

FCC 47 CFR PART 22H and 24E

Product Type : Notebook

Applicant : DIALOGUE INC

Address 4TH FL 20 LN 54 JHONGJHENG RD, SINDIAN CITY

TAIPEI HSIEN, 231, TW

Trade Name : M2

Model Number : M2A1

Test : FCC 47 CFR PART 22H: Oct, 2008 Specification : FCC 47 CFR PART 24E: Oct, 2008

ANSI/TIA-603-2007

Issue Date : Apr. 02, 2010

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Apr. 02, 2010	Initial Issue	

Verification

Issued Date: 2010/04/02

Product Type : Notebook

Applicant : DIALOGUE INC

Address 4TH FL 20 LN 54 JHONGJHENG RD, SINDIAN CITY

TAIPEI HSIEN, 231, TW

Trade Name : M2

Model Number : M2A1

FCC ID : X8P-M2A1

EUT Rated Voltage : DC 19V, 3.42A

Test Voltage : 120 Vac / 60 Hz

Applicable : FCC 47 CFR PART 22H: Oct, 2008

Standard FCC 47 CFR PART 24E: Oct, 2008

ANSI/TIA-603-2007

Test Result : Complied

Performed Lab. : A Test Lab Techno Corp.

No. 140-1, Changan Street, Bade City lac-Mi

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

The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the Electromagnetic Compatibility Directive 2004/108/EC and technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By

(Manager)

(Miller Lee)

Reviewed By

(Testing Engineer)

(Ga**4** Wu)

1330



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1 General Information

1.1. EUT Description

Applica	nt	DIALOGUE INC					
Applica	nt Address	4TH FL 20 LN 54 JHONGJHENG RD, SINDIAN CITY TAIPEI HSIEN, 231, TW					
Manufa	cturer	AOpen Information Product (Zhongshan) Inc.					
Manufa	cturer Address	Zhongshan Torch High-tech Industrial Development Zone, Zhongshan City, Guangdong, China					
Product	Туре	Noteboo	k				
Trade N	lame	M2					
Model N	Number	M2A1					
FCC ID		X8P-M2	A1				
	GSM/GPRS/	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation		
	EGPRS	850	824.2 ~ 848.8	869.2 ~ 893.8	GMSK/8PSK		
Mode	201110	1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8	GMSK/8PSK		
IVIOGE	WCDMA/	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation		
	HSDPA/	II	1852.4 ~ 1907.6	1932.4 ~ 1987.6	QPSK		
	HSUPA	V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK		
Channe	el Control	Auto					
Hardwa	re version	V1.02					
Softwar	e version	XP x86					
Type of	Antenna	PCB Antenan					
Antenna	a Gain (dBi)	GSM/GPRS/EGPRS 850: -0.05 dBi					
		GSM/GPRS/EGPRS 1900: 1.67 dBi					
		WCDMA/HSDPA/HSUPA Band II: 1.67 dBi					
		WCDMA/HSDPA/HSUPA Band V: -0.05 dBi					
Max. RI	F Output power	GSM/GPRS 850: 31.80 dBm / 1.514 W, EGPRS 850: 26.32 dBm / 0.429 W					
		GSM/GPRS 1900: 28.84 dBm / 0.766 W, EGPRS 1900: 25.30 dBm / 0.339 W					
		WCDMA/HSDPA/HSUPA Band II: 21.83 dBm / 0.152 W					
		WCDMA	/HSDPA/HSUPA Band V:	21.95 dBm / 0.157 W			
Max. El	RP/EIRP	GSM/GPRS 850: 29.13 dBm / 0.818 W, EGPRS 850: 23.84 dBm / 0.242 W					
		GSM/GPRS 1900: 30.08 dBm / 1.019 W, EGPRS 1900: 26.26 dBm / 0.423 W					
		WCDMA/HSDPA/HSUPA Band II: 22.87 dBm / 0.194 W					
		WCDMA/HSDPA/HSUPA Band V: 19.46 dBm / 0.078 W					
Emissio	n Designator	GSM/GPRS 850: 244KGXW, EGPRS 850: 244KG7W					
		GSM/GPRS 1900: 247KGXW, EGPRS 1900: 246KG7W					
		WCDMA/HSDPA/HSUPA Band II: 4M17F9W					
		WCDMA	/HSDPA/HSUPA Band V:	4M17F9W			
			Componer	nt			
Power A	Adapter	DELTA, ADP-65HB BB					
		Input:100-240Vac, 1.5A, 50-60Hz					
		•	19Vdc, 3.42A				
			: Shielded, 1.75 m				
Cable out: Non-Shielded, 1.75				vith a core			
Battery			Power, PS00D0Q				
		11.1 Vdc	c, 48Wh				

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 II Link
Mode 4: WCDMA Band V Link
Mode 5: EGPRS 850 Link
Mode 6: 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.

Tested System Details

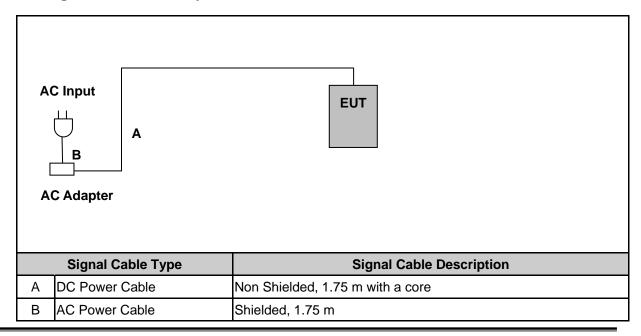
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model Number	Serial Number	Power Cord
1.	Universal Radio Communication Tester	R&S	CMU200	109369	N/A

1.3. EUT Exercise Software

Setup the EUT and Base Station (CMU200) as shown on 1.4.
 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	25	
Humidity (%RH)	25-75	50	
Barometric pressure (mbar)	860-1060	950-1000	

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)	N/A	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 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)	< 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

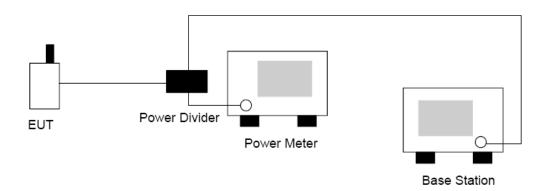
2.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
WIDE BAND SENSOR	ROHDE & SCHWARZ	NRP-Z81	100017	05/17/2009	(1)
Test Site	ATL	TE02	TE02	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

Product	Notebook		
Test Item	RF Output Power		
Date of Test	03/20/2010	Test Site	TE02

Report No: 1003FR18

Bands	Data Rate	Frequency	Average	e Power	Peak l	Power
bands	Data Rate	(MHz)	(dBm)	(W)	(dBm)	(W)
		824.2	22.52	0.179	31.71	1.483
GSM 850		836.4	22.59	0.182	31.80	1.514
		848.8	22.53	0.179	31.72	1.486
		824.2	22.57	0.181	31.76	1.500
	4Down1Up	836.4	22.61	0.182	31.78	1.507
GRRS 850		848.8	22.56	0.180	31.75	1.496
GKK3 650	1Doen4Up	824.2	22.00	0.158	25.22	0.333
		836.4	22.05	0.160	25.27	0.337
		848.8	21.98	0.158	25.20	0.331
	4Down1Up	824.2	17.13	0.052	26.32	0.429
		836.4	16.93	0.049	26.12	0.409
EGPRS 850		848.8	17.10	0.051	26.29	0.426
EGPKS 650		824.2	18.76	0.075	21.98	0.158
	1Doen4Up	836.4	19.07	0.081	22.29	0.169
		848.8	18.76	0.075	21.98	0.158

Bands	Data Rate	Frequency	Average	Average Power		Power
Dallus	Dala Rale	(MHz)	(dBm)	(W)	(dBm)	(W)
		1850.20	19.62	0.092	28.81	0.760
GSM 1900		1880.00	19.54	0.090	28.73	0.746
		1909.80	19.64	0.092	28.84	0.766
		1850.20	19.62	0.092	28.81	0.760
	4Down1Up	1880.00	19.56	0.090	28.75	0.750
GRRS 1900		1909.80	19.65	0.092	28.83	0.764
GRK3 1900	1Doen4Up	1850.20	21.90	0.155	25.12	0.325
		1880.00	21.82	0.152	25.04	0.319
		1909.80	21.88	0.154	25.10	0.324
	4Down1Up	1850.20	16.11	0.041	25.30	0.339
		1880.00	15.83	0.038	25.02	0.318
EGPRS 1900		1909.80	15.88	0.039	25.07	0.321
LGF 13 1900		1850.20	17.93	0.062	21.15	0.130
	1Doen4Up	1880.00	17.63	0.058	20.85	0.122
		1909.80	17.66	0.058	20.88	0.122

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

Danda	Cub toot	Frequency	Average	Power	Peak	Power
Bands Sub-	Sub-test	(MHz)	(dBm)	(W)	(dBm)	(W)
		1852.4	21.80	0.151	21.83	0.152
WCDMA Band II		1880.0	21.76	0.150	21.79	0.151
Danu II		1907.6	21.51	0.142	21.54	0.143
		1852.4	21.55	0.143	21.58	0.144
	1	1880.0	21.64	0.146	21.67	0.147
		1907.6	21.34	0.136	21.37	0.137
		1852.4	21.50	0.141	21.54	0.143
	2	1880.0	21.56	0.143	21.58	0.144
HSDPA		1907.6	21.33	0.136	21.36	0.137
Band II		1852.4	21.08	0.128	21.11	0.129
	3	1880.0	21.05	0.127	21.09	0.129
		1907.6	20.79	0.120	20.82	0.121
		1852.4	21.03	0.127	21.07	0.128
	4	1880.0	21.05	0.127	21.09	0.129
		1907.6	20.82	0.121	20.84	0.121
	1	1852.4	20.96	0.125	20.99	0.126
		1880.0	21.00	0.126	21.03	0.127
		1907.6	21.32	0.136	21.35	0.136
		1852.4	18.97	0.079	18.99	0.079
	2	1880.0	19.08	0.081	19.10	0.081
		1907.6	19.20	0.083	19.33	0.086
		1852.4	19.88	0.097	19.91	0.098
HSUPA Band II	3	1880.0	19.92	0.098	19.96	0.099
Dana n		1907.6	20.21	0.105	20.34	0.108
		1852.4	19.05	0.080	19.07	0.081
	4	1880.0	19.08	0.081	19.10	0.081
		1907.6	19.23	0.084	19.29	0.085
		1852.4	21.05	0.127	21.08	0.128
	5	1880.0	21.09	0.129	21.11	0.129
		1907.6	21.25	0.133	21.33	0.136

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

Danda	Cub toot	Frequency	Average	Power	Peak	Power
Bands	Sub-test	(MHz)	(dBm)	(W)	(dBm)	(W)
WCDMA Band V		826.4	21.52	0.142	21.55	0.143
		836.4	21.92	0.156	21.95	0.157
Бани у		846.4	21.46	0.140	21.49	0.141
		826.4	21.49	0.141	21.52	0.142
	1	836.4	21.73	0.149	21.76	0.150
		846.4	21.32	0.136	21.35	0.136
		826.4	21.44	0.139	21.47	0.140
	2	836.4	21.71	0.148	21.74	0.149
HSDPA		846.4	21.27	0.134	21.30	0.135
Band V		826.4	20.95	0.124	20.98	0.125
	3	836.4	21.20	0.132	21.23	0.133
		846.4	20.79	0.120	20.80	0.120
		826.4	20.91	0.123	20.94	0.124
	4	836.4	21.19	0.132	21.22	0.132
		846.4	20.78	0.120	20.81	0.121
	1	826.4	20.70	0.117	20.73	0.118
		836.4	20.68	0.117	20.71	0.118
		846.4	20.06	0.101	20.09	0.102
		826.4	18.61	0.073	18.77	0.075
	2	836.4	18.59	0.072	18.75	0.075
		846.4	18.11	0.065	19.84	0.096
		826.4	19.70	0.093	19.73	0.094
HSUPA Band V	3	836.4	19.77	0.095	19.79	0.095
Dana v		846.4	19.15	0.082	19.18	0.083
		826.4	18.70	0.074	18.83	0.076
	4	836.4	18.74	0.075	18.80	0.076
		846.4	18.15	0.065	18.22	0.066
		826.4	20.66	0.116	20.79	0.120
	5	836.4	20.78	0.120	20.80	0.120
		846.4	20.15	0.104	20.17	0.104

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.

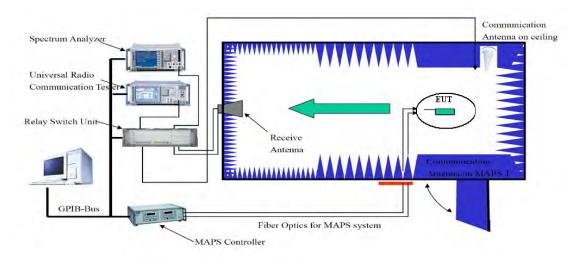
3.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/22/2008	(2)
Loop Dipole	ETS-Lindgren	3127-1880	00064239	02/05/2009	(2)
Loop Dipole	ETS-Lindgren	3127-836	00064352	02/19/2009	(2)
Sleeve Dipole	ETS-Lindgren	3126-1845	00083335	03/18/2009	(2)
Sleeve Dipole	ETS-Lindgren	3126-880	00052705	11/05/2009	(2)
Circularly Polarized Communication Antennas	EMCO	3102	00051714	NCR	
Antenna Positioner Controller	EMCO	2090	00052447	NCR	
MAPS Positioner	EMCO	2010/2015	NA	NCR	
Pattern Measurement Software	ETS-Lindgren	EMQuest™ EMQ-100	NA	NCR	
Desktop Computer with Windows XP	DELL	Dell Computers	NA	NCR	
Anechoic Chamber	ETS-Lindgren	AMS 8500	102165	NCR	

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

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

3.3. Test Setup



3.4. Test Procedure

The phone was tested in an anechoic chamber with a 3-axis position system that permits taking complete spherical scans of the EUT's 3-axis radiation patterns. For all tests, the phone was supported in a free space type environment, vertically oriented in the chamber. Tests were done for GSM 850 three frequencies (824.2, 836.6 and 848.8 MHz) and GSM 1900 three frequencies (1850.2, 1880.00, and 1909.80 MHz).

GSM measurements were made with the phone placed in a call using the CMU200 mobile station test set. The phone was weakly coupled to the test set and configured to transmit in full data rate mode.

The radiated power was measured using ETS-LINDGREN OTA Chamber in "Peak" mode. From these measurements, the software calculates the angle at which maximum radiated power occurs for each case, and the radiated power at this angle was extracted from the data.

Each individual data point in a radiated power or sensitivity measurement is referred to as the effective isotropic radiated power or effective isotropic sensitivity. That is, the desired information is how the measured quantity relates to the same quantity from an isotropic radiator. Thus, the reference measurement must relate the power received or transmitted at the EUT test equipment (spectrum analyzer or communication tester) back to the power transmitted or received at a theoretical isotropic radiator. The total path loss then, is just the difference in dB between the power transmitted or received at the isotropic radiator and that seen at the test equipment (see follow Figure 1).

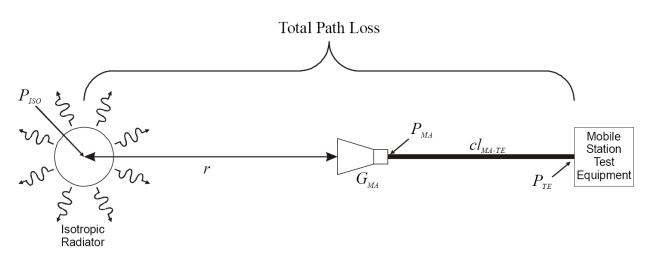


Figure 1. THEORETICAL CASE FOR DETERMINING PATH LOSS

In equation form, this becomes:

Equation 1

$$PL = P_{ISO} - P_{TE}$$
,

where PL is the total path loss, P_{ISO} is the power radiated by the theoretical isotropic radiator, and P_{TE} is the power received at the test equipment port. As can be seen in Figure 1, this quantity includes the range path loss due to the range length r, the gain of the measurement antenna, and any loss terms associated with the cabling, connections, amplifiers, splitters, etc. between the measurement antenna and the test equipment port.

Figure 2 shows a typical real world configuration for measuring the path loss. In this case, a reference antenna with known gain is used in place of the theoretical isotropic source. The path loss may then be determined from the power into the reference antenna by adding the gain of the reference antenna. That is:

Equation 2

$$P_{ISO} = P_{RA} + G_{RA},$$

where P_{RA} is the power radiated by reference antenna, and G_{RA} is the gain of the reference antenna, so that:

Equation 3

$$PL = P_{RA} + G_{RA} - P_{TE} ,$$

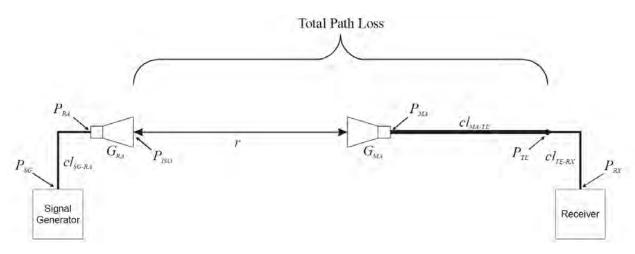


Figure 2. TYPICAL CONFIGURATION FOR MEASURING PATH LOSS

In order to determine P_{RA} , it is necessary to perform a cable reference measurement to remove the effects of the cable loss between signal generator and reference antenna, and between the test equipment port and the receiver. This establishes a reference point at the input to the reference antenna. Figure 3 illustrates the cable reference measurement configuration. Assuming the power level at the signal generator is fixed, it is easy to show that the difference between P_{RA} and P_{TE} in Figure 2 is given by:

Equation 4

$$P_{RA} - P_{TE} = P_{RX}' - P_{RX},$$

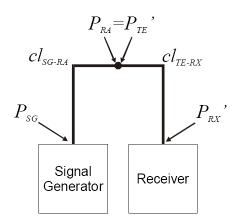


Figure 3. CABLE REFERENCE CALIBRATION CONFIGURATION

Where $P_{RX'}$ is the power measured at the receiver during the cable reference test, and P_{RX} is the power measured at the receiver during the range path loss measurement in Figure 2. Thus, the path loss is then just given by:

Equation 5

$$PL = G_{RA} + P_{RX}' - P_{RX'}$$

$$EIRP = P_t + P_L$$

P_t = Often referred to as antenna output power

3.5. Uncertainty

The measurement uncertainty is defined as for Radiated Power measurement list below:

Band	Uncertainty
Cell	1.08 dB
PCS	1.42 dB
GPRS	1.44 dB

3.6. Test Result

Product	Notebook		
Test Item	ERP/EIRP		
Date of Test	03/24/2010	Test Site	TC03

Bands	Frequency	Read Level	Correction factor	ERP		Limit
Banus	(MHz) (dBm)		(dBm)	(dBm)	(W)	Limit
	824.2	78.34	-49.50	28.84	0.766	< 7W
GSM 850	836.4	78.83	-49.70	29.13	0.818	< 7W
	848.8	78.70	-49.70	29.00	0.794	< 7W
	824.2	73.24	-49.50	23.74	0.237	< 7W
EGPRS 850	836.4	73.52	-49.70	23.82	0.241	< 7W
	848.8	73.54	-49.70	23.84	0.242	< 7W

Danda	Frequency	Read Level	Correction factor	EIRP		Limete
Bands	(MHz) (dBm)		(dBm)	(dBm)	(W)	Limit
	1850.20	83.82	-55.40	28.42	0.695	< 2W
GSM 1900	1880.00	84.05	-55.60	28.45	0.700	< 2W
	1909.80	85.78	-55.70	30.08	1.019	< 2W
	1850.20	80.32	-55.40	24.92	0.310	< 2W
EGPRS 1900	1880.00	80.55	-55.60	24.95	0.313	< 2W
	1909.80	81.96	-55.70	26.26	0.423	< 2W

Bands	Frequency	Read Level Correction factor		EIRP		Limit
(MHz)	(dBm)	(dBm)	(dBm)	(W)	Lillit	
	1852.4	76.22	-55.40	20.82	0.121	< 2W
WCDMA Band II	1880.0	77.07	-55.60	21.47	0.140	< 2W
25.10	1907.6	78.57	-55.70	22.87	0.194	< 2W

Rande	Bands Frequency		Read Level Correction factor		ERP	
(MHz)	(dBm)	(dBm)	(dBm)	(W)	Limit	
	826.4	67.58	-49.50	18.08	0.064	< 7W
WCDMA Band V	836.4	69.16	-49.70	19.46	0.088	< 7W
Bana v	846.4	68.63	-49.70	18.93	0.078	< 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 + 10log(P) dB.

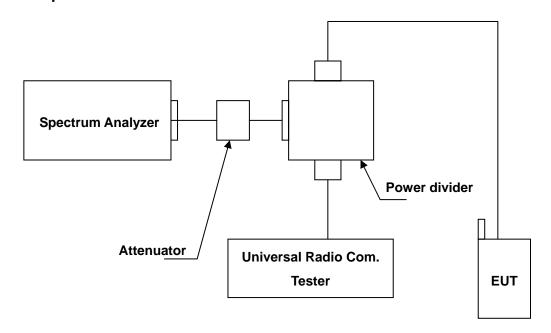
4.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	
Power divider	Agilent	87302C	3239A00760	N.C.R.	
Test Site	ATL	TE02	TE02	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=3 kHz; VB=3 kHz for GSM 850 and PCS 1900.
 - b. RB=100 kHz; VB=100 kHz for WCDMA Band V and WCDMA Band II.

4.5. Uncertainty

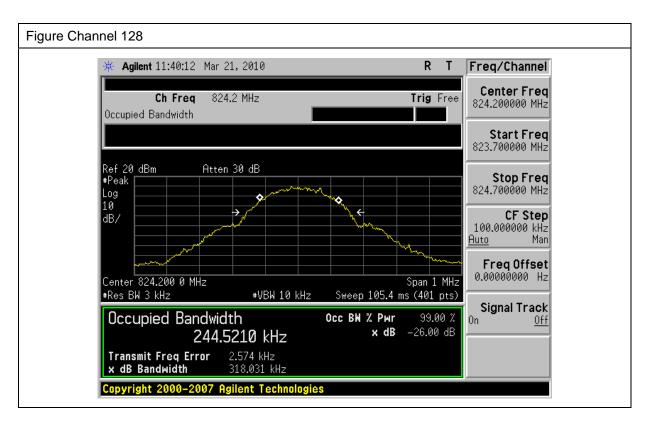
The measurement uncertainty is defined as ± 10Hz

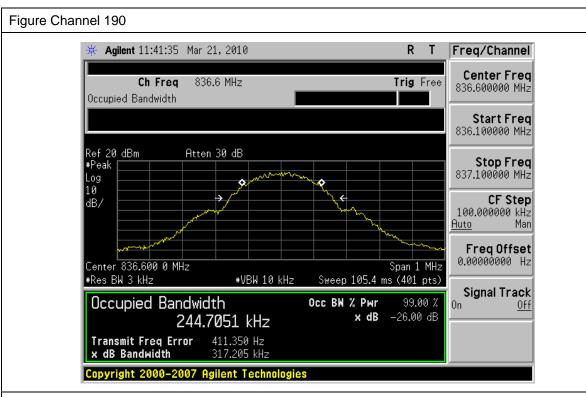
4.6. Test Result

99% Occupied Bandwidth

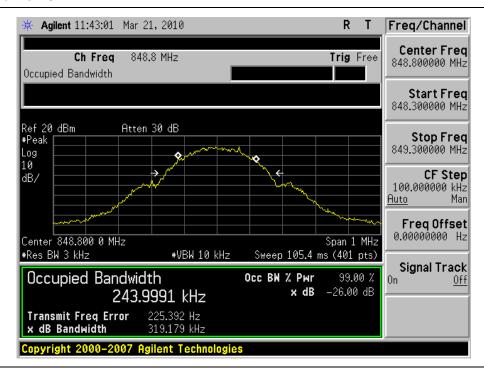
Product	Notebook			
Test Item	Occupied Bandwidth			
Test Mode	Mode 1: GSM 850 Link			
Date of Test	03/21/2010	Test Site	TE02	

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	244.5210	RBW:3KHz , VBW:10KHz
190	836.4	244.7051	RBW:3KHz , VBW:10KHz
251	848.8	243.9991	RBW:3KHz , VBW:10KHz



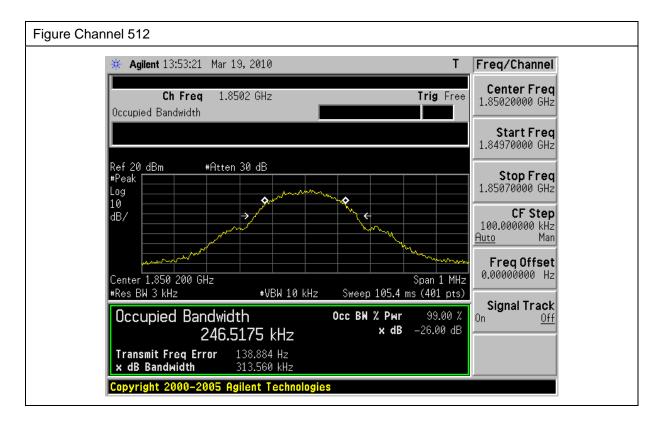


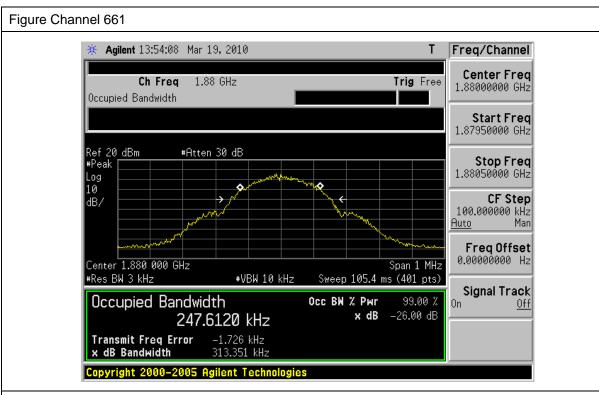




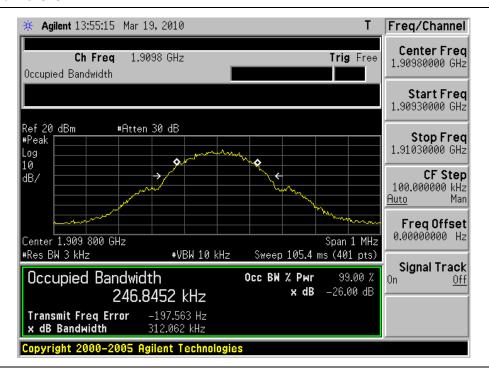
Product	Notebook		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: GSM 1900 Link		
Date of Test	03/21/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	246.5175	RBW:3KHz , VBW:10KHz
661	1880.00	247.6120	RBW:3KHz , VBW:10KHz
810	1909.80	246.8452	RBW:3KHz , VBW:10KHz



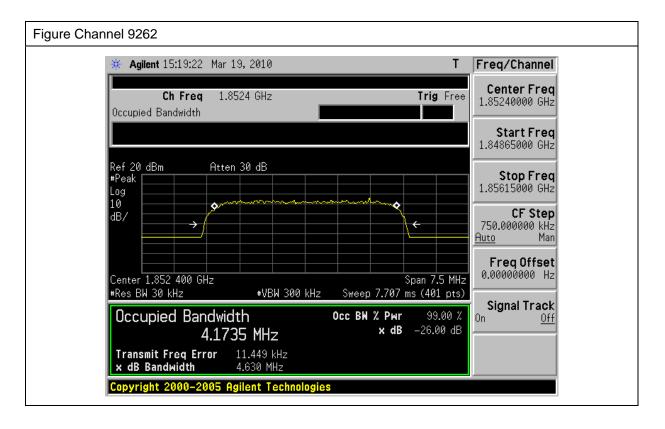


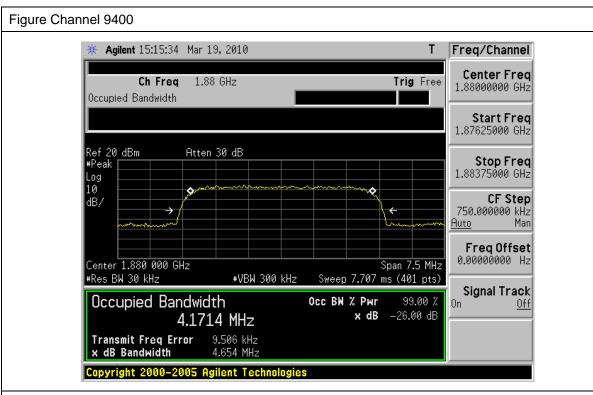




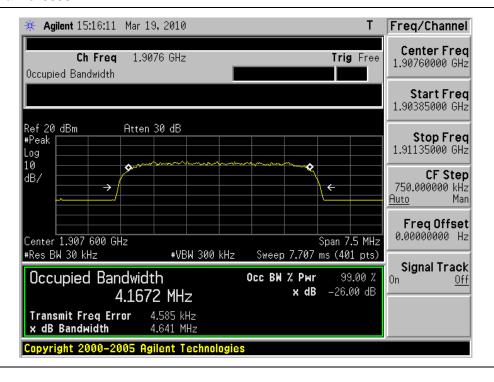
Product	Notebook		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: WCDMA Band II Link		
Date of Test	03/19/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
9262	1852.4	4173.5	RBW:30KHz , VBW:300KHz
9400	1880.0	4171.4	RBW:30KHz , VBW:300KHz
9538	1907.6	4167.2	RBW:30KHz , VBW:300KHz



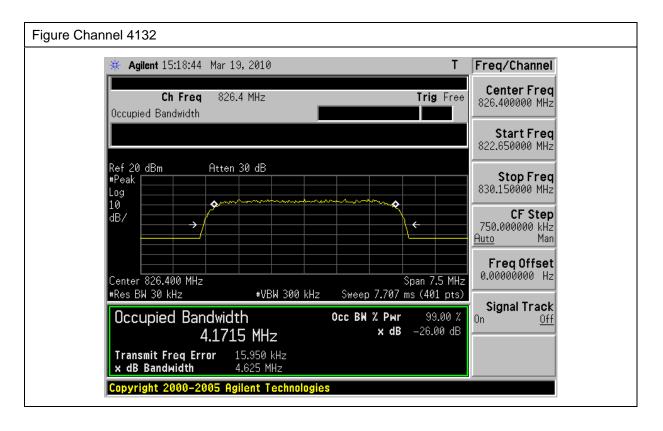


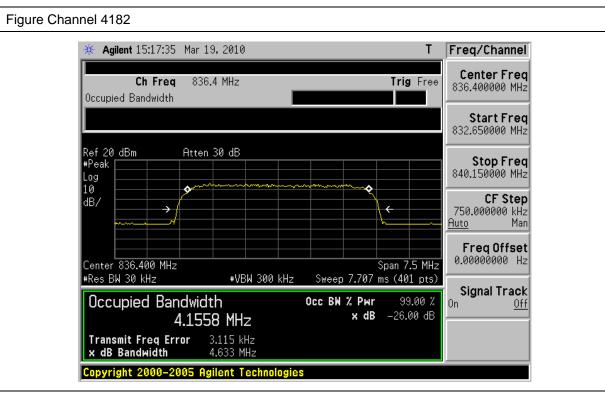




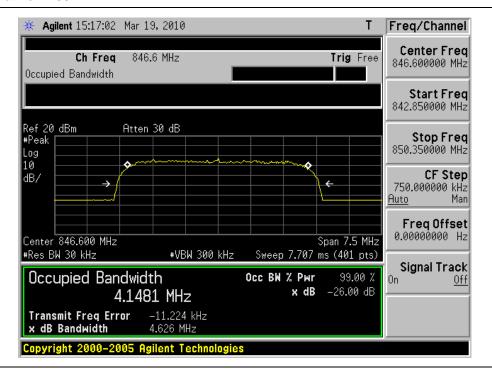
Product	Notebook			
Test Item	Occupied Bandwidth			
Test Mode	Mode 4: WCDMA Band V Link			
Date of Test	11/22/2009	Test Site	TE02	

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
4132	826.4	4171.5	RBW:30KHz , VBW:300KHz
4182	836.4	4155.8	RBW:30KHz , VBW:300KHz
4233	846.4	4148.1	RBW:30KHz , VBW:300KHz



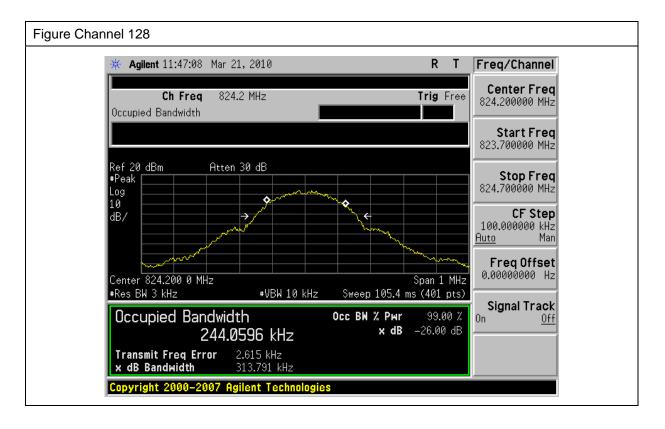


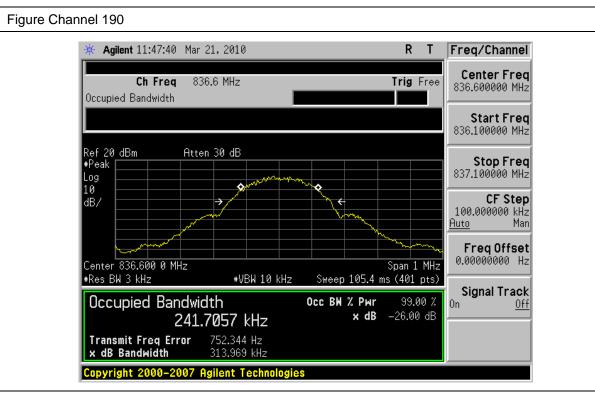




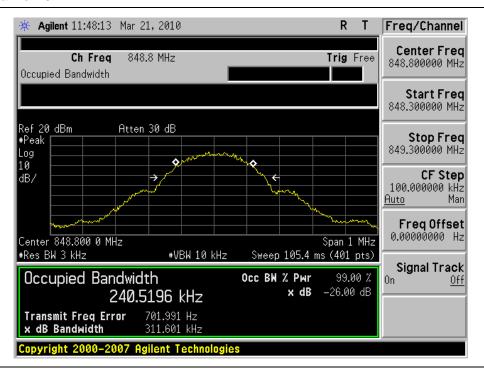
Product	Notebook		
Test Item	Occupied Bandwidth		
Test Mode	Mode 5: EGPRS 850 Link		
Date of Test	03/21/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	244.0596	RBW:3KHz , VBW:10KHz
190	836.4	241.7057	RBW:3KHz , VBW:10KHz
251	848.8	240.5196	RBW:3KHz , VBW:10KHz



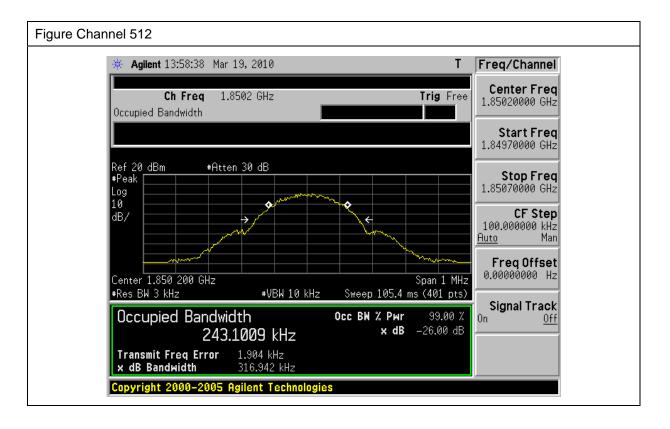


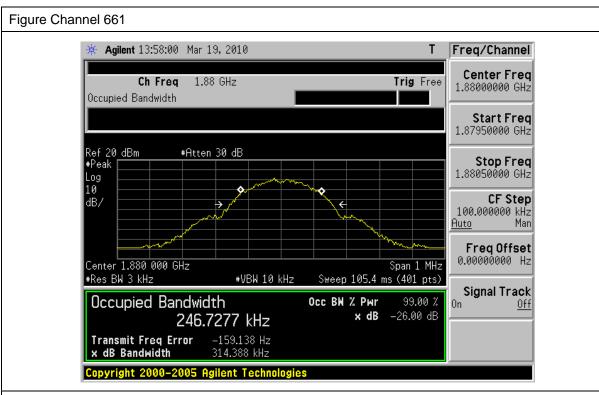




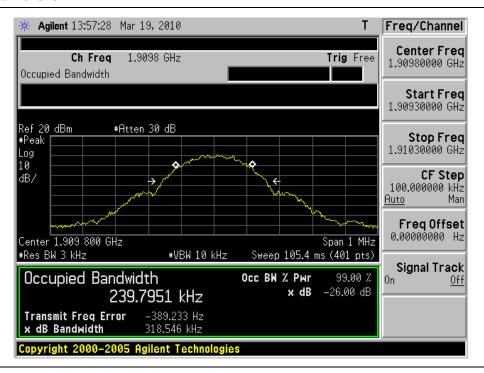
Product	Notebook		
Test Item	Occupied Bandwidth		
Test Mode	Mode 6: EGPRS 1900 Link		
Date of Test	03/19/2010	Test Site	TE02

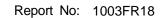
Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	243.1009	RBW:3KHz , VBW:10KHz
661	1880.00	246.7277	RBW:3KHz , VBW:10KHz
810	1909.80	239.7951	RBW:3KHz , VBW:10KHz









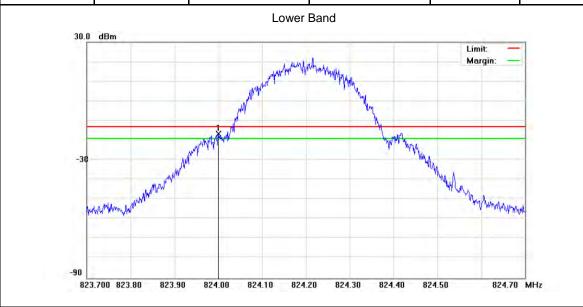


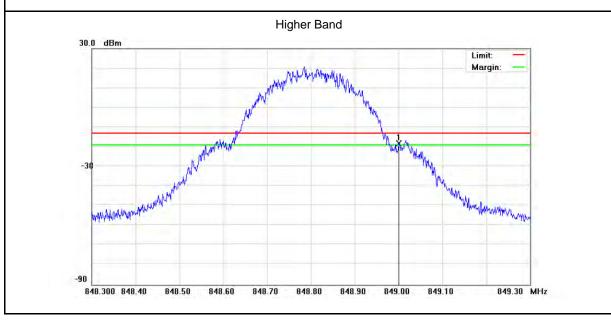


Band Edge

Product	Notebook		
Test Item	Band Edge		
Test Mode	Mode 1: GSM 850 Link		
Date of Test	03/21/2010	Test Site	TE02

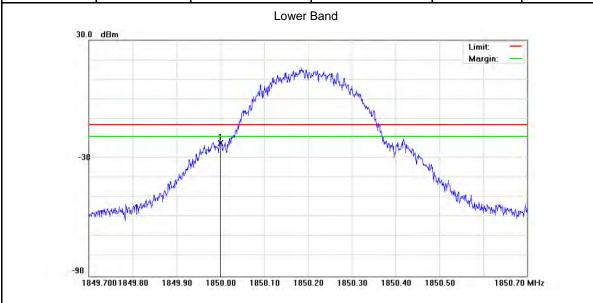
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	128	824.0000	-16.60	-13	Pass
Higher	251	849.0000	-18.04	-13	Pass

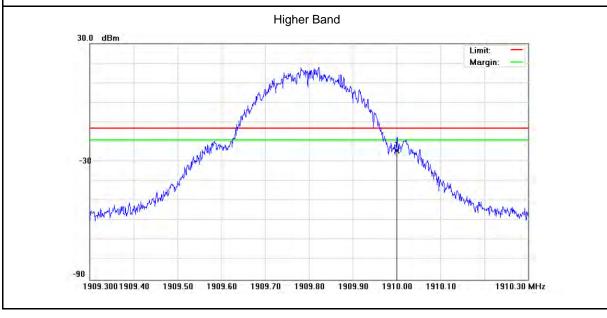




Product	Notebook			
Test Item	Band Edge			
Test Mode	Mode 2: GSM 1900 Link			
Date of Test	03/21/2010	Test Site	TE02	

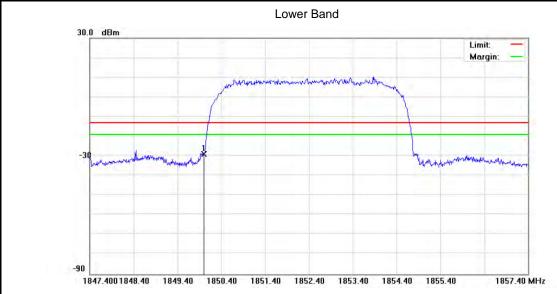
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	512	1850.000	-22.21	-13	Pass
Higher	810	1910.000	-24.48	-13	Pass

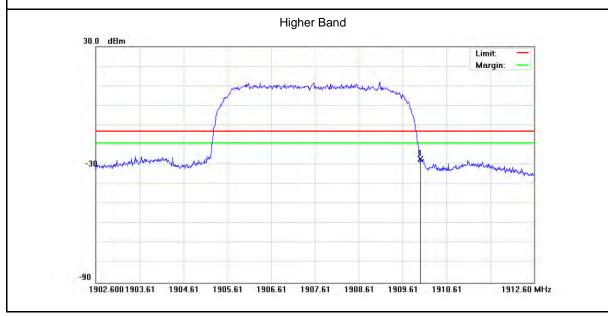




Product	Notebook			
Test Item	Band Edge			
Test Mode	Mode 3: WCDMA Band II Link			
Date of Test	03/21/2010	Test Site	TE02	

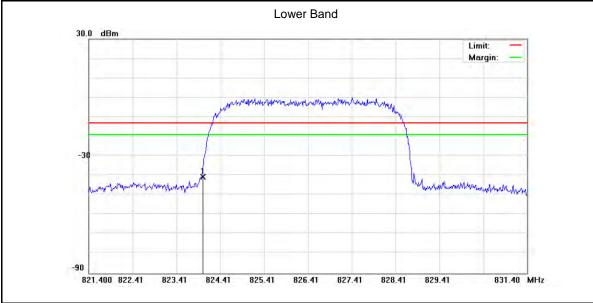
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	9262	1850.000	-28.89	-13	Pass
Higher	9538	1910.000	-27.28	-13	Pass

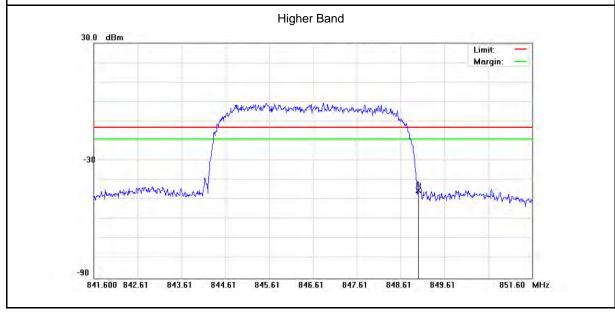




Product	Notebook			
Test Item	Band Edge			
Test Mode	Mode 4: WCDMA Band V Link			
Date of Test	03/21/2010	Test Site	TE02	

Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	4132	824.0000	-40.68	-13	Pass
Higher	4233	849.0000	-45.27	-13	Pass





Report No: 1003FR18

5 Conducted 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 + 10log(P) dB.

5.2. Test Instruments

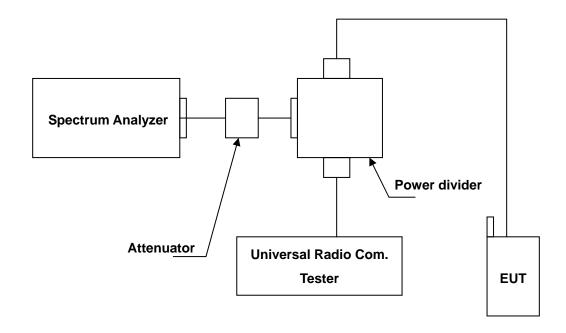
Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	
Power divider	Agilent	87302C	3239A00760	N.C.R.	
Test Site	ATL	TE02	TE02	N.C.R.	

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

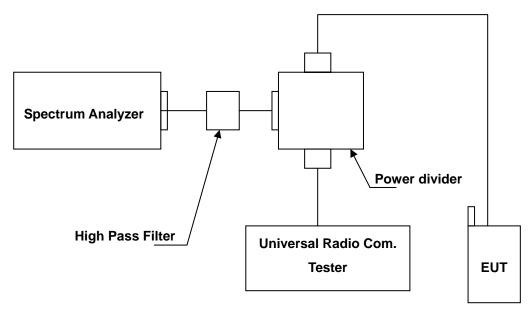
NOTE: N.C.R. = No Calibration Request.

5.3. Setup

Below 2.8GHz



Above 2.8GHz



5.4. Test Procedure

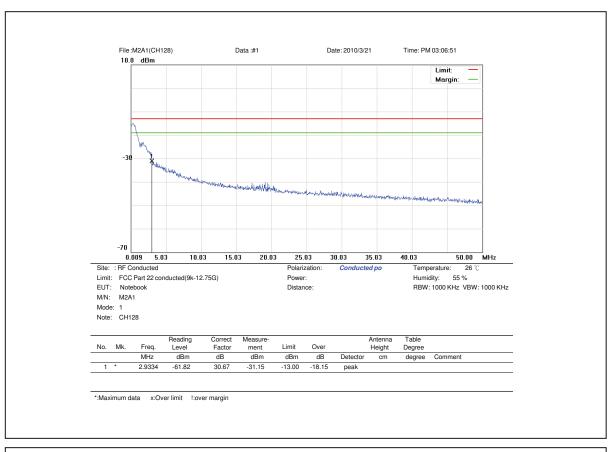
- 1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- 2. The middle channel for the highest RF power within the transmitting frequency was measured.
- 3. The conducted spurious emission for the whole frequency range was taken.
- 4. Test setting at GSM 850 RB>100 kHz, VB>100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

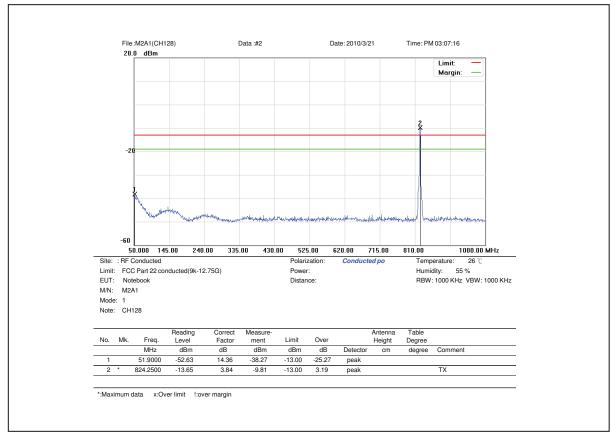
5.5. Uncertainty

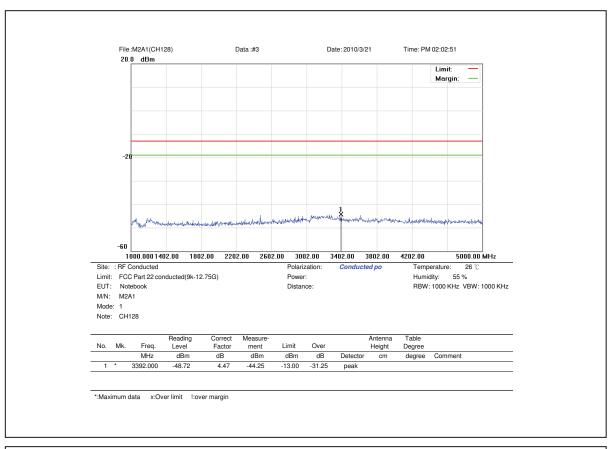
The measurement uncertainty is evaluated as ± 2.24 dB.

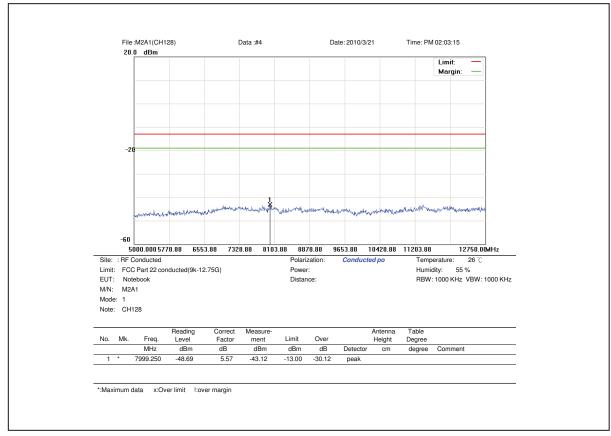
5.6. Test Result

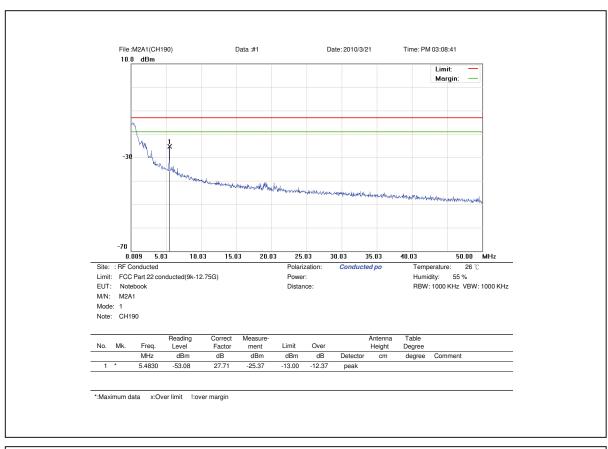
Product	Notebook					
Test Item	Conducted Emission					
Mode	Mode 1: GSM 850 Link					
	Mode 2: GSM 1900 Link					
	Mode 3: WCDMA Band II Link					
	Mode 4: WCDMA Band V Link					
Date of Test	03/21/2010	Test Site	TE02			

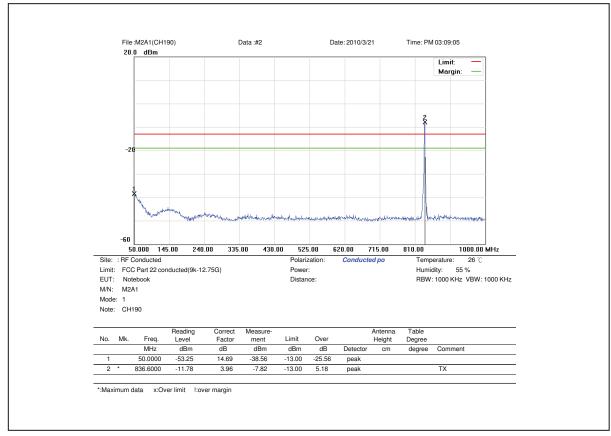


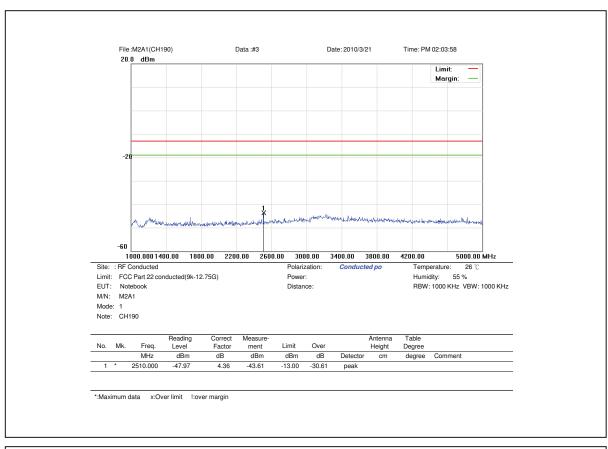


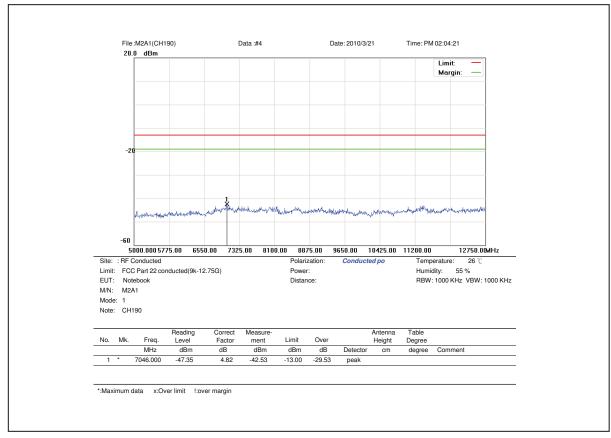


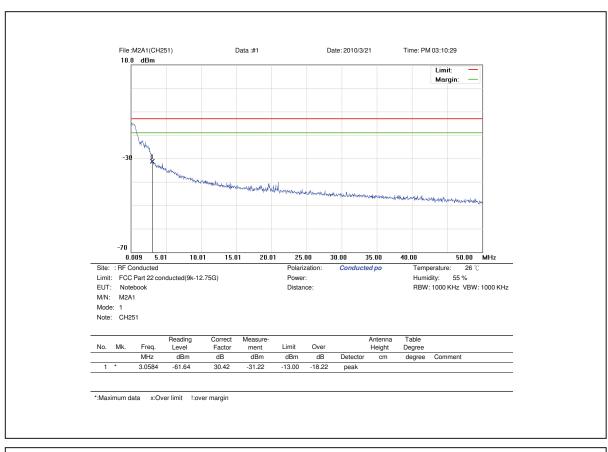


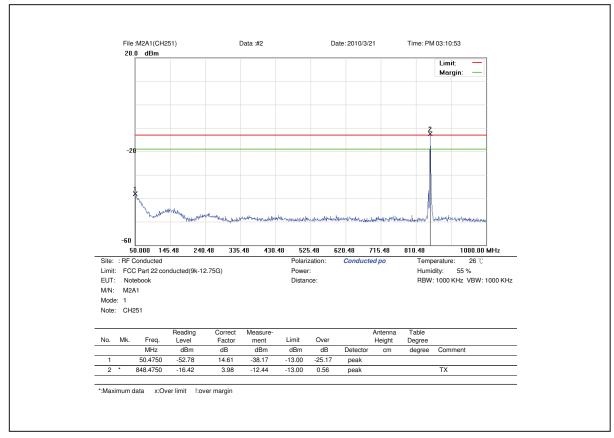


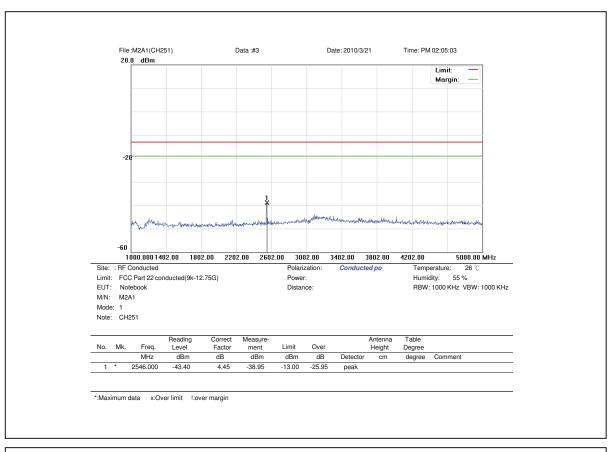


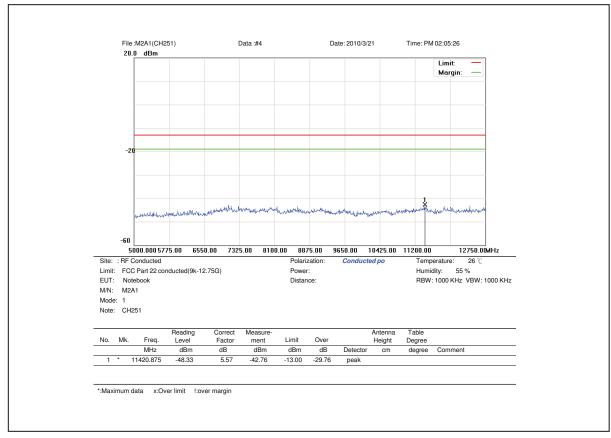


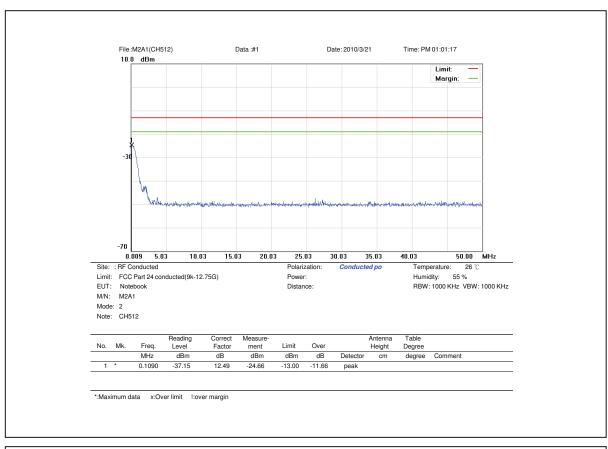


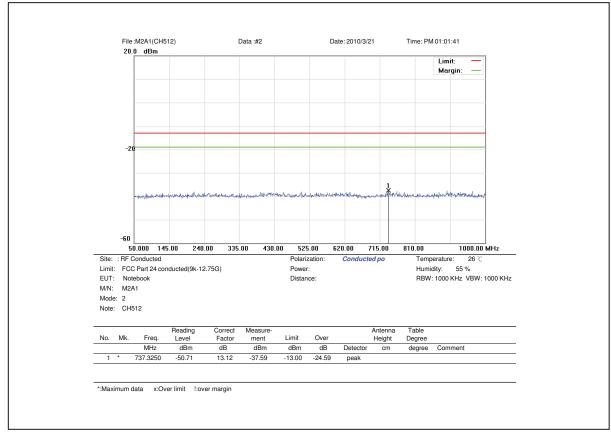


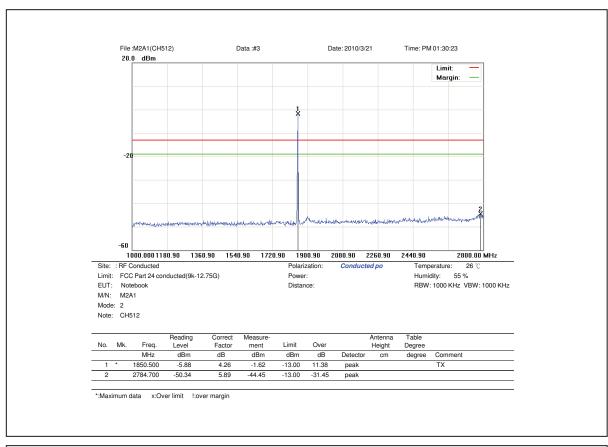


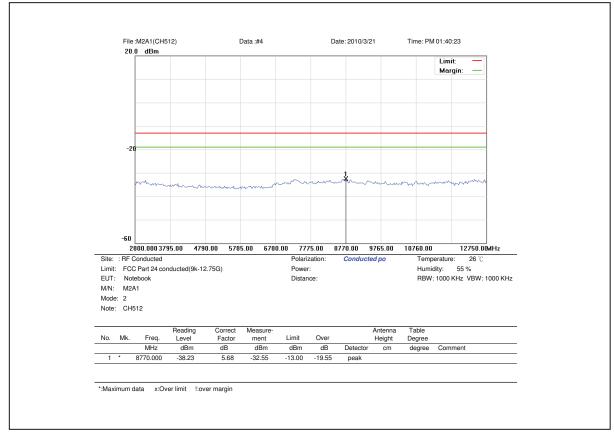




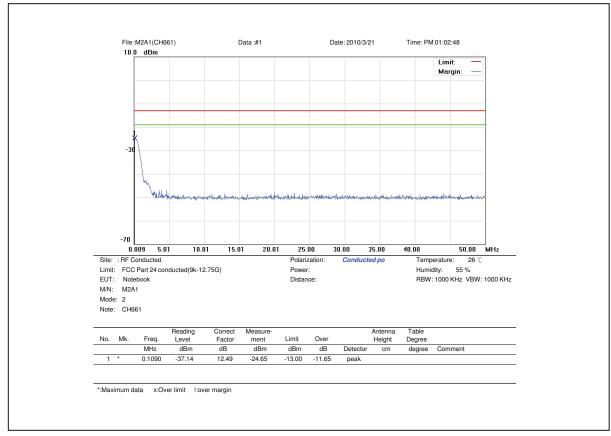




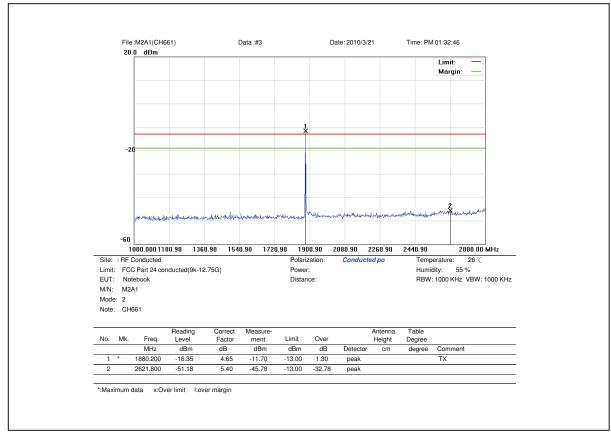


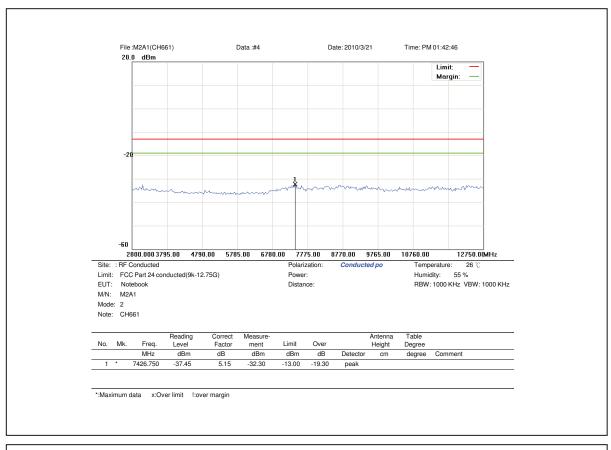


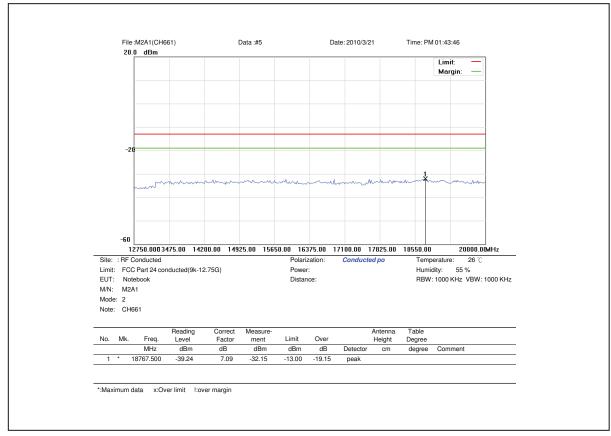


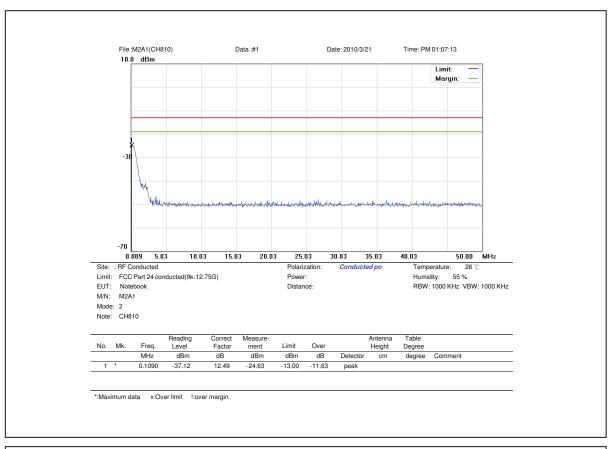


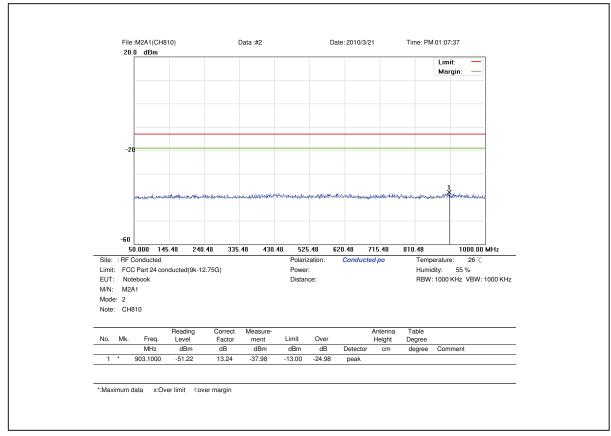


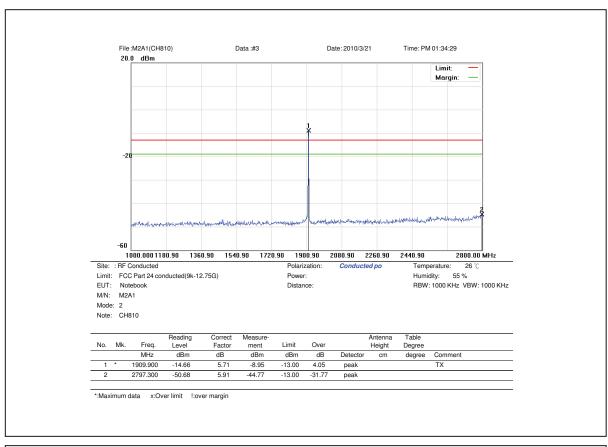


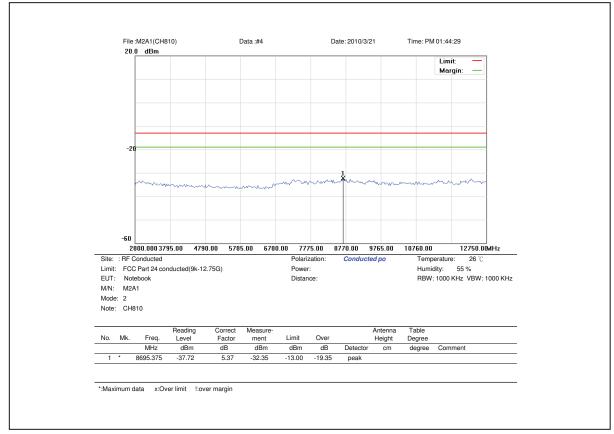


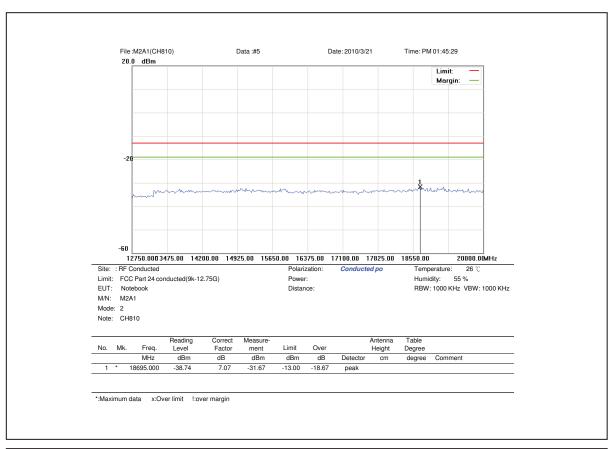


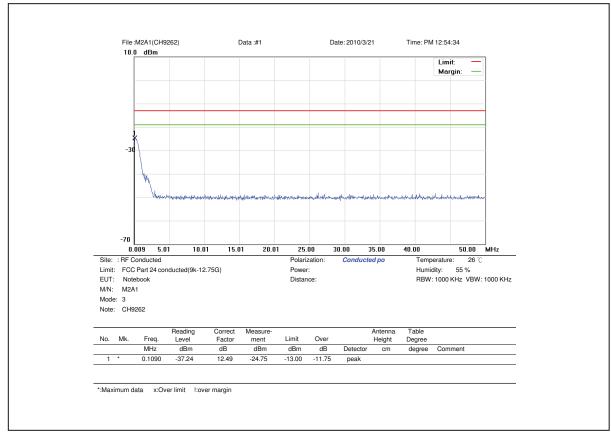




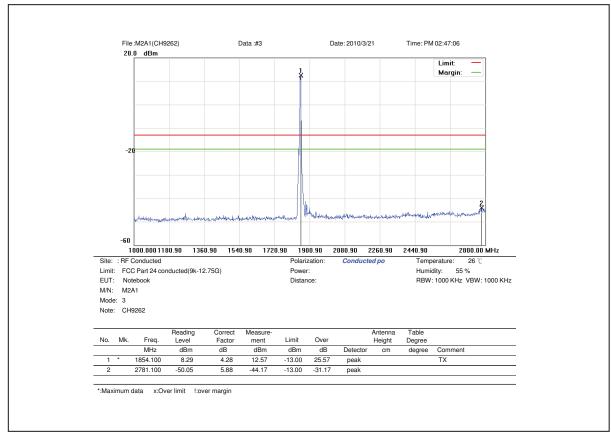


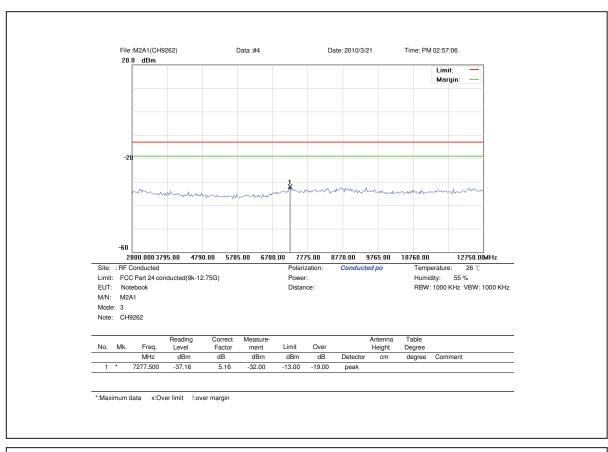


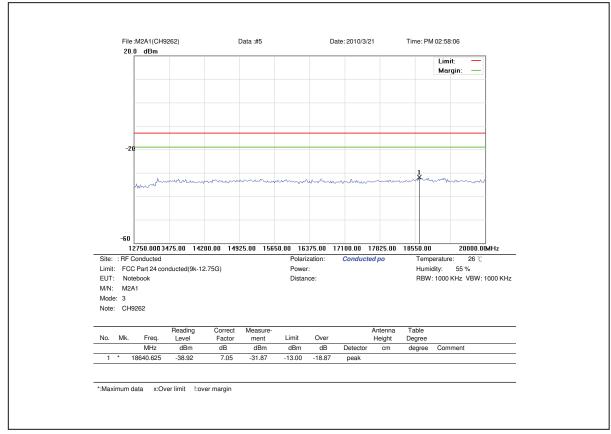


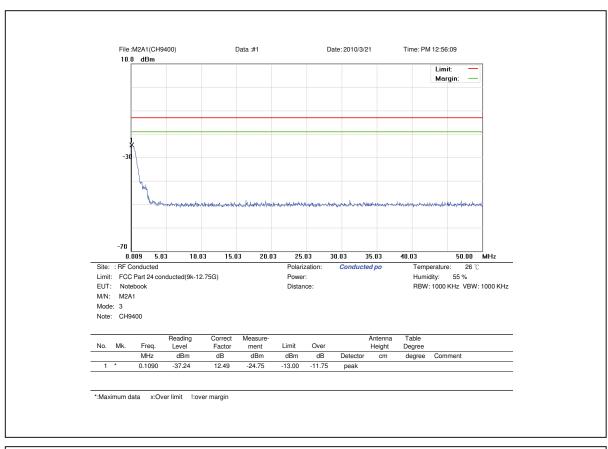


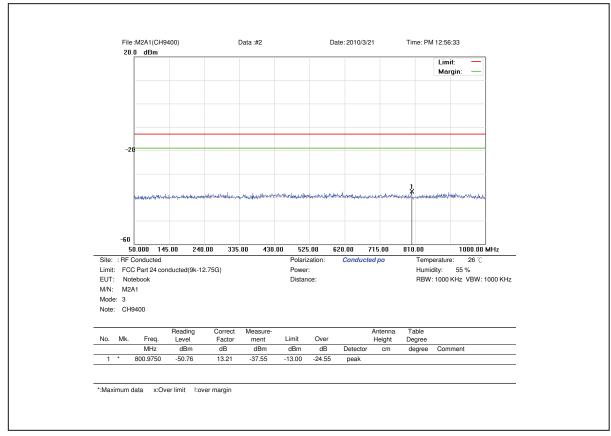


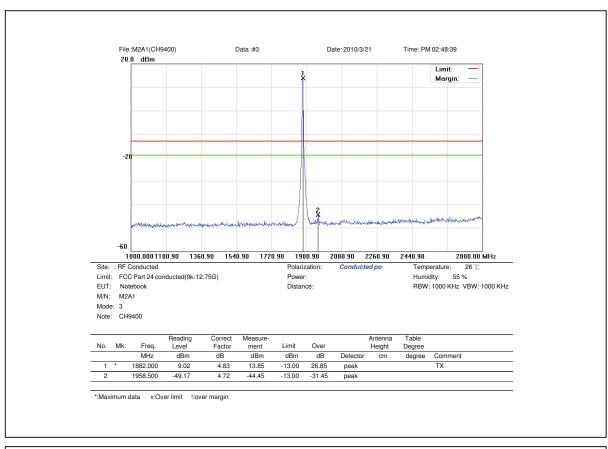


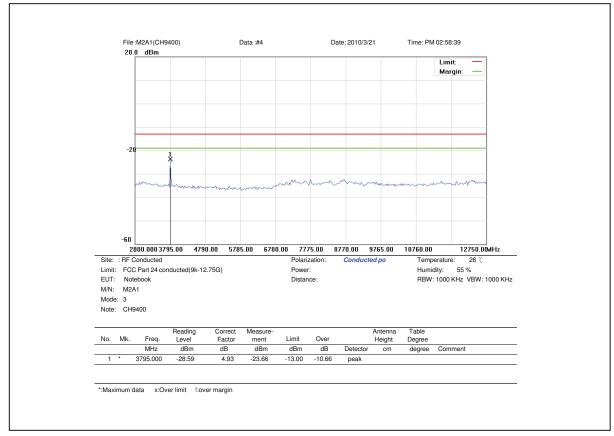


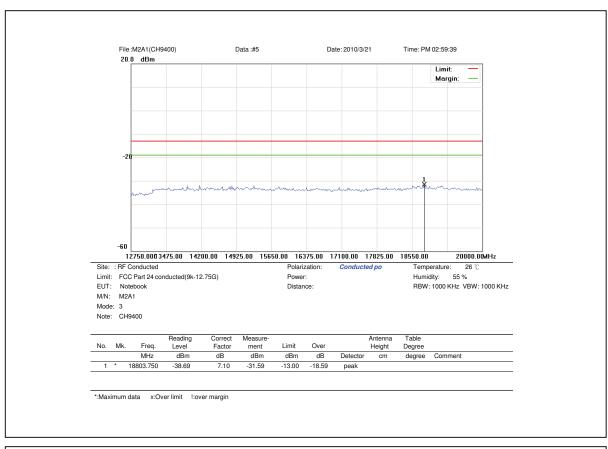


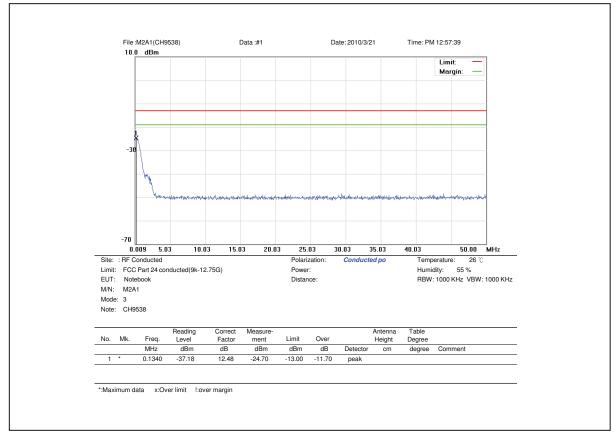


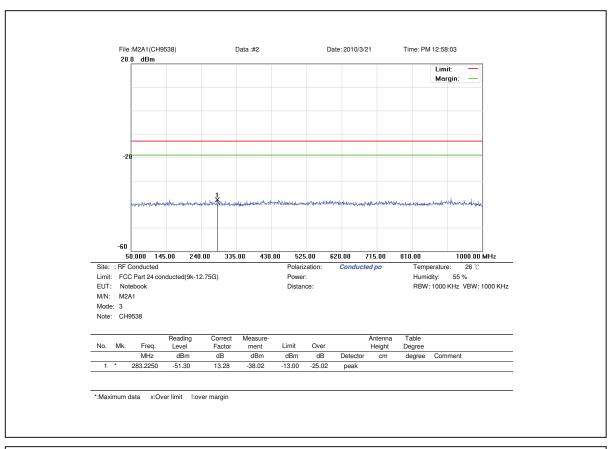


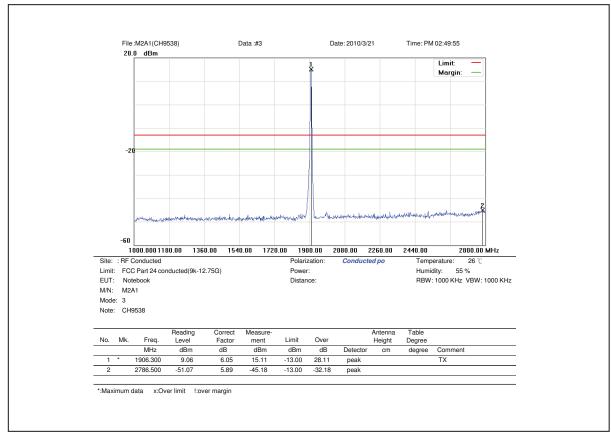




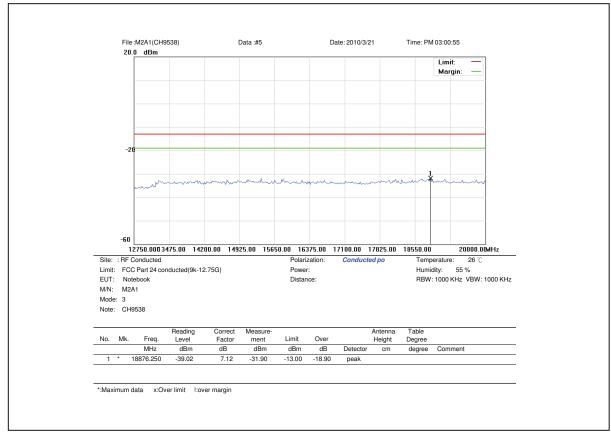


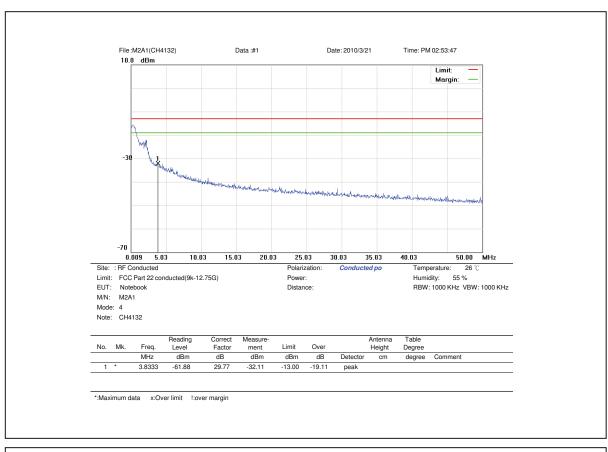


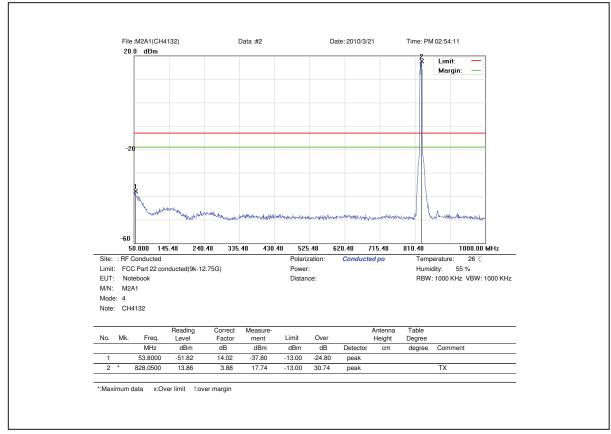


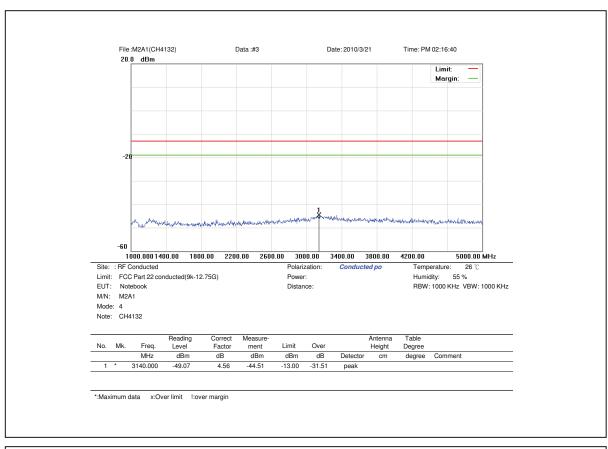


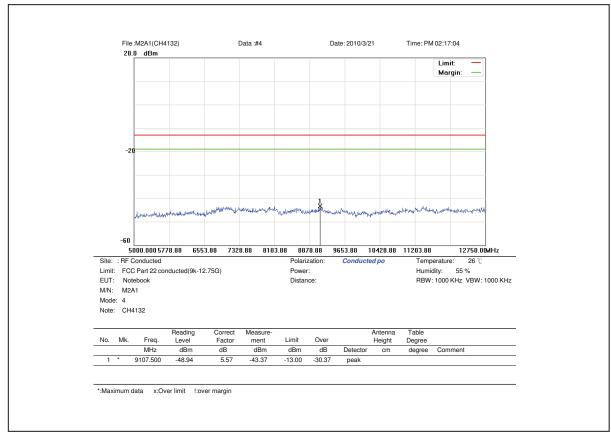


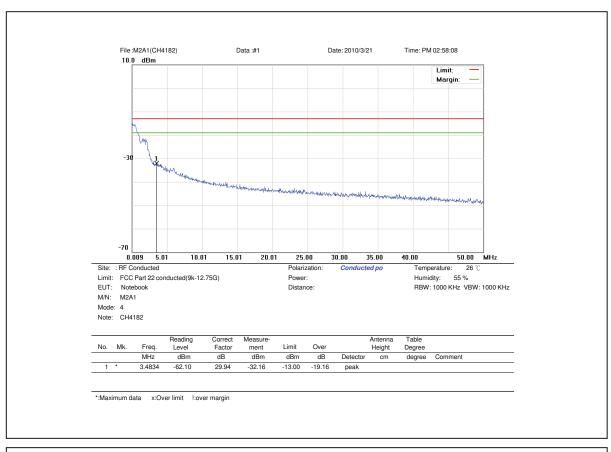


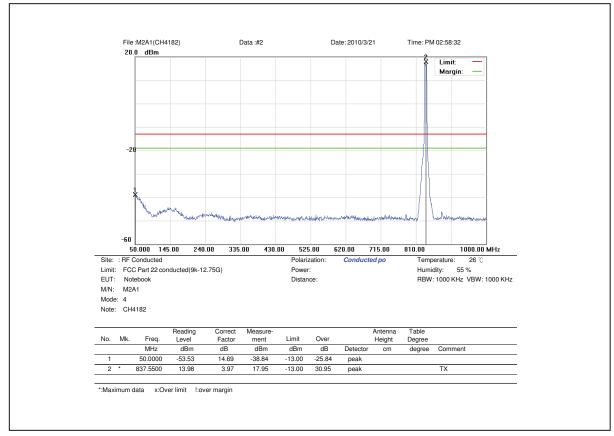


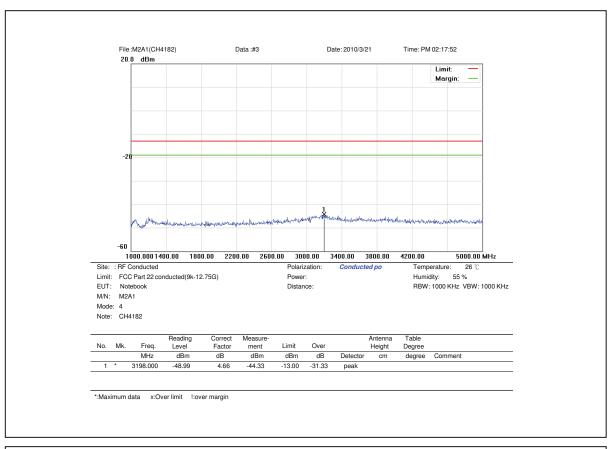


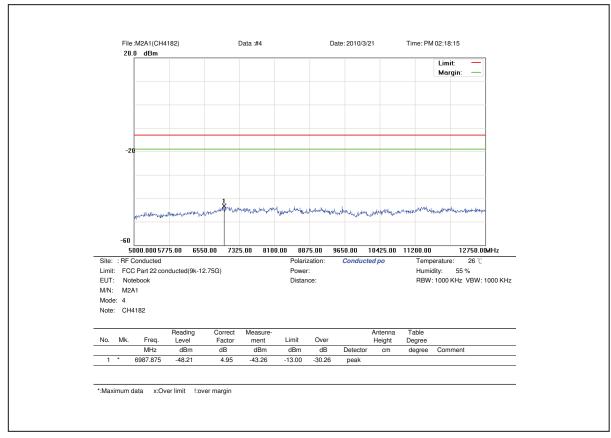


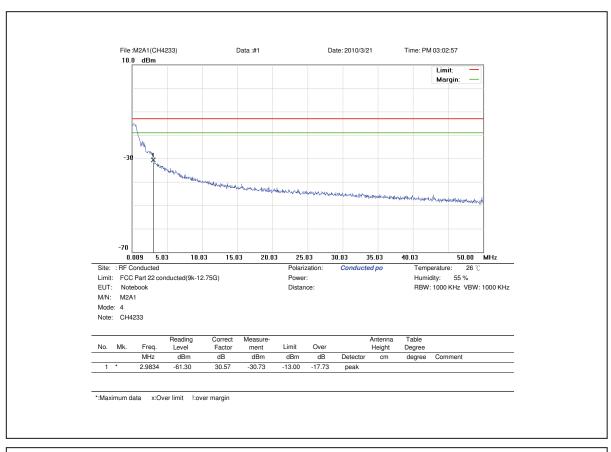


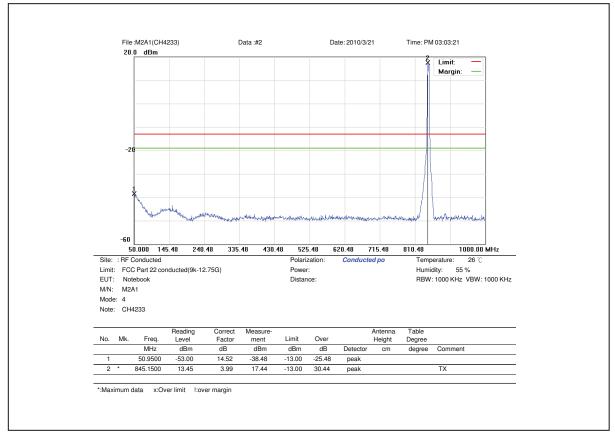


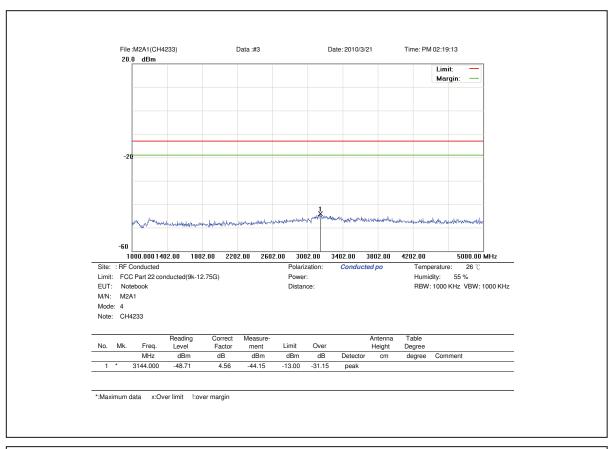


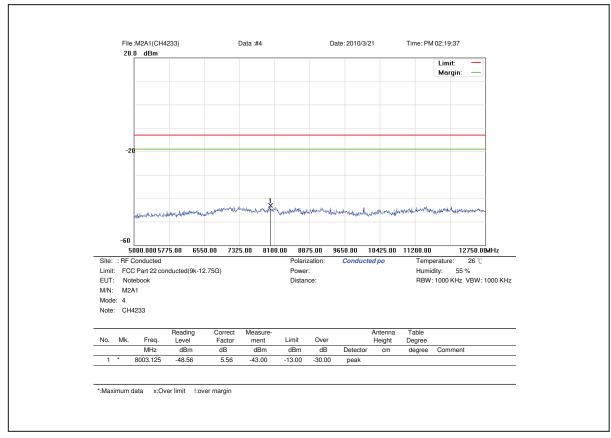












Report No: 1003FR18

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 + 10log(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.

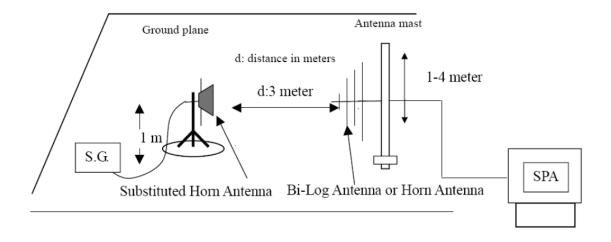
6.2. Test Instruments

3 Meter Chamber								
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Remark			
RF Pre-selector	Agilent	N9039A	MY46520256	01/27/2009	(2)			
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/20/2009	(2)			
Pre Amplifier	Agilent	8449B	3008A02237	07/01/2009	(1)			
Pre Amplifier	Agilent	8447D	2944A10961	06/30/2009	(1)			
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	06/23/2009	(2)			
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	07/01/2009	(2)			
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/30/2009	(2)			
Test Site	ATL	TE01	TE01	N.C.R.				

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

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

6.3. Setup



Report No: 1003FR18

6.4. Test Procedure

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

The equipment under test is placed inside the semi-anechoic chamber on a wooden table at the turntable center. For each spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360 degrees to obtain a maximum reading on the spectrum analyzer. This is repeated for both horizontal and vertical polarizations of the receive antenna.

The equipment under test is then replaced with a substitution antenna fed by a signal generator. With the signal generator tuned to a particular spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters to obtain a maximum reading at the spectrum analyzer. The output of the signal generator is then adjusted until a reading identical to that obtained with the actual transmitter is achieved.

The power in dBm of each spurious emission is calculated by correcting the signal generator level for cable loss and gain of the substitution antenna referenced to a dipole. A fully charged battery was used for the supply voltage.

The settings of the receiver were as follows:

Units dBm
Resolution Bandwidth 1 MHz
Video Bandwidth Auto
Sweep Time Auto

6.5. Uncertainty

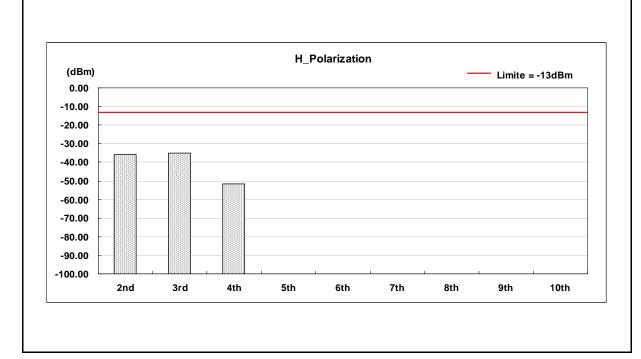
The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is ± 3.072 dB.



6.6. Test Result

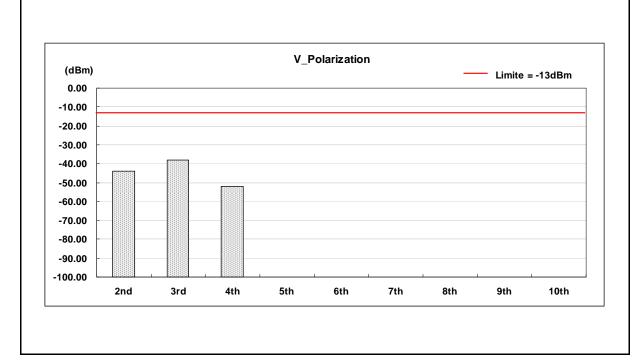
Product	Notebook				
Test Item	Field Strength of Spurious Radiation				
Test Mode	Mode 1: GSM 850 Link / CH128 Polarization Horizontal				
Date of Test	03/21/2010	Test Site	TE01		

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1648.8	Н	-13	-46.10	10.72	0.56	-35.94
3rd	2473.2	Н	-13	-45.17	10.66	0.62	-35.13
4th	3297.6	Н	-13	-61.65	10.78	0.74	-51.61
5th	4122.0	Н	-13	*	*	*	*
6th	4946.4	Н	-13	*	*	*	*
7th	5770.8	Н	-13	*	*	*	*
8th	6595.2	Н	-13	*	*	*	*
9th	7419.6	Н	-13	*	*	*	*
10th	8244.0	Н	-13	*	*	*	*



Product	Notebook				
Test Item	Field Strength of Spurious Radiation				
Test Mode	Mode 1: GSM 850 Link / CH128 Polarization Vertical				
Date of Test	03/21/2010	Test Site	TE01		

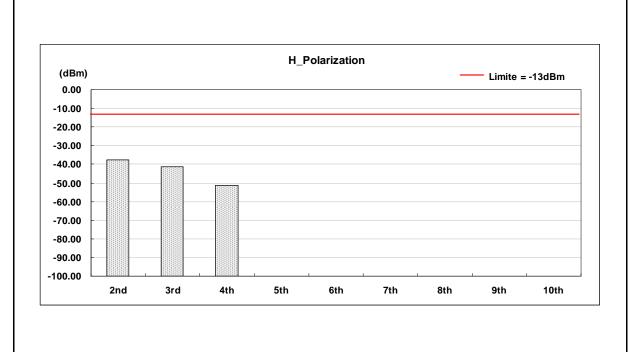
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1648.8	V	-13	-53.94	10.72	0.56	-43.78
3rd	2473.2	V	-13	-48.12	10.66	0.62	-38.08
4th	3297.6	V	-13	-62.09	10.78	0.74	-52.05
5th	4122.0	V	-13	*	*	*	*
6th	4946.4	V	-13	*	*	*	*
7th	5770.8	V	-13	*	*	*	*
8th	6595.2	V	-13	*	*	*	*
9th	7419.6	V	-13	*	*	*	*
10th	8244.0	V	-13	*	*	*	*





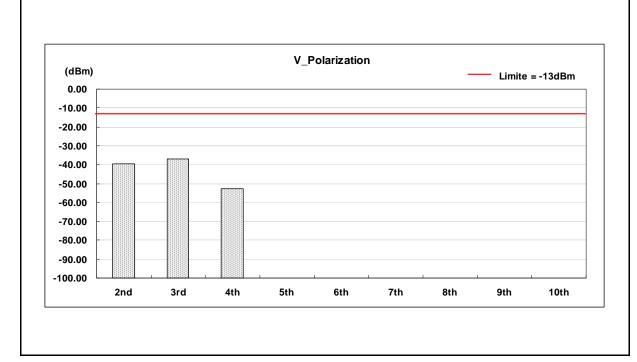
Product	Notebook				
Test Item	Field Strength of Spurious Radiation				
Test Mode	Mode 1: GSM 850 Link / CH190 Polarization Horizontal				
Date of Test	03/21/2010	Test Site	TE01		

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	Н	-13	-47.66	10.72	0.56	-37.50
3rd	2509.8	Н	-13	-51.30	10.66	0.62	-41.26
4th	3346.4	Н	-13	-61.19	10.78	0.74	-51.15
5th	4183.0	Н	-13	*	*	*	*
6th	5019.6	Н	-13	*	*	*	*
7th	5856.2	Н	-13	*	*	*	*
8th	6692.8	Н	-13	*	*	*	*
9th	7529.4	Н	-13	*	*	*	*
10th	8366.0	Н	-13	*	*	*	*



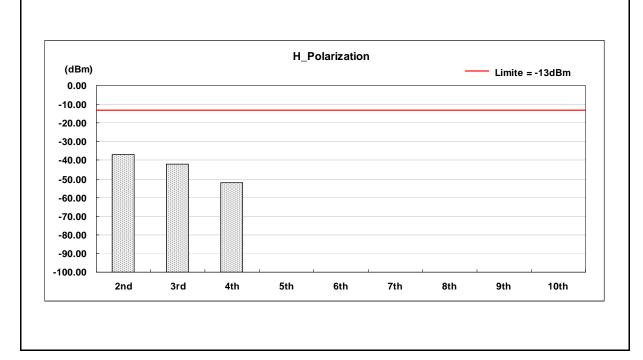
Product	Notebook				
Test Item	Field Strength of Spurious Radiation				
Test Mode	Mode 1: GSM 850 Link / CH190 Polarization Vertical				
Date of Test	03/21/2010	Test Site	TE01		

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
			•	•	, ,		•
2nd	1673.2	V	-13	-49.88	10.72	0.56	-39.72
3rd	2509.8	V	-13	-46.96	10.66	0.62	-36.92
4th	3346.4	V	-13	-62.82	10.78	0.74	-52.78
5th	4183.0	V	-13	*	*	*	*
6th	5019.6	V	-13	*	*	*	*
7th	5856.2	V	-13	*	*	*	*
8th	6692.8	V	-13	*	*	*	*
9th	7529.4	V	-13	*	*	*	*
10th	8366.0	V	-13	*	*	*	*



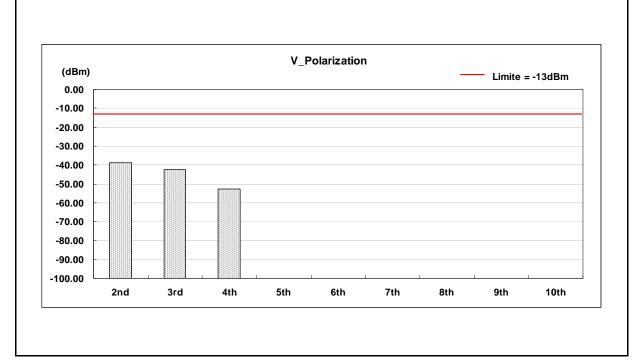
Product	Notebook				
Test Item	Field Strength of Spurious Radiation				
Test Mode	Mode 1: GSM 850 Link / CH251 Polarization Horizontal				
Date of Test	03/21/2010	Test Site	TE01		

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1697.6	Н	-13	-47.07	10.72	0.56	-36.91
3rd	2546.4	Н	-13	-52.15	10.66	0.62	-42.11
4th	3395.2	Н	-13	-61.92	10.78	0.74	-51.88
5th	4244.0	Н	-13	*	*	*	*
6th	5092.8	Н	-13	*	*	*	*
7th	5941.6	Н	-13	*	*	*	*
8th	6790.4	Н	-13	*	*	*	*
9th	7639.2	Н	-13	*	*	*	*
10th	8488.0	Н	-13	*	*	*	*



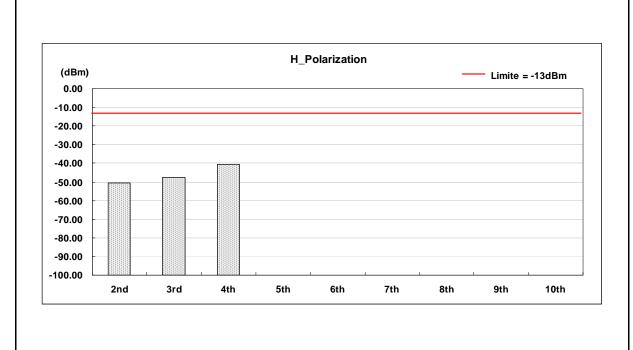
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 1: GSM 850 Link / CH251 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency	equency Polarization	FCC Max. Limit	S.G Power	Substitution Antenna Gain	Cable Loss	Peak Output Power
	(MHz)		(dBm)	(dBm)	(dBi)	(dBm)	(dBm)
2nd	1697.6	V	-13	-48.87	10.72	0.56	-38.71
3rd	2546.4	V	-13	-52.46	10.66	0.62	-42.42
4th	3395.2	V	-13	-62.83	10.78	0.74	-52.79
5th	4244.0	V	-13	*	*	*	*
6th	5092.8	V	-13	*	*	*	*
7th	5941.6	V	-13	*	*	*	*
8th	6790.4	V	-13	*	*	*	*
9th	7639.2	V	-13	*	*	*	*
10th	8488.0	V	-13	*	*	*	*



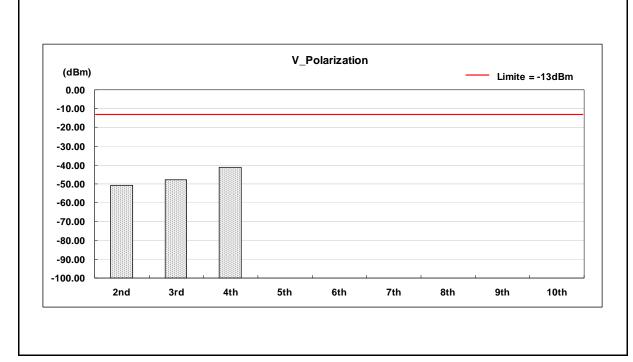
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH512 Polarization Horizontal					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max.	S.G Power	Substitution Antenna Gain	Cable Loss	Peak Output Power
			(dBm)	(dBm)	(dBi)	(dBm)	(dBm)
2nd	3700.4	Н	-13	-60.66	10.72	0.56	-50.50
3rd	5550.6	Н	-13	-57.60	10.66	0.62	-47.56
4th	7400.8	Н	-13	-50.67	10.78	0.74	-40.63
5th	9251.0	Н	-13	*	*	*	*
6th	11101.2	Н	-13	*	*	*	*
7th	12951.4	Н	-13	*	*	*	*
8th	14801.6	Н	-13	*	*	*	*
9th	16651.8	Н	-13	*	*	*	*
10th	18502.0	Н	-13	*	*	*	*



Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH512 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

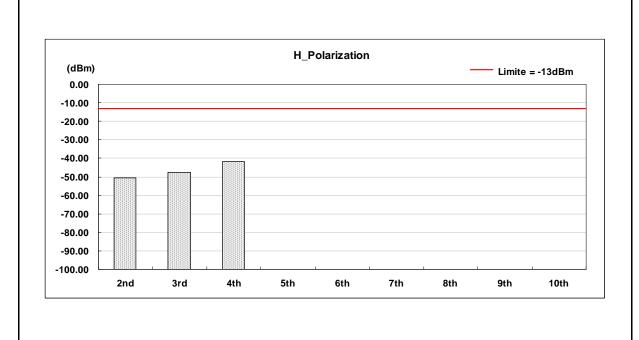
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3700.4	V	-13	-60.80	10.72	0.56	-50.64
3rd	5550.6	V	-13	-57.97	10.66	0.62	-47.93
4th	7400.8	V	-13	-51.12	10.78	0.74	-41.08
5th	9251.0	V	-13	*	*	*	*
6th	11101.2	V	-13	*	*	*	*
7th	12951.4	V	-13	*	*	*	*
8th	14801.6	V	-13	*	*	*	*
9th	16651.8	V	-13	*	*	*	*
10th	18502.0	V	-13	*	*	*	*





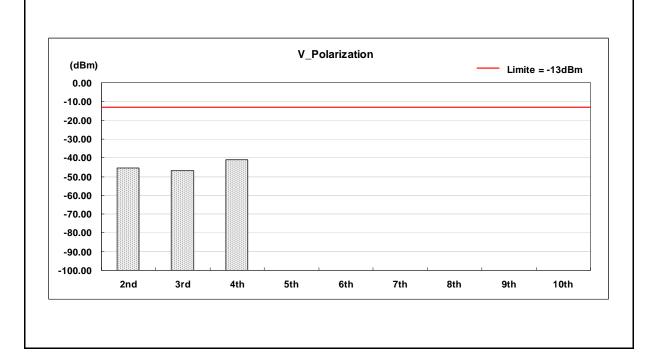
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH661 Polarization Horizontal					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	Н	-13	-60.59	10.72	0.56	-50.43
3rd	5640.0	Н	-13	-57.65	10.66	0.62	-47.61
4th	7520.0	Н	-13	-51.71	10.78	0.74	-41.67
5th	9400.0	Н	-13	*	*	*	*
6th	11280.0	Н	-13	*	*	*	*
7th	13160.0	Н	-13	*	*	*	*
8th	15040.0	Н	-13	*	*	*	*
9th	16920.0	Н	-13	*	*	*	*
10th	18800.0	Н	-13	*	*	*	*



Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH661 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

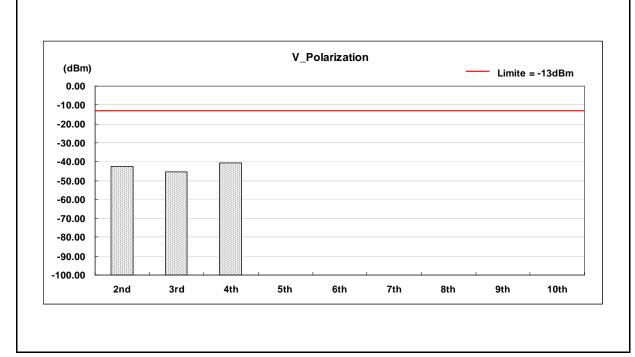
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	V	-13	-55.44	10.72	0.56	-45.28
3rd	5640.0	V	-13	-57.11	10.66	0.62	-47.07
4th	7520.0	V	-13	-51.17	10.78	0.74	-41.13
5th	9400.0	V	-13	*	*	*	*
6th	11280.0	V	-13	*	*	*	*
7th	13160.0	V	-13	*	*	*	*
8th	15040.0	V	-13	*	*	*	*
9th	16920.0	V	-13	*	*	*	*
10th	18800.0	V	-13	*	*	*	*





Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH810 Polarization Horizontal					
Date of Test	03/21/2010	Test Site	TE01			

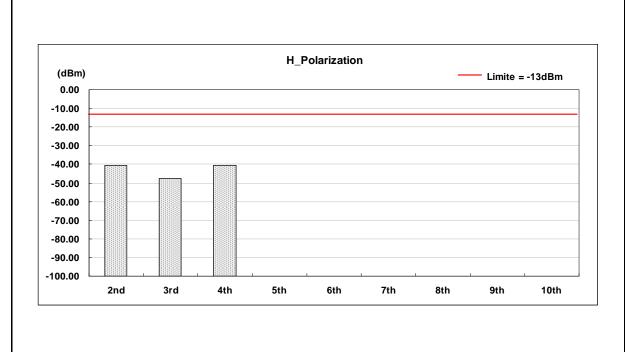
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3819.6	Н	-13	-50.82	10.72	0.56	-40.66
3rd	5729.4	Н	-13	-57.73	10.66	0.62	-47.69
4th	7639.2	Н	-13	-50.69	10.78	0.74	-40.65
5th	9549.0	Н	-13	*	*	*	*
6th	11458.8	Н	-13	*	*	*	*
7th	13368.6	Н	-13	*	*	*	*
8th	15278.4	Н	-13	*	*	*	*
9th	17188.2	Н	-13	*	*	*	*
10th	19098.0	Н	-13	*	*	*	*





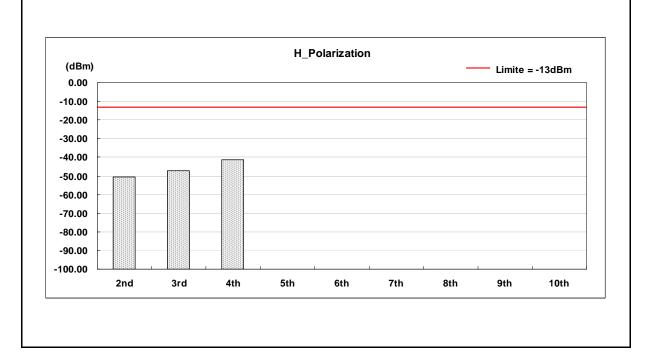
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 2: GSM 1900 Link / CH810 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3819.6	V	-13	-52.69	10.72	0.56	-42.53
3rd	5729.4	V	-13	-55.49	10.66	0.62	-45.45
4th	7639.2	V	-13	-50.53	10.78	0.74	-40.49
5th	9549.0	V	-13	*	*	*	*
6th	11458.8	V	-13	*	*	*	*
7th	13368.6	V	-13	*	*	*	*
8th	15278.4	V	-13	*	*	*	*
9th	17188.2	V	-13	*	*	*	*
10th	19098.0	V	-13	*	*	*	*



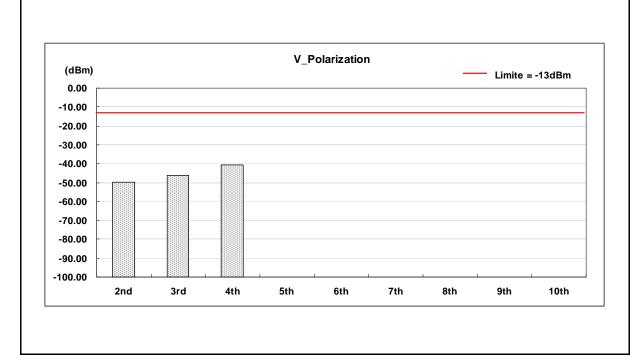
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 3: WCDMA Band II Link / CH9262 Polarization Horizontal					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3704.8	Н	-13	-60.83	10.79	0.58	-50.62
3rd	5557.2	Н	-13	-57.13	10.71	0.63	-47.05
4th	7409.6	Н	-13	-51.52	10.81	0.78	-41.49
5th	9262.0	Н	-13	*	*	*	*
6th	11114.4	Н	-13	*	*	*	*
7th	12966.8	Н	-13	*	*	*	*
8th	14819.2	Н	-13	*	*	*	*
9th	16671.6	Н	-13	*	*	*	*
10th	18524.0	Н	-13	*	*	*	*



Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 3: WCDMA Band II Link / CH9262 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

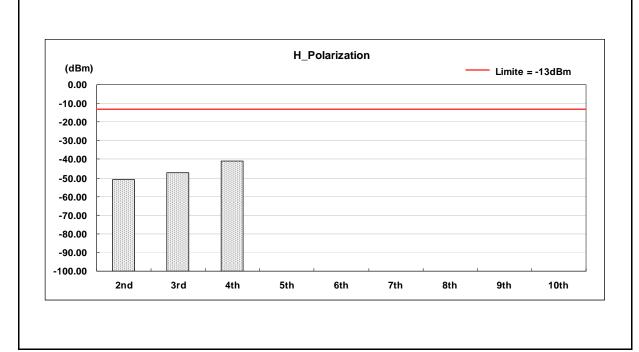
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3704.8	V	-13	-60.83	10.79	0.58	-50.62
3rd	5557.2	V	-13	-57.13	10.71	0.63	-47.05
4th	7409.6	V	-13	-51.52	10.81	0.78	-41.49
5th	9262.0	V	-13	*	*	*	*
6th	11114.4	V	-13	*	*	*	*
7th	12966.8	V	-13	*	*	*	*
8th	14819.2	V	-13	*	*	*	*
9th	16671.6	V	-13	*	*	*	*
10th	18524.0	V	-13	*	*	*	*





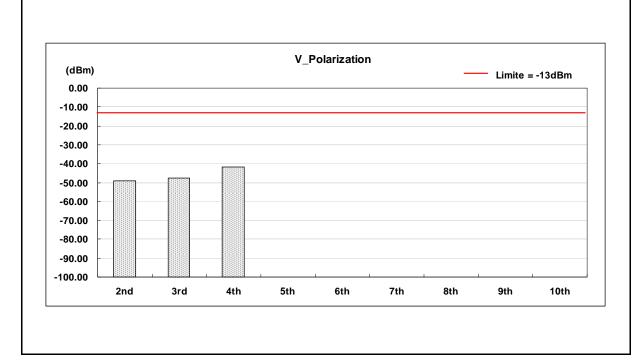
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 3: WCDMA Band II Link / CH9400 Polarization Horizontal					
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	Н	-13	-61.14	10.79	0.58	-50.93
3rd	5640.0	Н	-13	-57.16	10.71	0.63	-47.08
4th	7520.0	Н	-13	-51.16	10.81	0.78	-41.13
5th	9400.0	Н	-13	*	*	*	*
6th	11280.0	Н	-13	*	*	*	*
7th	13160.0	Н	-13	*	*	*	*
8th	15040.0	Н	-13	*	*	*	*
9th	16920.0	Н	-13	*	*	*	*
10th	18800.0	Н	-13	*	*	*	*



Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 3: WCDMA Band II Link / CH9400 Polarization Vertical					
Date of Test	03/21/2010	Test Site	TE01			

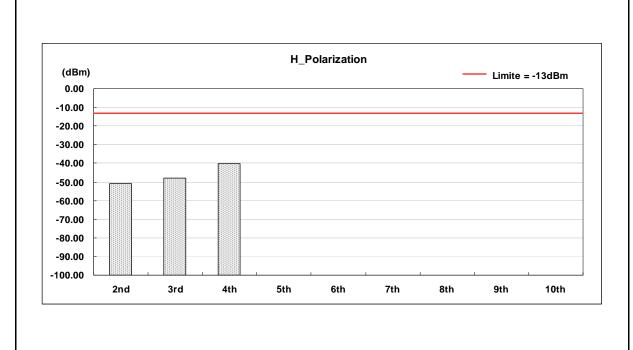
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
			•	• •	, ,		•
2nd	3760.0	V	-13	-59.35	10.79	0.58	-49.14
3rd	5640.0	V	-13	-57.69	10.71	0.63	-47.61
4th	7520.0	V	-13	-51.63	10.81	0.78	-41.60
5th	9400.0	V	-13	*	*	*	*
6th	11280.0	V	-13	*	*	*	*
7th	13160.0	V	-13	*	*	*	*
8th	15040.0	V	-13	*	*	*	*
9th	16920.0	V	-13	*	*	*	*
10th	18800.0	V	-13	*	*	*	*





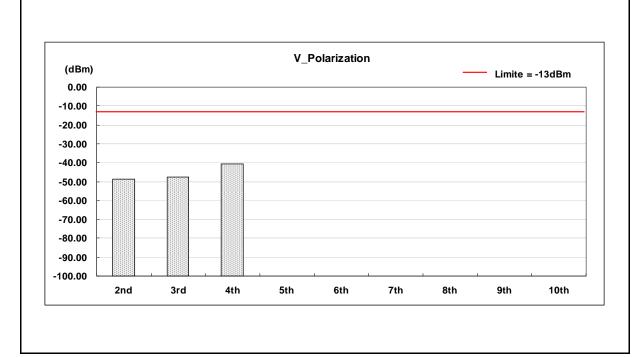
Product	Notebook					
Test Item	Field Strength of Spurious Radiation					
Test Mode	Mode 3: WCDMA Band II Link / CH9538	Polarization	Horizontal			
Date of Test	03/21/2010	Test Site	TE01			

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3815.2	Н	-13	-61.04	10.79	0.58	-50.83
3rd	5722.8	Н	-13	-57.93	10.71	0.63	-47.85
4th	7630.4	Н	-13	-50.24	10.81	0.78	-40.21
5th	9538.0	Н	-13	*	*	*	*
6th	11445.6	Н	-13	*	*	*	*
7th	13353.2	Н	-13	*	*	*	*
8th	15260.8	Н	-13	*	*	*	*
9th	17168.4	Н	-13	*	*	*	*
10th	19076.0	Н	-13	*	*	*	*



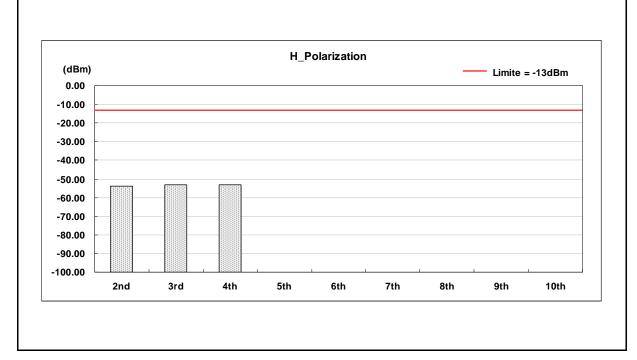
Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 3: WCDMA Band II Link / CH9538 Polarization Vertical						
Date of Test	03/21/2010	Test Site	TE01				

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3815.2	V	-13	-58.94	10.79	0.58	-48.73
3rd	5722.8	V	-13	-57.83	10.71	0.63	-47.75
4th	7630.4	V	-13	-50.52	10.81	0.78	-40.49
5th	9538.0	V	-13	*	*	*	*
6th	11445.6	V	-13	*	*	*	*
7th	13353.2	V	-13	*	*	*	*
8th	15260.8	V	-13	*	*	*	*
9th	17168.4	V	-13	*	*	*	*
10th	19076.0	V	-13	*	*	*	*



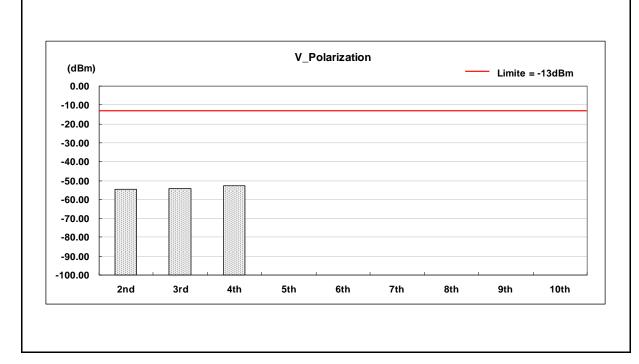
Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 4: WCDMA Band V Link / CH4132 Polarization Horizontal						
Date of Test	03/21/2010	Test Site	TE01				

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1652.8	Н	-13	-63.86	10.74	0.59	-53.71
3rd	2479.2	Н	-13	-63.18	10.68	0.63	-53.13
4th	3305.6	Н	-13	-63.06	10.80	0.78	-53.04
5th	4132.0	Н	-13	*	*	*	*
6th	4958.4	Н	-13	*	*	*	*
7th	5784.8	Н	-13	*	*	*	*
8th	6611.2	Н	-13	*	*	*	*
9th	7437.6	Н	-13	*	*	*	*
10th	8264.0	Н	-13	*	*	*	*



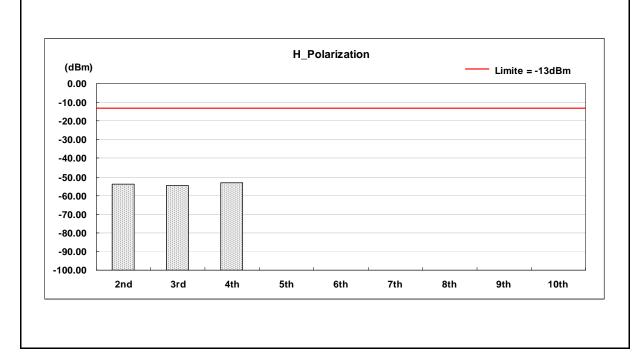
Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 4: WCDMA Band V Link / CH4132 Polarization Vertical						
Date of Test	03/21/2010	Test Site	TE01				

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1652.8	V	-13	-64.86	10.74	0.59	-54.71
3rd	2479.2	V	-13	-64.30	10.68	0.63	-54.25
4th	3305.6	V	-13	-62.82	10.80	0.78	-52.80
5th	4132.0	V	-13	*	*	*	*
6th	4958.4	V	-13	*	*	*	*
7th	5784.8	V	-13	*	*	*	*
8th	6611.2	V	-13	*	*	*	*
9th	7437.6	V	-13	*	*	*	*
10th	8264.0	V	-13	*	*	*	*



Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 4: WCDMA Band V Link / CH4183 Polarization Horizontal						
Date of Test	03/21/2010	Test Site	TE01				

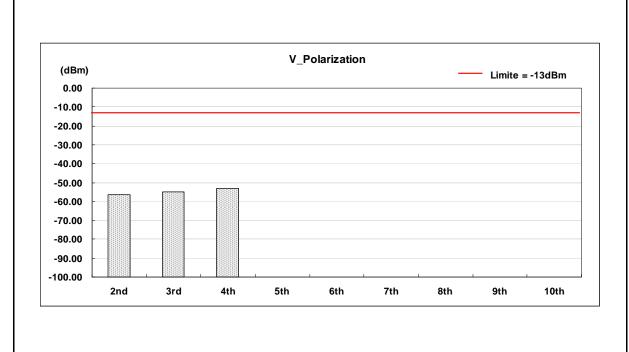
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	Н	-13	-64.21	10.74	0.59	-54.06
3rd	2509.8	Н	-13	-64.82	10.68	0.63	-54.77
4th	3346.4	Н	-13	-63.13	10.80	0.78	-53.11
5th	4183.0	Н	-13	*	*	*	*
6th	5019.6	Н	-13	*	*	*	*
7th	5856.2	Н	-13	*	*	*	*
8th	6692.8	Н	-13	*	*	*	*
9th	7529.4	Н	-13	*	*	*	*
10th	8366.0	Н	-13	*	*	*	*





Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 4: WCDMA Band V Link / CH4183 Polarization Vertical						
Date of Test	03/21/2010	Test Site	TE01				

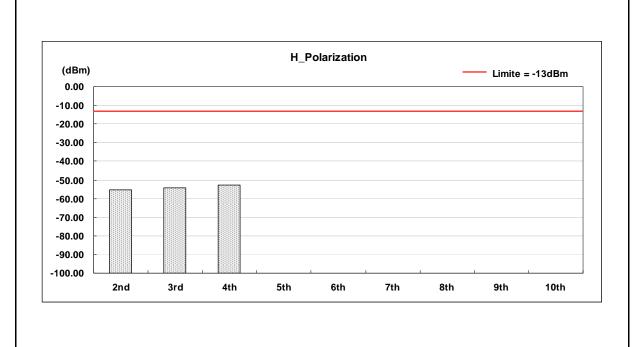
Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
			•	, ,			-
2nd	1673.2	V	-13	-66.46	10.74	0.59	-56.31
3rd	2509.8	V	-13	-64.83	10.68	0.63	-54.78
4th	3346.4	V	-13	-63.15	10.80	0.78	-53.13
5th	4183.0	V	-13	*	*	*	*
6th	5019.6	V	-13	*	*	*	*
7th	5856.2	V	-13	*	*	*	*
8th	6692.8	V	-13	*	*	*	*
9th	7529.4	V	-13	*	*	*	*
10th	8366.0	V	-13	*	*	*	*





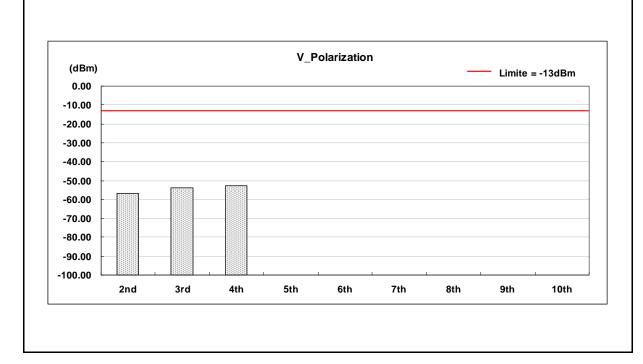
Product	Notebook						
Test Item	Field Strength of Spurious Radiation						
Test Mode	Mode 4: WCDMA Band V Link / CH4233 Polarization Horizontal						
Date of Test	03/21/2010	Test Site	TE01				

Harmonic	Frequency (MHz)	Polarization	FCC Max.	S.G Power	Antenna Gain	Cable Loss	Peak Output Power
			(dBm)	(dBm)	(dBi)	(dBm)	(dBm)
2nd	1693.2	Н	-13	-65.54	10.74	0.59	-55.39
3rd	2539.8	Н	-13	-64.16	10.68	0.63	-54.11
4th	3386.4	Н	-13	-62.87	10.80	0.78	-52.85
5th	4233.0	Н	-13	*	*	*	*
6th	5079.6	Н	-13	*	*	*	*
7th	5926.2	Н	-13	*	*	*	*
8th	6772.8	Н	-13	*	*	*	*
9th	7619.4	Н	-13	*	*	*	*
10th	8466.0	Н	-13	*	*	*	*



Product	Notebook			
Test Item	Field Strength of Spurious Radiation			
Test Mode	Mode 4: WCDMA Band V Link / CH4233	Polarization	Vertical	
Date of Test	03/21/2010	Test Site	TE01	

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1693.2	V	-13	-67.06	10.74	0.59	-56.91
3rd	2539.8	V	-13	-64.08	10.68	0.63	-54.03
4th	3386.4	V	-13	-62.70	10.80	0.78	-52.68
5th	4233.0	V	-13	*	*	*	*
6th	5079.6	V	-13	*	*	*	*
7th	5926.2	V	-13	*	*	*	*
8th	6772.8	V	-13	*	*	*	*
9th	7619.4	V	-13	*	*	*	*
10th	8466.0	V	-13	*	*	*	*



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 ±0.00025% (±2.5ppm) of the center frequency.

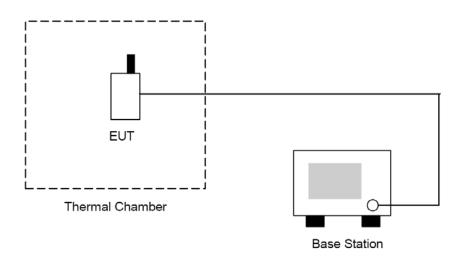
7.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	GIANT FORCE	GHT-225-70-1	GF-94454-1	07/24/2009	(2)
Test Site	ATL	TE02	TE02	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.
- 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 ± 10Hz.

7.6. Test Result

Product	Notebook			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 1: GSM 850 Link			
Date of Test	03/21/2010	Test Site	TE02	

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	20.44	0.024	±2.5	Pass
-20	20.39	0.024	±2.5	Pass
-10	18.48	0.022	±2.5	Pass
0	19.72	0.024	±2.5	Pass
10	19.39	0.023	±2.5	Pass
20	20.44	0.024	±2.5	Pass
30	18.44	0.022	±2.5	Pass
40	23.48	0.028	±2.5	Pass
50	21.77	0.026	±2.5	Pass

Product	Notebook			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 2: GSM 1900 Link			
Date of Test	03/21/2010	Test Site	TE02	

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	19.38	0.010	±2.5	Pass
-20	19.77	0.011	±2.5	Pass
-10	20.46	0.011	±2.5	Pass
0	20.43	0.011	±2.5	Pass
10	17.69	0.009	±2.5	Pass
20	17.27	0.009	±2.5	Pass
30	16.48	0.009	±2.5	Pass
40	16.22	0.009	±2.5	Pass
50	18.35	0.010	±2.5	Pass

Product	Notebook			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 3: WCDMA Band II Link			
Date of Test	03/21/2010	Test Site	TE02	

Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	29.34	0.016	±2.5	Pass
-20	28.54	0.015	±2.5	Pass
-10	27.16	0.014	±2.5	Pass
0	25.47	0.014	±2.5	Pass
10	25.98	0.014	±2.5	Pass
20	24.57	0.013	±2.5	Pass
30	26.33	0.014	±2.5	Pass
40	24.18	0.013	±2.5	Pass
50	26.57	0.014	±2.5	Pass

Product	Notebook			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 4: WCDMA Band V Link			
Date of Test	03/21/2010	Test Site	TE02	

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	25.62	0.031	±2.5	Pass
-20	24.21	0.029	±2.5	Pass
-10	22.14	0.026	±2.5	Pass
0	26.47	0.032	±2.5	Pass
10	25.98	0.031	±2.5	Pass
20	28.54	0.034	±2.5	Pass
30	27.62	0.033	±2.5	Pass
40	26.87	0.032	±2.5	Pass
50	29.45	0.035	±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 ±0.00025% (±2.5ppm) of the center frequency.

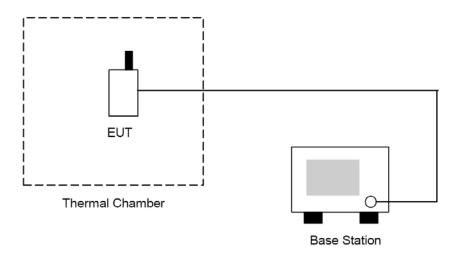
8.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	GIANT FORCE	GHT-225-70-1	GF-94454-1	07/24/2009	(2)
Test Site	ATL	TE02	TE02	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 $^{\circ}$ 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 10Hz.

8.6. Test Result

Product	Notebook									
Test Item	Frequ	Frequency Stability (Voltage Variation)								
Test Mode	Mode	Mode 1: GSM 850 Link								
Date of Test	03/21/	03/21/2010 Test Site TE02								
Level		Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result				
Battery full	point	4.20	21.79	0.026	±2.5	Pass				
Norma	ı	3.70	24.38	0.029	±2.5	Pass				
Battery cut-o	ff point	3.40	23.77	0.028	±2.5	Pass				

Product	Notebook									
Test Item	Frequ	Frequency Stability (Voltage Variation)								
Test Mode	Mode	2: GSM 1900 Lii	nk							
Date of Test	03/21/	03/21/2010 Test Site TE02								
Level		Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result				
Battery full	point	4.20	21.45	0.011	±2.5	Pass				
Norma	I	3.70	24.72	0.013	±2.5	Pass				
Battery cut-o	ff point	3.40	23.58	0.013	±2.5	Pass				

Product	Notebook									
Test Item	Frequency Stability (Voltage Variation)									
Test Mode	Mode	Mode 3: WCDMA Band II Link								
Date of Test	03/21/	03/21/2010 Test Site TE02								
Level		Voltage	Deviation	Deviation	Limit	Result				
		[V]	[Hz]	[ppm]	[ppm]	Kesuit				
Battery full	point	[V] 4.20	[Hz] 28.41	[ppm] 0.034	[ppm] ±2.5	Pass				
Battery full Norma	•									

Product	Noteb	Notebook									
Test Item	Frequ	Frequency Stability (Voltage Variation)									
Test Mode	Mode	Mode 4: WCDMA Band V Link									
Date of Test	03/21/	03/21/2010 Test Site TE02									
Level		Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result					
Battery full p	oint	4.20	27.83	0.015	±2.5	Pass					
Normal		3.70	28.62	0.015	±2.5	Pass					
Battery cut-off	point	3.20	29.37	0.016	±2.5	Pass					

9 AC Power Conducted Emissions Test

9.1. **Limit**

Fraguenov rongo (MU=)	Limits (dBuV)					
Frequency range (MHz)	Quasi-peak	Average				
0.15 to 0.50	66 to 56	56 to 46				
0.50 to 5.0	56	46				
5.0 to 30	60	50				

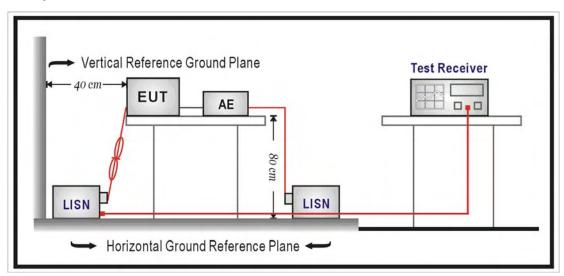
9.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Test Receiver	R&S	ESCI	100722	10/08/2009	(1)
LISN	EMCO	3816/2 SH	00060110	06/05/2009	(1)
LISN	EMCO	3816/2 SH	00060111	06/29/2009	(1)
Transient Limiter	ELECTRO-METRICS	EM-7600	777	09/22/2009	(1)
Test Site	ATL	TE02	TE02	N.C.R.	

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

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

9.3. Setup



9.4. Test Procedure

The measurement is made according to FCC rules15.207:

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

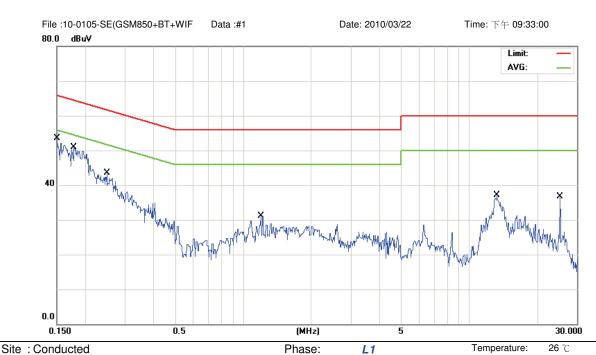
The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in section 10.6.

9.5. Uncertainty

The measurement uncertainty is defined as for AC power conducted emission measurement is ± 2.24 dB.

9.6. Test Result

Product	Notebook							
Test Item	AC Power Conducted Emissions							
Test Mode	Mode 1: GSM 850 Link							
	Mode 2: GSM 1900 Link							
	Mode 3: WCDMA Band II Link							
	Mode 4: WCDMA Band V Link							
Date of Test	03/22/2010 Test Site TE02							



Power:

AC 120V/60Hz

Humidity:

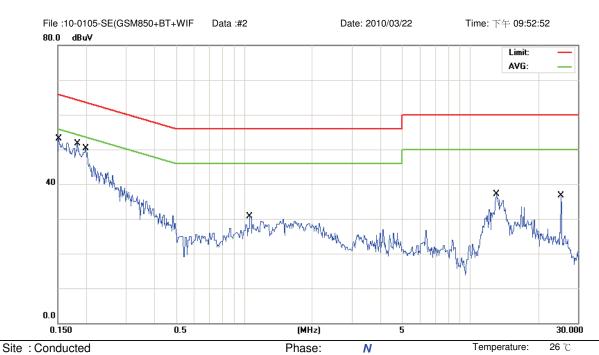
55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 1 Note:

Reading Correct Measure-Over Limit No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV dBuV dB Detector Comment 1 0.1500 32.20 10.11 42.31 65.99 -23.68 QP 2 21.21 55.99 -34.78 **AVG** 0.1500 11.10 10.11 QP 3 0.1787 33.40 10.09 43.49 64.54 -21.05 0.1787 10.09 21.79 54.54 -32.75 AVG 4 11.70 QP 5 0.2494 26.80 10.06 36.86 61.77 -24.91 6 0.2494 10.20 10.06 20.26 51.77 -31.51 AVG QP 7 1.2019 15.50 9.67 25.17 56.00 -30.83 1.2019 17.27 8 7.60 9.67 46.00 -28.73 AVG QP 9 13.2500 22.70 10.34 33.04 60.00 -26.96 25.84 10 13.2500 15.50 10.34 50.00 -24.16 AVG 11 25.1500 20.50 10.53 31.03 60.00 -28.97 QP AVG 12 25.1500 17.60 10.53 28.13 50.00 -21.87

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



Power:

AC 120V/60Hz

Humidity:

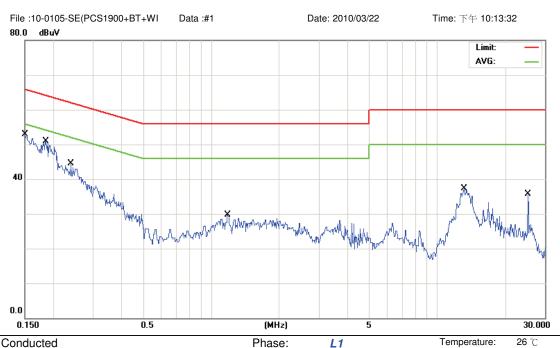
55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 1 Note:

N.	N 41 -	F	Reading	Correct	Measure-	Limit	Over		
No.	Mk.	Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1514	35.60	10.10	45.70	65.92	-20.22	QP	
2		0.1514	10.80	10.10	20.90	55.92	-35.02	AVG	
3	*	0.1829	35.80	10.08	45.88	64.35	-18.47	QP	
4		0.1829	16.30	10.08	26.38	54.35	-27.97	AVG	
5		0.1990	34.80	10.07	44.87	63.65	-18.78	QP	
6		0.1990	18.70	10.07	28.77	53.65	-24.88	AVG	
7		1.0669	14.50	9.72	24.22	56.00	-31.78	QP	
8		1.0669	6.80	9.72	16.52	46.00	-29.48	AVG	
9		13.0500	23.80	10.37	34.17	60.00	-25.83	QP	
10		13.0500	16.00	10.37	26.37	50.00	-23.63	AVG	
11		25.1500	21.20	10.67	31.87	60.00	-28.13	QP	
12		25.1500	18.20	10.67	28.87	50.00	-21.13	AVG	

^{*:}Maximum data x:Over limit !:over margin



Site: Conducted Phase: L1

Limit: CISPR22 Class B Conduction(QP) Power: AC 120V/60Hz

EUT: Notebook M/N: M2A1 Mode: 2 Note:

11

12

25.1500

25.1500

Reading Correct Measure-Over Limit No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV dBuV dB Detector Comment 1 0.1507 35.10 10.11 45.21 65.96 -20.75 QP 2 **AVG** 0.1507 10.20 10.11 20.31 55.96 -35.65 QP 3 0.1850 36.10 10.09 46.19 64.25 -18.06 54.25 -26.46 0.1850 10.09 27.79 AVG 4 17.70 QP 5 0.2396 25.50 10.06 35.56 62.11 -26.55 6 0.2396 6.30 10.06 16.36 52.11 -35.75 AVG QP 7 1.1840 16.30 9.68 25.98 56.00 -30.02 8 1.1840 7.90 9.68 17.58 46.00 -28.42 AVG QP 9 13.1500 24.30 10.33 34.63 60.00 -25.37 10 13.1500 16.70 10.33 27.03 50.00 -22.97 AVG

60.00 -29.37

50.00 -22.37

QP AVG

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

20.10

17.10

10.53

10.53

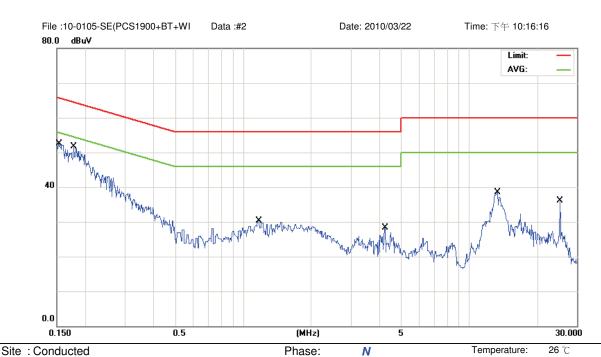
30.63

27.63

•Reference Only

Humidity:

55 %



Power:

AC 120V/60Hz

Humidity:

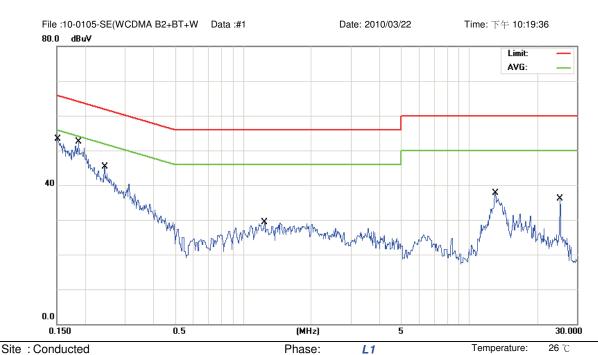
55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 2 Note:

Reading Correct Measure-Over Limit No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV dBuV dB Detector Comment 1 0.1528 34.50 10.10 44.60 65.84 -21.24 QP 10.10 19.20 **AVG** 2 0.1528 9.10 55.84 -36.64 QP 3 0.1780 32.90 10.08 42.98 64.57 -21.59 0.1780 AVG 4 10.40 10.08 20.48 54.57 -34.09 QP 5 1.1660 17.40 9.68 27.08 56.00 -28.92 6 1.1660 9.00 9.68 18.68 46.00 -27.32 AVG QP 7 4.2260 7.20 9.84 17.04 56.00 -38.96 4.2260 8 2.00 9.84 11.84 46.00 -34.16 AVG QP 9 13.3000 22.90 10.36 33.26 60.00 -26.74 10 13.3000 15.20 10.36 25.56 50.00 -24.44 **AVG** 11 25.1500 20.60 10.67 31.27 60.00 -28.73 QP AVG 12 25.1500 17.60 10.67 28.27 50.00 -21.73

^{*:}Maximum data x:Over limit !:over margin



Power:

AC 120V/60Hz

Humidity:

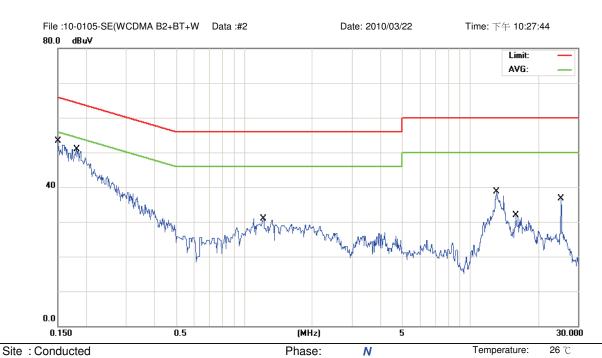
55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 3 Note:

Reading Correct Measure-Over Limit No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV dBuV dB Detector Comment 1 0.1514 35.10 10.11 45.21 65.92 -20.71 QP 2 **AVG** 0.1514 9.80 10.11 19.91 55.92 -36.01 QP 3 0.1870 35.80 10.09 45.89 64.16 -18.27 0.1870 10.09 AVG 4 17.80 27.89 54.16 -26.27 QP 5 0.2431 26.90 10.06 36.96 61.99 -25.03 6 0.2431 9.80 10.06 19.86 51.99 -32.13 AVG QP 7 1.2470 14.80 9.65 56.00 -31.55 24.45 1.2470 5.70 8 9.65 15.35 46.00 -30.65 AVG QP 9 13.0000 23.40 10.34 33.74 60.00 -26.26 10 13.0000 15.80 10.34 26.14 50.00 -23.86 **AVG** 11 25.1500 20.10 10.53 30.63 60.00 -29.37 QP AVG 12 25.1500 17.10 10.53 27.63 50.00 -22.37

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



Power:

AC 120V/60Hz

Humidity:

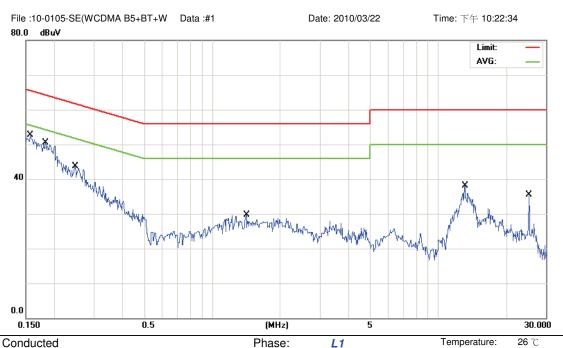
55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 3 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	32.40	10.10	42.50	65.99	-23.49	QP	
2		0.1500	10.40	10.10	20.50	55.99	-35.49	AVG	
3	*	0.1808	34.60	10.08	44.68	64.44	-19.76	QP	
4		0.1808	13.70	10.08	23.78	54.44	-30.66	AVG	
5		1.2200	15.70	9.65	25.35	56.00	-30.65	QP	
6		1.2200	7.50	9.65	17.15	46.00	-28.85	AVG	
7		13.0500	24.80	10.37	35.17	60.00	-24.83	QP	
8		13.0500	16.10	10.37	26.47	50.00	-23.53	AVG	
9		15.9000	14.80	10.29	25.09	60.00	-34.91	QP	
10		15.9000	8.60	10.29	18.89	50.00	-31.11	AVG	
11		25.1500	20.60	10.67	31.27	60.00	-28.73	QP	
12		25.1500	17.60	10.67	28.27	50.00	-21.73	AVG	

^{*:}Maximum data x:Over limit !:over margin



Site: Conducted Phase: L1

Limit: CISPR22 Class B Conduction(QP) Power: AC 120V/60Hz

EUT: Notebook M/N: M2A1 Mode: 4 Note:

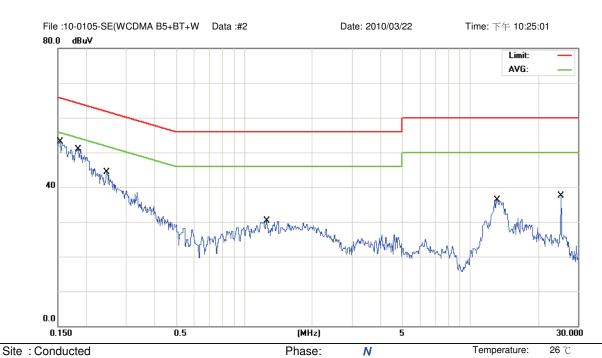
No. I	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1570	34.60	10.11	44.71	65.62	-20.91	QP	
2		0.1570	9.00	10.11	19.11	55.62	-36.51	AVG	
3	*	0.1829	35.60	10.09	45.69	64.35	-18.66	QP	
4		0.1829	16.40	10.09	26.49	54.35	-27.86	AVG	
5		0.2473	26.90	10.06	36.96	61.84	-24.88	QP	
6		0.2473	10.70	10.06	20.76	51.84	-31.08	AVG	
7		1.4180	15.40	9.69	25.09	56.00	-30.91	QP	
8		1.4180	6.60	9.69	16.29	46.00	-29.71	AVG	
9		13.1000	24.60	10.33	34.93	60.00	-25.07	QP	
10		13.1000	16.70	10.33	27.03	50.00	-22.97	AVG	
11	2	25.1500	20.10	10.53	30.63	60.00	-29.37	QP	
12	2	25.1500	17.10	10.53	27.63	50.00	-22.37	AVG	

^{*:}Maximum data x:Over limit !:over margin

•Reference Only

Humidity:

55 %



Power:

AC 120V/60Hz

Humidity:

55 %

Limit: CISPR22 Class B Conduction(QP)

EUT: Notebook M/N: M2A1 Mode: 4 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1535	34.50	10.10	44.60	65.80	-21.20	QP	
2		0.1535	10.10	10.10	20.20	55.80	-35.60	AVG	
3	*	0.1836	35.90	10.08	45.98	64.32	-18.34	QP	
4		0.1836	16.40	10.08	26.48	54.32	-27.84	AVG	
5		0.2466	27.00	10.05	37.05	61.87	-24.82	QP	
6		0.2466	11.00	10.05	21.05	51.87	-30.82	AVG	
7		1.2560	16.00	9.64	25.64	56.00	-30.36	QP	
8		1.2560	7.00	9.64	16.64	46.00	-29.36	AVG	
9		13.1500	24.20	10.36	34.56	60.00	-25.44	QP	
10		13.1500	16.80	10.36	27.16	50.00	-22.84	AVG	
11		25.1500	20.60	10.67	31.27	60.00	-28.73	QP	
12		25.1500	17.60	10.67	28.27	50.00	-21.73	AVG	

^{*:}Maximum data x:Over limit !:over margin