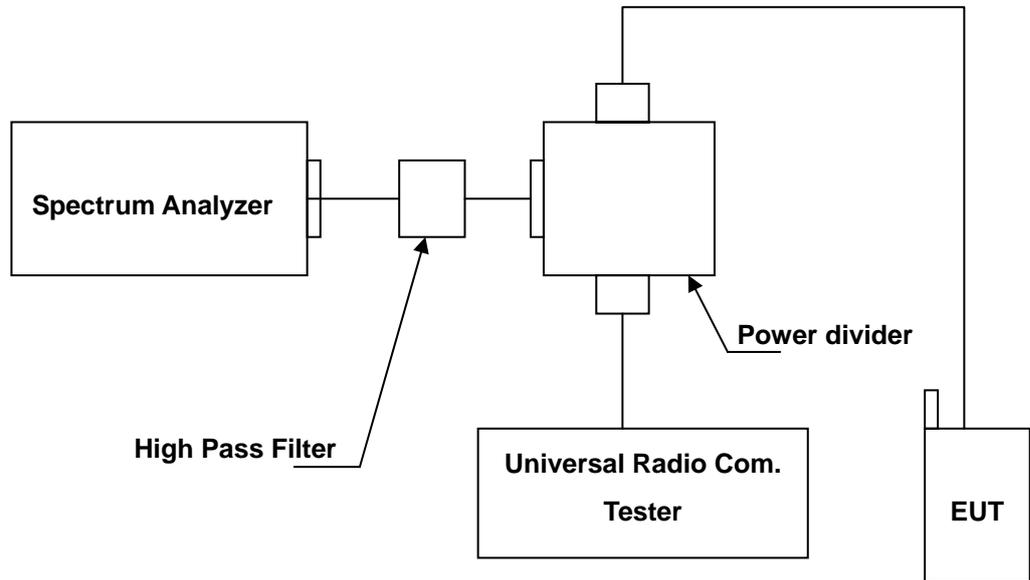
Note: N.C.R. = No Calibration Request.

5.3. Setup

Below 2.8GHz



Above 2.8GHz



5.4. Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at GSM 850 RB>100 kHz, VB>100 kHz; PCS 1900 RB>1MHz, VB>1MHz.

5.5. Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

5.6. Test Result

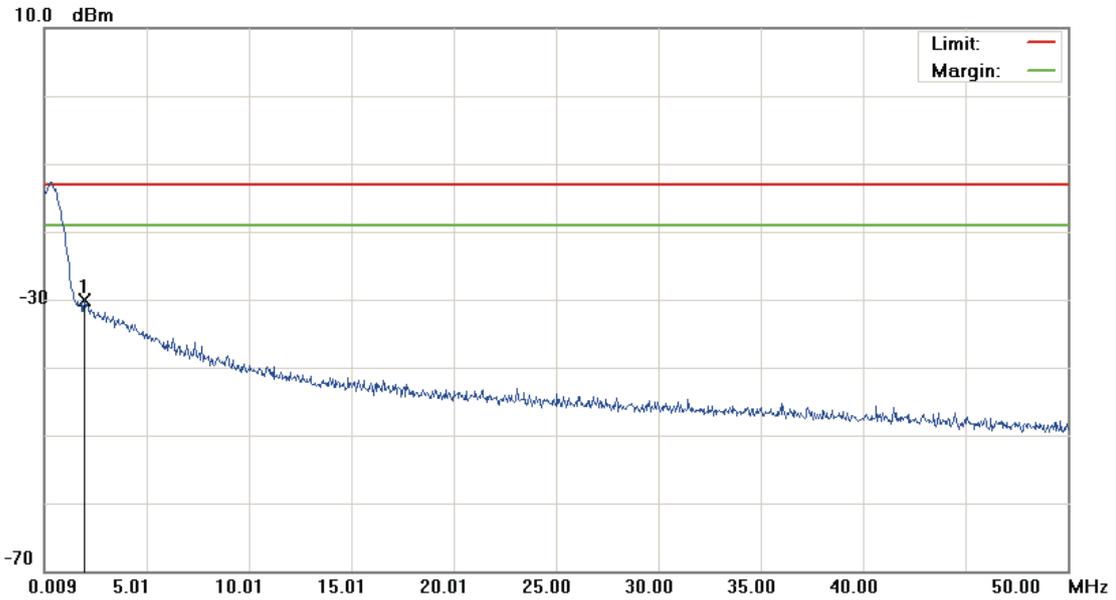
Model Number	PM66100		
Test Item	Conducted Emission		
Test Mode	Mode 1 / Mode 2 / Mode 3		
Date of Test	06/27/2012	Test Site	TE05

File: PM66100(CH128)

Data: #1

Date: 2012/6/27

Time: 上午 09:55:13



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	1.9585	-61.40	31.28	-30.12	-13.00	-17.12	peak		

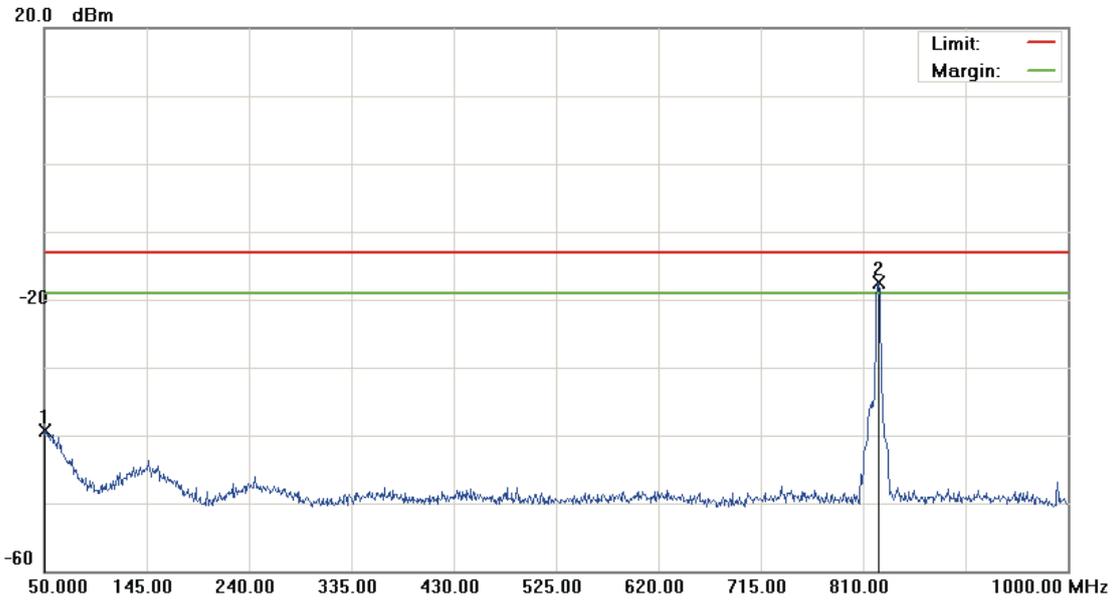
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File: PM66100(CH128)

Data: #2

Date: 2012/6/27

Time: 上午 09:55:37



Site: : RF Conducted

 Polarization: *Conducted po*

Temperature: 23 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: AC 120V/60Hz

Humidity: 55.2 %

EUT: Smartphone

Distance:

RBW: 1000KHz VBW: 1000KHz

M/N: PM66100

Mode: 1

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		50.0000	-54.04	14.69	-39.35	-13.00	-26.35	peak		
2	*	824.2500	-21.41	3.84	-17.57	-13.00	-4.57	peak		Tx

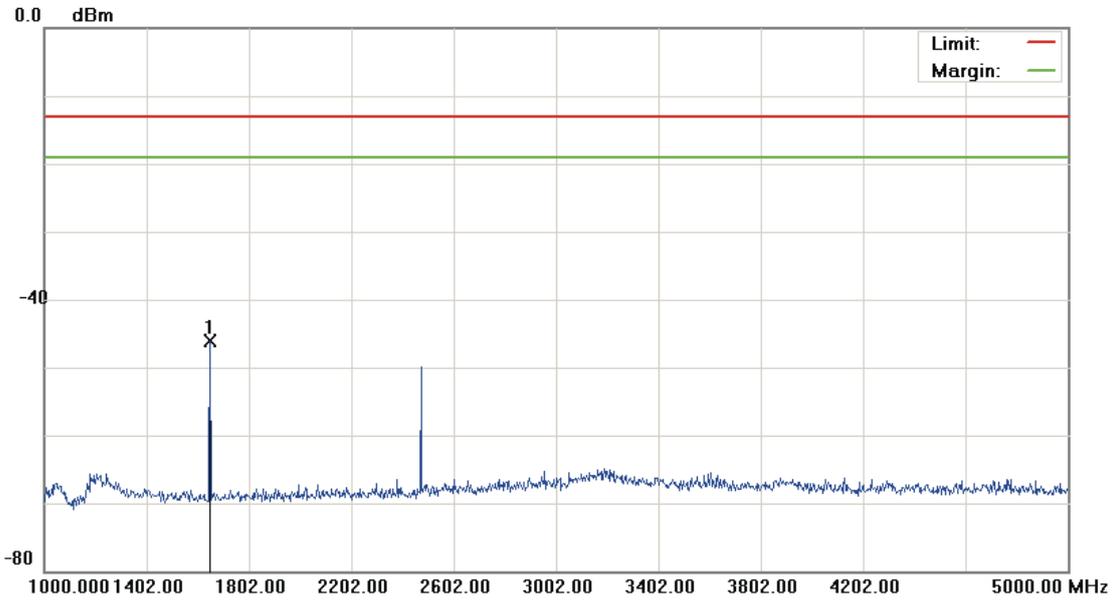
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File: PM66100(CH128)

Data: #3

Date: 2012/6/27

Time: 上午 10:02:44



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	1648.000	-50.61	4.45	-46.16	-13.00	-33.16	peak	

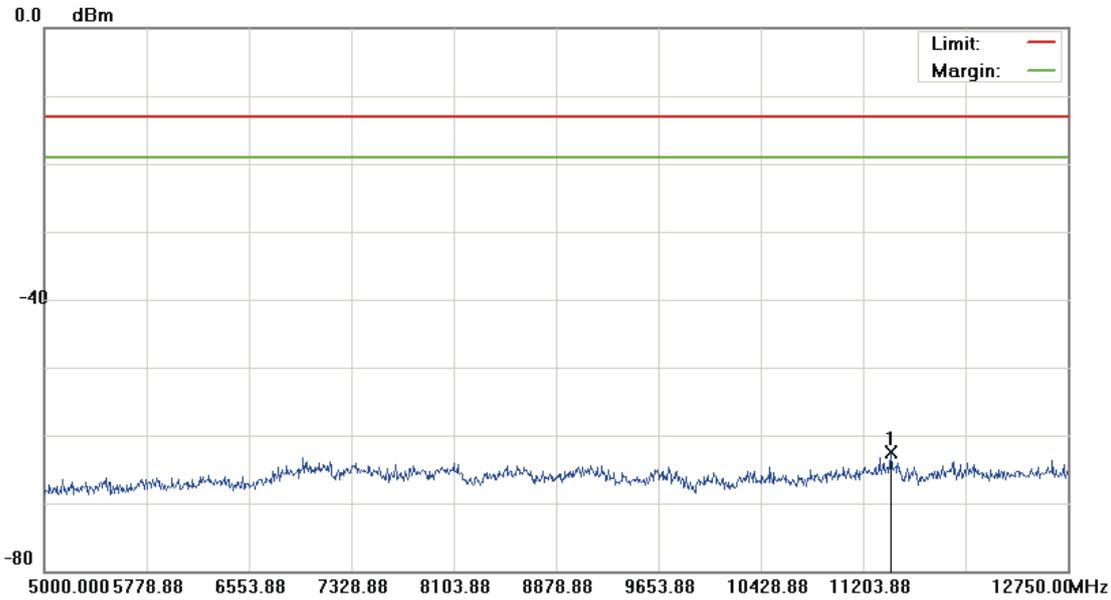
*:Maximum data x:Over limit !:over margin

File: PM66100(CH128)

Data :#4

Date: 2012/6/27

Time: 上午 10:03:07



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB	cm	degree		
1	*	11409.250	-68.13	5.56	-62.57	-13.00	-49.57			peak	

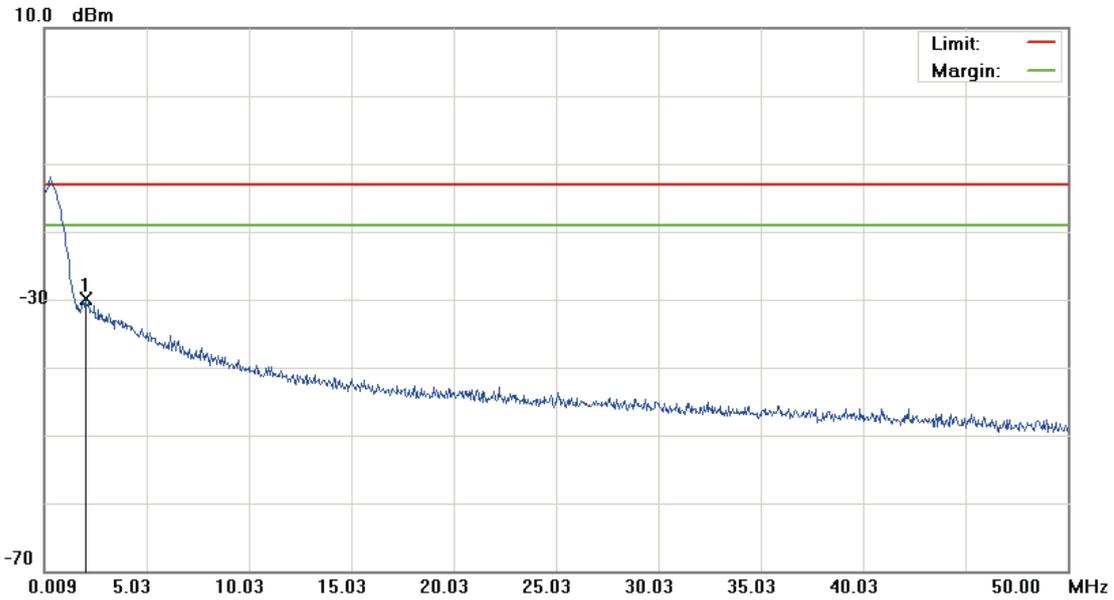
*:Maximum data x:Over limit !:over margin

File: PM66100(CH190)

Data :#1

Date: 2012/6/27

Time: 上午 09:57:31

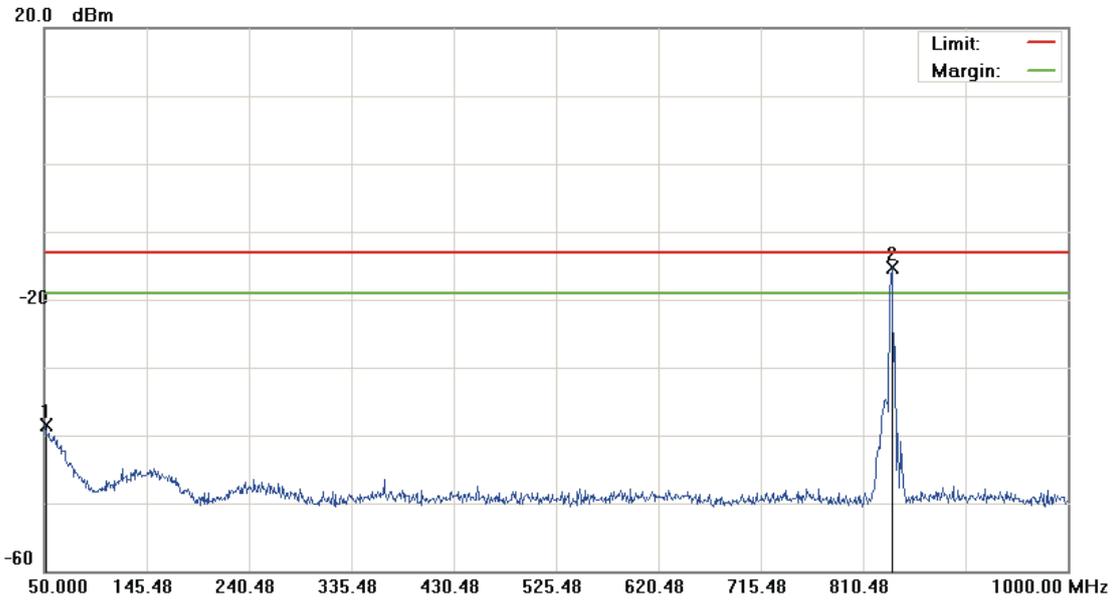


Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2.0085	-61.27	31.37	-29.90	-13.00	-16.90	peak		

*:Maximum data x:Over limit !:over margin

File: PM66100(CH190) Data: #2 Date: 2012/6/27 Time: 上午 09:57:55

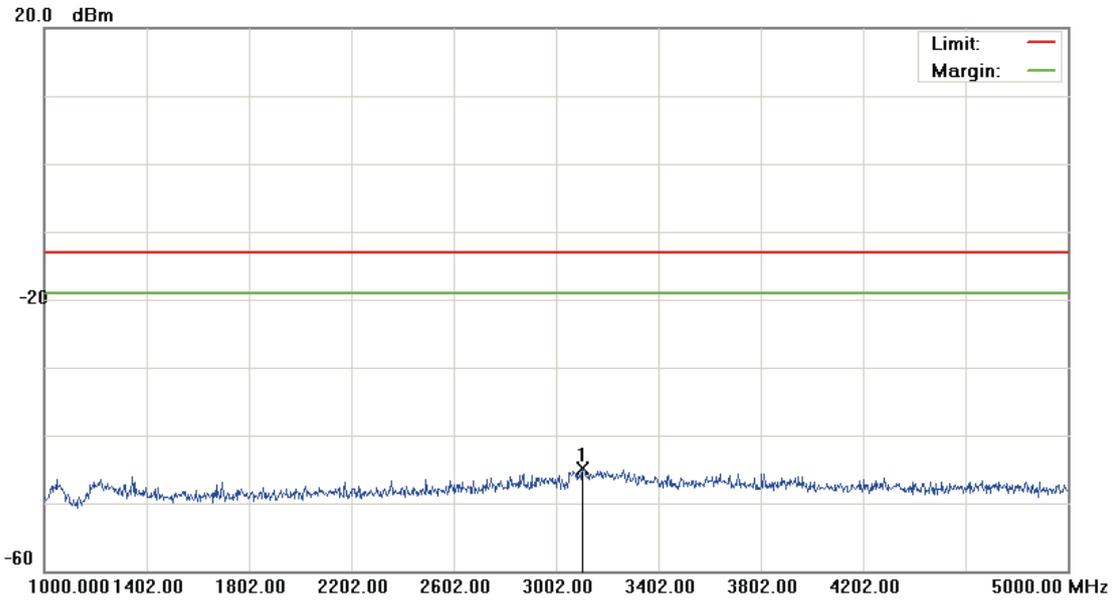


Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree	Comment
1		51.4250	-53.02	14.44	-38.58	-13.00	-25.58	peak		
2	*	836.6000	-19.20	3.96	-15.24	-13.00	-2.24	peak		Tx

*:Maximum data x:Over limit !:over margin

File: PM66100(CH190) Data :#3 Date: 2012/6/27 Time: 上午 10:03:53



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB	cm	degree		
1	*	3104.000	-49.55	4.56	-44.99	-13.00	-31.99			peak	

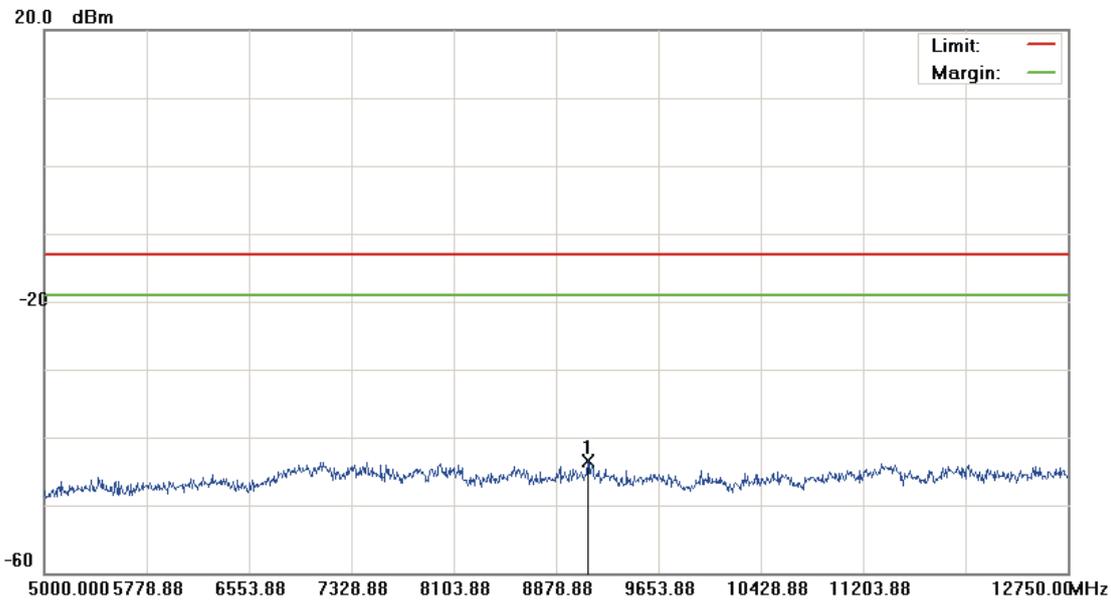
*:Maximum data x:Over limit !:over margin

File: PM66100(CH190)

Data :#4

Date: 2012/6/27

Time: 上午 10:04:17



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	9115.250	-49.10	5.66	-43.44	-13.00	-30.44	peak	

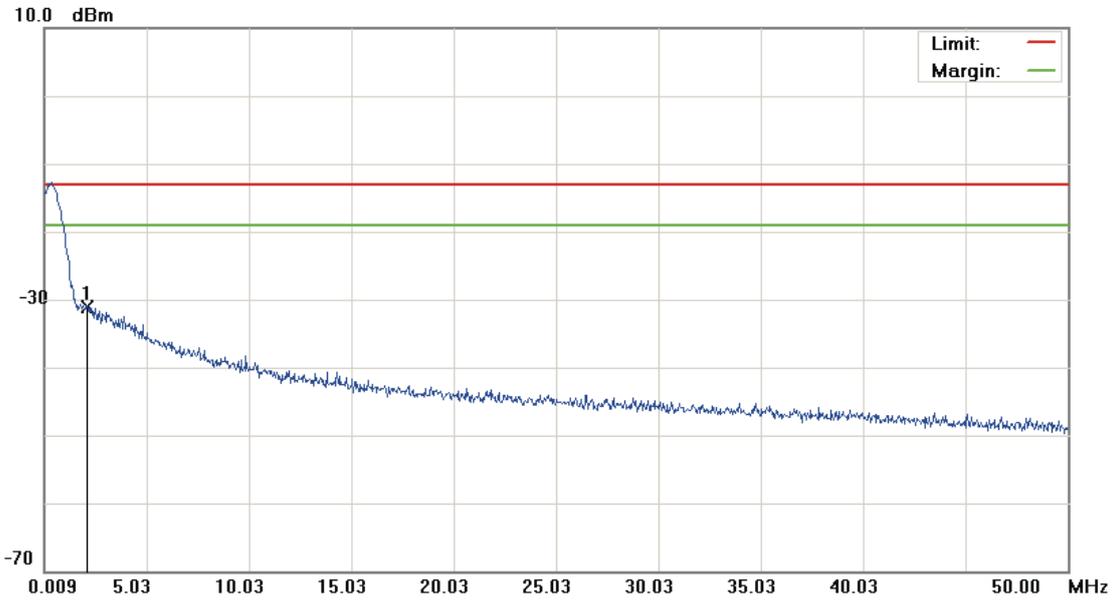
*:Maximum data x:Over limit !:over margin

File: PM66100(CH251)

Data :#1

Date: 2012/6/27

Time: 上午 09:59:31



Site: : RF Conducted

 Polarization: *Conducted po*

Temperature: 23 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: AC 120V/60Hz

Humidity: 55.2 %

EUT: Smartphone

Distance:

RBW: 1000KHz VBW: 1000KHz

M/N: PM66100

Mode: 1

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	2.1086	-62.54	31.54	-31.00	-13.00	-18.00	peak	

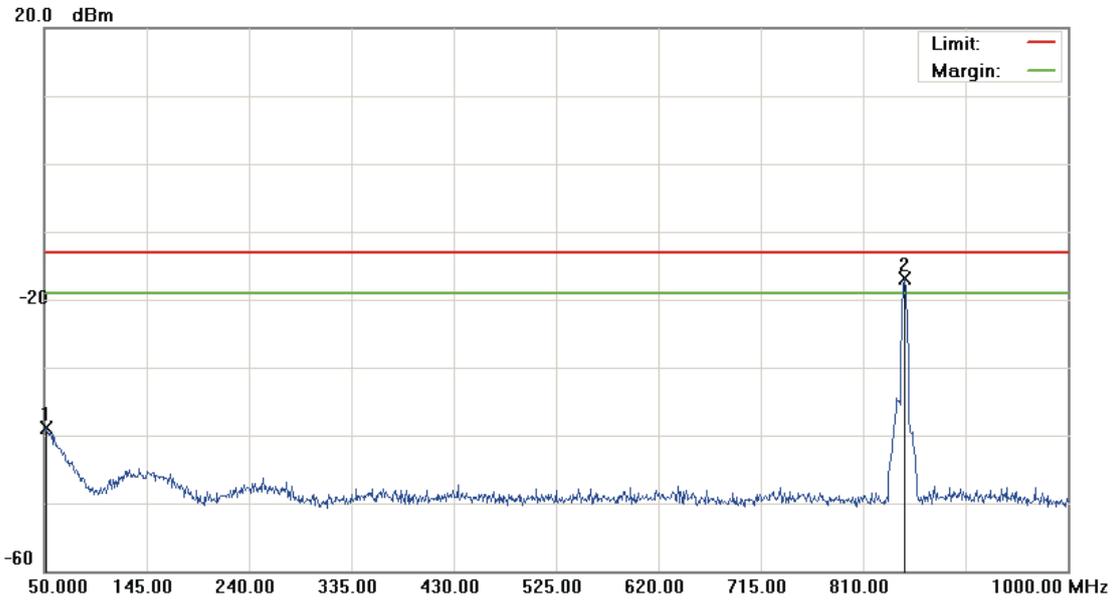
*:Maximum data x:Over limit !:over margin

File: PM66100(CH251)

Data: #2

Date: 2012/6/27

Time: 上午 09:59:55



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		51.9000	-53.33	14.36	-38.97	-13.00	-25.97	peak			
2	*	848.9500	-20.84	3.98	-16.86	-13.00	-3.86	peak			Tx

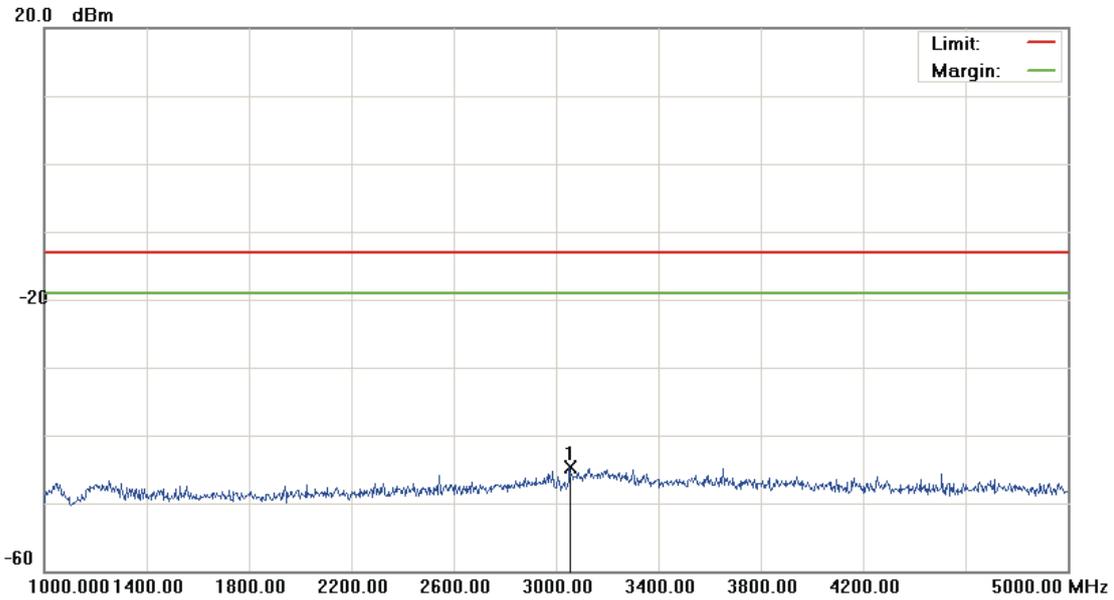
*:Maximum data x:Over limit !:over margin

File: PM66100(CH251)

Data :#3

Date: 2012/6/27

Time: 上午 10:04:52



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	3054.000	-49.09	4.33	-44.76	-13.00	-31.76	peak	

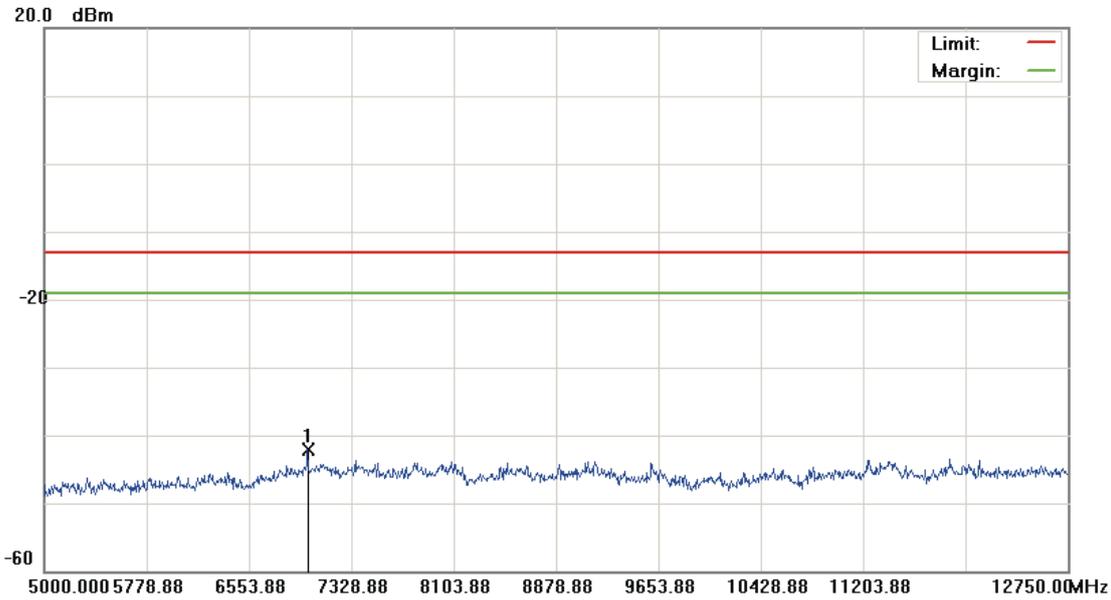
*:Maximum data x:Over limit !:over margin

File: PM66100(CH251)

Data :#4

Date: 2012/6/27

Time: 上午 10:05:15



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 1		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	6995.625	-47.03	4.93	-42.10	-13.00	-29.10	peak	

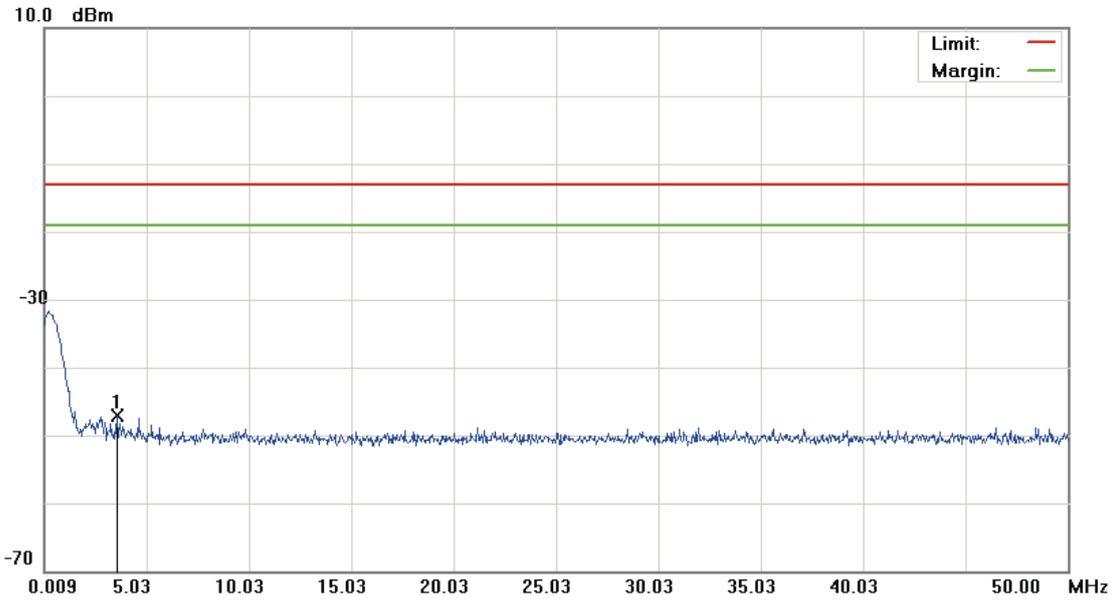
*:Maximum data x:Over limit !:over margin

File: PM66100(CH512)

Data: #1

Date: 2012/6/27

Time: 上午 09:42:21



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	3.5583	-60.30	13.14	-47.16	-13.00	-34.16			peak

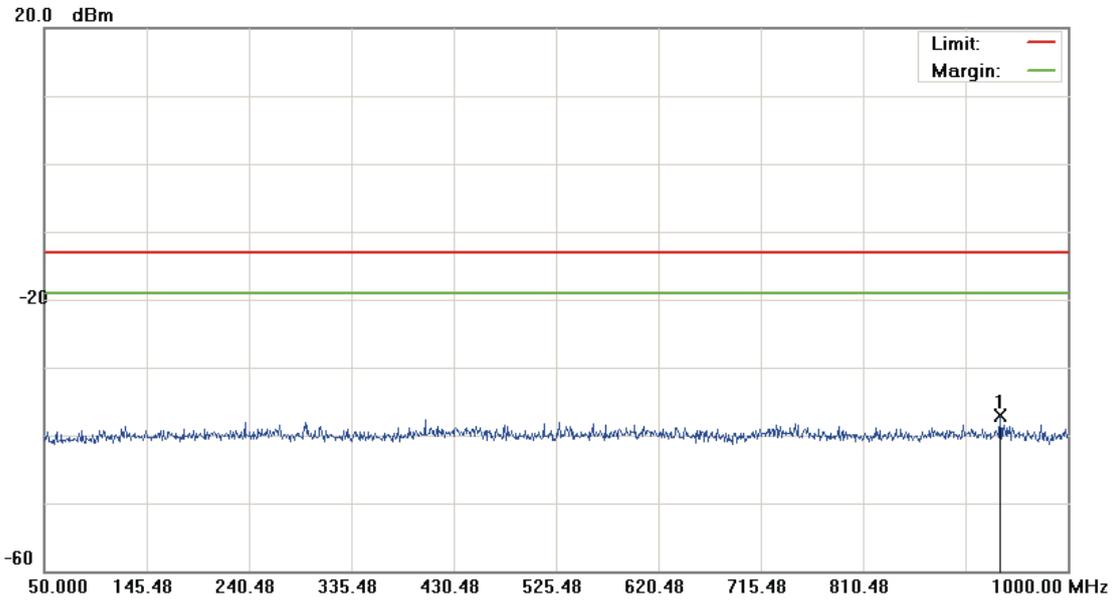
*:Maximum data x:Over limit !:over margin

File: PM66100(CH512)

Data :#2

Date: 2012/6/27

Time: 上午 09:42:45



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	937.3000	-50.28	13.18	-37.10	-13.00	-24.10	peak	

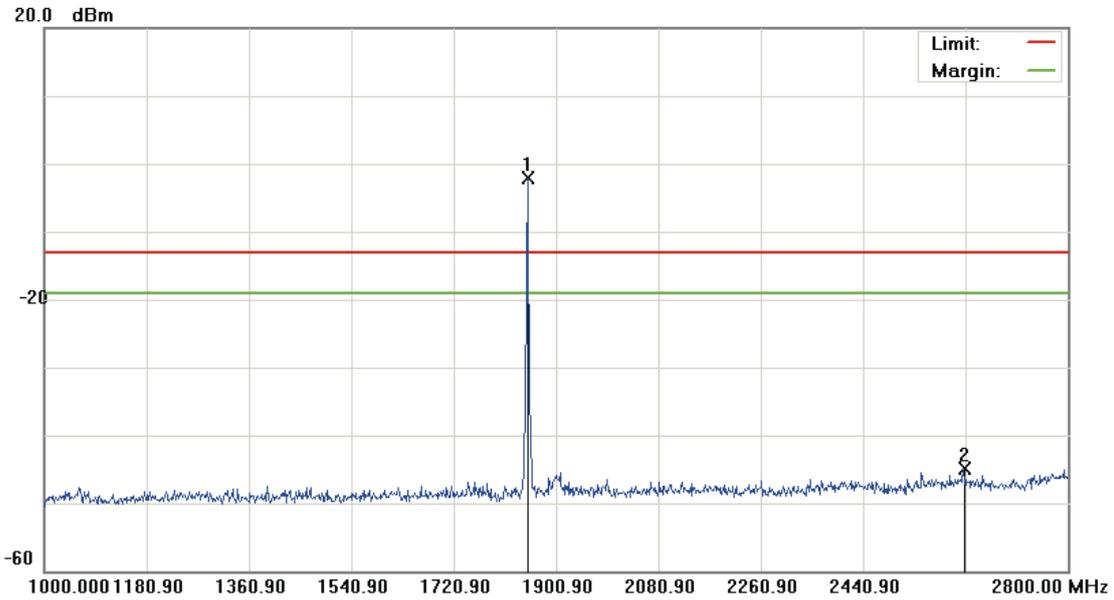
*:Maximum data x:Over limit !:over margin

File: PM66100(CH512)

Data: #3

Date: 2012/6/27

Time: 上午 09:49:43



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1850.500	-6.32	4.26	-2.06	-13.00	10.94	peak		Tx
2		2617.300	-50.32	5.44	-44.88	-13.00	-31.88	peak		

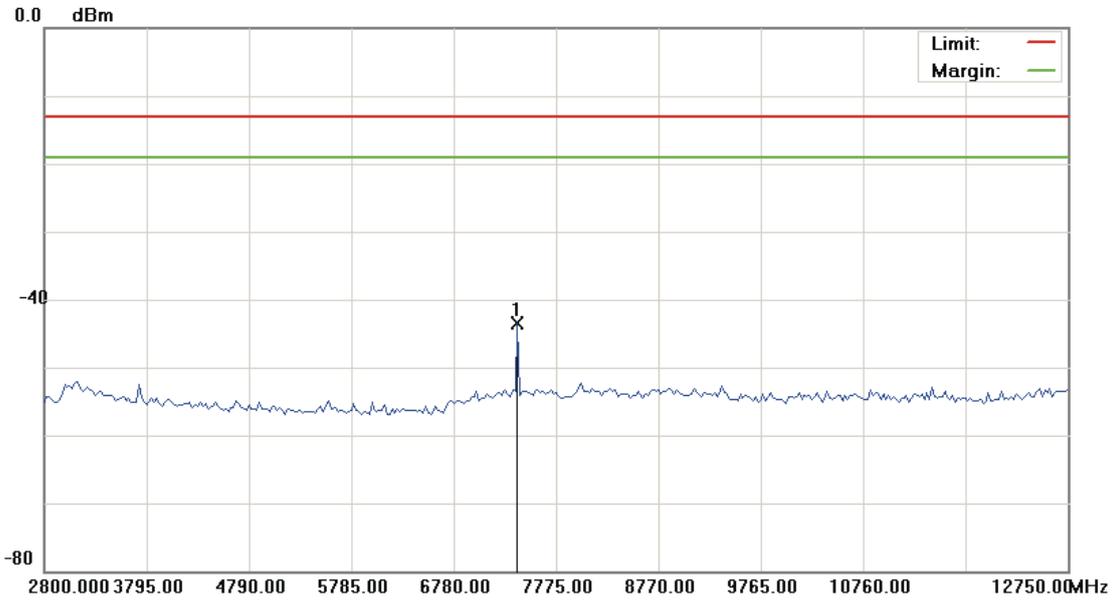
*:Maximum data x:Over limit !:over margin

File: PM66100(CH512)

Data :#4

Date: 2012/6/27

Time: 上午 11:13:50



Site: : RF Conducted

 Polarization: *Conducted po*

Temperature: 23 °C

Limit: FCC Part 24 conducted(9k-12.75G)

Power: AC 120V/60Hz

Humidity: 55.2 %

EUT: Smartphone

Distance:

RBW: 1000KHz VBW: 1000KHz

M/N: PM66100

Mode: 2

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	7401.875	-48.50	5.09	-43.41	-13.00	-30.41	peak	

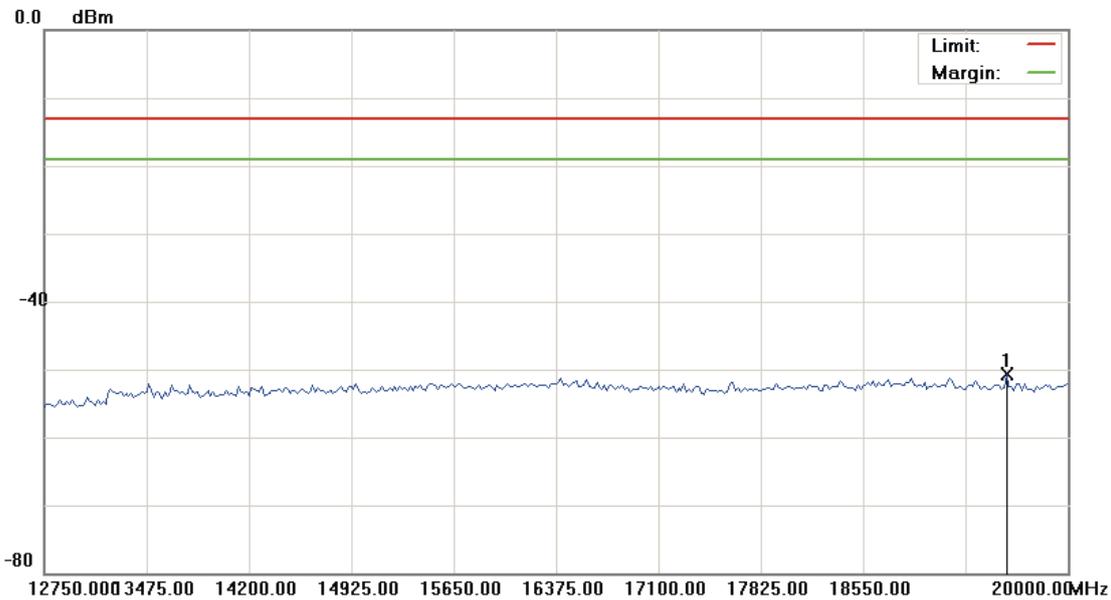
*:Maximum data x:Over limit !:over margin

File: PM66100(CH512)

Data :#5

Date: 2012/6/27

Time: 上午 11:14:10



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	19565.000	-58.05	7.32	-50.73	-13.00	-37.73			peak

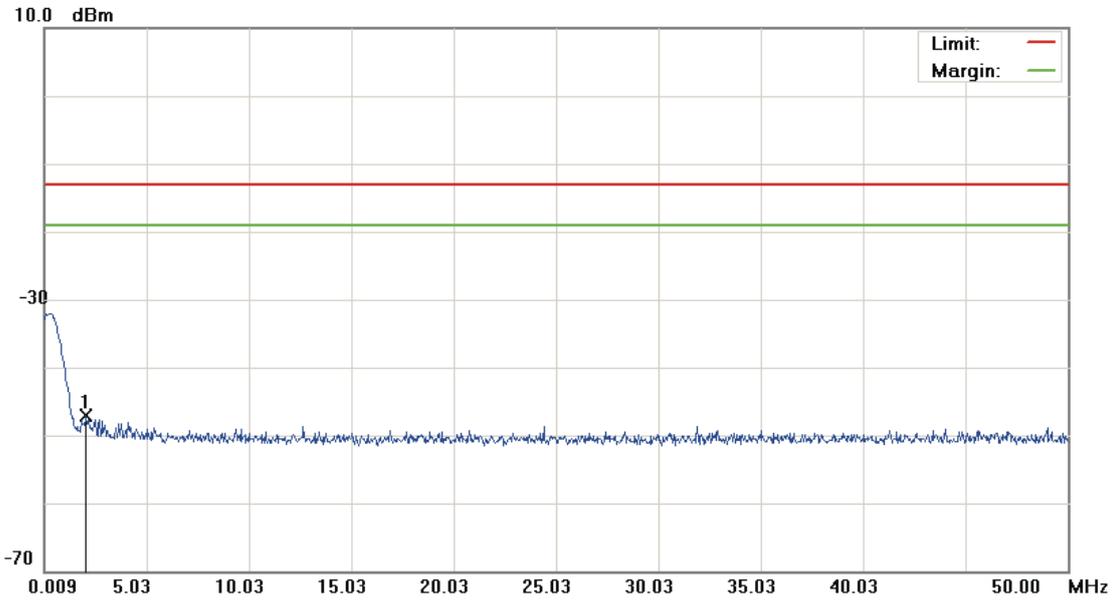
*:Maximum data x:Over limit !:over margin

File: PM66100(CH661)

Data: #1

Date: 2012/6/27

Time: 上午 09:43:58



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	2.0586	-60.32	13.18	-47.14	-13.00	-34.14	peak	

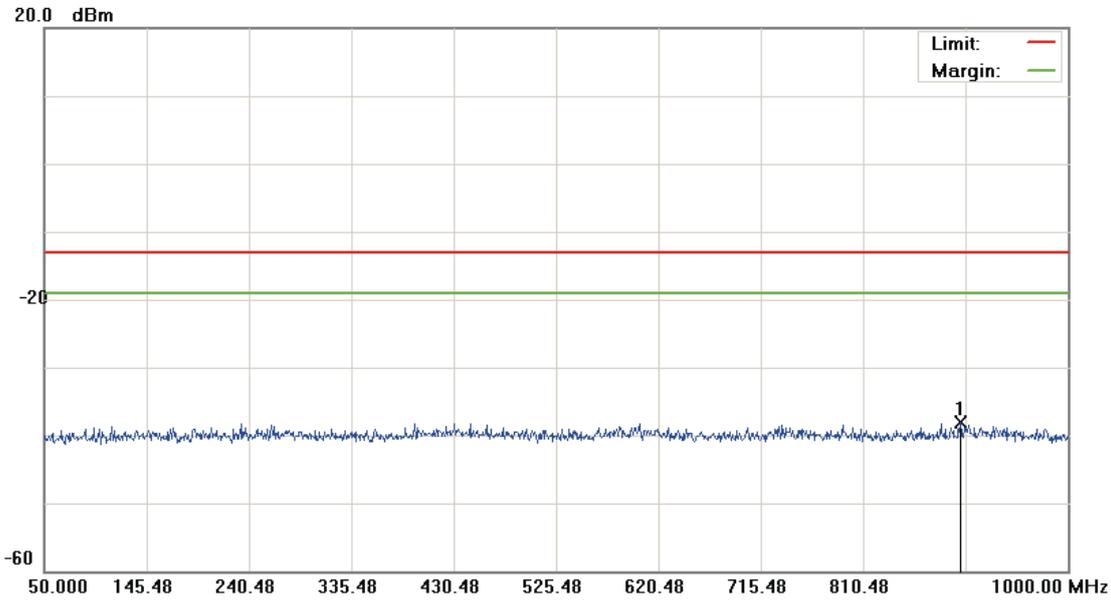
*:Maximum data x:Over limit !:over margin

File: PM66100(CH661)

Data :#2

Date: 2012/6/27

Time: 上午 09:44:22



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	900.2500	-51.27	13.26	-38.01	-13.00	-25.01	peak	

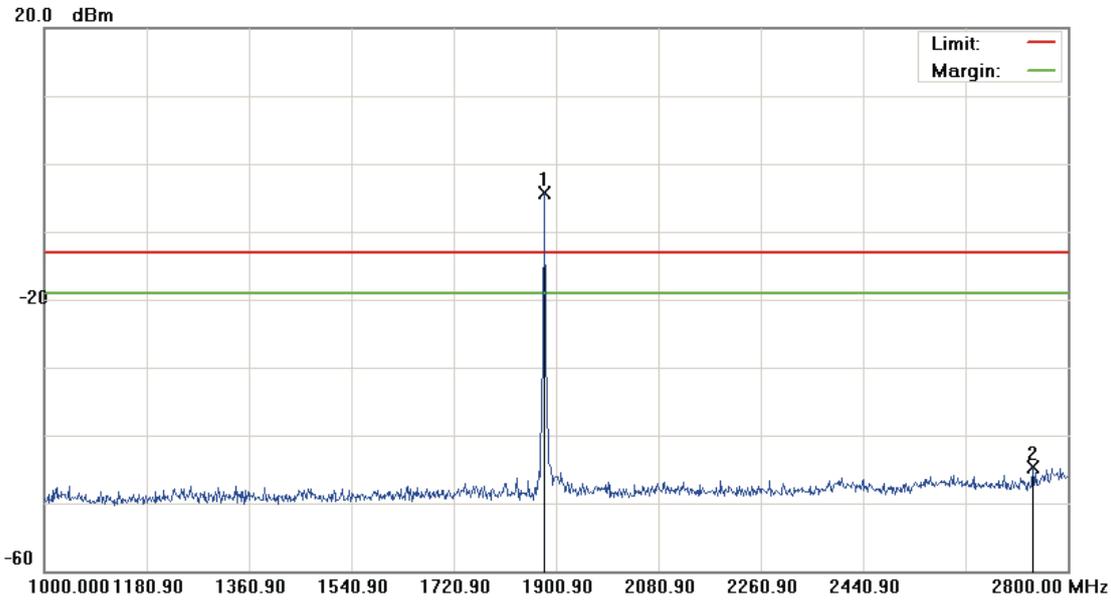
*:Maximum data x:Over limit !:over margin

File: PM66100(CH661)

Data :#3

Date: 2012/6/27

Time: 上午 09:50:59



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	*	1880.200	-8.98	4.65	-4.33	-13.00	8.67	peak			Tx
2		2738.800	-49.86	5.12	-44.74	-13.00	-31.74	peak			

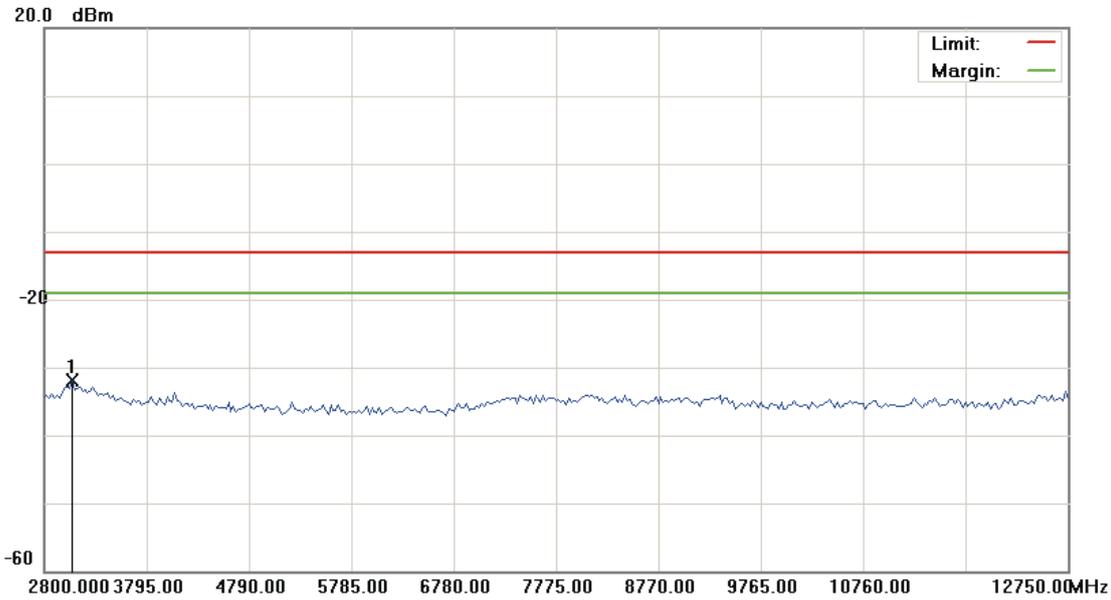
*:Maximum data x:Over limit !:over margin

File: PM66100(CH661)

Data :#4

Date: 2012/6/27

Time: 上午 11:14:50



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	3073.625	-37.23	5.40	-31.83	-13.00	-18.83	peak	

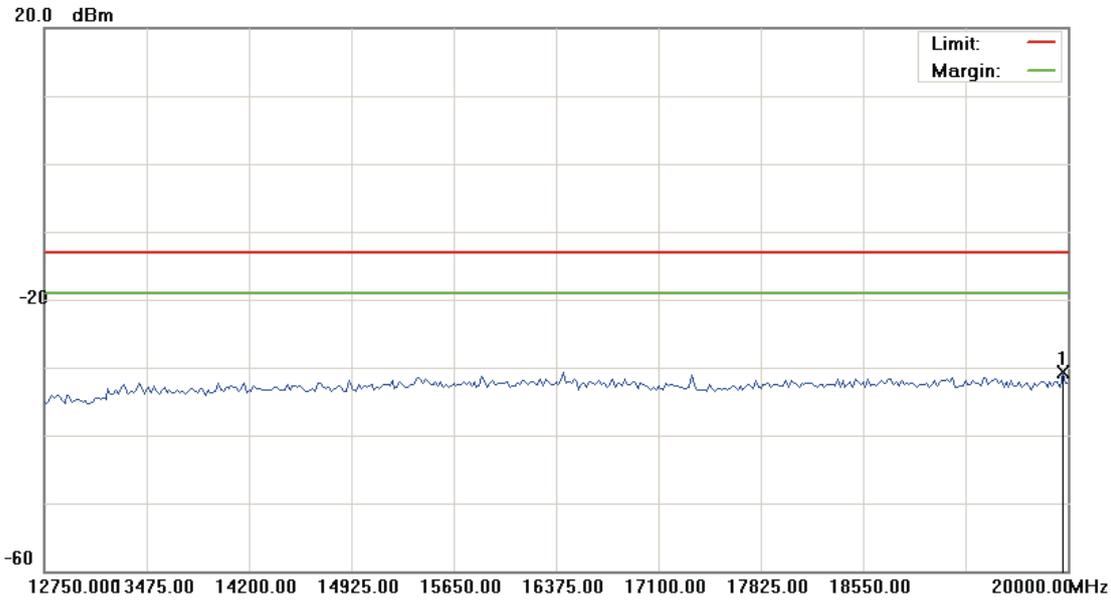
*:Maximum data x:Over limit !:over margin

File: PM66100(CH661)

Data :#5

Date: 2012/6/27

Time: 上午 11:15:10



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	19963.750	-38.15	7.43	-30.72	-13.00	-17.72	peak	

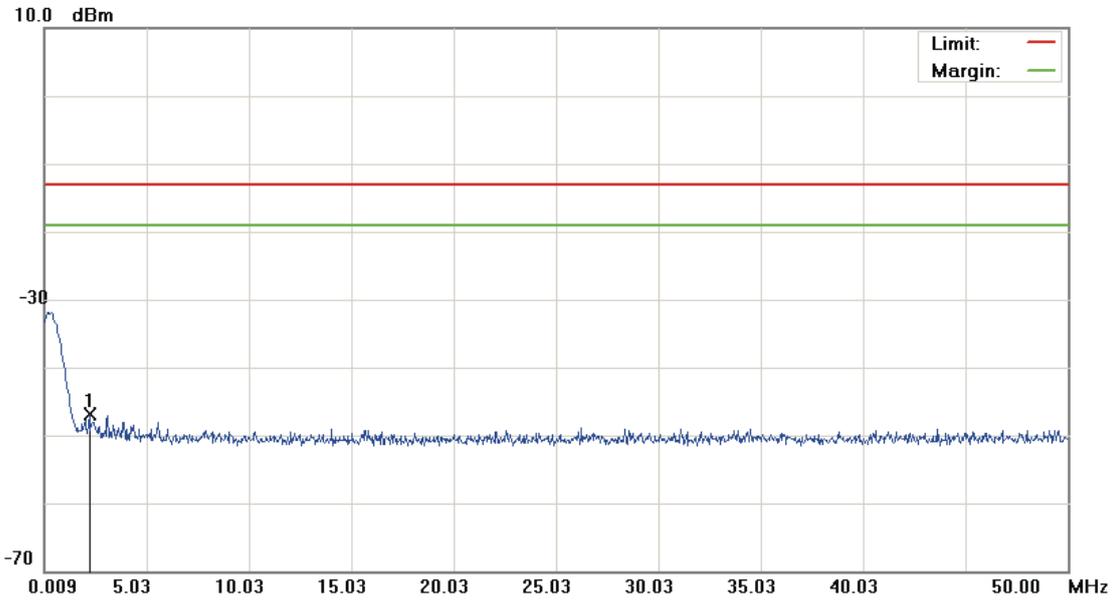
*:Maximum data x:Over limit !:over margin

File: PM66100(CH810)

Data: #1

Date: 2012/6/27

Time: 上午 09:46:47



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	2.2336	-60.06	13.08	-46.98	-13.00	-33.98	peak	

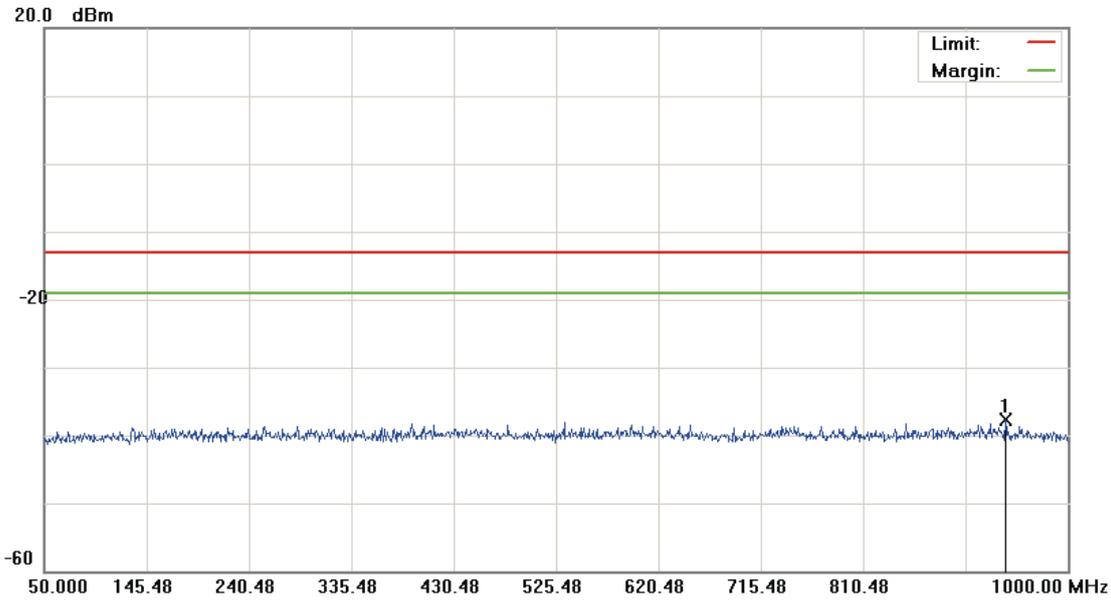
*:Maximum data x:Over limit !:over margin

File: PM66100(CH810)

Data :#2

Date: 2012/6/27

Time: 上午 09:47:11



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB	cm	degree		
1	*	942.0500	-50.80	13.16	-37.64	-13.00	-24.64			peak	

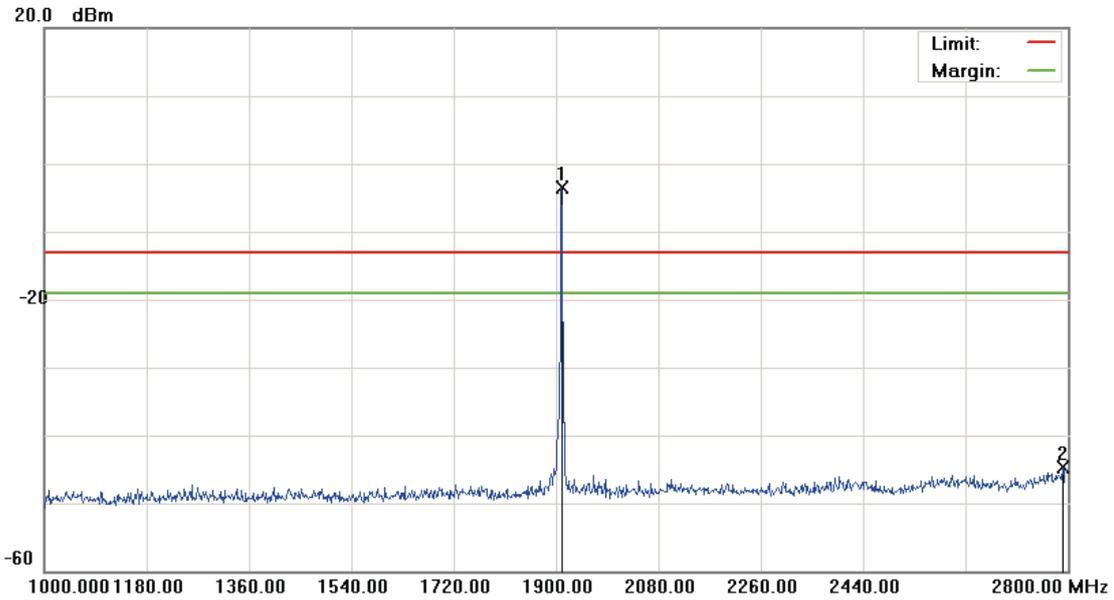
*:Maximum data x:Over limit !:over margin

File: PM66100(CH810)

Data: #3

Date: 2012/6/27

Time: 上午 09:52:53



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	*	1909.900	-9.25	5.71	-3.54	-13.00	9.46	peak			Tx
2		2791.000	-50.69	5.90	-44.79	-13.00	-31.79	peak			

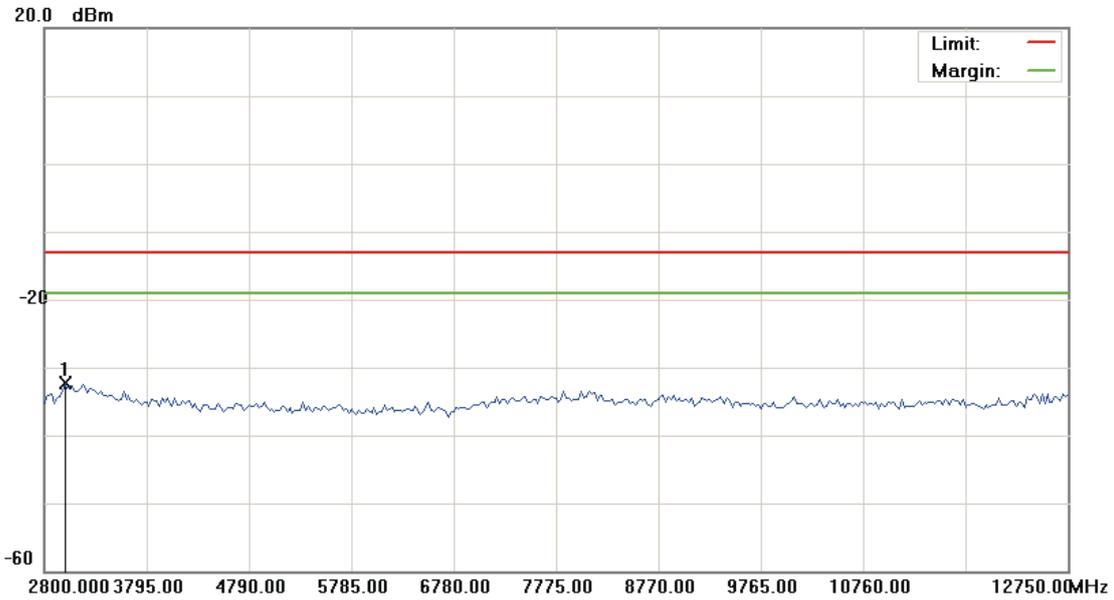
*:Maximum data x:Over limit !:over margin

File: PM66100(CH810)

Data :#4

Date: 2012/6/27

Time: 上午 11:15:45



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2999.000	-37.81	5.48	-32.33	-13.00	-19.33	peak		

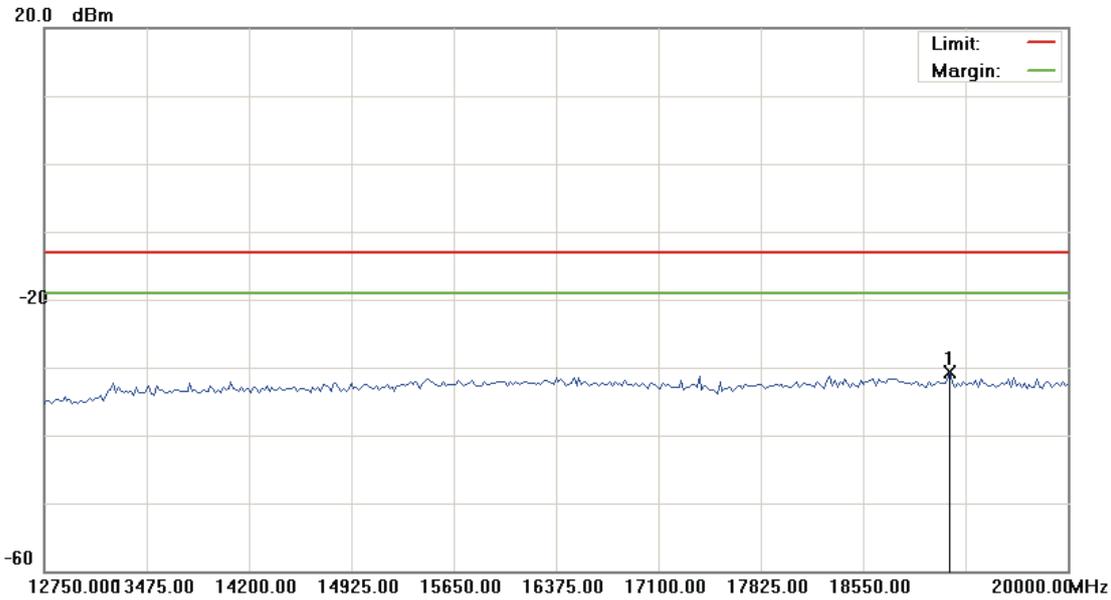
*:Maximum data x:Over limit !:over margin

File:PM66100(CH810)

Data :#5

Date:2012/6/27

Time: 上午 11:16:05



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 2		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	19166.250	-37.85	7.20	-30.65	-13.00	-17.65	peak	Comment

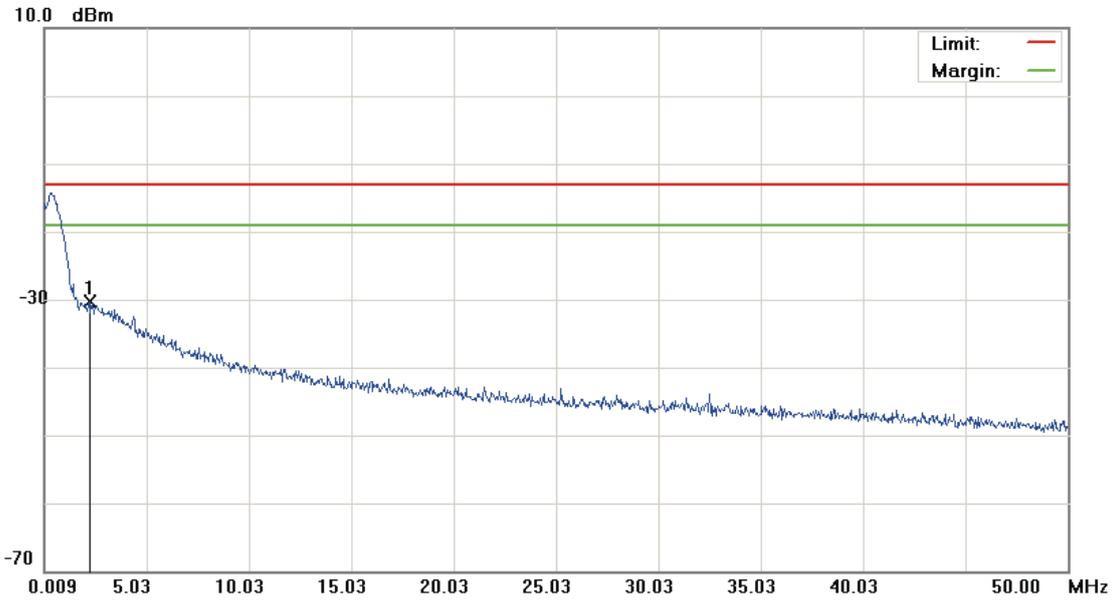
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4132)

Data: #1

Date: 2012/6/27

Time: 上午 10:56:31



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	2.2336	-61.58	31.20	-30.38	-13.00	-17.38	peak	

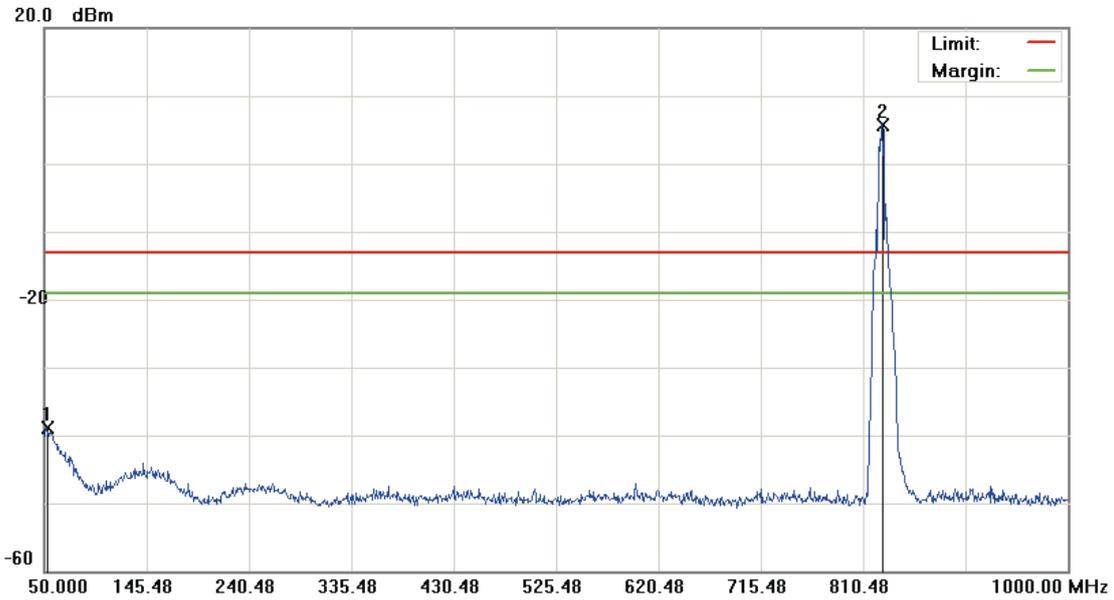
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4132)

Data: #2

Date: 2012/6/27

Time: 上午 10:56:56



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		52.3750	-53.16	14.27	-38.89	-13.00	-25.89	peak		
2	*	827.5750	1.91	3.87	5.78	-13.00	18.78	peak		Tx

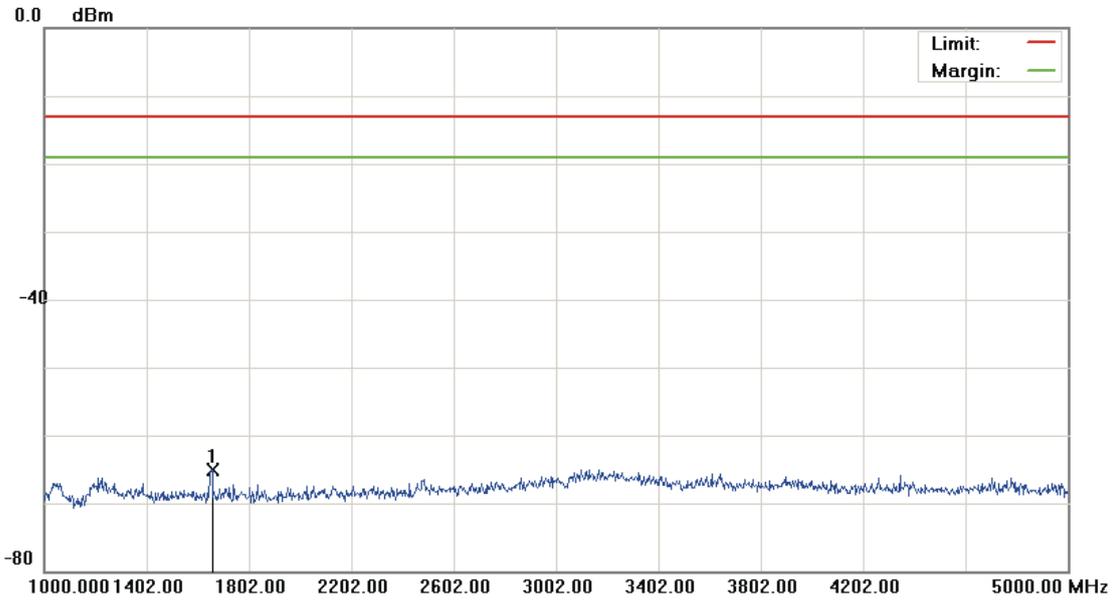
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4132)

Data :#3

Date: 2012/6/27

Time: 上午 11:07:19



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	1654.000	-69.45	4.45	-65.00	-13.00	-52.00			peak

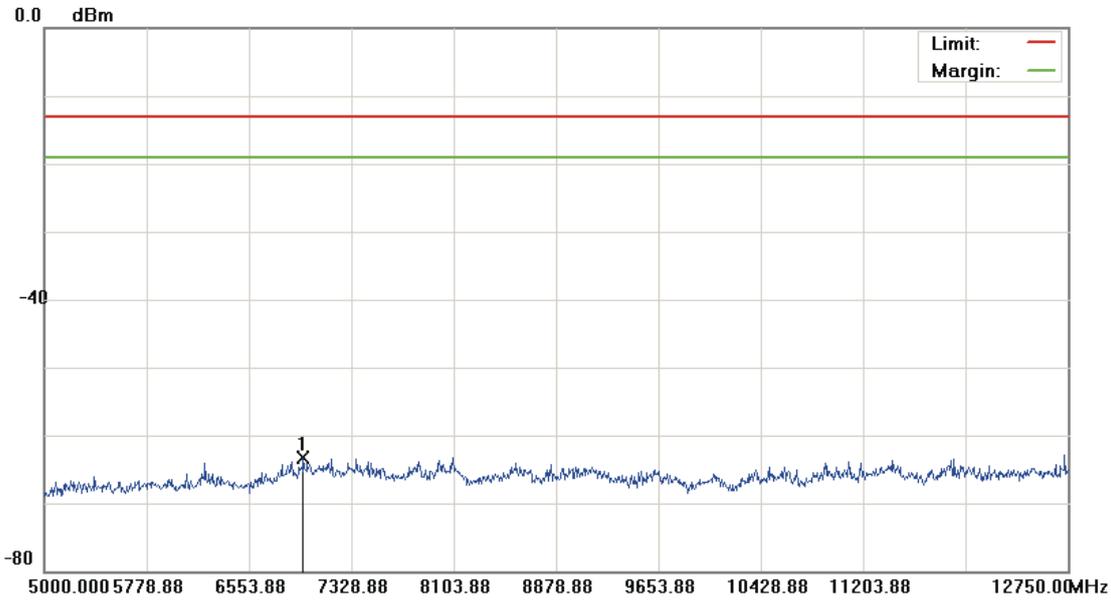
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4132)

Data :#4

Date: 2012/6/27

Time: 上午 11:07:42



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	6960.750	-68.24	5.01	-63.23	-13.00	-50.23			peak

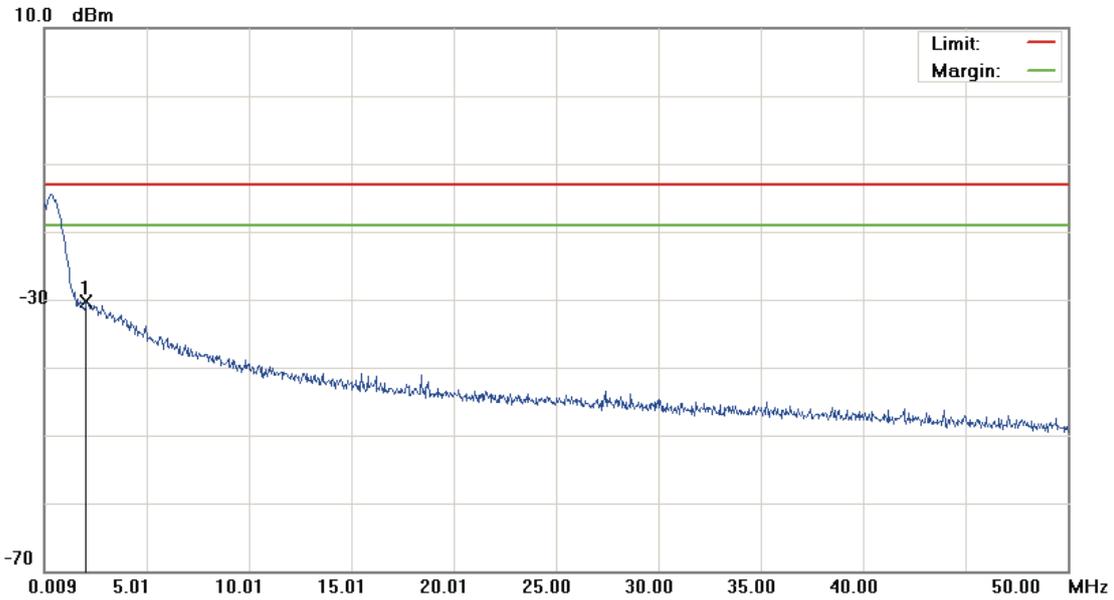
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4183)

Data: #1

Date: 2012/6/27

Time: 上午 10:58:24

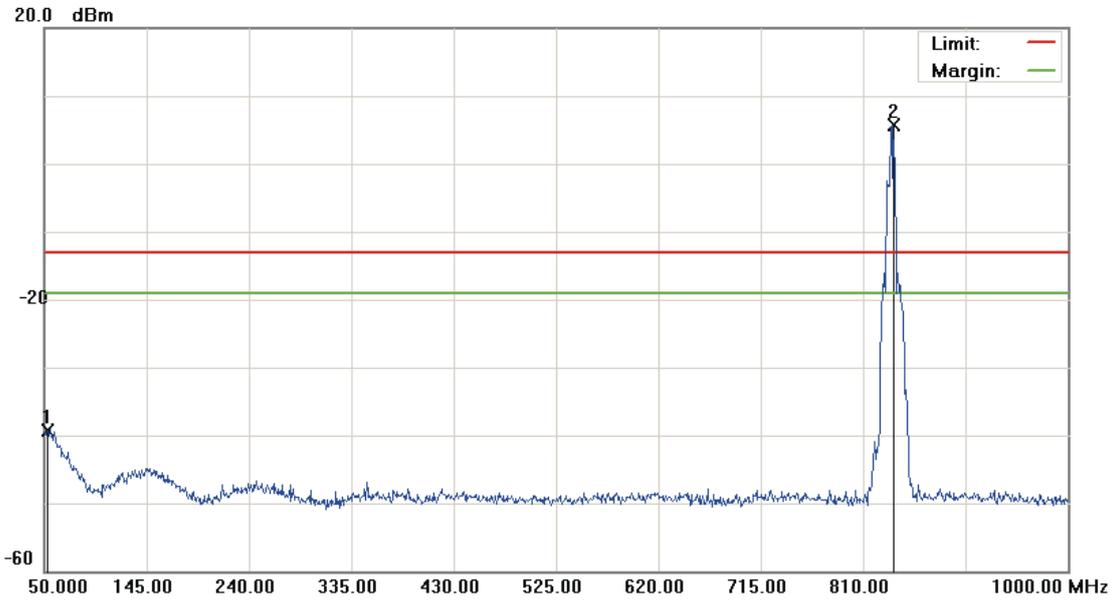


Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2.0586	-61.80	31.45	-30.35	-13.00	-17.35	peak		

*:Maximum data x:Over limit !:over margin

File: PM66100(CH4183) Data: #2 Date: 2012/6/27 Time: 上午 10:58:48



Site: : RF Conducted Polarization: *Conducted po* Temperature: 23 °C
 Limit: FCC Part 22 conducted(9k-12.75G) Power: AC 120V/60Hz Humidity: 55.2 %
 EUT: Smartphone Distance: RBW: 1000KHz VBW: 1000KHz
 M/N: PM66100
 Mode: 3
 Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree	Comment
1		52.8500	-53.39	14.19	-39.20	-13.00	-26.20	peak		
2	*	838.0250	1.70	3.97	5.67	-13.00	18.67	peak		Tx

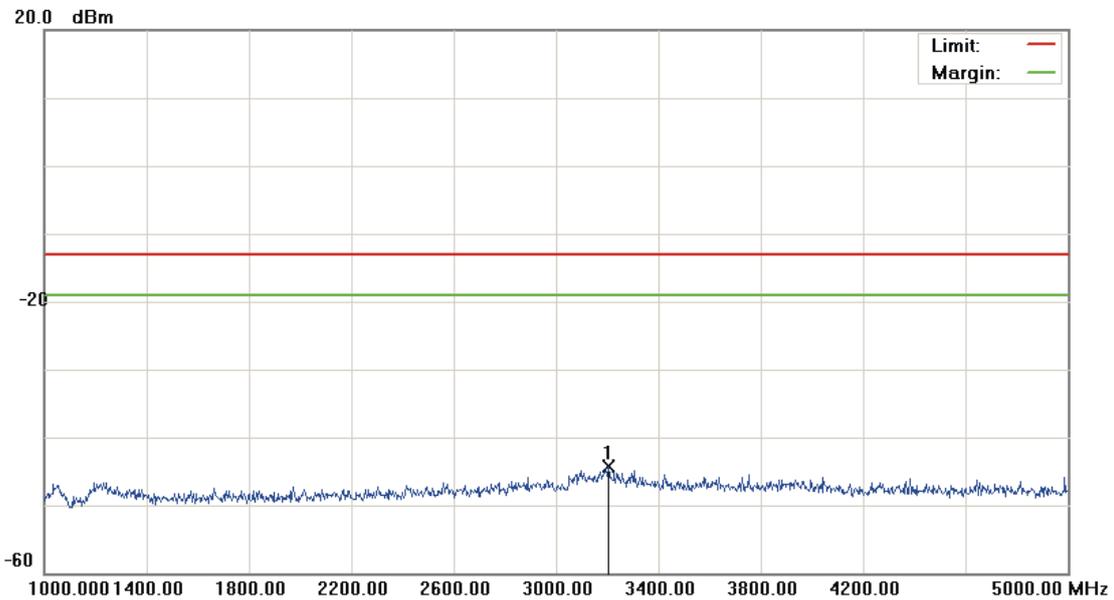
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4183)

Data :#3

Date: 2012/6/27

Time: 上午 11:08:22



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	3204.000	-48.95	4.66	-44.29	-13.00	-31.29	peak	

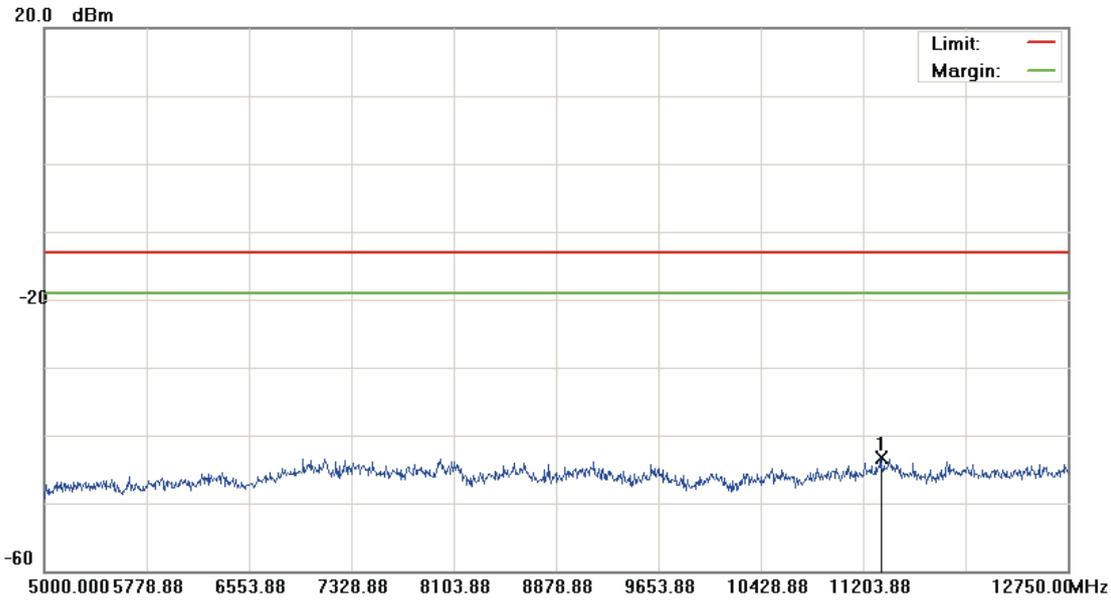
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4183)

Data :#4

Date: 2012/6/27

Time: 上午 11:08:45



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB	cm	degree		
1	*	11335.625	-48.52	5.16	-43.36	-13.00	-30.36			peak	

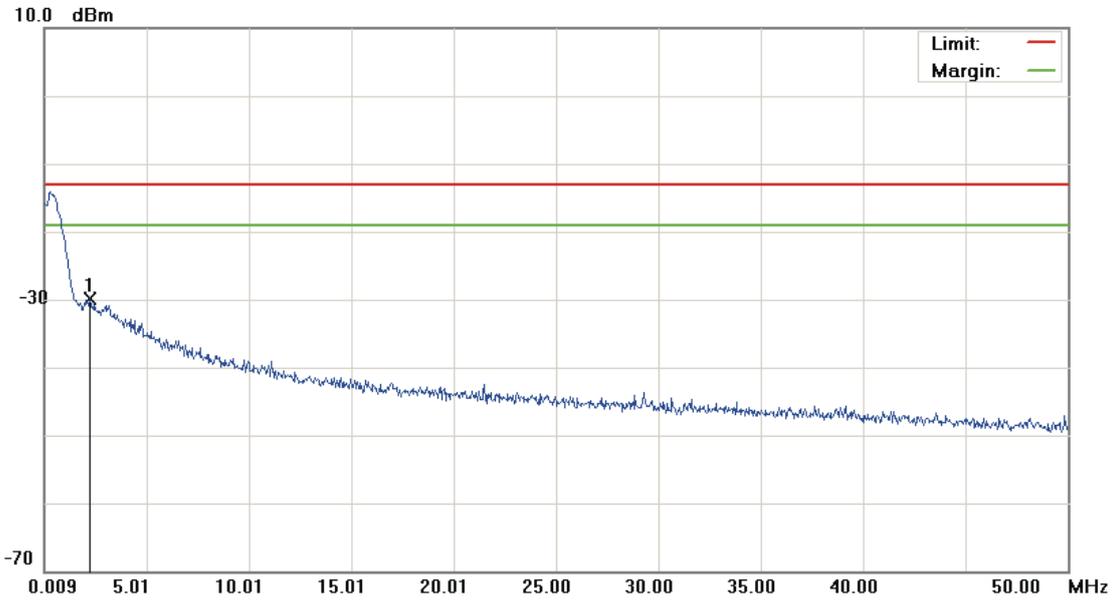
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4233)

Data: #1

Date: 2012/6/27

Time: 上午 11:00:57



Site: : RF Conducted

 Polarization: *Conducted po*

Temperature: 23 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: AC 120V/60Hz

Humidity: 55.2 %

EUT: Smartphone

Distance:

RBW: 1000KHz VBW: 1000KHz

M/N: PM66100

Mode: 3

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2.2585	-60.94	31.14	-29.80	-13.00	-16.80	peak		

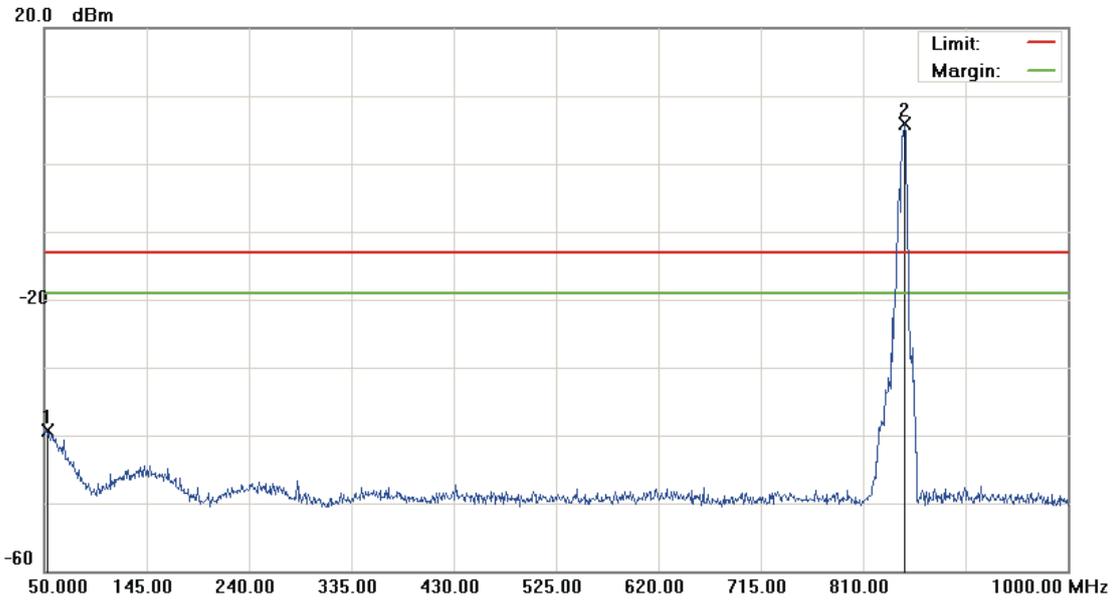
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4233)

Data: #2

Date: 2012/6/27

Time: 上午 11:01:21



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree	Comment
1		52.3750	-53.62	14.27	-39.35	-13.00	-26.35	peak		
2	*	848.0000	1.96	3.98	5.94	-13.00	18.94	peak		Tx

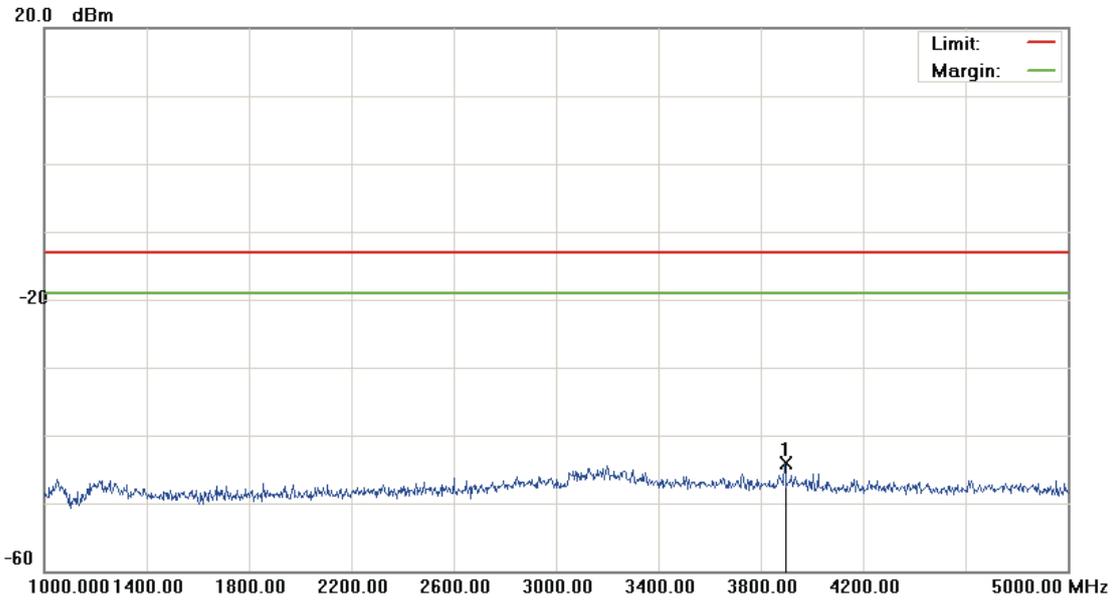
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4233)

Data :#3

Date: 2012/6/27

Time: 上午 11:09:21



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBm	dB	dBm	dBm	dB	cm	degree
1	*	3894.000	-48.95	4.81	-44.14	-13.00	-31.14	peak	

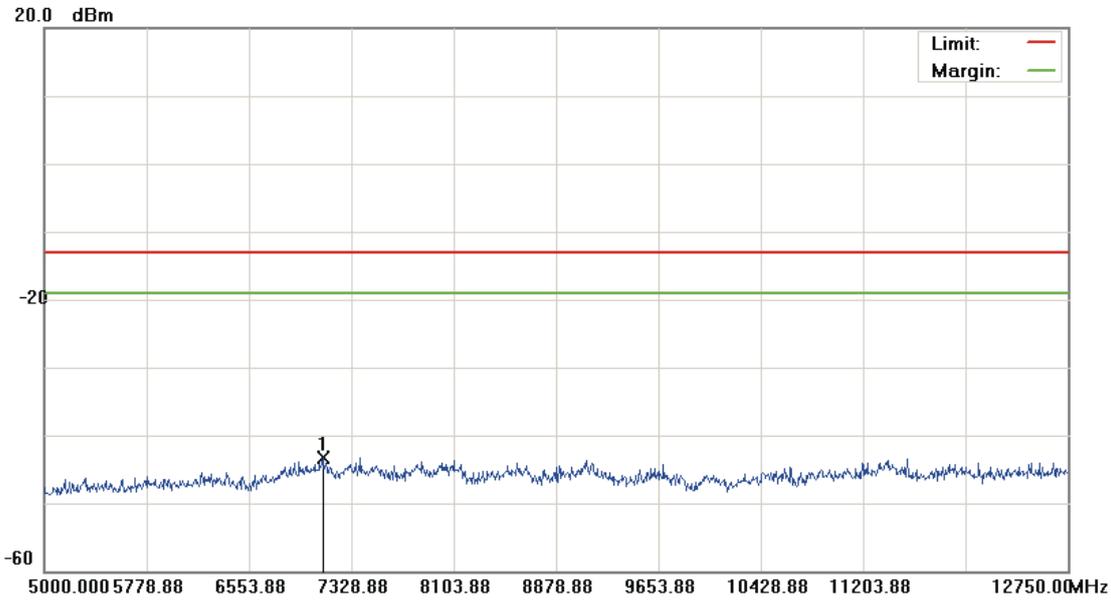
*:Maximum data x:Over limit !:over margin

File: PM66100(CH4233)

Data :#4

Date: 2012/6/27

Time: 上午 11:09:44



Site: : RF Conducted	Polarization: Conducted po	Temperature: 23 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55.2 %
EUT: Smartphone	Distance:	RBW: 1000KHz VBW: 1000KHz
M/N: PM66100		
Mode: 3		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB	cm	degree		
1	*	7108.000	-48.38	5.12	-43.26	-13.00	-30.26			peak	

*:Maximum data x:Over limit !:over margin

6 Field Strength of Spurious Radiation Test

6.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

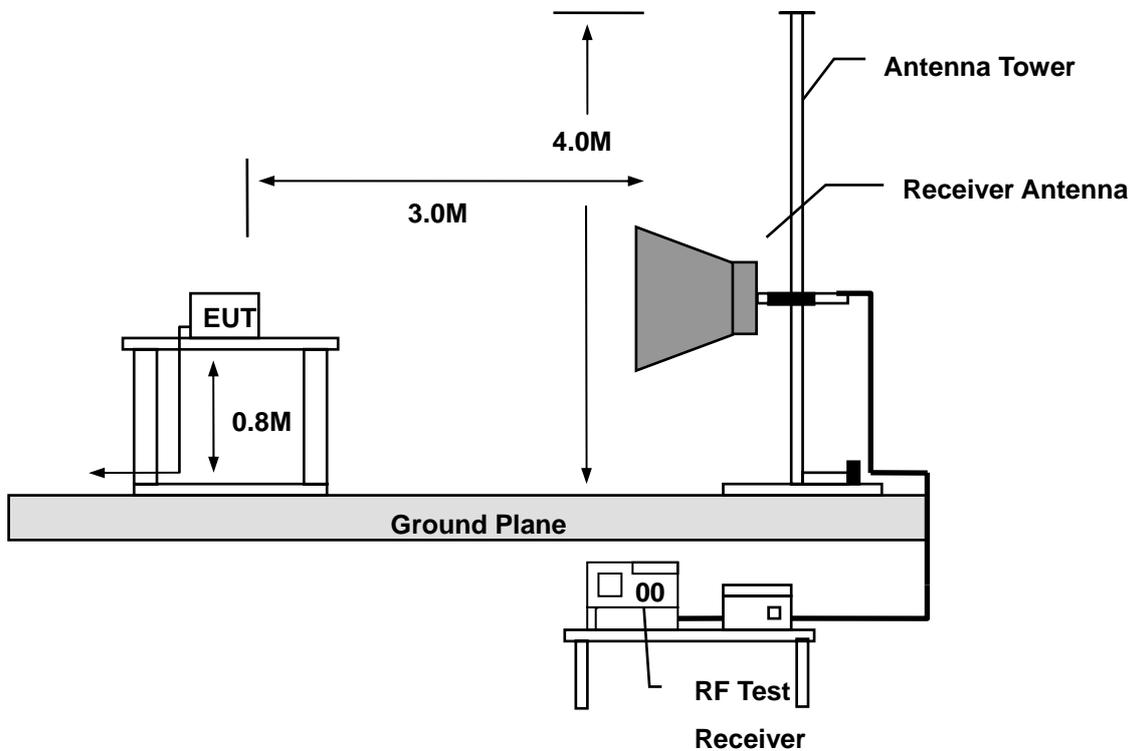
6.2. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/16/2012	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/16/2012	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/22/2012	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/22/2012	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	06/29/2012	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/15/2012	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/21/2012	(1)
Test Site	ATL	TE01	888001	12/20/2011	(1)

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

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

6.3. Setup



6.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (model VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test. The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in decibels referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

6.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is ± 3.072 dB.

6.6. Test Result

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1 (Sample 1 st)	Date:	07/16/2012
Frequency:	824.2 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
92.5000	-68.00	-0.43	-68.43	-13.00	-55.43	peak	H
163.0000	-63.97	-0.88	-64.85	-13.00	-51.85	peak	H
230.0000	-69.41	-0.92	-70.33	-13.00	-57.33	peak	H
358.0000	-74.26	-0.02	-74.28	-13.00	-61.28	peak	H
605.0000	-76.33	7.88	-68.45	-13.00	-55.45	peak	H
739.0000	-79.52	8.17	-71.35	-13.00	-58.35	peak	H
3292.000	-69.26	14.85	-54.41	-13.00	-41.41	peak	H
5380.000	-72.17	21.31	-50.86	-13.00	-37.86	peak	H
6868.000	-71.19	27.21	-43.98	-13.00	-30.98	peak	H
131.0000	-85.65	13.83	-71.82	-13.00	-58.82	peak	V
159.5000	-79.03	12.45	-66.58	-13.00	-53.58	peak	V
202.5000	-78.06	9.84	-68.22	-13.00	-55.22	peak	V
320.0000	-73.52	1.04	-72.48	-13.00	-59.48	peak	V
505.5000	-80.44	2.83	-77.61	-13.00	-64.61	peak	V
739.0000	-77.53	10.52	-67.01	-13.00	-54.01	peak	V
2608.000	-70.04	13.22	-56.82	-13.00	-43.82	peak	V
5008.000	-72.07	23.44	-48.63	-13.00	-35.63	peak	V
7264.000	-72.64	26.02	-46.62	-13.00	-33.62	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1 (Sample 2 nd)	Date:	07/18/2012
Frequency:	824.2 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
63.5000	-71.36	2.33	-69.03	-13.00	-56.03	peak	H
199.0000	-71.04	2.02	-69.02	-13.00	-56.02	peak	H
384.5000	-79.30	1.16	-78.14	-13.00	-65.14	peak	H
547.0000	-84.52	8.10	-76.42	-13.00	-63.42	peak	H
681.5000	-80.33	7.02	-73.31	-13.00	-60.31	peak	H
808.0000	-83.10	11.51	-71.59	-13.00	-58.59	peak	H
4444.000	-71.34	16.98	-54.36	-13.00	-41.36	peak	H
7780.000	-72.65	29.43	-43.22	-13.00	-30.22	peak	H
11188.000	-75.42	36.58	-38.84	-13.00	-25.84	peak	H
65.0000	-62.85	-6.83	-69.68	-13.00	-56.68	peak	V
110.5000	-75.07	1.06	-74.01	-13.00	-61.01	peak	V
229.5000	-72.88	2.36	-70.52	-13.00	-57.52	peak	V
356.5000	-76.52	2.21	-74.31	-13.00	-61.31	peak	V
556.5000	-80.93	4.36	-76.57	-13.00	-63.57	peak	V
662.5000	-77.46	9.41	-68.05	-13.00	-55.05	peak	V
5092.000	-72.88	23.46	-49.42	-13.00	-36.42	peak	V
8212.000	-73.12	26.24	-46.88	-13.00	-33.88	peak	V
11188.000	-75.13	37.20	-37.93	-13.00	-24.93	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1 (Sample 1 st)	Date:	07/16/2012
Frequency:	836.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
165.5000	-57.15	-2.84	-59.99	-13.00	-46.99	peak	H
234.5000	-65.41	-1.45	-66.86	-13.00	-53.86	peak	H
299.0000	-63.16	-2.45	-65.61	-13.00	-52.61	peak	H
357.5000	-68.42	-0.01	-68.43	-13.00	-55.43	peak	H
614.5000	-78.32	7.77	-70.55	-13.00	-57.55	peak	H
720.0000	-78.45	7.49	-70.96	-13.00	-57.96	peak	H
2956.000	-69.59	13.77	-55.82	-13.00	-42.82	peak	H
4912.000	-71.35	19.57	-51.78	-13.00	-38.78	peak	H
7540.000	-72.62	29.23	-43.39	-13.00	-30.39	peak	H
62.0000	-60.47	-5.78	-66.25	-13.00	-53.25	peak	V
160.5000	-76.56	12.20	-64.36	-13.00	-51.36	peak	V
200.0000	-74.28	10.15	-64.13	-13.00	-51.13	peak	V
320.0000	-67.83	1.04	-66.79	-13.00	-53.79	peak	V
505.0000	-73.71	2.84	-70.87	-13.00	-57.87	peak	V
739.0000	-78.24	10.52	-67.72	-13.00	-54.72	peak	V
3004.000	-69.98	16.44	-53.54	-13.00	-40.54	peak	V
5092.000	-71.82	23.46	-48.36	-13.00	-35.36	peak	V
7828.000	-73.79	26.40	-47.39	-13.00	-34.39	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1 (Sample 1 st)	Date:	07/16/2012
Frequency:	848.8 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
90.5000	-66.99	-0.07	-67.06	-13.00	-54.06	peak	H
161.0000	-59.70	0.68	-59.02	-13.00	-46.02	peak	H
232.5000	-66.86	-1.21	-68.07	-13.00	-55.07	peak	H
354.0000	-75.37	-0.13	-75.50	-13.00	-62.50	peak	H
605.0000	-79.46	7.88	-71.58	-13.00	-58.58	peak	H
739.0000	-79.37	8.17	-71.20	-13.00	-58.20	peak	H
1696.000	-53.02	10.43	-42.59	-13.00	-29.59	peak	H
4528.000	-70.21	17.21	-53.00	-13.00	-40.00	peak	H
7636.000	-71.16	29.31	-41.85	-13.00	-28.85	peak	H
162.5000	-69.09	10.33	-58.76	-13.00	-45.76	peak	V
200.5000	-69.53	10.08	-59.45	-13.00	-46.45	peak	V
324.5000	-74.35	1.07	-73.28	-13.00	-60.28	peak	V
507.5000	-78.54	2.88	-75.66	-13.00	-62.66	peak	V
667.0000	-78.39	9.45	-68.94	-13.00	-55.94	peak	V
739.0000	-78.72	10.52	-68.20	-13.00	-55.20	peak	V
1696.000	-52.96	7.10	-45.86	-13.00	-32.86	peak	V
4420.000	-70.71	21.93	-48.78	-13.00	-35.78	peak	V
7204.000	-72.20	25.90	-46.30	-13.00	-33.30	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2 (Sample 1 st)	Date:	07/16/2012
Frequency:	1850.2 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
165.0000	-58.11	-2.44	-60.55	-13.00	-47.55	peak	H
198.0000	-66.41	1.11	-65.30	-13.00	-52.30	peak	H
305.0000	-68.90	-2.01	-70.91	-13.00	-57.91	peak	H
605.0000	-79.18	7.88	-71.30	-13.00	-58.30	peak	H
739.0000	-79.16	8.17	-70.99	-13.00	-57.99	peak	H
928.5000	-82.24	14.79	-67.45	-13.00	-54.45	peak	H
3124.000	-69.00	14.32	-54.68	-13.00	-41.68	peak	H
5212.000	-72.65	20.77	-51.88	-13.00	-38.88	peak	H
7420.000	-71.85	28.94	-42.91	-13.00	-29.91	peak	H
62.0000	-61.26	-5.78	-67.04	-13.00	-54.04	peak	V
160.5000	-70.95	12.20	-58.75	-13.00	-45.75	peak	V
199.0000	-68.65	9.20	-59.45	-13.00	-46.45	peak	V
331.0000	-69.14	1.12	-68.02	-13.00	-55.02	peak	V
662.5000	-80.01	9.41	-70.60	-13.00	-57.60	peak	V
758.5000	-80.29	10.92	-69.37	-13.00	-56.37	peak	V
2740.000	-69.86	14.29	-55.57	-13.00	-42.57	peak	V
4900.000	-71.67	23.19	-48.48	-13.00	-35.48	peak	V
7408.000	-71.42	26.32	-45.10	-13.00	-32.10	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2 (Sample 1 st)	Date:	07/16/2012
Frequency:	1880.0 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
163.5000	-60.76	-1.28	-62.04	-13.00	-49.04	peak	H
198.0000	-63.18	1.11	-62.07	-13.00	-49.07	peak	H
525.5000	-76.37	7.81	-68.56	-13.00	-55.56	peak	H
614.5000	-74.56	7.77	-66.79	-13.00	-53.79	peak	H
739.0000	-75.62	8.17	-67.45	-13.00	-54.45	peak	H
941.0000	-80.74	14.86	-65.88	-13.00	-52.88	peak	H
2476.000	-60.81	12.12	-48.69	-13.00	-35.69	peak	H
4900.000	-71.84	19.49	-52.35	-13.00	-39.35	peak	H
7468.000	-72.61	29.10	-43.51	-13.00	-30.51	peak	H
160.0000	-76.01	12.68	-63.33	-13.00	-50.33	peak	V
201.0000	-73.88	10.04	-63.84	-13.00	-50.84	peak	V
322.0000	-70.66	1.06	-69.60	-13.00	-56.60	peak	V
602.5000	-80.04	7.63	-72.41	-13.00	-59.41	peak	V
739.0000	-76.86	10.52	-66.34	-13.00	-53.34	peak	V
929.0000	-80.96	12.26	-68.70	-13.00	-55.70	peak	V
2620.000	-69.67	13.32	-56.35	-13.00	-43.35	peak	V
4468.000	-71.47	22.08	-49.39	-13.00	-36.39	peak	V
7300.000	-73.24	26.10	-47.14	-13.00	-34.14	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2 (Sample 1 st)	Date:	07/16/2012
Frequency:	1909.8 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
161.5000	-57.42	0.28	-57.14	-13.00	-44.14	peak	H
198.5000	-59.64	1.56	-58.08	-13.00	-45.08	peak	H
295.5000	-68.42	-2.80	-71.22	-13.00	-58.22	peak	H
527.0000	-78.84	7.87	-70.97	-13.00	-57.97	peak	H
605.0000	-78.07	7.88	-70.19	-13.00	-57.19	peak	H
739.0000	-78.83	8.17	-70.66	-13.00	-57.66	peak	H
2476.000	-63.37	12.12	-51.25	-13.00	-38.25	peak	H
4528.000	-70.50	17.21	-53.29	-13.00	-40.29	peak	H
7360.000	-72.07	28.74	-43.33	-13.00	-30.33	peak	H
63.0000	-62.81	-6.13	-68.94	-13.00	-55.94	peak	V
162.5000	-71.82	10.33	-61.49	-13.00	-48.49	peak	V
323.0000	-69.99	1.06	-68.93	-13.00	-55.93	peak	V
653.0000	-78.84	9.12	-69.72	-13.00	-56.72	peak	V
739.0000	-77.92	10.52	-67.40	-13.00	-54.40	peak	V
927.5000	-82.02	12.20	-69.82	-13.00	-56.82	peak	V
2812.000	-69.30	14.89	-54.41	-13.00	-41.41	peak	V
5104.000	-71.59	23.46	-48.13	-13.00	-35.13	peak	V
7600.000	-72.68	26.47	-46.21	-13.00	-33.21	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3 (Sample 1 st)	Date:	07/17/2012
Frequency:	826.4 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
63.0000	-71.39	2.67	-68.72	-13.00	-55.72	peak	H
165.5000	-56.53	-2.84	-59.37	-13.00	-46.37	peak	H
269.5000	-62.68	-4.35	-67.03	-13.00	-54.03	peak	H
499.5000	-77.81	6.94	-70.87	-13.00	-57.87	peak	H
614.5000	-76.88	7.77	-69.11	-13.00	-56.11	peak	H
739.0000	-78.60	8.17	-70.43	-13.00	-57.43	peak	H
3388.000	-69.74	15.15	-54.59	-13.00	-41.59	peak	H
5980.000	-71.57	23.00	-48.57	-13.00	-35.57	peak	H
7876.000	-72.60	29.51	-43.09	-13.00	-30.09	peak	H
63.0000	-60.70	-6.13	-66.83	-13.00	-53.83	peak	V
160.0000	-74.71	12.68	-62.03	-13.00	-49.03	peak	V
324.5000	-71.24	1.07	-70.17	-13.00	-57.17	peak	V
502.5000	-74.54	2.79	-71.75	-13.00	-58.75	peak	V
662.5000	-80.06	9.41	-70.65	-13.00	-57.65	peak	V
739.0000	-79.16	10.52	-68.64	-13.00	-55.64	peak	V
1852.000	-57.79	8.34	-49.45	-13.00	-36.45	peak	V
3760.000	-71.36	20.08	-51.28	-13.00	-38.28	peak	V
6868.000	-72.00	25.34	-46.66	-13.00	-33.66	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3 (Sample 2 nd)	Date:	07/18/2012
Frequency:	826.4 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
90.5000	-64.00	-0.07	-64.07	-13.00	-51.07	peak	H
296.5000	-62.21	-2.71	-64.92	-13.00	-51.92	peak	H
516.0000	-76.75	7.50	-69.25	-13.00	-56.25	peak	H
614.5000	-74.38	7.77	-66.61	-13.00	-53.61	peak	H
662.5000	-76.52	7.14	-69.38	-13.00	-56.38	peak	H
929.0000	-80.33	14.79	-65.54	-13.00	-52.54	peak	H
4960.000	-71.82	19.85	-51.97	-13.00	-38.97	peak	H
7396.000	-71.94	28.87	-43.07	-13.00	-30.07	peak	H
9652.000	-73.78	30.87	-42.91	-13.00	-29.91	peak	H
140.5000	-75.10	8.88	-66.22	-13.00	-53.22	peak	V
254.0000	-77.42	-1.18	-78.60	-13.00	-65.60	peak	V
413.5000	-79.42	1.34	-78.08	-13.00	-65.08	peak	V
660.0000	-79.96	9.39	-70.57	-13.00	-57.57	peak	V
734.0000	-81.98	10.60	-71.38	-13.00	-58.38	peak	V
926.0000	-81.48	12.13	-69.35	-13.00	-56.35	peak	V
4900.000	-70.36	23.19	-47.17	-13.00	-34.17	peak	V
7804.000	-72.50	26.40	-46.10	-13.00	-33.10	peak	V
8932.000	-73.22	24.44	-48.78	-13.00	-35.78	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3 (Sample 1 st)	Date:	07/17/2012
Frequency:	836.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
160.5000	-56.30	1.05	-55.25	-13.00	-42.25	peak	H
230.5000	-65.38	-0.98	-66.36	-13.00	-53.36	peak	H
309.5000	-64.00	-1.68	-65.68	-13.00	-52.68	peak	H
517.5000	-77.24	7.56	-69.68	-13.00	-56.68	peak	H
614.5000	-75.48	7.77	-67.71	-13.00	-54.71	peak	H
739.0000	-78.91	8.17	-70.74	-13.00	-57.74	peak	H
1852.000	-53.75	10.49	-43.26	-13.00	-30.26	peak	H
3868.000	-68.65	16.20	-52.45	-13.00	-39.45	peak	H
7408.000	-72.31	28.90	-43.41	-13.00	-30.41	peak	H
61.5000	-59.49	-5.62	-65.11	-13.00	-52.11	peak	V
200.0000	-69.74	10.15	-59.59	-13.00	-46.59	peak	V
322.0000	-63.35	1.06	-62.29	-13.00	-49.29	peak	V
515.5000	-72.04	3.02	-69.02	-13.00	-56.02	peak	V
673.0000	-75.88	9.50	-66.38	-13.00	-53.38	peak	V
739.0000	-75.75	10.52	-65.23	-13.00	-52.23	peak	V
2944.000	-70.12	15.96	-54.16	-13.00	-41.16	peak	V
5044.000	-71.87	23.46	-48.41	-13.00	-35.41	peak	V
7396.000	-73.36	26.30	-47.06	-13.00	-34.06	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	PM66100	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3 (Sample 1 st)	Date:	07/17/2012
Frequency:	846.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
165.5000	-55.46	-2.84	-58.30	-13.00	-45.30	peak	H
231.0000	-65.73	-1.04	-66.77	-13.00	-53.77	peak	H
317.5000	-70.40	-1.10	-71.50	-13.00	-58.50	peak	H
513.0000	-78.56	7.41	-71.15	-13.00	-58.15	peak	H
614.5000	-77.35	7.77	-69.58	-13.00	-56.58	peak	H
739.0000	-78.59	8.17	-70.42	-13.00	-57.42	peak	H
3136.000	-68.83	14.35	-54.48	-13.00	-41.48	peak	H
5596.000	-73.12	21.95	-51.17	-13.00	-38.17	peak	H
7684.000	-71.60	29.35	-42.25	-13.00	-29.25	peak	H
130.5000	-75.50	14.10	-61.40	-13.00	-48.40	peak	V
199.0000	-71.49	9.20	-62.29	-13.00	-49.29	peak	V
352.0000	-72.68	1.95	-70.73	-13.00	-57.73	peak	V
502.0000	-76.05	2.78	-73.27	-13.00	-60.27	peak	V
662.5000	-79.05	9.41	-69.64	-13.00	-56.64	peak	V
739.0000	-79.93	10.52	-69.41	-13.00	-56.41	peak	V
3004.000	-68.98	16.44	-52.54	-13.00	-39.54	peak	V
5236.000	-72.22	23.47	-48.75	-13.00	-35.75	peak	V
7732.000	-71.92	26.43	-45.49	-13.00	-32.49	peak	V

7 Frequency Stability (Temperature Variation) Test

7.1. Limit

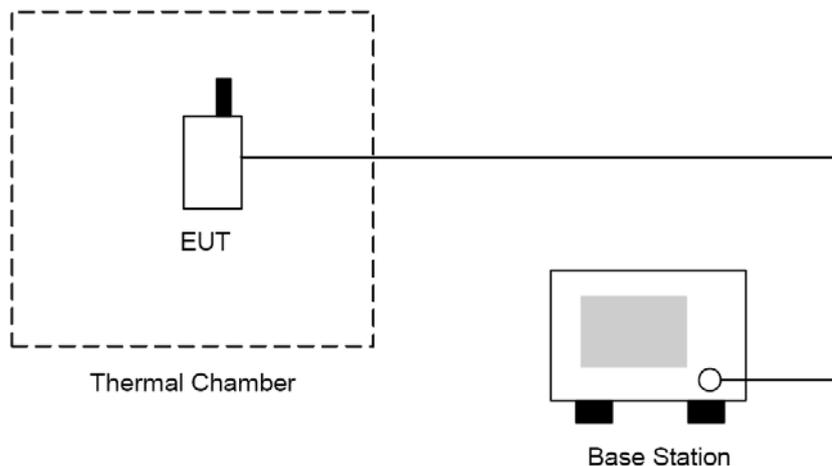
The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

7.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	03/16/2012	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/24/2011	(1)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.
 Note: N.C.R. = No Calibration Request.

7.3. Setup



7.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The temperature tests were performed for the worst case.
5. Test data was recorded.

7.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Temperature Variation) measurement is $\pm 10\text{Hz}$.

7.6. Test Result

Model Number	PM66100			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 1 (Sample 1 st)			
Date of Test	07/09/2012		Test Site	TE05
Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	-23	-0.027	±2.5	Pass
-20	-31	-0.037	±2.5	Pass
-10	-25	-0.030	±2.5	Pass
0	-28	-0.033	±2.5	Pass
10	-21	-0.025	±2.5	Pass
20	-20	-0.024	±2.5	Pass
30	-23	-0.027	±2.5	Pass
40	-26	-0.031	±2.5	Pass
50	-27	-0.032	±2.5	Pass

Model Number	PM66100			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 2 (Sample 1 st)			
Date of Test	07/09/2012		Test Site	TE05
Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	-51	-0.027	±2.5	Pass
-20	-53	-0.028	±2.5	Pass
-10	-56	-0.030	±2.5	Pass
0	-58	-0.031	±2.5	Pass
10	-50	-0.027	±2.5	Pass
20	-52	-0.028	±2.5	Pass
30	-49	-0.026	±2.5	Pass
40	-46	-0.024	±2.5	Pass
50	-54	-0.029	±2.5	Pass

Model Number	PM66100			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 3 (Sample 1 st)			
Date of Test	07/09/2012		Test Site	TE05
Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	-11	-0.013	±2.5	Pass
-20	-14	-0.017	±2.5	Pass
-10	-19	-0.023	±2.5	Pass
0	-23	-0.027	±2.5	Pass
10	-15	-0.018	±2.5	Pass
20	-18.	-0.022	±2.5	Pass
30	-13	-0.016	±2.5	Pass
40	-11	-0.013	±2.5	Pass
50	-7	-0.008	±2.5	Pass

8 Frequency Stability (Voltage Variation) Test

8.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

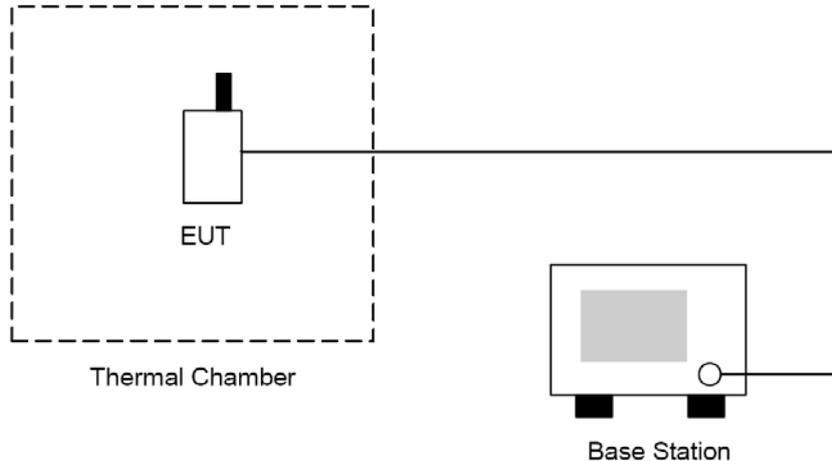
8.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	03/16/2012	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/24/2011	(1)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

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

8.3. Setup



8.4. Test Procedure

1. The EUT was placed in a temperature chamber at $25 \pm 5 \text{ }^\circ\text{C}$ and connected as the following section.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

8.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Voltage Variation) measurement is $\pm 10\text{Hz}$.

8.6. Test Result

Model Number	PM66100				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 1 (Sample 1 st)				
Date of Test	07/09/2012		Test Site	TE05	
Level	Voltage [Vdc]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.37	-26	-0.031	± 2.5	Pass
Normal	3.80	-22	-0.026	± 2.5	Pass
Battery cut-off point	3.23	-25	-0.030	± 2.5	Pass

Model Number	PM66100				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 2 (Sample 1 st)				
Date of Test	07/09/2012		Test Site	TE05	
Level	Voltage [Vdc]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.37	-53	-0.028	± 2.5	Pass
Normal	3.80	-59	-0.031	± 2.5	Pass
Battery cut-off point	3.23	-51	-0.027	± 2.5	Pass

Model Number	PM66100				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 3 (Sample 1 st)				
Date of Test	07/09/2012		Test Site	TE05	
Level	Voltage [Vdc]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.37	-13	-0.016	± 2.5	Pass
Normal	3.80	-19	-0.023	± 2.5	Pass
Battery cut-off point	3.23	-11	-0.013	± 2.5	Pass