FCC 47 CFR PART 22H and 24E

Test Report

Product Type	:	Wireless Mobile Hotspot
Applicant	:	Sierra Wireless, Inc.
Address	:	13811 Wireless Way, Richmond, BC, Canada, V6V 3A4
Trade Name	:	AirCard
Model Number	:	AirCard 770S
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	:	Oct. 09, 2012
Test Period	:	Oct. 11 ~ Oct. 12, 2012
Issue Date	:	Nov. 22, 2012

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
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Taiwan Accreditation Foundation accreditation number: 1330

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Oct. 29, 2012	Initial Issue	
01	Nov. 06, 2012	Revised test description.	Joyce Liao
02	Nov. 22, 2012	Revised test results format.	Joyce Liao

Verification of Compliance

Issued Date: 11/22/2012

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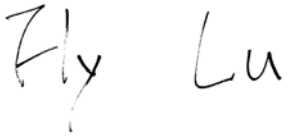
Applicant	:	Sierra Wireless, Inc.
Address	:	13811 Wireless Way, Richmond, BC, Canada, V6V 3A4
Trade Name	:	AirCard
Model Number	:	AirCard 770S
FCC ID	:	N7NAC770S
Applicable Standard	:	FCC 47 CFR PART 22H: Oct, 2011 FCC 47 CFR PART 24E: Oct, 2011 ANSI/TIA-603-C-2004
Application Purpose	:	Original
Test Result	:	Complied
Performing Lab.	:	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 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	:		Reviewed By	:	
(Manager)		(Murphy Wang)	(Testing Engineer)		(Fly Lu)

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1 General Information

1.1. EUT Description

Applicant		Sierra Wireless, Inc.			
Applicant Address		13811 Wireless Way, Richmond, BC, Canada, V6V 3A4			
Manufacturer		Sierra Wireless, Inc.			
Manufacturer Address		13811 Wireless Way, Richmond, BC, Canada, V6V 3A4			
Product Type		Wireless Mobile Hotspot			
Trade Name		AirCard			
Model Number		AirCard 770S			
FCC ID		N7NAC770S			
Mode	GPRS/ EGPRS	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		850	824.2 ~ 848.8	869.2 ~ 893.8	GMSK/8PSK
		1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8	GMSK/8PSK
	WCDMA/ HSDPA/ HSUPA	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		II	1852.4 ~ 1907.6	1932.4 ~ 1987.6	QPSK
		V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK
Channel Control		Auto			
Max. RF Output power		GPRS 850 Class10 : 32.22 dBm / 1.667 W			
		EGPRS 850 Class12 : 29.96 dBm / 0.991 W			
		GPRS 1900 Class10 : 29.31 dBm / 0.853 W			
		EGPRS 1900 Class12 : 28.95 dBm / 0.785 W			
		WCDMA/ HSDPA/ HSUPA Band II : 25.82 dBm / 0.382 W			
		WCDMA/ HSDPA/ HSUPA Band V : 25.54 dBm / 0.358 W			
Max. ERP/EIRP		GPRS 850 : 28.39 dBm / 0.690 W			
		EGPRS 850 : 27.68 dBm / 0.586 W			
		GPRS 1900 : 27.32 dBm / 0.540 W			
		EGPRS 1900 : 27.45 dBm / 0.556 W			
		WCDMA/ HSDPA/ HSUPA Band II : 22.66 dBm / 0.185 W			
		WCDMA/ HSDPA/ HSUPA Band V : 20.71 dBm / 0.118 W			
Emission Designator		GPRS 850 : 245KGXW			
		EGPRS 850 : 247KG7W			
		GPRS 1900 : 249KGXW			
		EGPRS 1900 : 244KG7W			
		WCDMA/ HSDPA/ HSUPA Band II : 4M19F9W			
		WCDMA/ HSDPA/ HSUPA Band V : 4M17F9W			

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: GPRS 850 Link Mode
Mode 2: GPRS 1900 Link Mode
Mode 3: EGPRS 850 Link Mode
Mode 4: EGPRS 1900 Link Mode
Mode 5: WCDMA Band II Link Mode
Mode 6: WCDMA Band V Link Mode

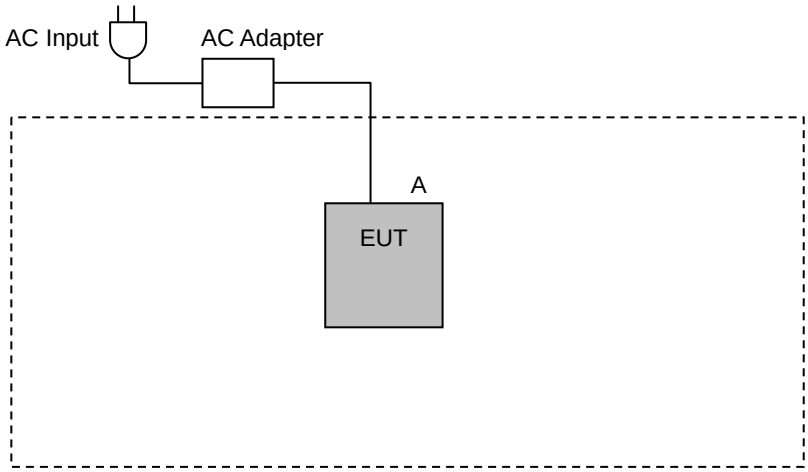
Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

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.

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



Signal Cable Type		Signal Cable Description
A	USB Cable	Shielded, 1.1 m

Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
1.	-----	-----	-----	-----	-----

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)	< $43+10\log_{10}$(P[Watts])	Pass
Conducted Spurious Emission	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	< $43+10\log_{10}$(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)	< $43+10\log_{10}$(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

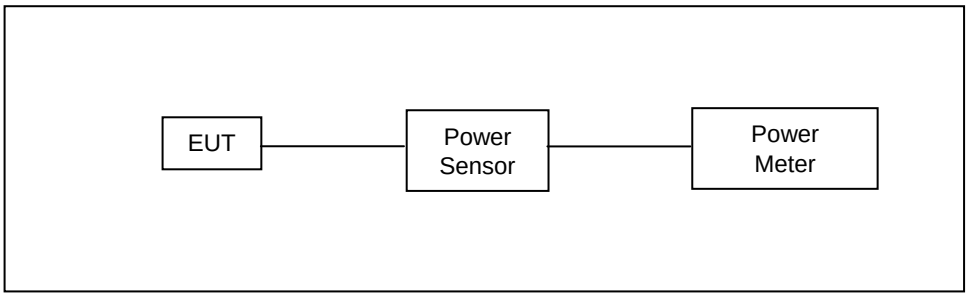
N/A

2.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(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	AirCard 770S						
Test Item	RF Output Power						
Date of Test	10/11/2012			Test Site		TE05	
Bands	Modulation Type	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
GRRS 850	GMSK	4Down1Up (Duty Factor 1/8)	824.2	32.05	1.603	**32.22**	**1.667**
			836.6	32.04	1.600	32.21	1.663
			848.8	31.94	1.563	32.11	1.626
		3Down2Up (Duty Factor 2/8)	824.2	31.99	1.581	32.16	1.644
			836.6	31.96	1.570	32.13	1.633
			848.8	31.92	1.556	32.09	1.618
EGPRS 850	8PSK	4Down1Up (Duty Factor 1/8)	824.2	26.76	0.474	**29.96**	**0.991**
			836.6	26.74	0.472	29.94	0.986
			848.8	26.71	0.469	29.91	0.979
		3Down2Up (Duty Factor 2/8)	824.2	26.64	0.461	29.84	0.964
			836.6	26.60	0.457	29.80	0.955
			848.8	26.57	0.454	29.77	0.948
		2Down3Up (Duty Factor 3/8)	824.2	26.61	0.458	29.81	0.957
			836.6	26.49	0.446	29.69	0.931
			848.8	26.53	0.450	29.73	0.940
		1Down4Up (Duty Factor 4/8)	824.2	26.44	0.441	29.64	0.920
			836.6	26.38	0.435	29.58	0.908
			848.8	26.43	0.440	29.63	0.918

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

Model Number	AirCard 770S						
Test Item	RF Output Power						
Date of Test	10/11/2012			Test Site		TE05	
Bands	Modulation Type	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
GRRS 1900	GMSK	4Down1Up (Duty Factor 1/8)	1850.20	29.01	0.796	29.21	0.834
			1880.00	29.07	0.807	29.27	0.845
			1909.80	29.11	0.815	**29.31**	**0.853**
		3Down2Up (Duty Factor 2/8)	1850.20	28.91	0.778	29.11	0.815
			1880.00	28.96	0.787	29.16	0.824
			1909.80	29.01	0.796	29.21	0.834
EGPRS 1900	8PSK	4Down1Up (Duty Factor 1/8)	1850.20	25.62	0.365	28.82	0.762
			1880.00	25.75	0.376	**28.95**	**0.785**
			1909.80	25.74	0.375	28.94	0.783
		3Down2Up (Duty Factor 2/8)	1850.20	25.58	0.361	28.78	0.755
			1880.00	25.73	0.374	28.93	0.782
			1909.80	25.72	0.373	28.92	0.780
		2Down3Up (Duty Factor 3/8)	1850.20	25.51	0.356	28.71	0.743
			1880.00	25.65	0.367	28.85	0.767
			1909.80	25.64	0.366	28.84	0.766
		1Down4Up (Duty Factor 4/8)	1850.20	25.41	0.348	28.61	0.726
			1880.00	25.56	0.360	28.76	0.752
			1909.80	25.55	0.359	28.75	0.750

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

Model Number	AirCard 770S						
Test Item	RF Output Power						
Date of Test	10/11/2012			Test Site		TE05	
Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
WCDMA Band II	QPSK	-----	1852.4	22.36	0.172	**25.82**	**0.382**
			1880.0	22.34	0.171	25.80	0.380
			1907.6	22.05	0.160	25.51	0.356
HSDPA Band II	QPSK	1	1852.4	21.34	0.136	24.80	0.302
			1880.0	21.19	0.132	24.65	0.292
			1907.6	21.15	0.130	24.61	0.289
		2	1852.4	21.32	0.136	24.78	0.301
			1880.0	21.13	0.130	24.59	0.288
			1907.6	21.11	0.129	24.57	0.286
		3	1852.4	20.82	0.121	24.28	0.268
			1880.0	20.68	0.117	24.14	0.259
			1907.6	20.66	0.116	24.12	0.258
		4	1852.4	20.78	0.120	24.24	0.265
			1880.0	20.66	0.116	24.12	0.258
			1907.6	20.62	0.115	24.08	0.256
HSUPA Band II	QPSK	1	1852.4	21.06	0.128	24.52	0.283
			1880.0	20.59	0.115	24.05	0.254
			1907.6	20.85	0.122	24.31	0.270
		2	1852.4	19.00	0.079	22.46	0.176
			1880.0	18.58	0.072	22.04	0.160
			1907.6	18.80	0.076	22.26	0.168
		3	1852.4	20.02	0.100	23.48	0.223
			1880.0	19.60	0.091	23.06	0.202
			1907.6	19.81	0.096	23.27	0.212
		4	1852.4	18.97	0.079	22.43	0.175
			1880.0	18.55	0.072	22.01	0.159
			1907.6	18.86	0.077	22.32	0.171
		5	1852.4	21.02	0.126	24.48	0.281
			1880.0	20.51	0.112	23.97	0.249
			1907.6	20.83	0.121	24.29	0.269

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

Model Number	AirCard 770S						
Test Item	RF Output Power						
Date of Test	10/11/2012			Test Site		TE05	
Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
WCDMA Band V	QPSK	-----	826.4	22.47	0.177	**25.54**	**0.358**
			836.6	22.31	0.170	25.38	0.345
			846.6	22.29	0.169	25.36	0.344
HSDPA Band V	QPSK	1	826.4	21.36	0.137	24.43	0.277
			836.6	21.27	0.134	24.34	0.272
			846.6	21.23	0.133	24.30	0.269
		2	826.4	21.34	0.136	24.41	0.276
			836.6	21.24	0.133	24.31	0.270
			846.6	21.22	0.132	24.29	0.269
		3	826.4	20.82	0.121	23.89	0.245
			836.6	20.80	0.120	23.87	0.244
			846.6	20.73	0.118	23.80	0.240
		4	826.4	20.80	0.120	23.87	0.244
			836.6	20.75	0.119	23.82	0.241
			846.6	20.71	0.118	23.78	0.239
HSUPA Band V	QPSK	1	826.4	20.05	0.101	23.12	0.205
			836.6	20.93	0.124	24.00	0.251
			846.6	21.10	0.129	24.17	0.261
		2	826.4	18.01	0.063	21.08	0.128
			836.6	18.89	0.077	21.96	0.157
			846.6	19.02	0.080	22.09	0.162
		3	826.4	19.02	0.080	22.09	0.162
			836.6	19.95	0.099	23.02	0.200
			846.6	20.02	0.100	23.09	0.204
		4	826.4	17.98	0.063	21.05	0.127
			836.6	18.86	0.077	21.93	0.156
			846.6	19.01	0.080	22.08	0.161
		5	826.4	20.02	0.100	23.09	0.204
			836.6	20.90	0.123	23.97	0.249
			846.6	21.03	0.127	24.10	0.257

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.

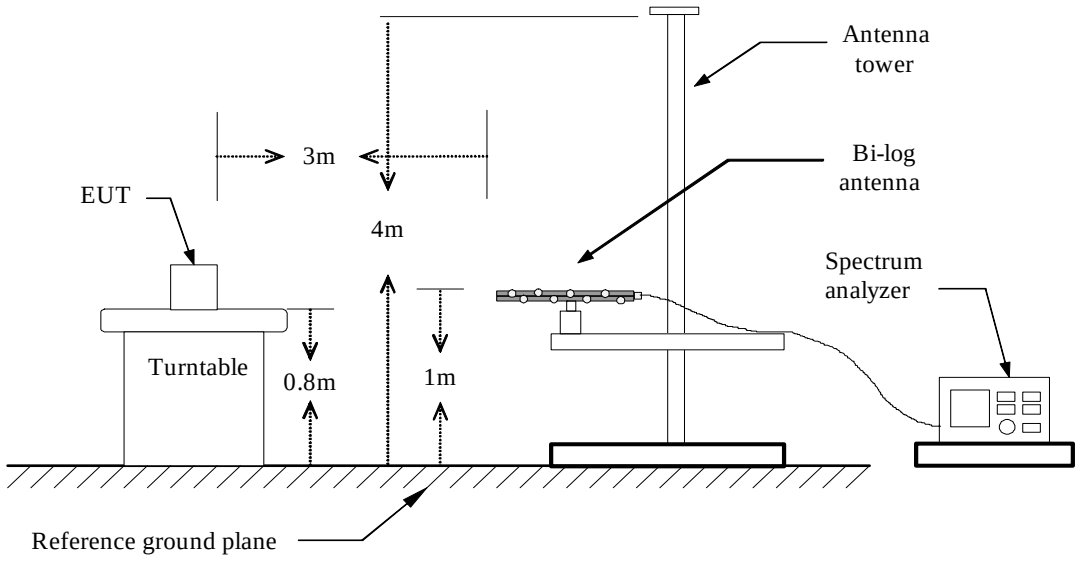
3.2. Test Instruments

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)

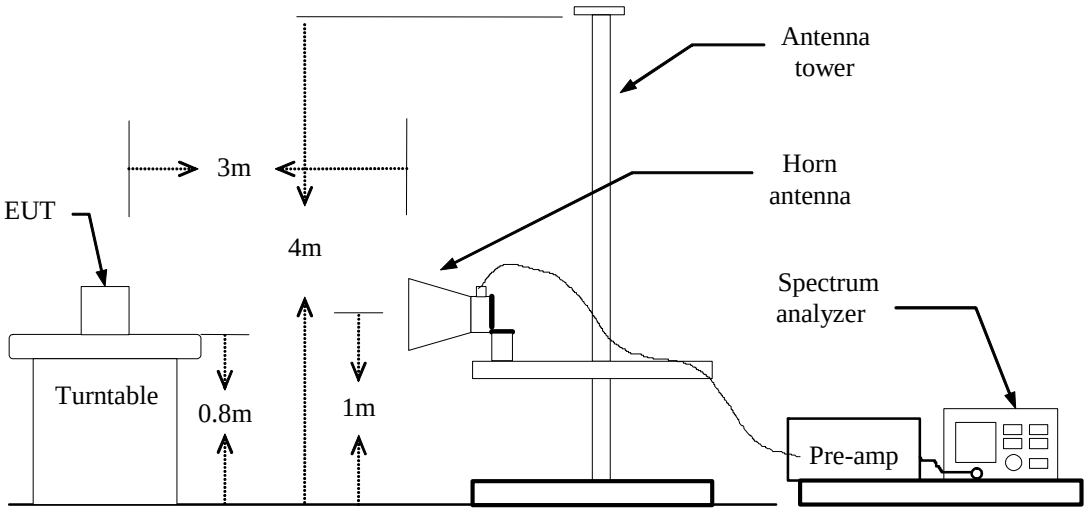
Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
Note: N.C.R. = No Calibration Request.

3.3. Setup

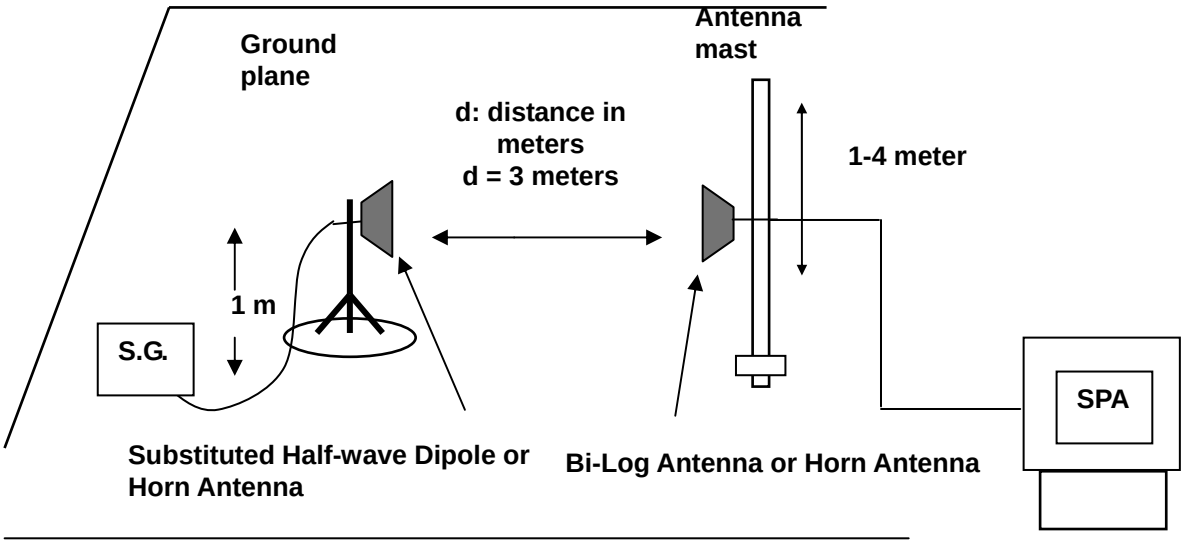
Below 1 GHz



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 an 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 = S.G. output (dBm) + Antenna Gain (dBd) – Cable (dB)

EIRP = S.G. output (dBm) + Antenna Gain (dBi) – 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	AirCard 770S							
Test Item	ERP/EIRP							
Date of Test	10/12/2012					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	ERP		Limit
						(dBm)	(W)	
GSM 850	GMSK	824.2	H	16.44	11.95	**28.39**	**0.690**	< 7W
			V	4.08	11.29	15.37	0.034	< 7W
		836.6	H	14.27	12.07	26.34	0.431	< 7W
			V	2.87	11.34	14.21	0.026	< 7W
		848.8	H	14.56	12.50	27.06	0.508	< 7W
			V	1.66	11.47	13.13	0.021	< 7W
EGPRS 850	8PSK	824.2	H	15.73	11.95	**27.68**	**0.586**	< 7W
			V	4.86	11.29	16.15	0.041	< 7W
		836.6	H	13.25	12.07	25.32	0.340	< 7W
			V	4.79	11.34	16.13	0.041	< 7W
		848.8	H	12.50	12.51	25.01	0.317	< 7W
			V	3.86	11.47	15.33	0.034	< 7W

Model Number	AirCard 770S							
Test Item	ERP/EIRP							
Date of Test	10/12/2012					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	EIRP		Limit
						(dBm)	(W)	
GSM 1900	GMSK	1850.20	H	16.72	10.49	27.21	0.526	< 2W
			V	11.25	8.33	19.58	0.091	< 2W
		1880.00	H	16.61	10.51	27.12	0.515	< 2W
			V	11.22	8.57	19.79	0.095	< 2W
		1909.80	H	16.80	10.52	**27.32**	**0.540**	< 2W
			V	10.27	8.81	19.08	0.081	< 2W
EGPRS 1900	8PSK	1850.20	H	16.53	10.49	27.02	0.504	< 2W
			V	12.74	8.33	21.07	0.128	< 2W
		1880.00	H	16.75	10.51	27.26	0.532	< 2W
			V	13.41	8.57	21.98	0.158	< 2W
		1909.80	H	16.94	10.51	**27.45**	**0.556**	< 2W
			V	12.42	8.81	21.23	0.133	< 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	AirCard 770S							
Test Item	ERP/EIRP							
Date of Test	10/12/2012					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	EIRP		Limit
						(dBm)	(W)	
WCDMA Band II	QPSK	1852.4	H	12.02	10.50	22.52	0.179	< 2W
			V	7.38	8.36	15.74	0.037	< 2W
		1880.0	H	12.14	10.52	**22.66**	**0.185**	< 2W
			V	8.39	8.56	16.95	0.050	< 2W
		1907.6	H	11.87	10.52	22.39	0.173	< 2W
			V	7.78	8.77	16.55	0.045	< 2W

Model Number	AirCard 770S							
Test Item	ERP/EIRP							
Date of Test	10/12/2012					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	ERP		Limit
						(dBm)	(W)	
WCDMA Band V	QPSK	826.4	H	8.74	11.97	**20.71**	**0.118**	< 7W
			V	-3.82	11.30	7.48	0.006	< 7W
		836.6	H	7.93	12.07	20.00	0.100	< 7W
			V	-4.84	11.34	6.50	0.004	< 7W
		846.6	H	8.17	12.35	20.52	0.113	< 7W
			V	-5.50	11.42	5.92	0.004	< 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

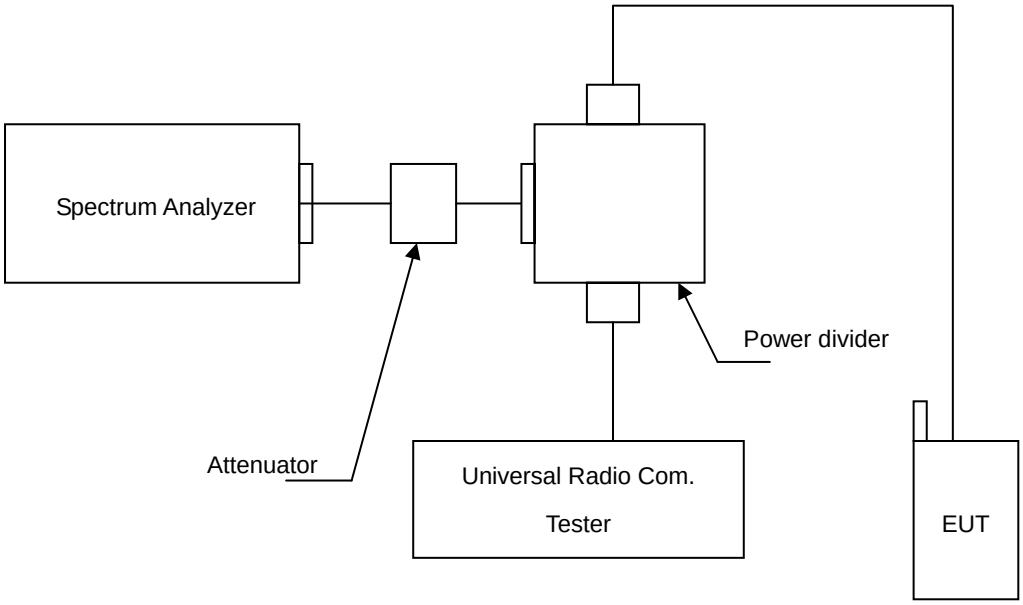
The Occupied Bandwidth Limit: N/A.

4.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/10/2012	(1)
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.

4.5. Uncertainty

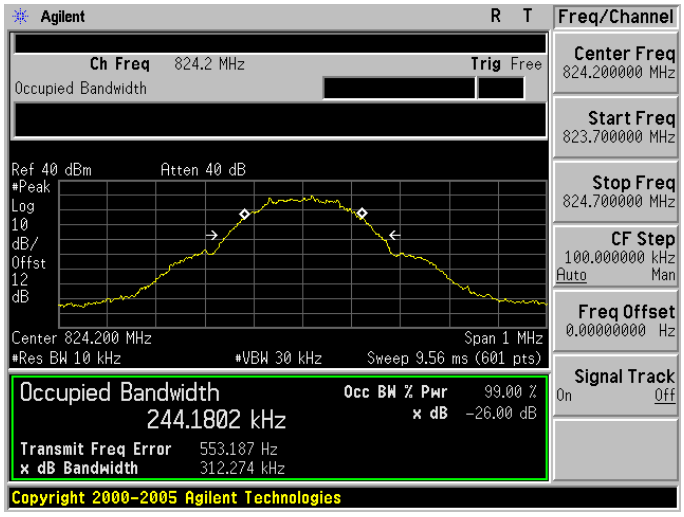
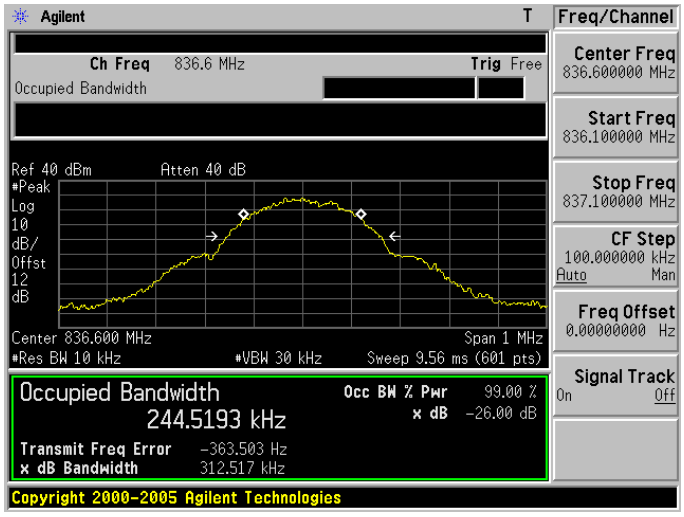
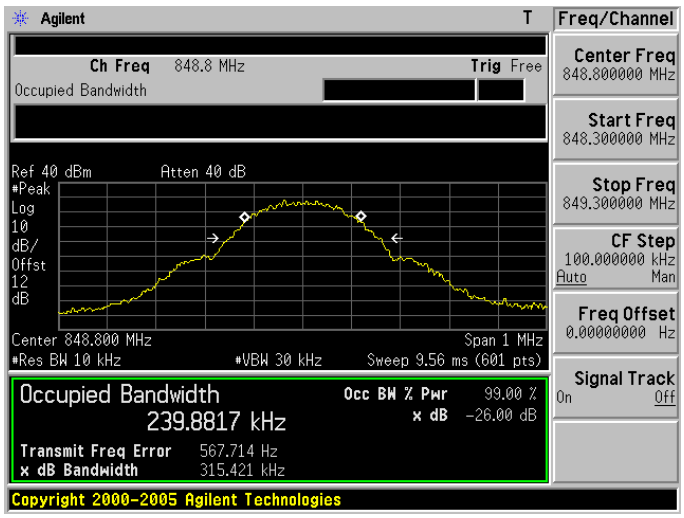
The measurement uncertainty is defined as ± 10Hz

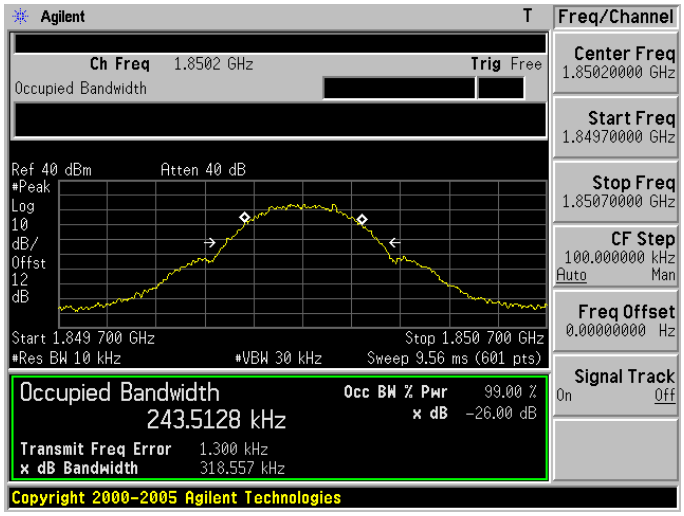
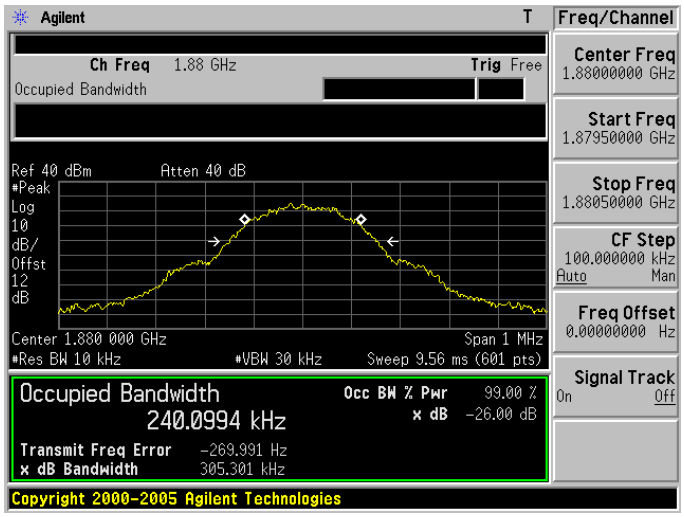
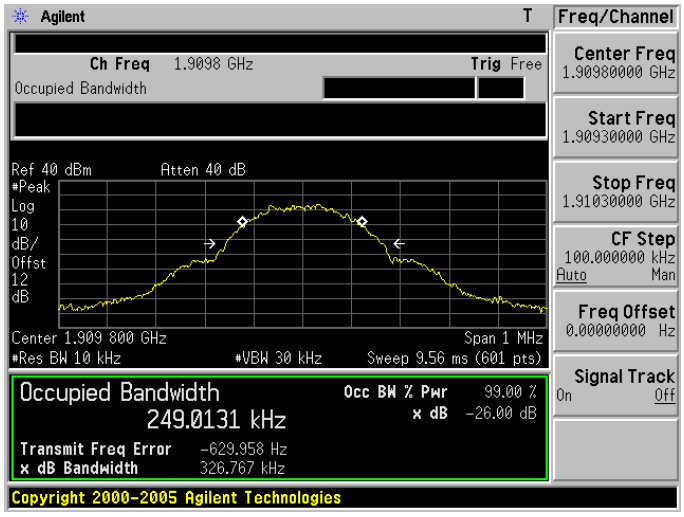
4.6. Test Result

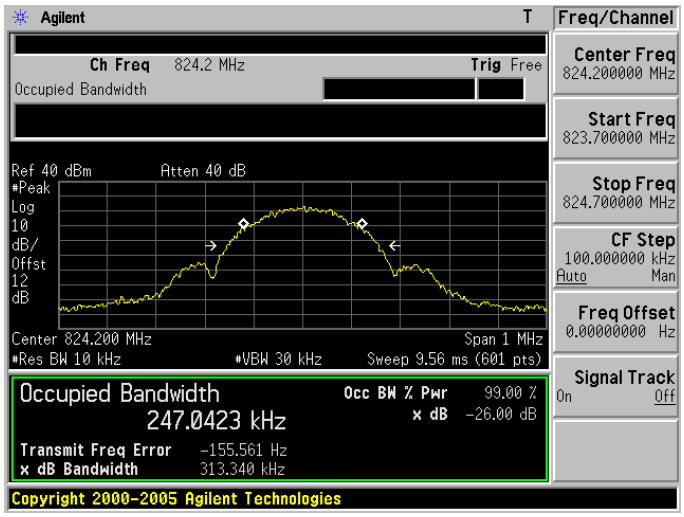
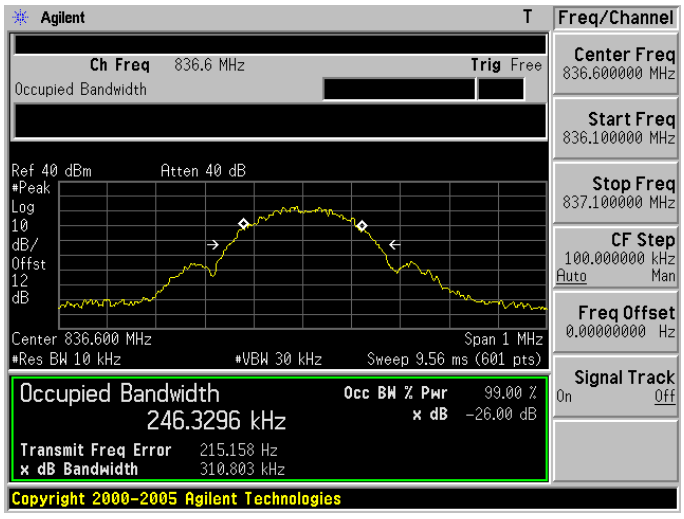
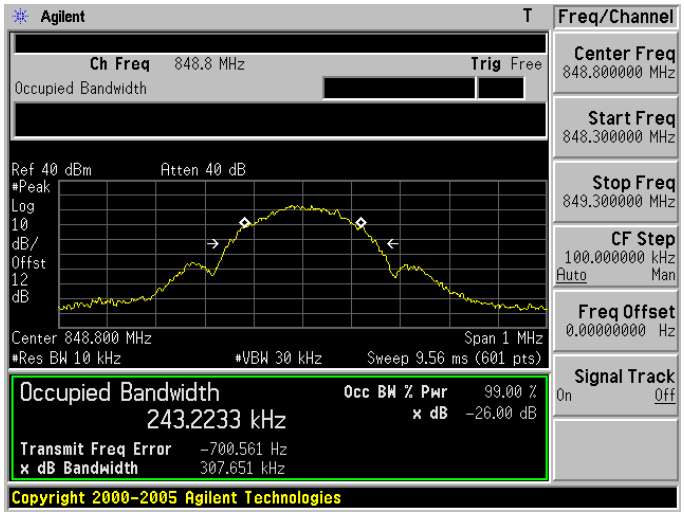
Model Number	AirCard 770S				
Test Item	Occupied Bandwidth				
Date of Test	10/11/2012			Test Site	TE05
Bands	Channel	Frequency (MHz)	Measurement (kHz)	Note	
GPRS 850	128	824.2	244.1802	RBW:10KHz , VBW:30KHz	
	190	836.6	244.5193	RBW:10KHz , VBW:30KHz	
	251	848.8	239.8817	RBW:10KHz , VBW:30KHz	
GPRS 1900	512	1850.20	243.5128	RBW:10KHz , VBW:30KHz	
	661	1880.00	240.0994	RBW:10KHz , VBW:30KHz	
	810	1909.80	249.0131	RBW:10KHz , VBW:30KHz	
EGPRS 850	128	824.2	247.0423	RBW:10KHz , VBW:30KHz	
	190	836.6	246.3296	RBW:10KHz , VBW:30KHz	
	251	848.8	243.2233	RBW:10KHz , VBW:30KHz	
EGPRS 1900	512	1850.20	242.7140	RBW:10KHz , VBW:30KHz	
	661	1880.00	244.1727	RBW:10KHz , VBW:30KHz	
	810	1909.80	244.2708	RBW:10KHz , VBW:30KHz	

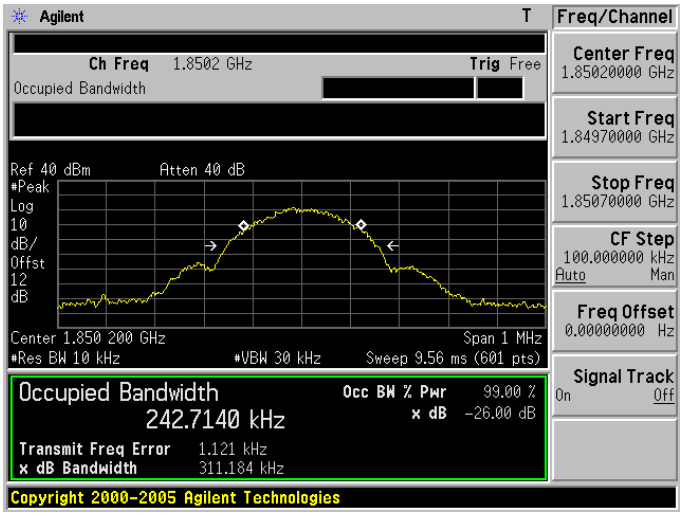
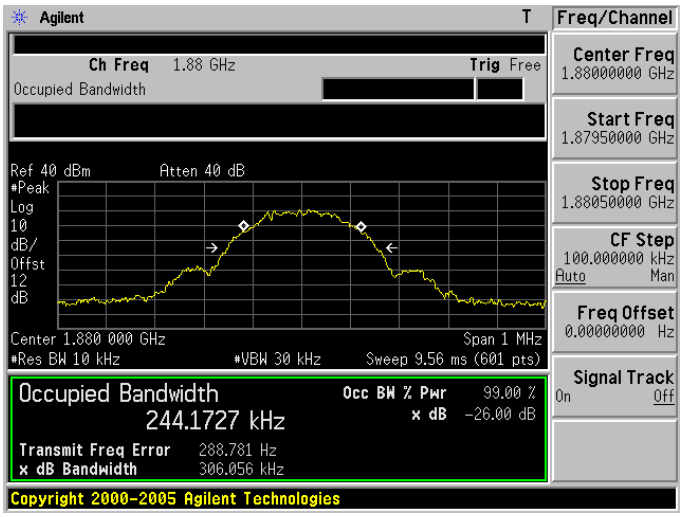
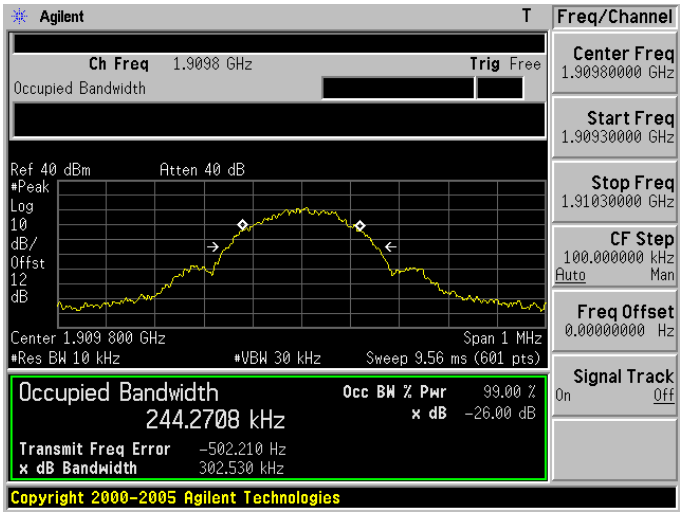
Model Number	AirCard 770S				
Test Item	Occupied Bandwidth				
Date of Test	10/11/2012			Test Site	TE05
Bands	Channel	Frequency (MHz)	Measurement (MHz)	Note	
WCDMA Band II	9262	1852.4	4.1634	RBW:100KHz , VBW:300KHz	
	9400	1880.0	4.1869	RBW:100KHz , VBW:300KHz	
	9538	1907.6	4.1866	RBW:100KHz , VBW:300KHz	
WCDMA Band V	4132	826.4	4.1686	RBW:100KHz , VBW:300KHz	
	4183	836.6	4.1578	RBW:100KHz , VBW:300KHz	
	4233	846.6	4.1640	RBW:100KHz , VBW:300KHz	

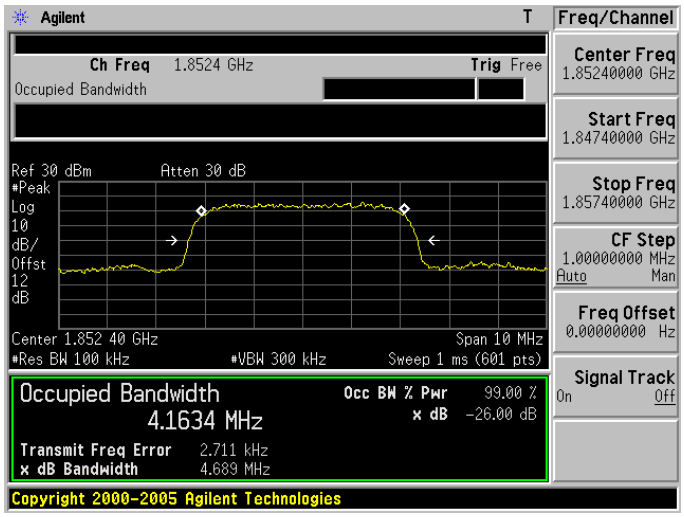
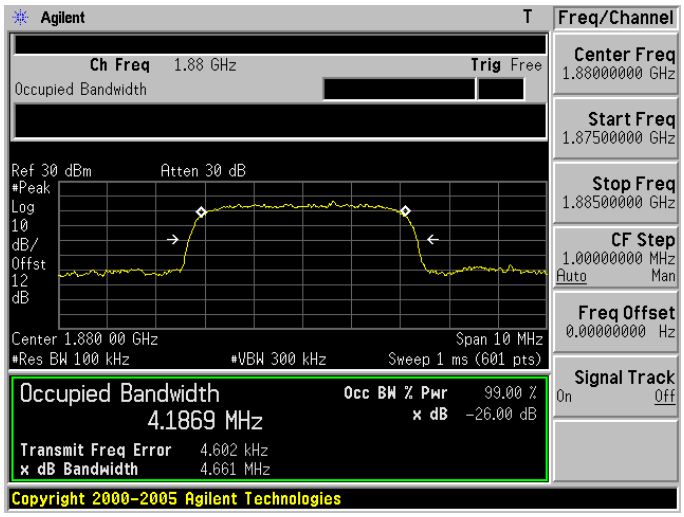
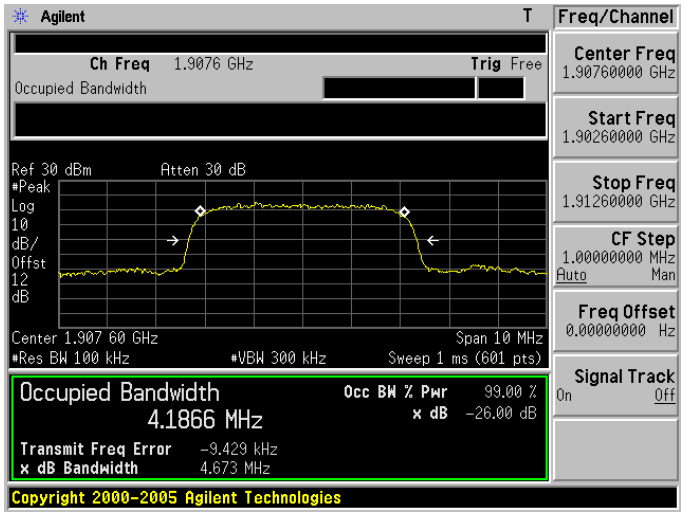
4.7. Test Graphs

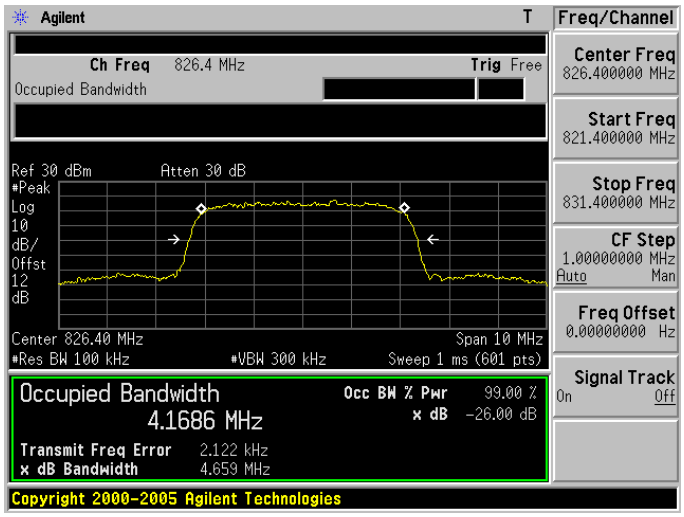
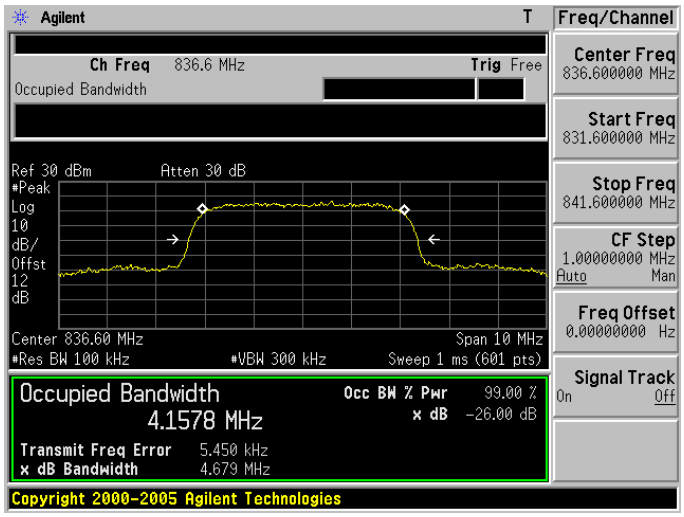
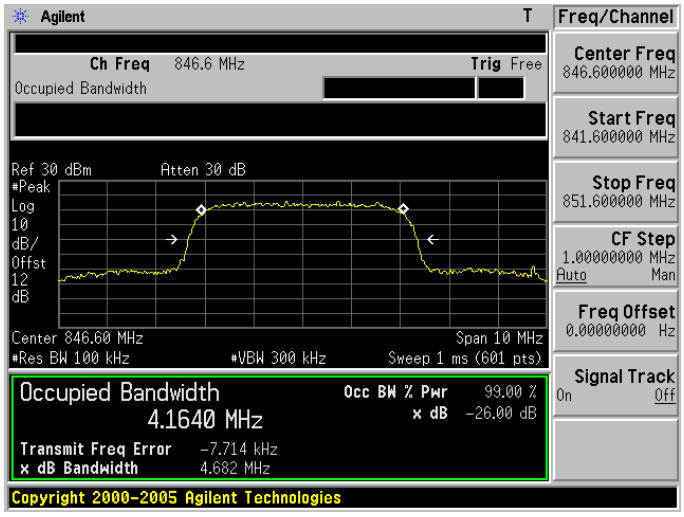
Mode 1: GPRS 850 Link Mode	
824.2 MHz	
836.6 MHz	
848.8 MHz	

Mode 2: GPRS 1900 Link Mode	
1850.20 MHz	
1880.00 MHz	
1909.80 MHz	

Mode 3: EGPRS 850 Link Mode	
824.2 MHz	
836.6 MHz	
848.8 MHz	

Mode 4: EGPRS 1900 Link Mode	
1850.20 MHz	
1880.00 MHz	
1909.80 MHz	

Mode 5: WCDMA Band II Link Mode	
1850.20 MHz	
1880.00 MHz	
1909.80 MHz	

Mode 6: WCDMA Band V Link Mode	
826.4 MHz	
836.6 MHz	
846.6 MHz	

5 Band Edge Test

5.1. Limit

The Band Edge Limit:

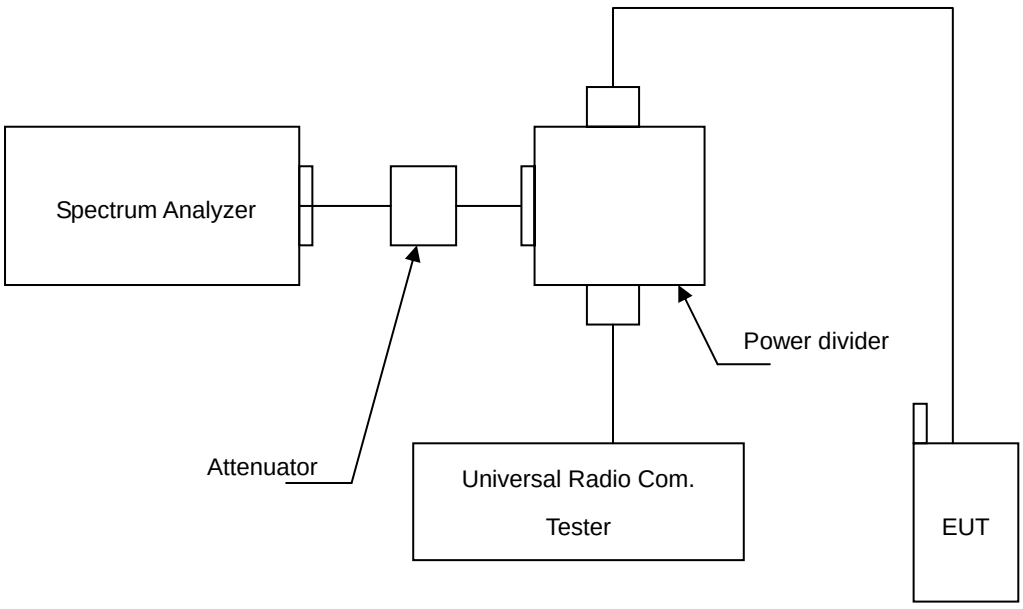
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB.

5.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/10/2012	(1)
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



5.4. 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 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.
3. The band edge setting:
   a. RBW=10 kHz; VBW=30 kHz for GSM 850 and PCS 1900.
   b. RBW=100 kHz; VBW=300 kHz for WCDMA Band V and WCDMA Band II.

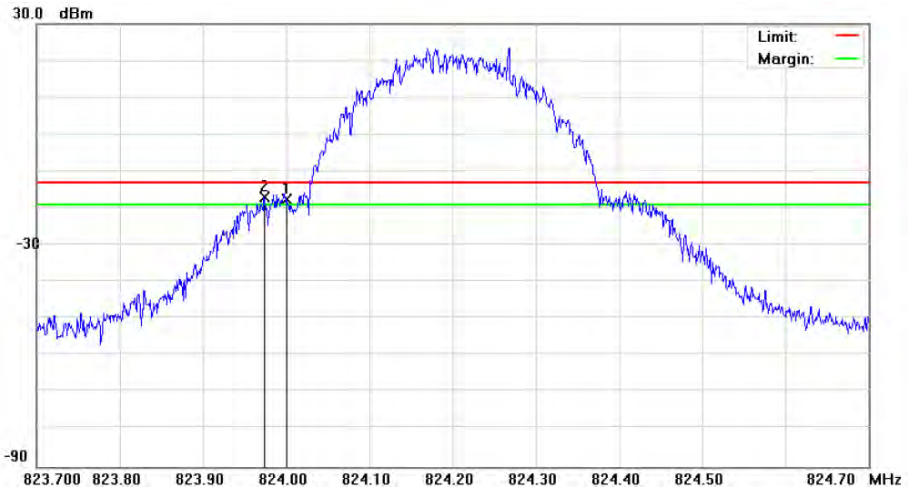
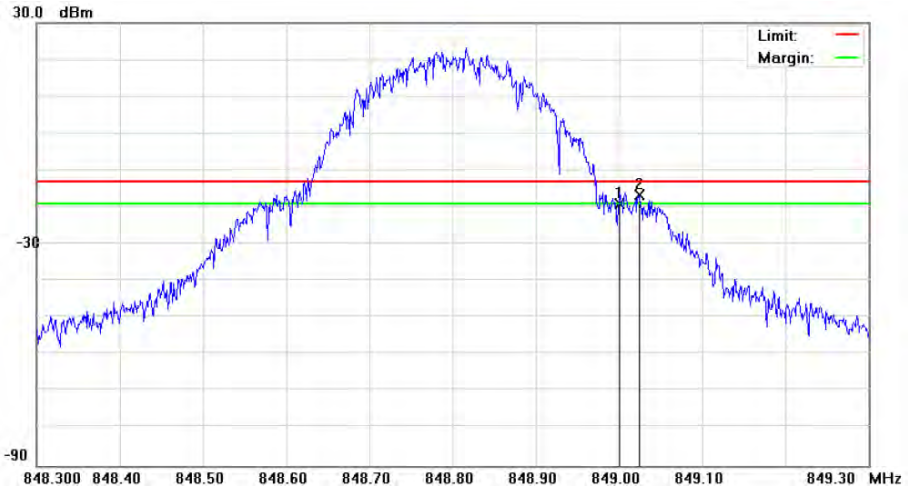
5.5. Uncertainty

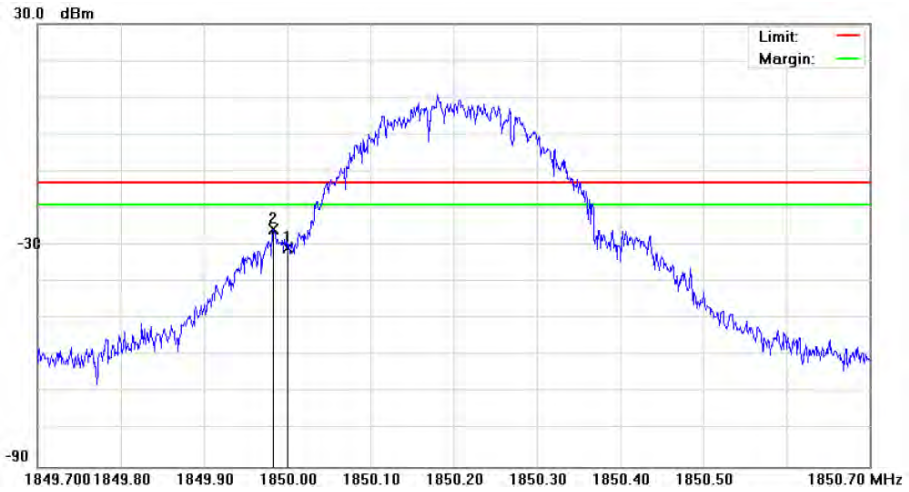
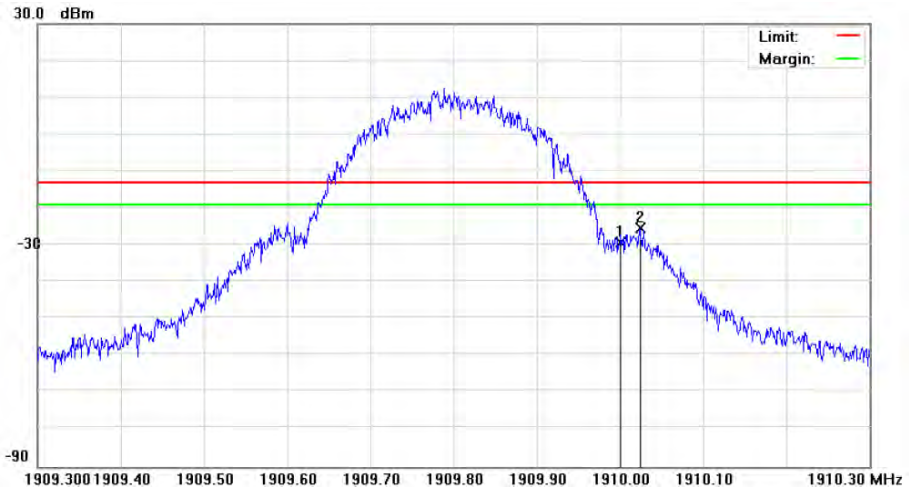
The measurement uncertainty is defined as ± 10Hz

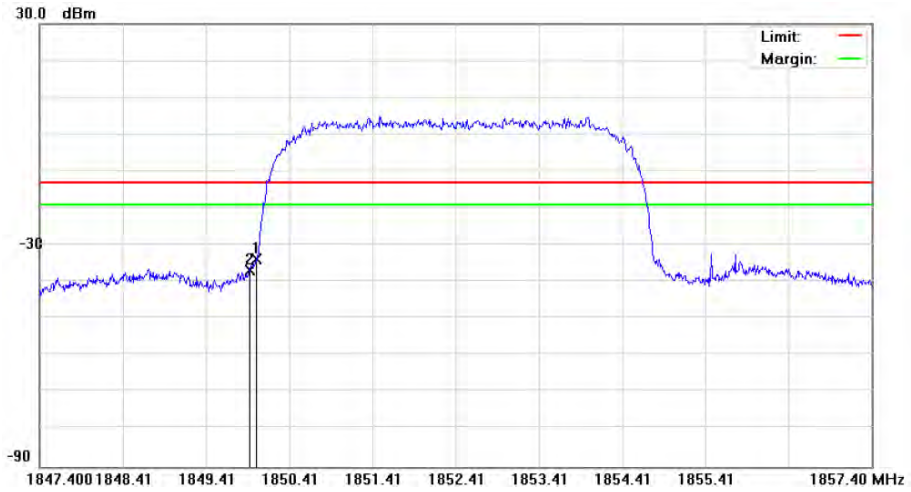
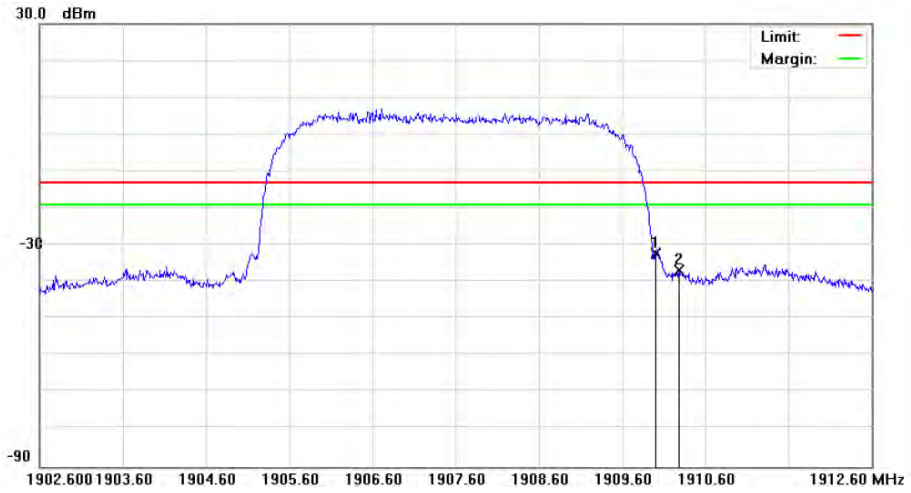
5.6. Test Result

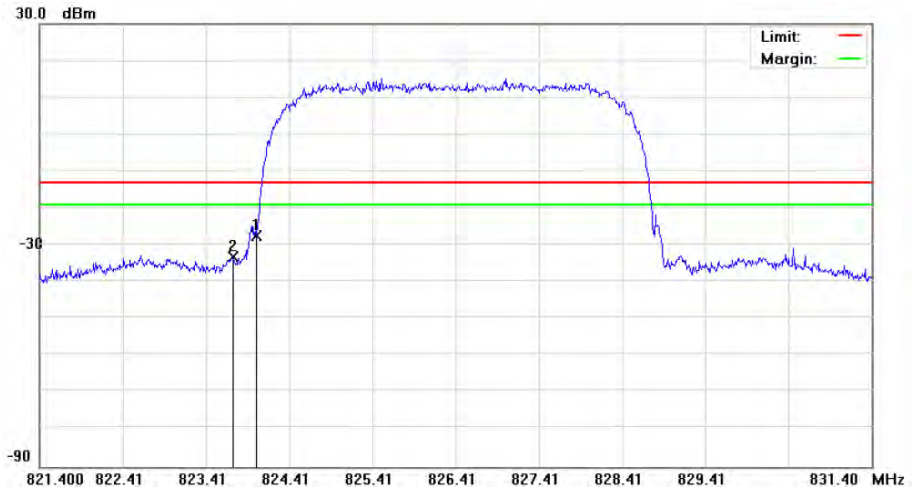
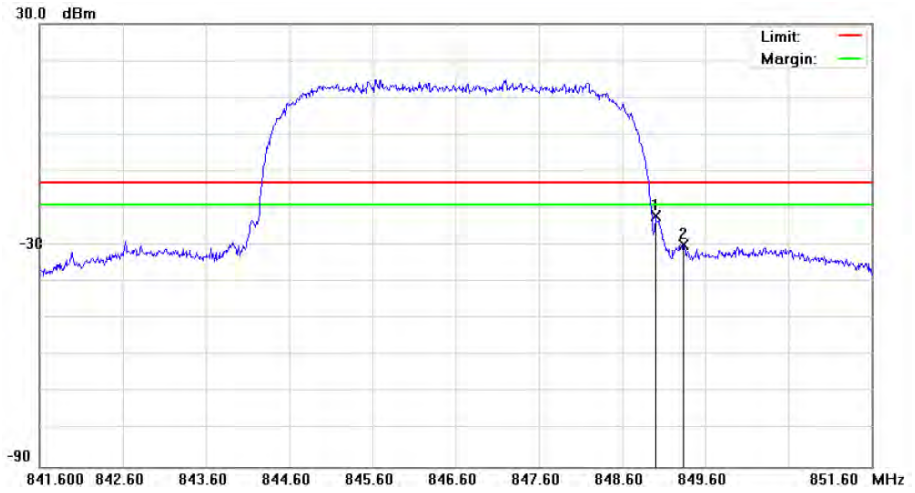
Model Number		AirCard 770S				
Test Item		Band Edge				
Date of Test		10/11/2012			Test Site	TE05
Bands		Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
GSM 850	Lower	128	824.0000	-17.05	-13	Pass
	Higher	251	849.0000	-16.66	-13	Pass
GSM 1900	Lower	512	1850.000	-25.74	-13	Pass
	Higher	810	1910.000	-25.48	-13	Pass
WCDMA Band II	Lower	9262	1850.000	-33.77	-13	Pass
	Higher	9538	1910.000	-32.31	-13	Pass
WCDMA Band V	Lower	4132	824.0000	-27.36	-13	Pass
	Higher	4233	849.0000	-22.19	-13	Pass

5.7. Test Graphs

Mode 1: GPRS 850 Link Mode	
Lower Band	
Higher Band	

Mode 2: GPRS 1900 Link Mode	
Lower Band	
Higher Band	

Mode 5: WCDMA Band II Link Mode	
Lower Band	
Higher Band	

Mode 6: WCDMA Band V Link Mode	
Lower Band	
Higher Band	

6 Conducted Spurious Emission 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.

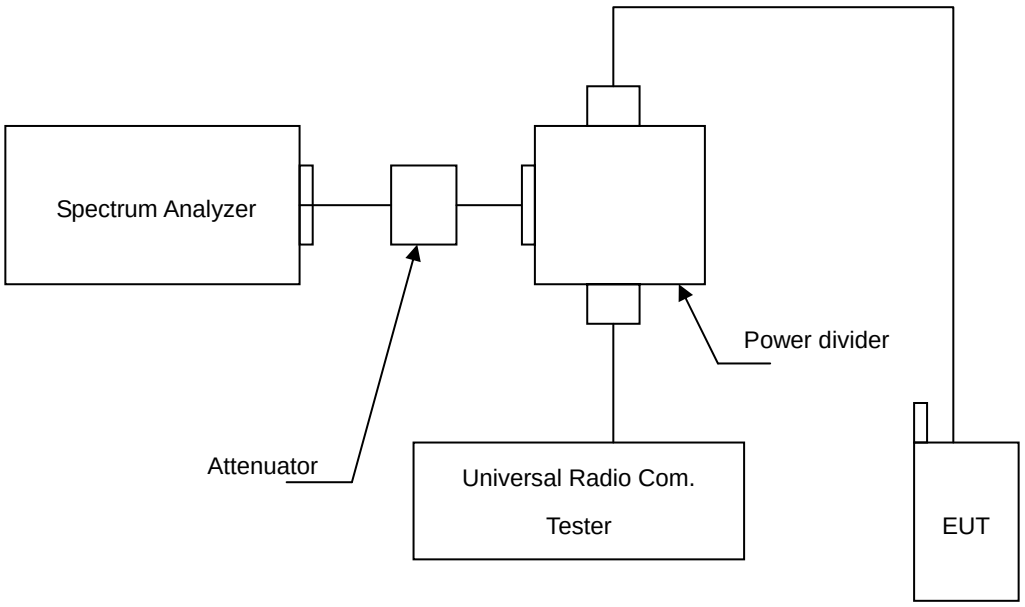
6.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/10/2012	(1)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power Divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

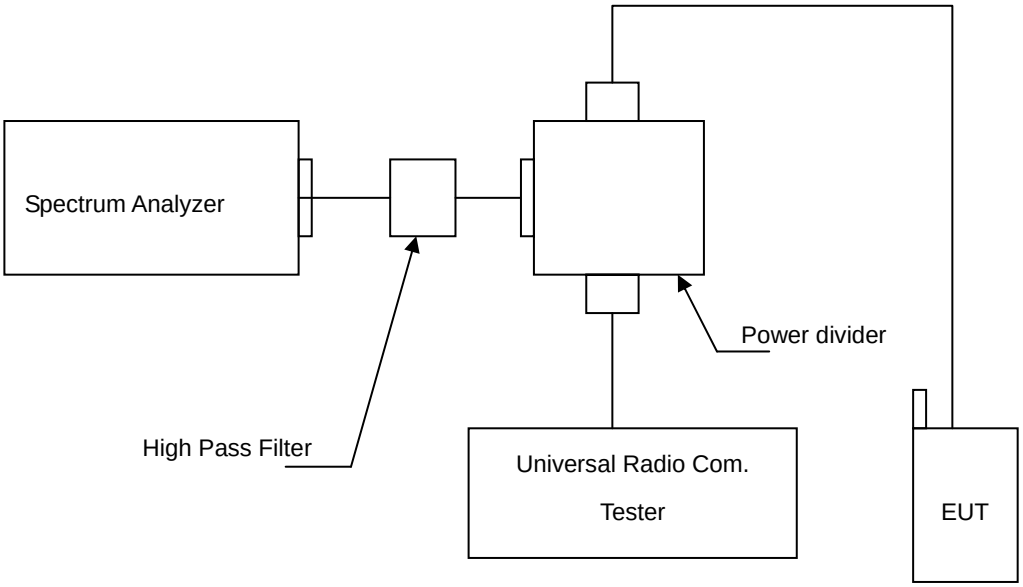
Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.
Note: N.C.R. = No Calibration Request.

6.3. Setup

Below 2.8GHz



Above 2.8GHz



6.4. Test Procedure

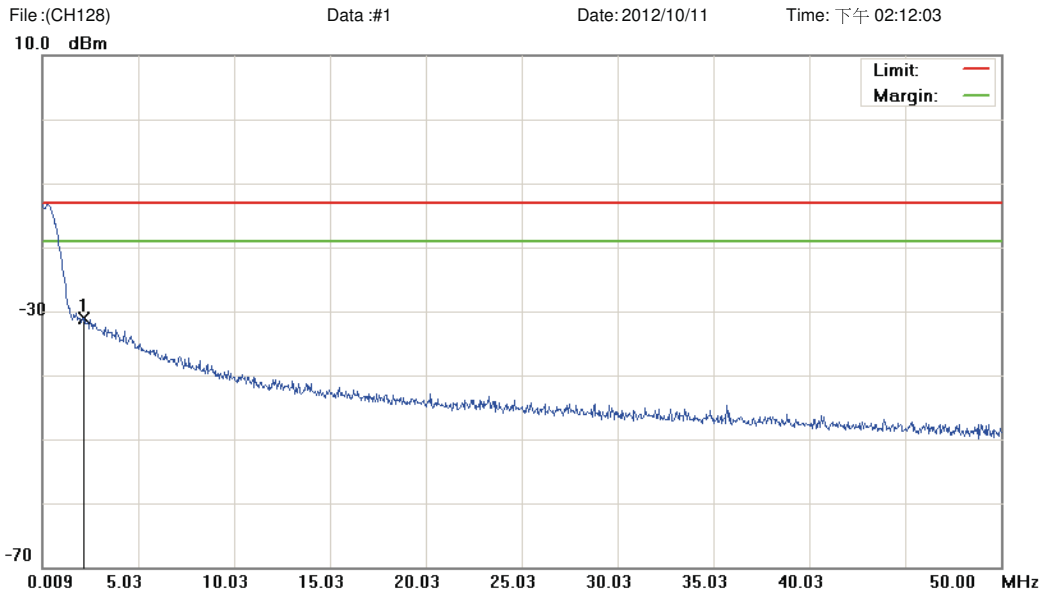
1. The EUT was connected to Spectrum Analyzer and Base Station via Power Divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at GSM 850 RB>100 kHz, VB>100 kHz;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

6.5. Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

6.6. Test Result

Model Number	AirCard 770S		
Test Item	Conducted Emission		
Test Mode	Mode 1: GPRS 850 Link Mode Mode 2: GPRS 1900 Link Mode Mode 4: EGPRS 1900 Link Mode Mode 5: WCDMA Band II Link Mode		
Date of Test	10/11/2012	Test Site	TE05



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH128

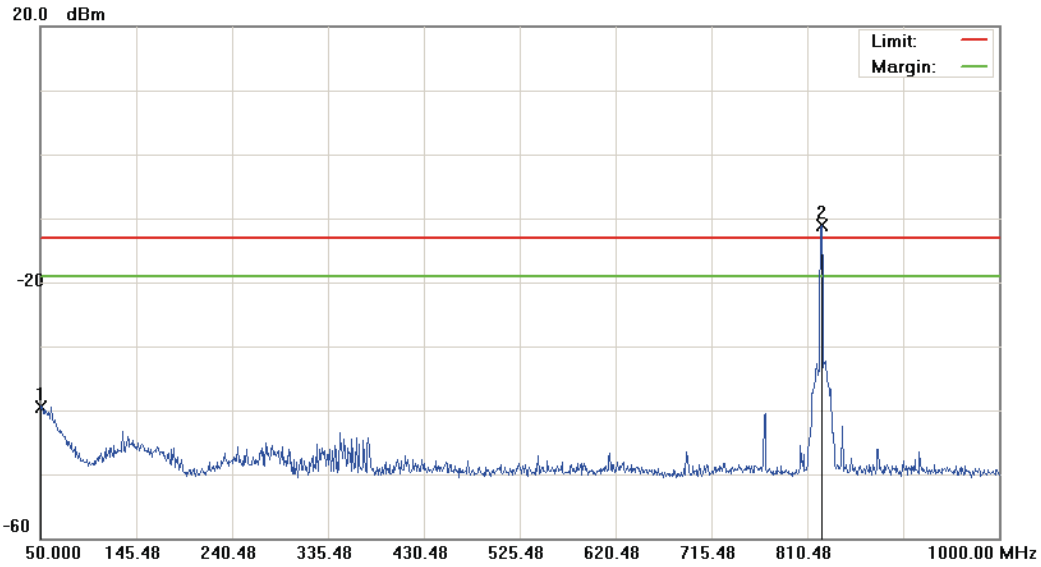
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2.1335	-62.61	31.47	-31.14	-13.00	-18.14	peak			

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

File :(CH128) Data :#2 Date: 2012/10/11 Time: 下午 02:12:27



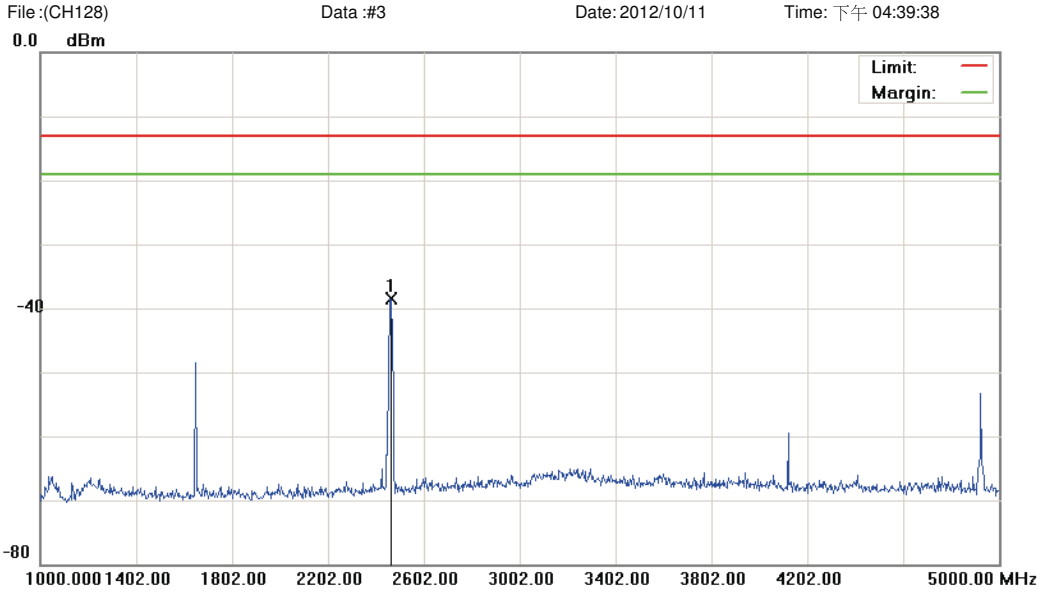
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH128

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.4750	-54.01	14.61	-39.40	-13.00	-26.40	peak			
2	*	824.2500	-14.93	3.84	-11.09	-13.00	1.91	peak			Tx

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



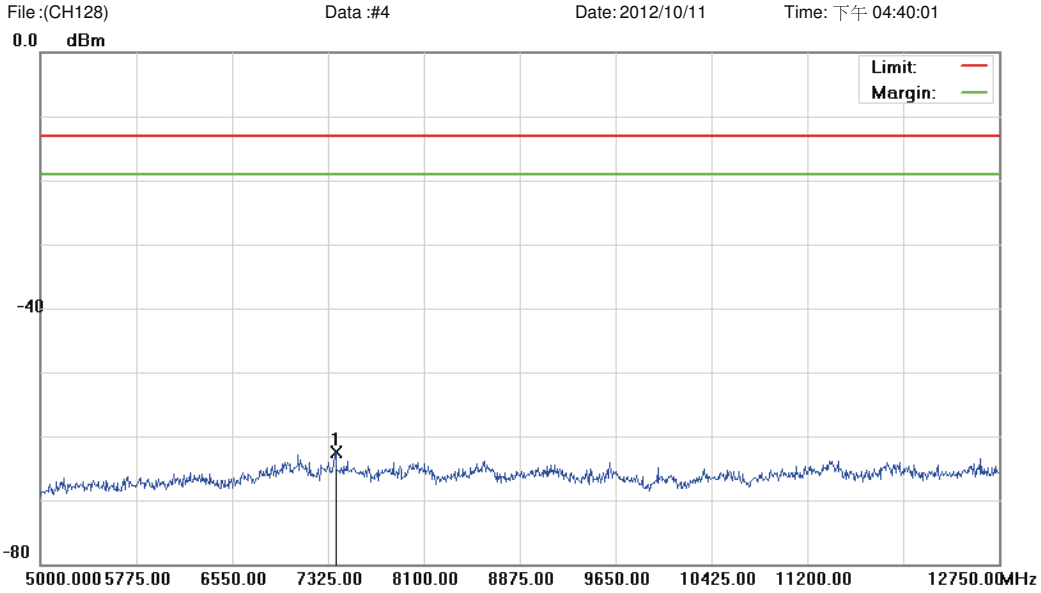
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH128

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2462.000	-42.94	4.48	-38.46	-13.00	-25.46	peak			

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



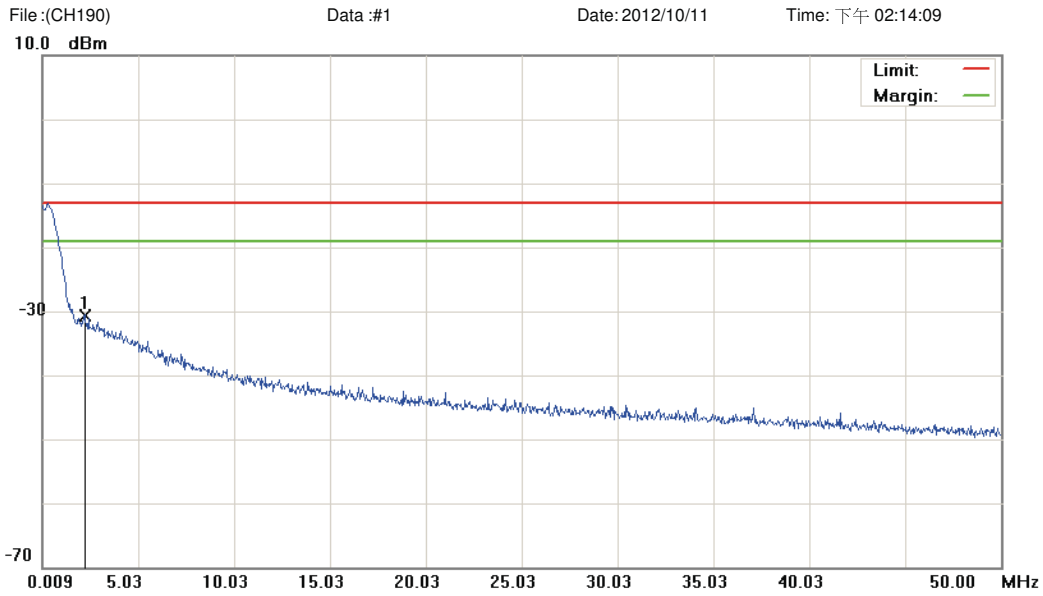
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH128

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	7387.000	-67.57	5.16	-62.41	-13.00	-49.41	peak			

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



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH190

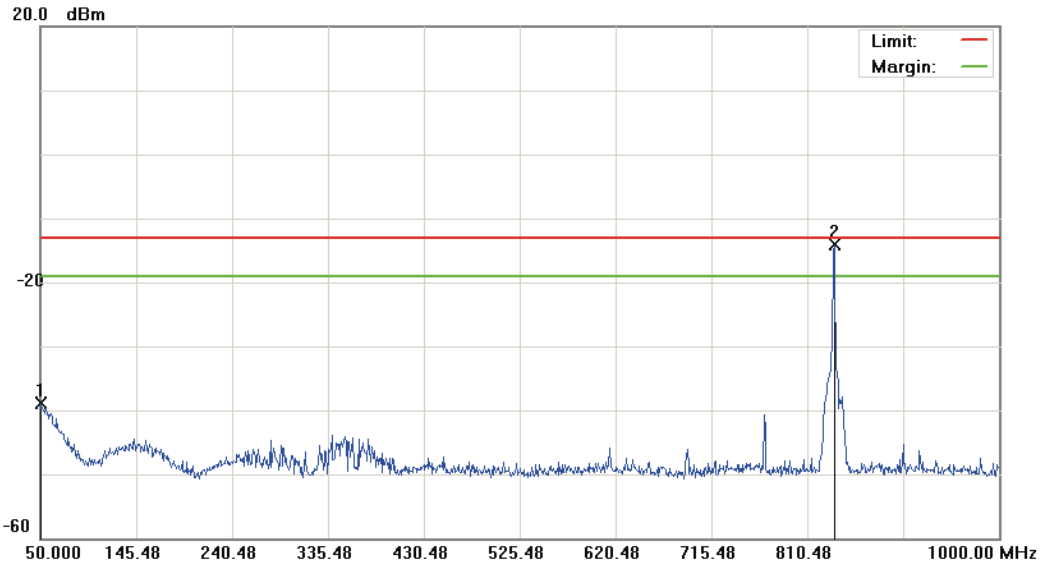
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2.2086	-61.87	31.27	-30.60	-13.00	-17.60	peak			

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

File :(CH190) Data :#2 Date: 2012/10/11 Time: 下午 02:14:33



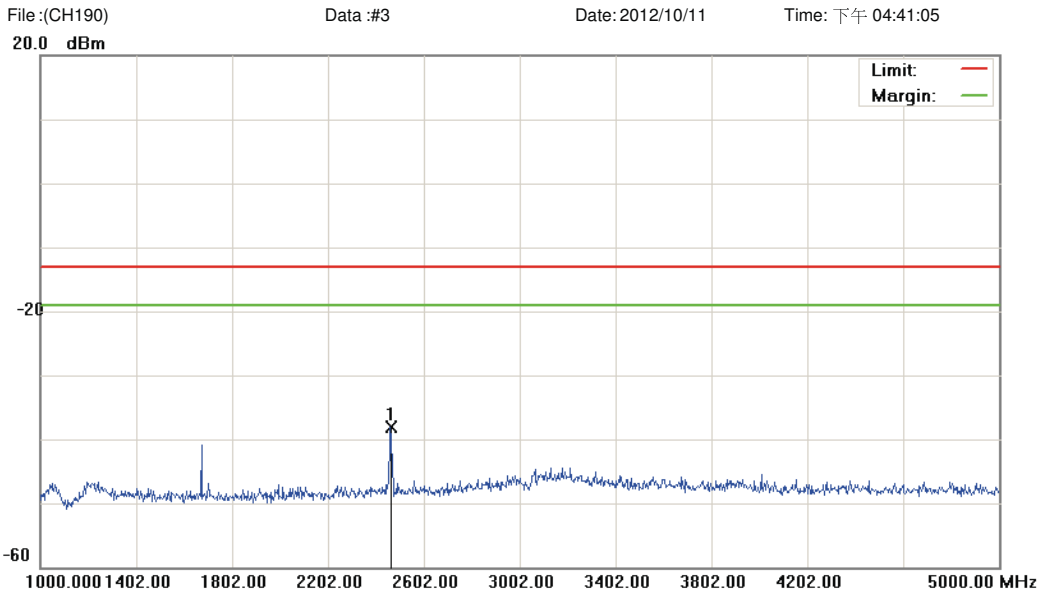
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH190

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.4750	-53.43	14.61	-38.82	-13.00	-25.82	peak			
2	*	836.6000	-18.04	3.96	-14.08	-13.00	-1.08	peak			Tx

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



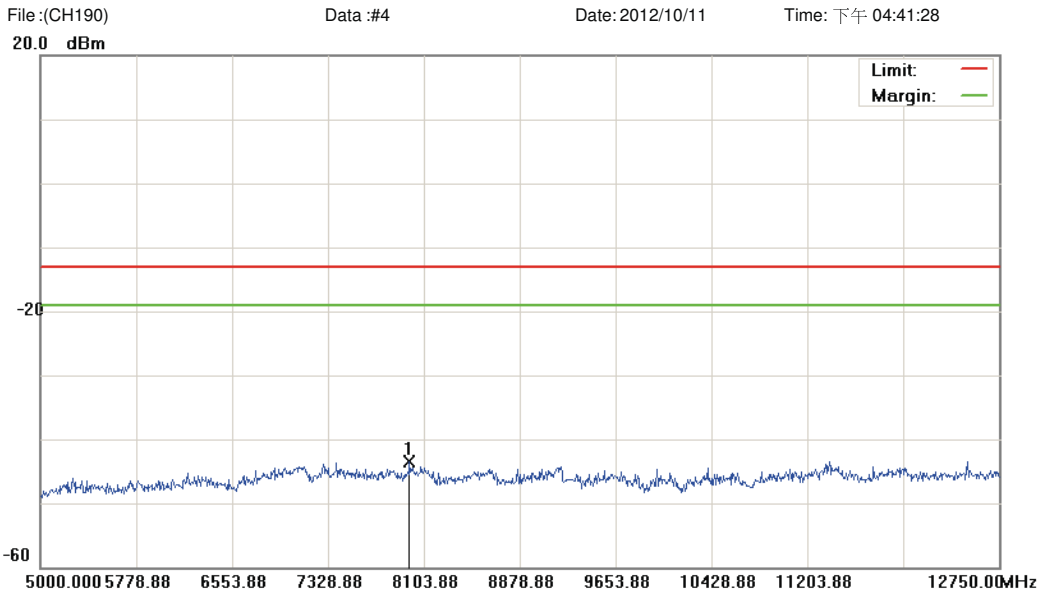
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH190

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2462.000	-42.55	4.48	-38.07	-13.00	-25.07	peak			

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



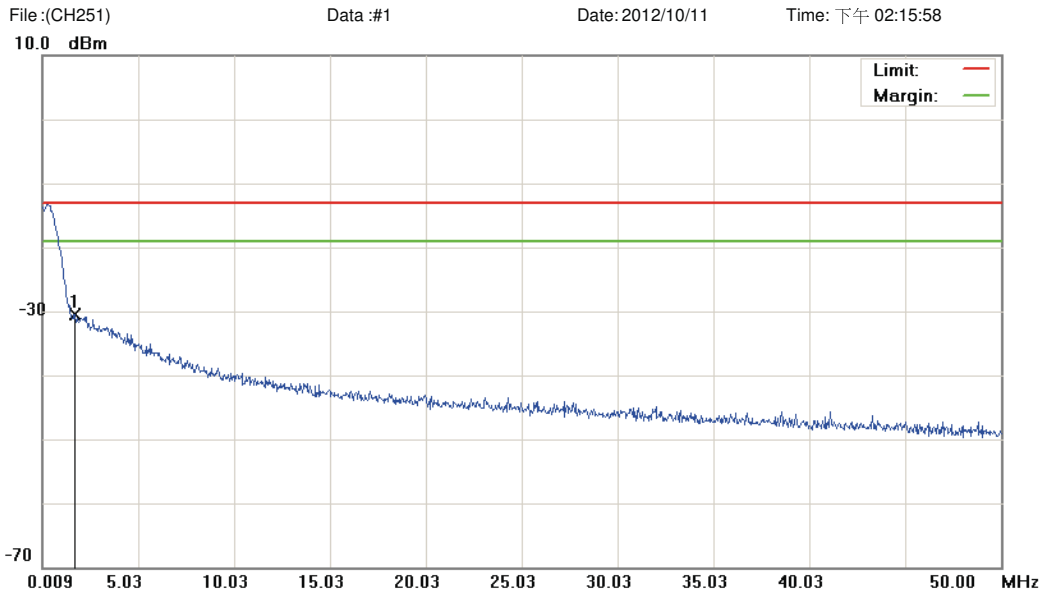
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH190

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	7983.750	-48.84	5.39	-43.45	-13.00	-30.45	peak			

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



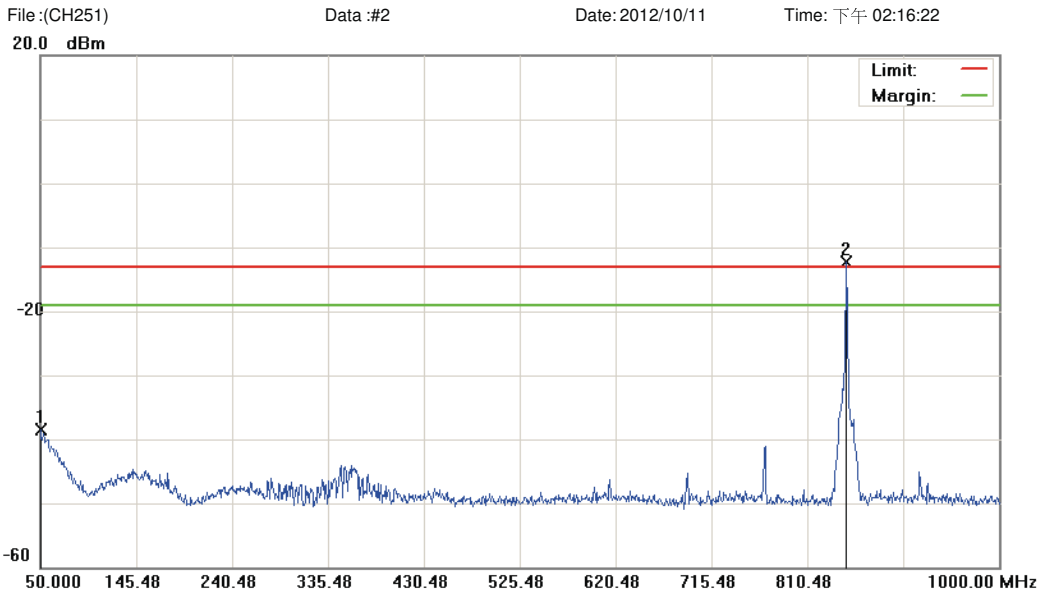
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH251

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.6836	-61.47	31.05	-30.42	-13.00	-17.42	peak			

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



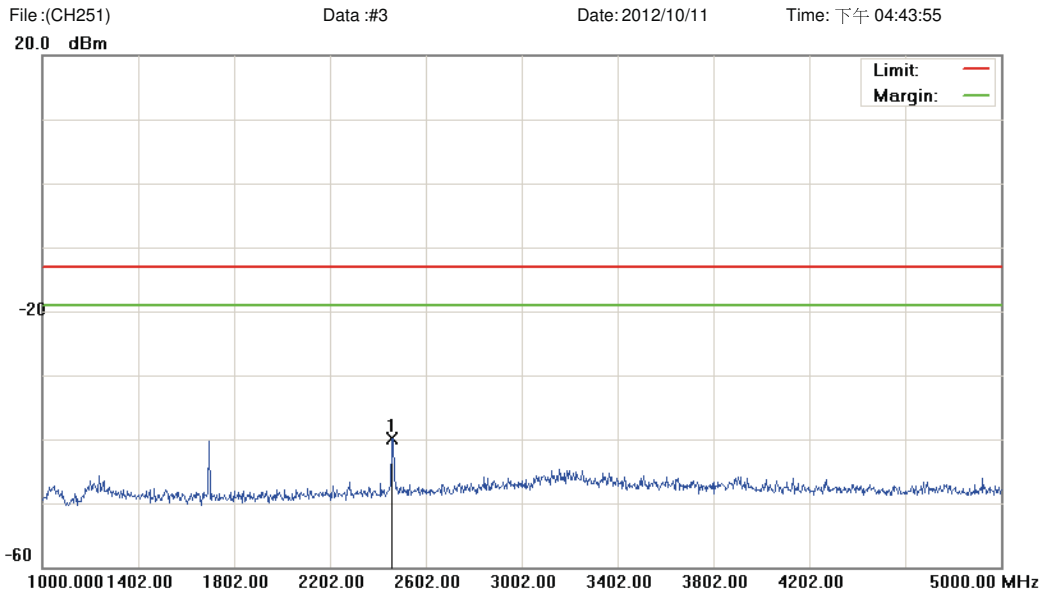
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH251

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.4750	-53.08	14.61	-38.47	-13.00	-25.47	peak			
2	*	848.9500	-16.23	3.98	-12.25	-13.00	0.75	peak			Tx

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



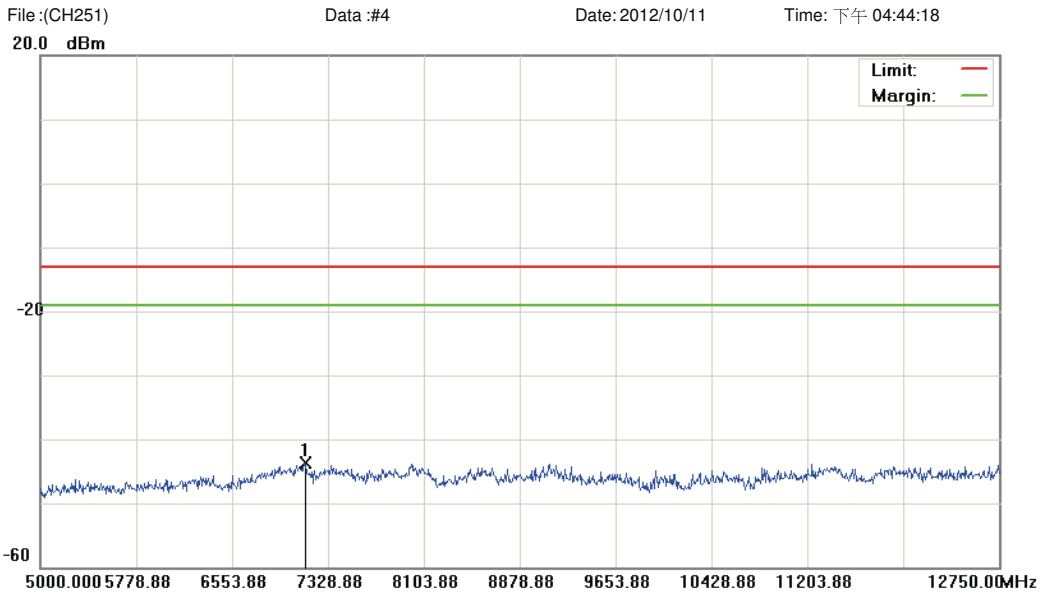
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH251

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2460.000	-44.40	4.49	-39.91	-13.00	-26.91	peak			

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



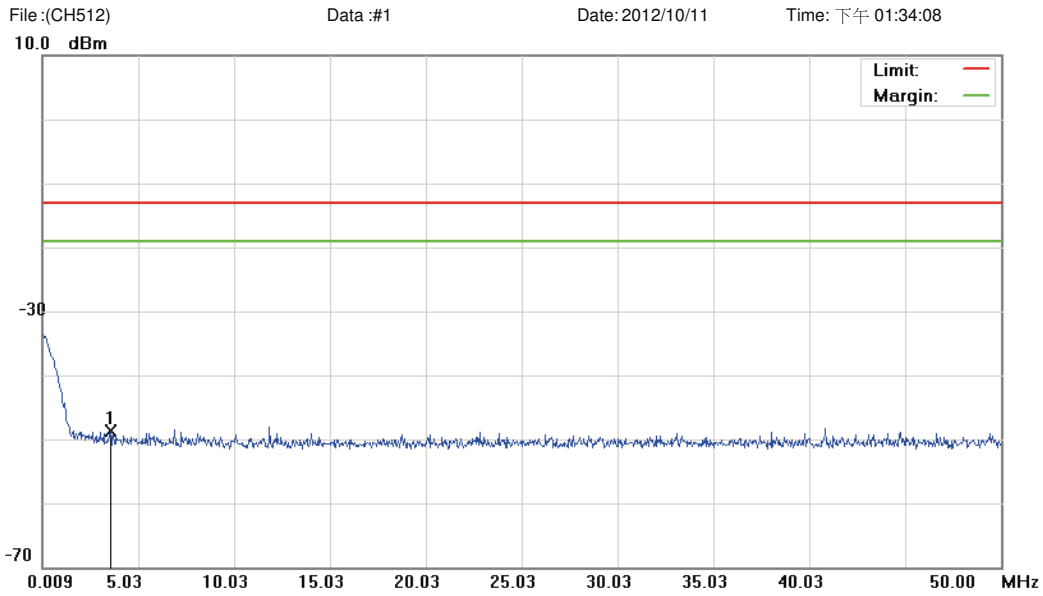
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 1
Note: CH251

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	7135.125	-48.89	5.23	-43.66	-13.00	-30.66	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH512

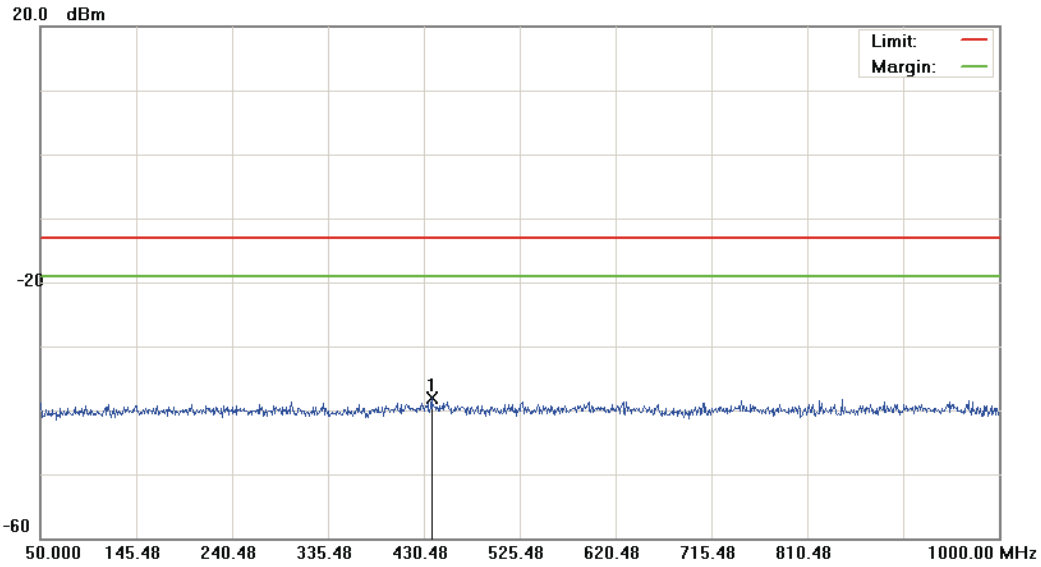
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3.5583	-61.93	13.14	-48.79	-13.00	-35.79	peak			

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

File :(CH512) Data :#2 Date: 2012/10/11 Time: 下午 01:34:32



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH512

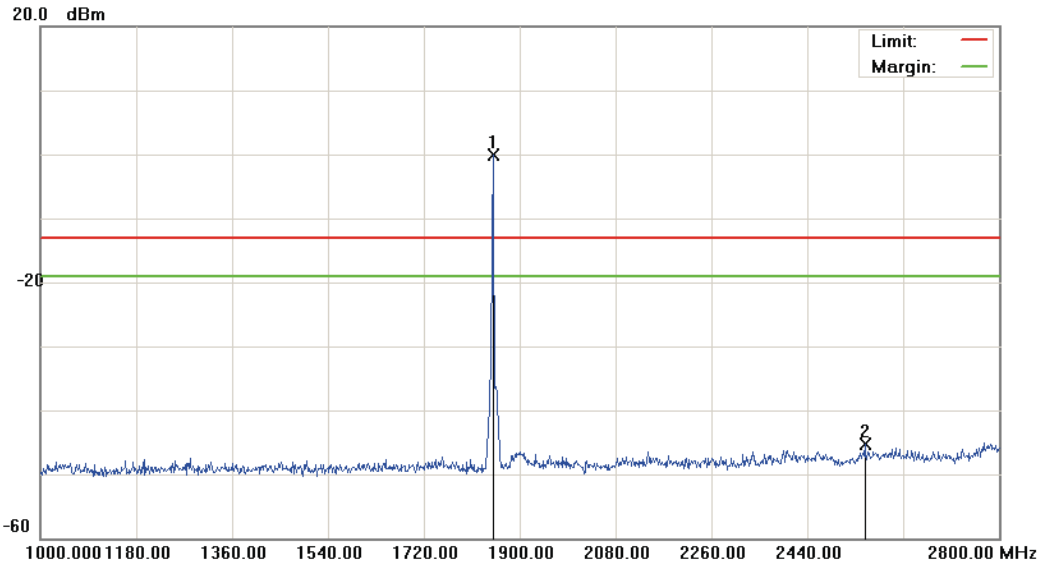
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	437.6000	-51.33	13.22	-38.11	-13.00	-25.11	peak			

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

File :(CH512) Data :#3 Date: 2012/10/11 Time: 下午 02:19:24



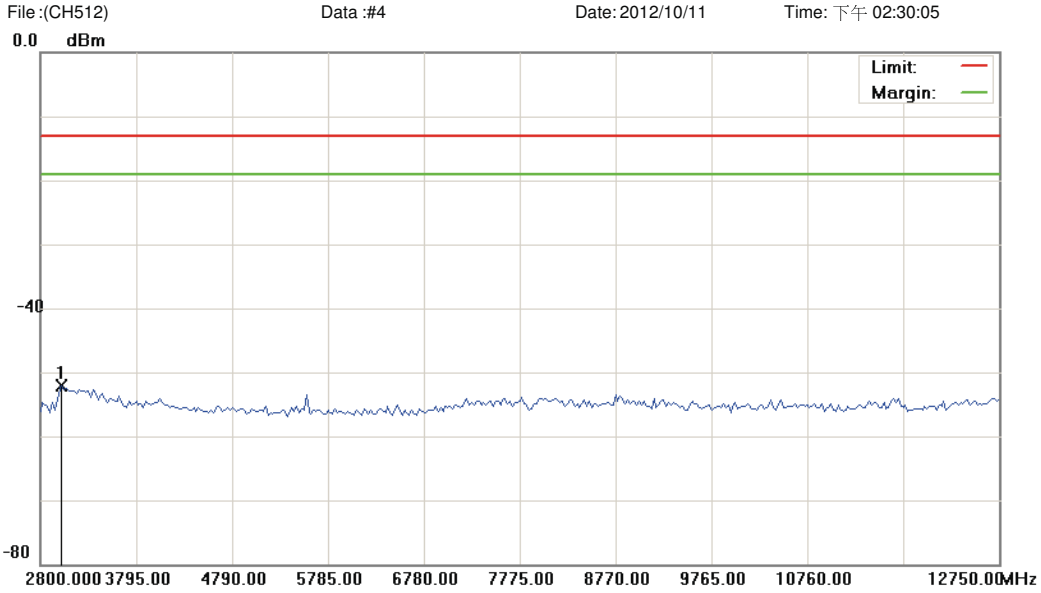
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH512

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1850.500	-4.27	4.26	-0.01	-13.00	12.99	peak			Tx
2		2548.000	-50.39	5.14	-45.25	-13.00	-32.25	peak			

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



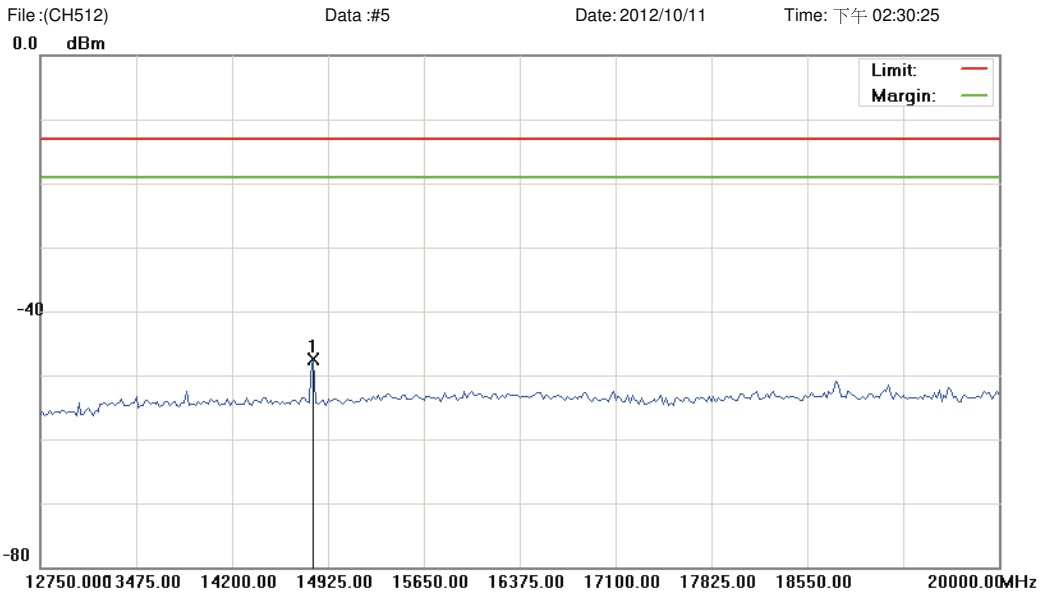
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH512

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3023.875	-57.57	5.48	-52.09	-13.00	-39.09	peak			

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



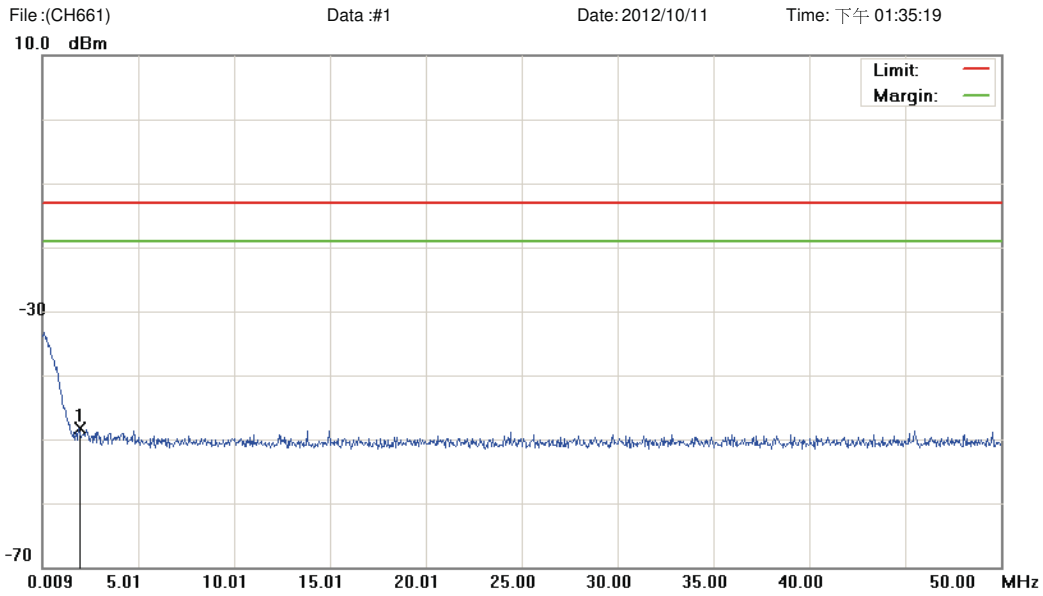
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH512

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	14816.250	-53.47	5.96	-47.51	-13.00	-34.51	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH661

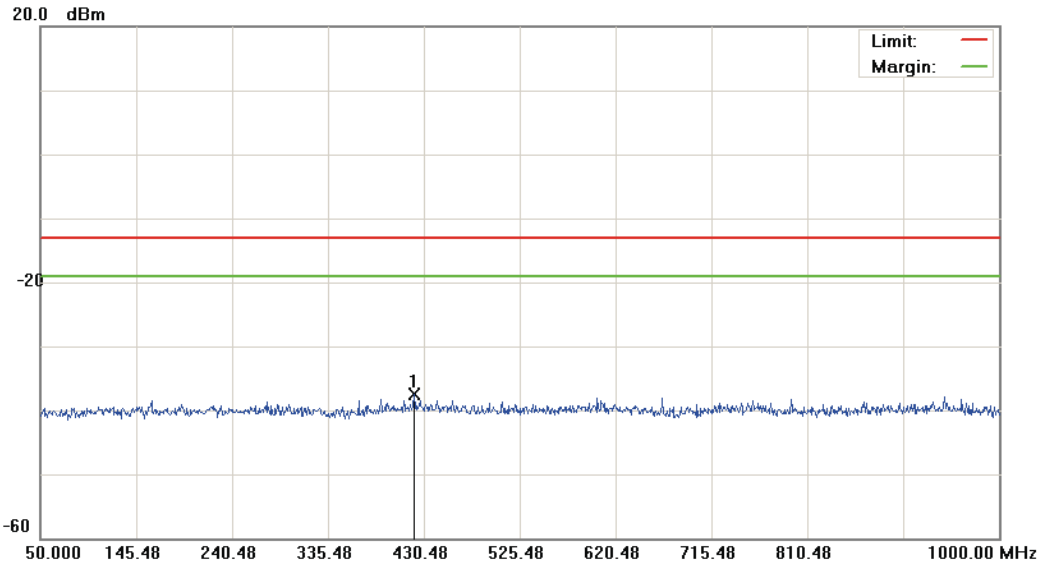
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.9336	-61.30	13.01	-48.29	-13.00	-35.29	peak			

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

File :(CH661) Data :#2 Date: 2012/10/11 Time: 下午 01:35:43



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH661

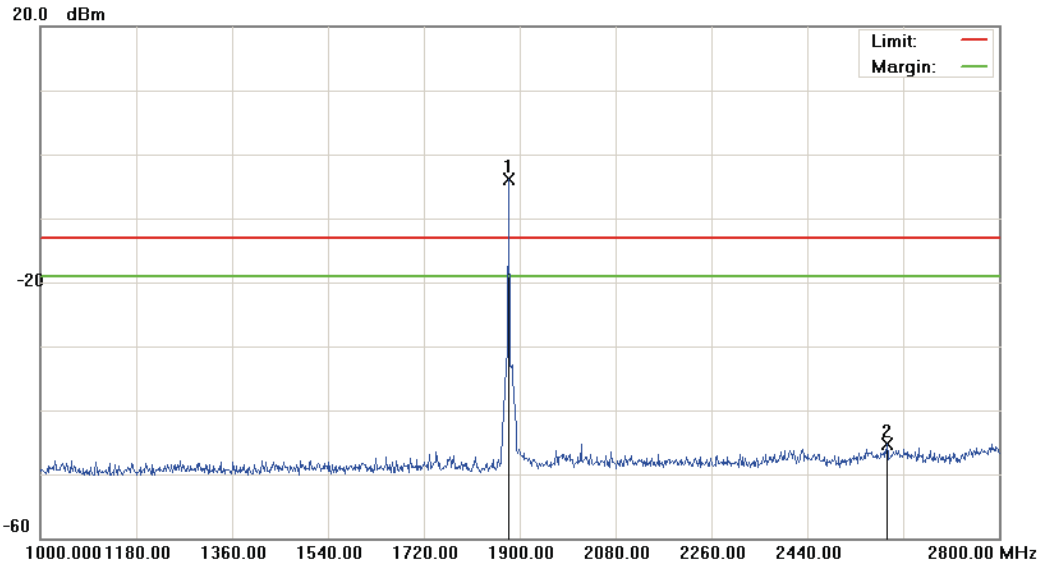
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	420.5000	-50.83	13.24	-37.59	-13.00	-24.59	peak			

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

File :(CH661) Data :#3 Date: 2012/10/11 Time: 下午 02:20:37



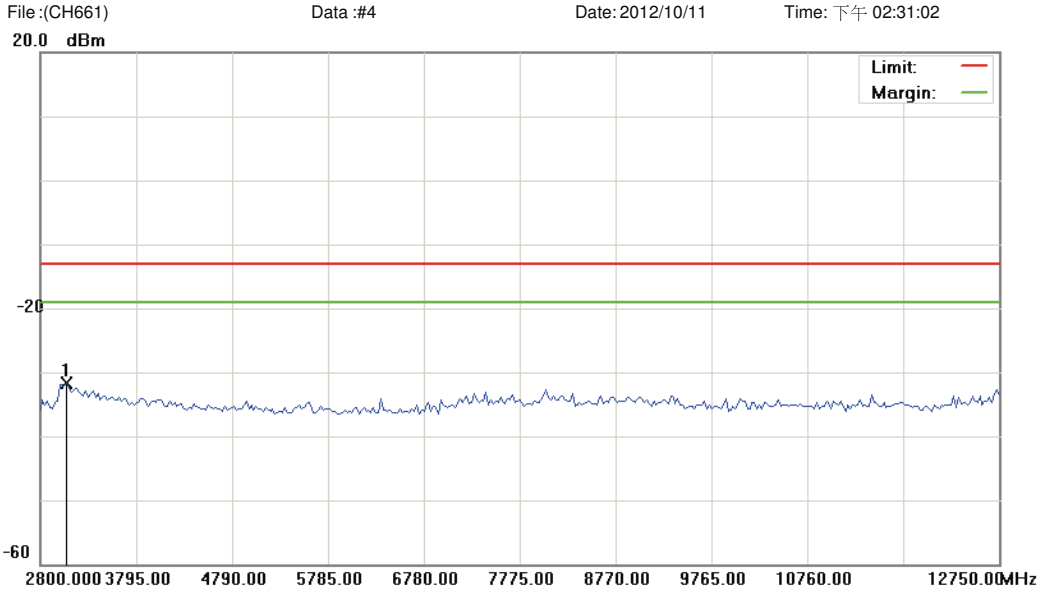
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH661

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1880.200	-8.56	4.65	-3.91	-13.00	9.09	peak			Tx
2		2589.400	-50.61	5.40	-45.21	-13.00	-32.21	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH661

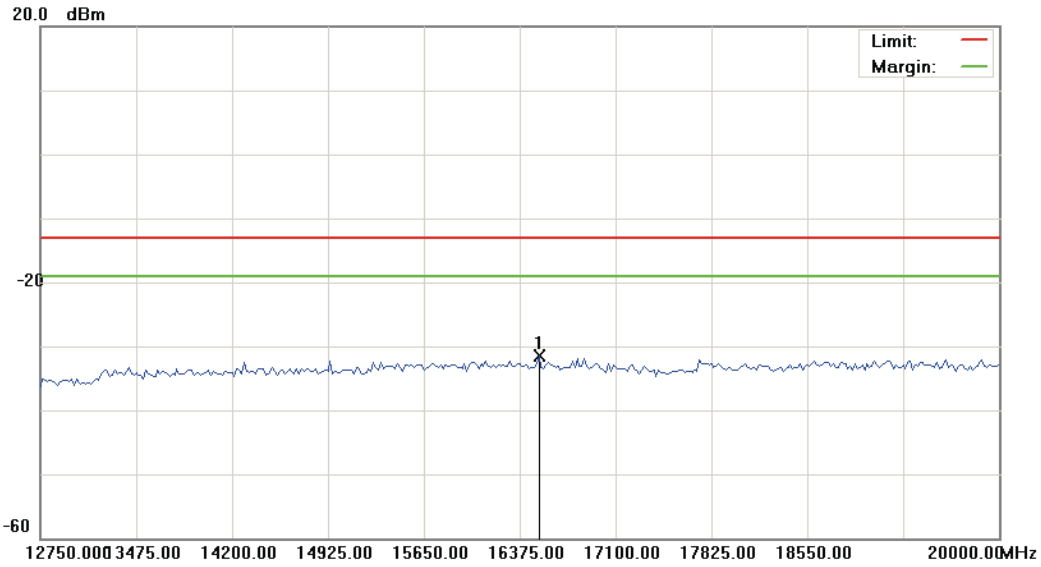
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3073.625	-37.16	5.40	-31.76	-13.00	-18.76	peak			

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

File :(CH661) Data :#5 Date: 2012/10/11 Time: 下午 02:31:21



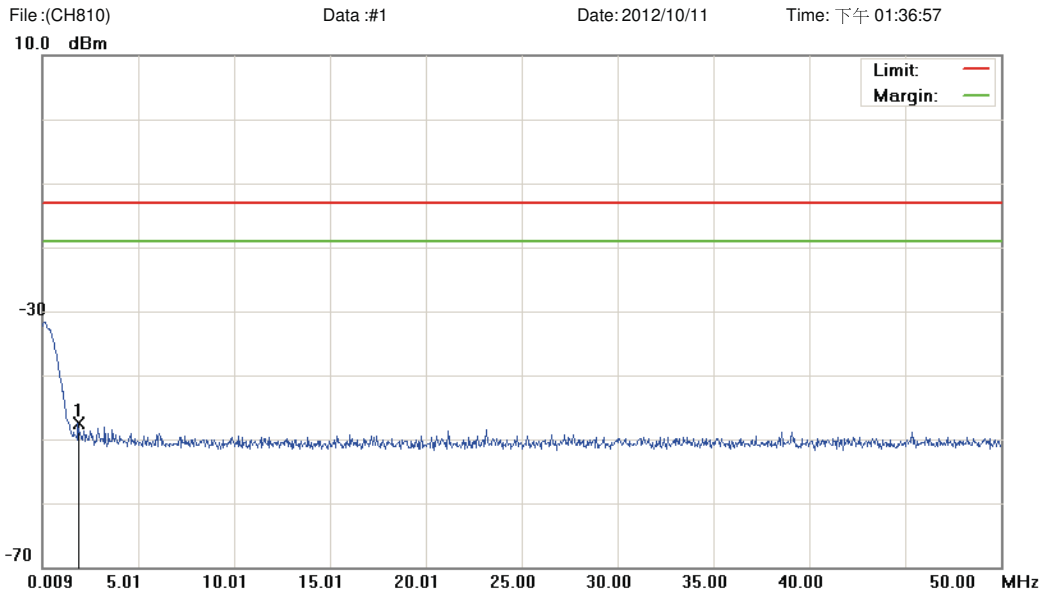
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH661

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	16520.000	-37.89	6.45	-31.44	-13.00	-18.44	peak			

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



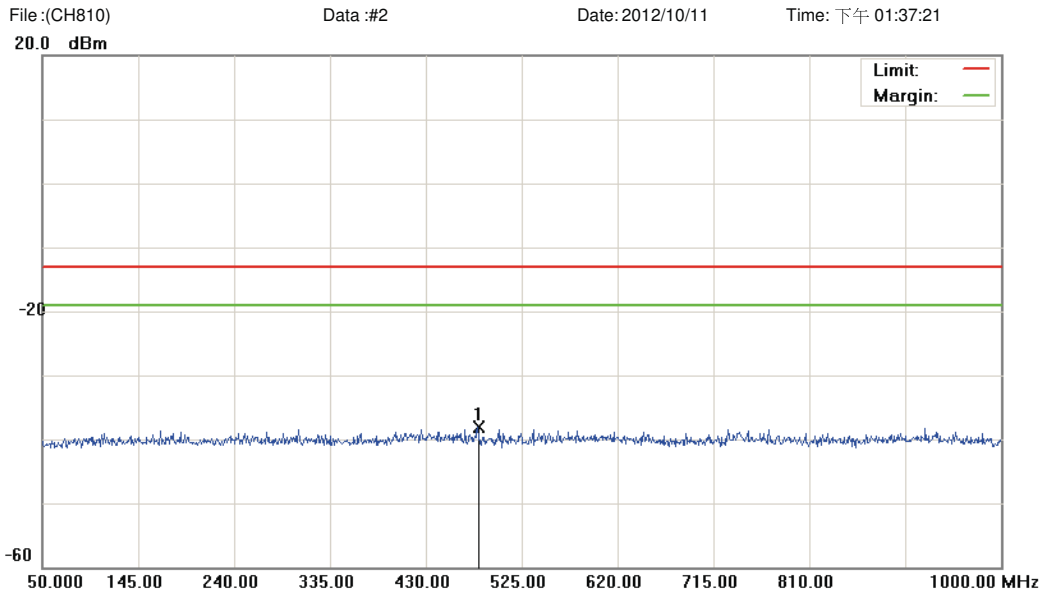
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH810

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.8836	-60.44	12.88	-47.56	-13.00	-34.56	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH810

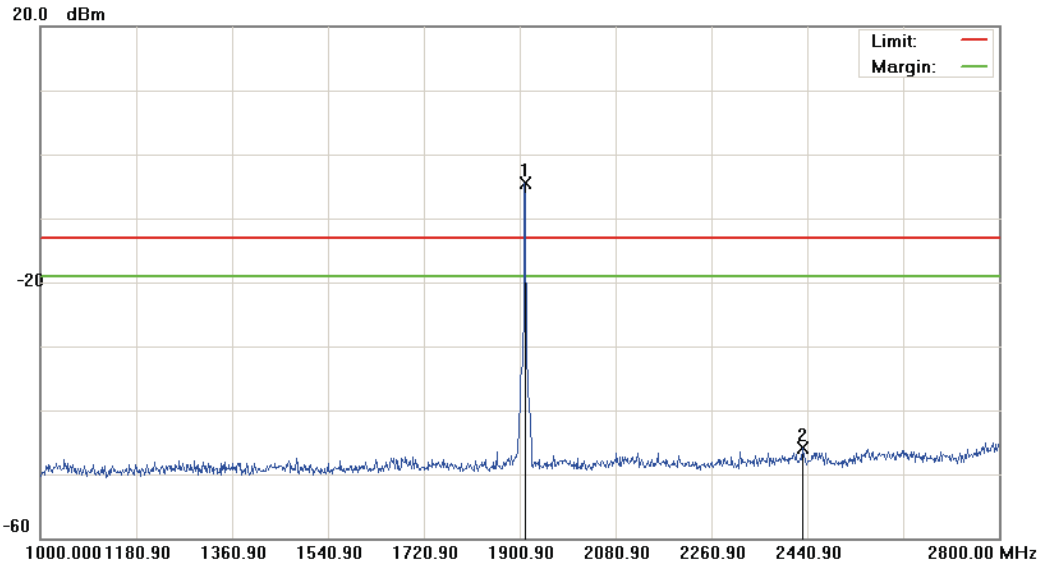
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	481.7750	-51.22	13.17	-38.05	-13.00	-25.05	peak			

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

File :(CH810) Data :#3 Date: 2012/10/11 Time: 下午 02:21:36



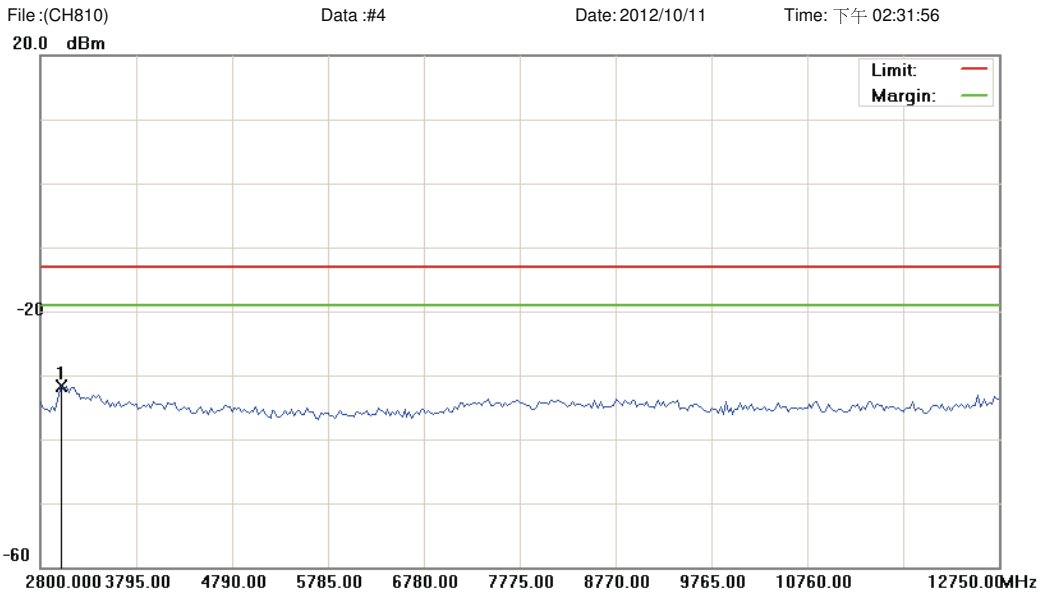
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH810

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1909.900	-10.23	5.71	-4.52	-13.00	8.48	peak			Tx
2		2431.000	-51.03	5.08	-45.95	-13.00	-32.95	peak			

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

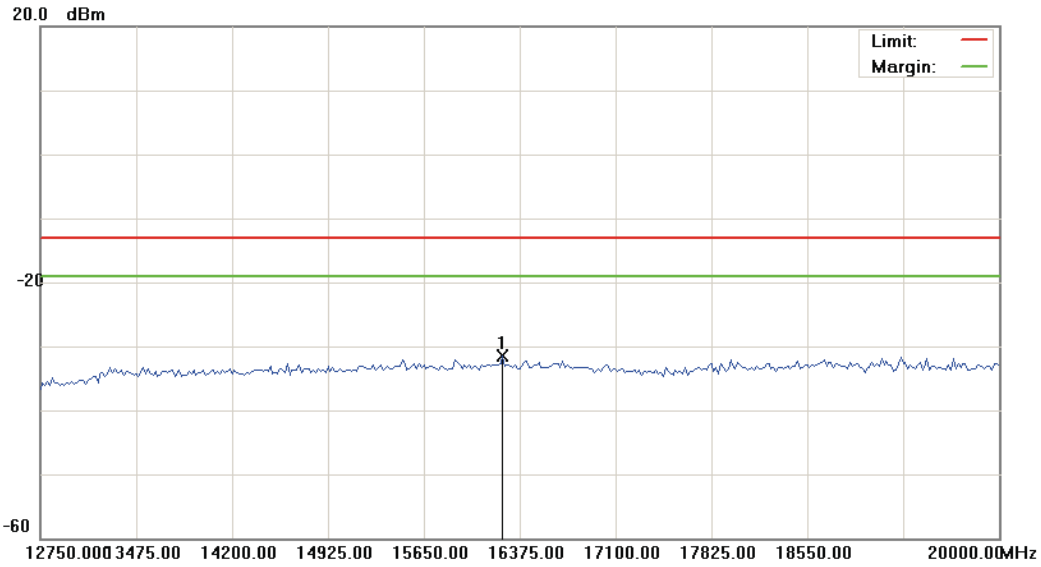


Site:	: RF Conducted	Polarization:	*Conducted po*	Temperature: 23 ℃
Limit:	FCC Part 24 conducted(9k-20G)	Power:	AC 120V/60Hz	Humidity: 55.2 %
EUT:	Wireless Mobile Hotspot	Distance:		RBW: 1000 KHz VBW: 1000 KHz
M/N:	AirCard 770S			
Mode:	2			
Note:	CH810			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3023.875	-37.26	5.48	-31.78	-13.00	-18.78	peak			

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

File :(CH810) Data :#5 Date: 2012/10/11 Time: 下午 02:32:15



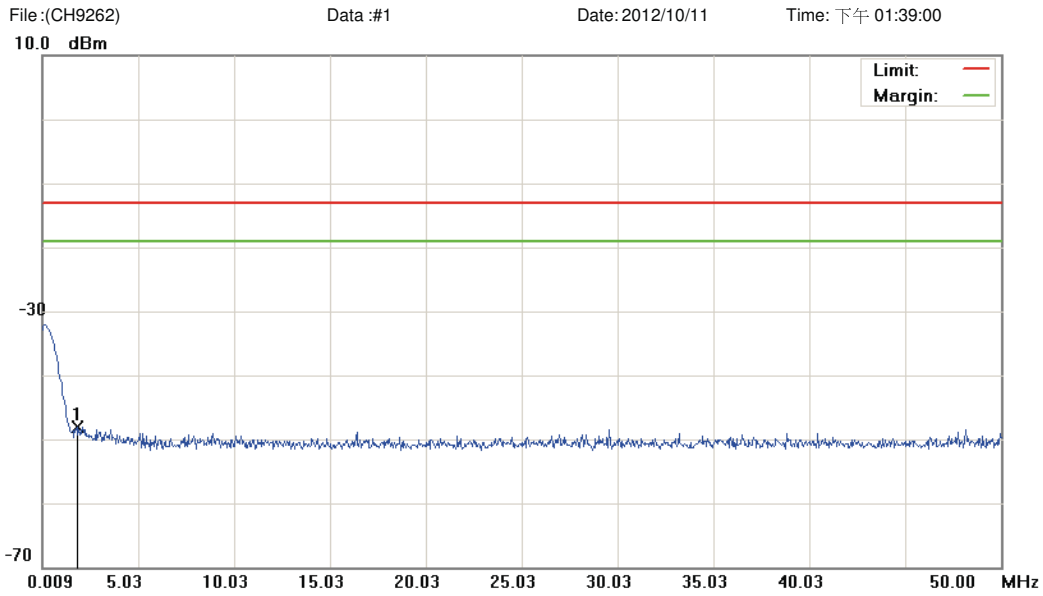
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 2
Note: CH810

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	16248.125	-37.96	6.37	-31.59	-13.00	-18.59	peak			

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



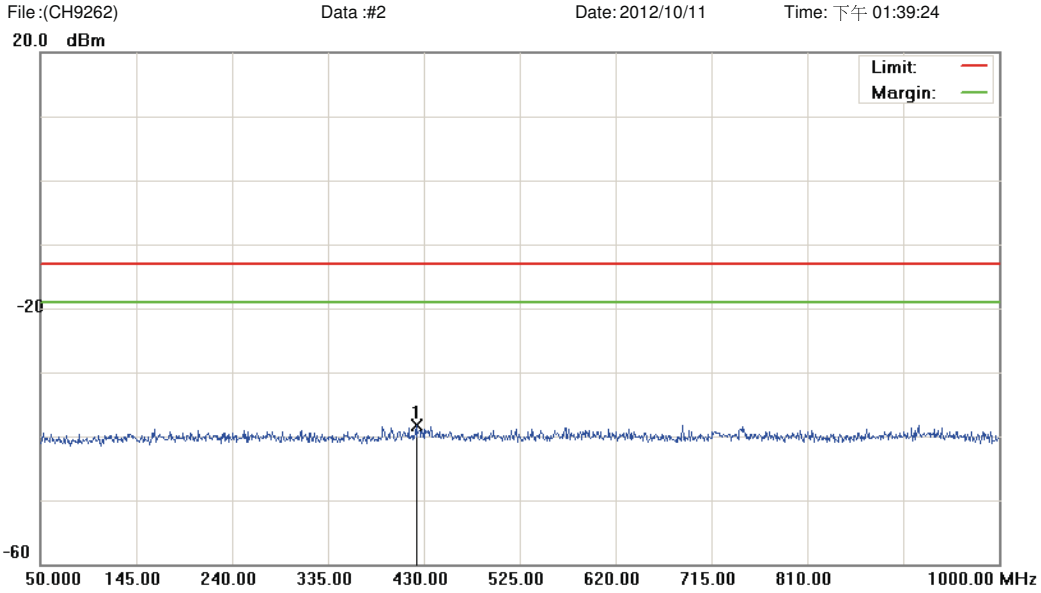
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9262

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.8337	-60.91	12.76	-48.15	-13.00	-35.15	peak			

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



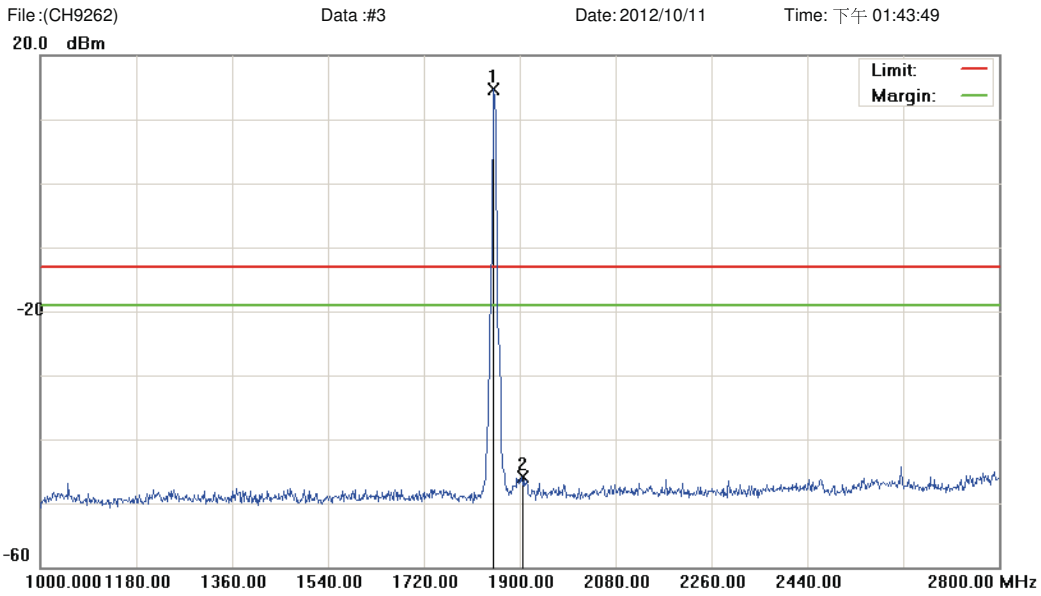
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9262

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	422.8750	-51.59	13.24	-38.35	-13.00	-25.35	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9262

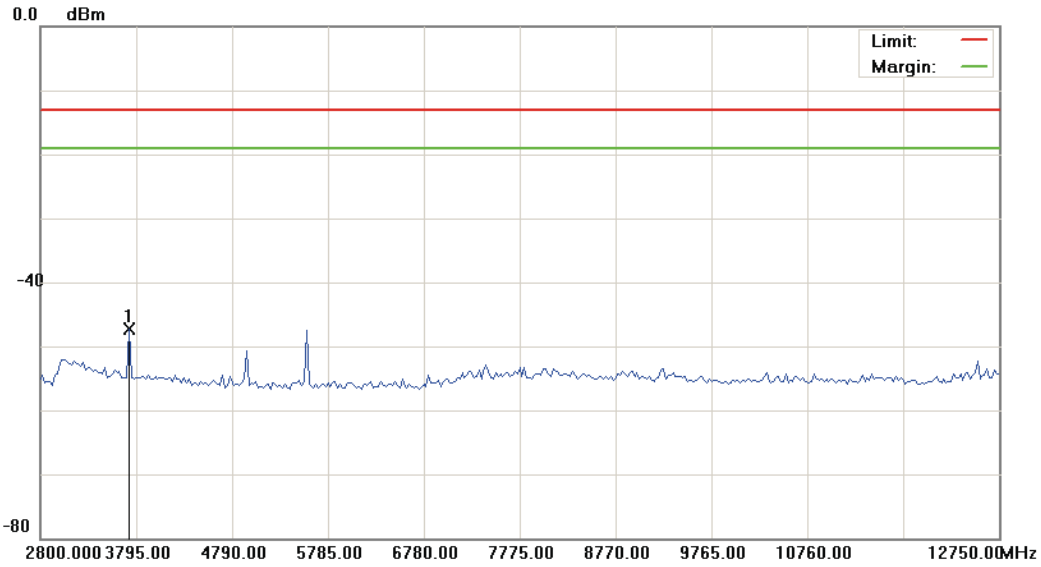
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1850.500	10.54	4.26	14.80	-13.00	27.80	peak			Tx
2		1904.500	-52.01	6.21	-45.80	-13.00	-32.80	peak			

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

File :(CH9262) Data :#4 Date: 2012/10/11 Time: 下午 02:34:20



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9262

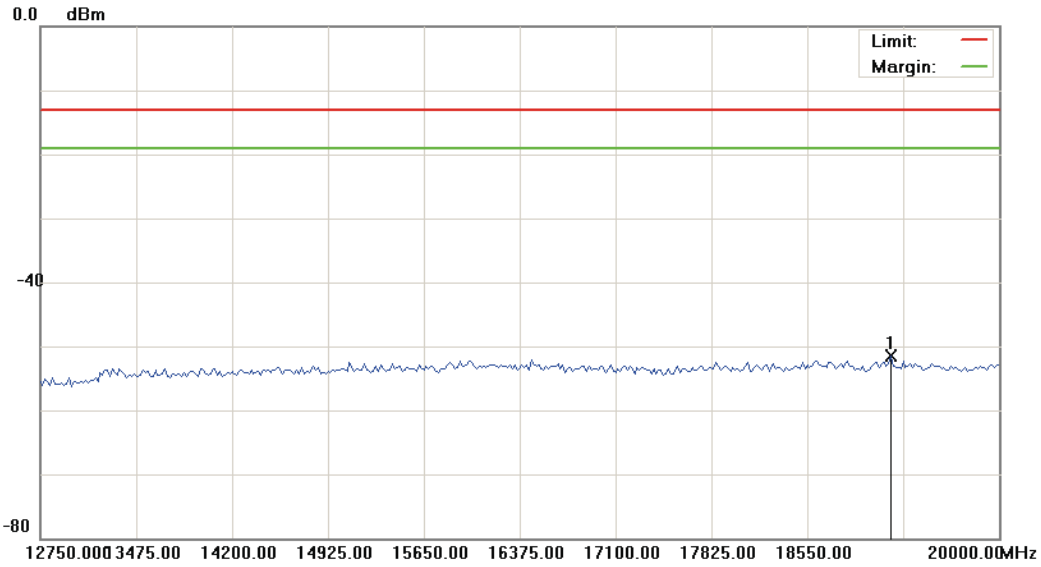
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3720.375	-52.16	4.88	-47.28	-13.00	-34.28	peak			

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

File :(CH9262) Data :#5 Date: 2012/10/11 Time: 下午 02:34:39



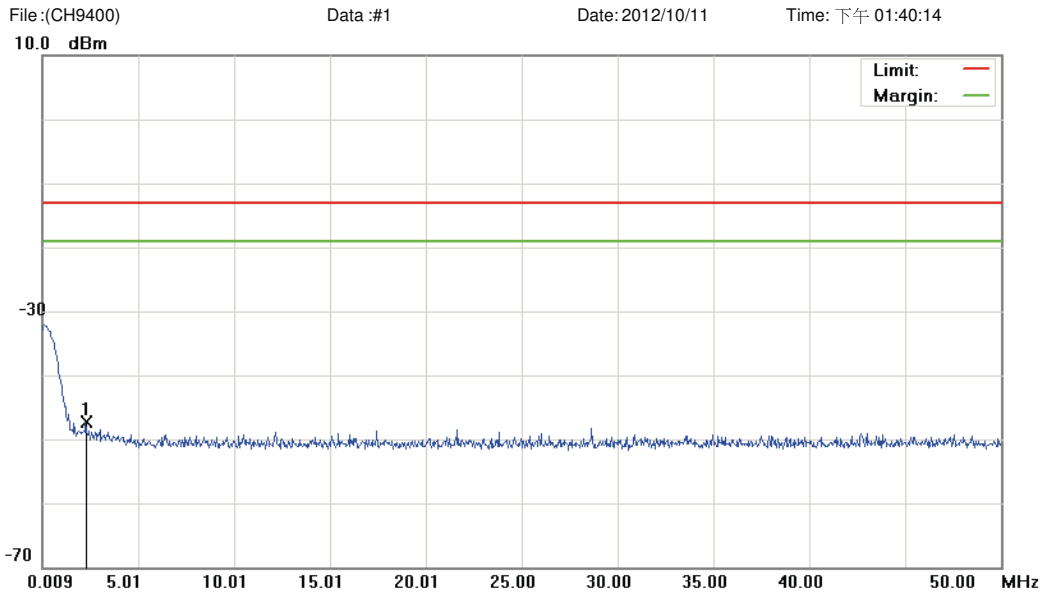
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9262

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	19184.375	-58.70	7.21	-51.49	-13.00	-38.49	peak			

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



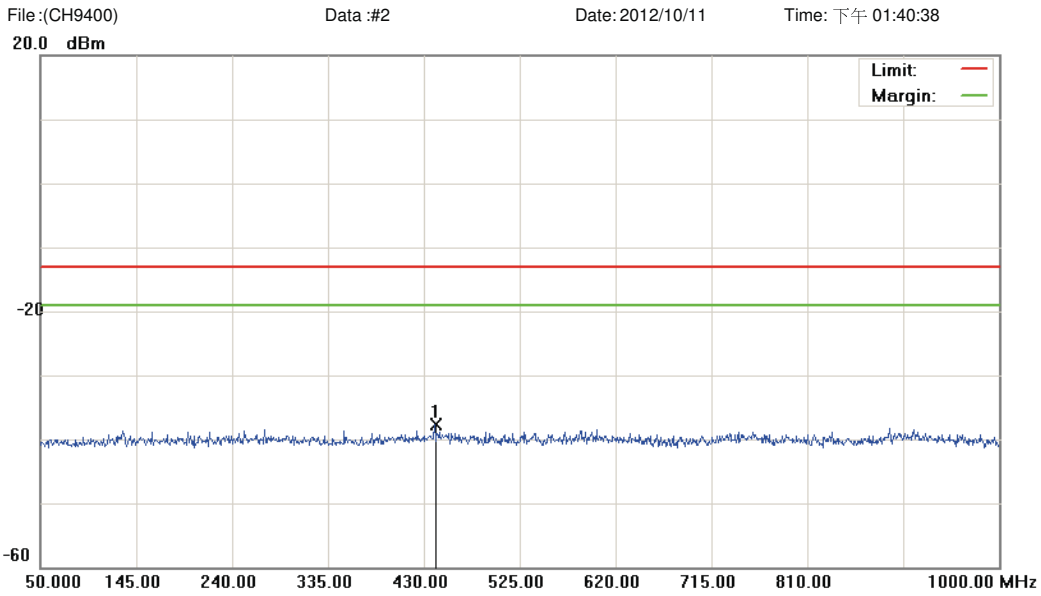
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9400

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2.2835	-60.43	13.06	-47.37	-13.00	-34.37	peak			

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



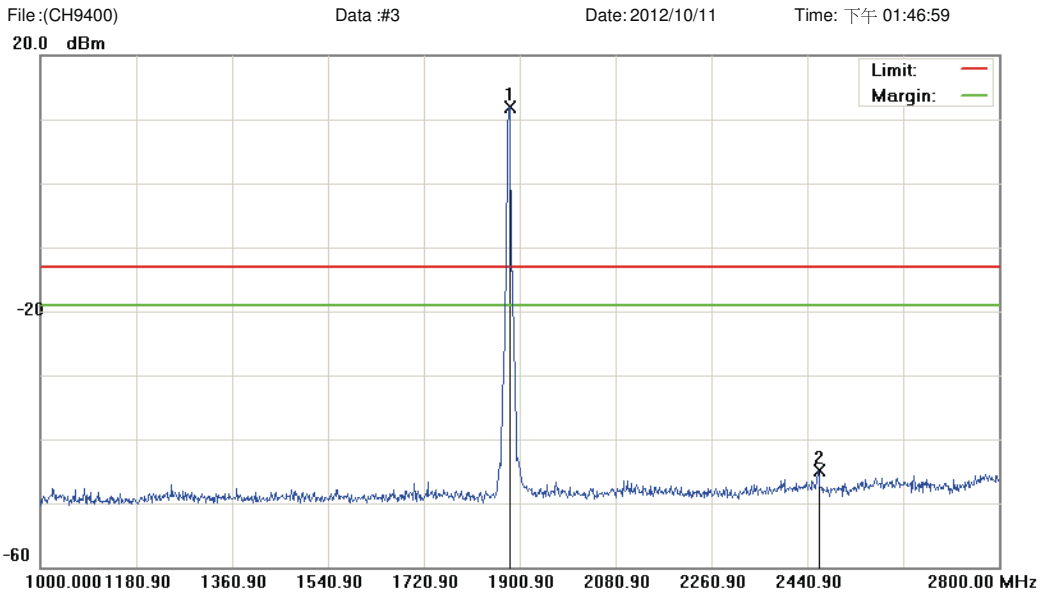
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9400

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	440.9250	-50.99	13.20	-37.79	-13.00	-24.79	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9400

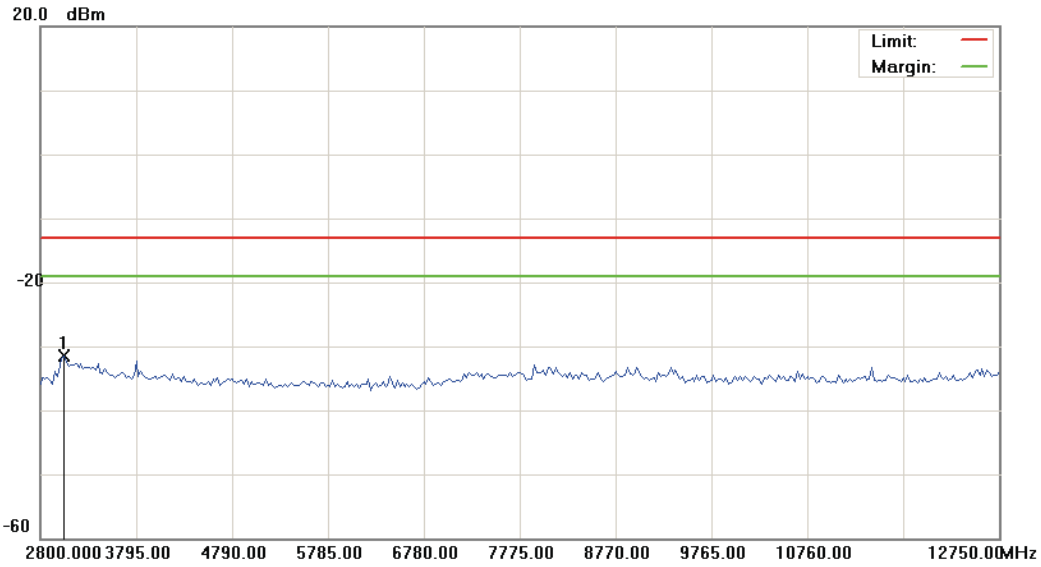
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1882.000	7.01	4.83	11.84	-13.00	24.84	peak			Tx
2		2460.700	-49.74	4.76	-44.98	-13.00	-31.98	peak			

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

File :(CH9400) Data :#4 Date: 2012/10/11 Time: 下午 02:35:20



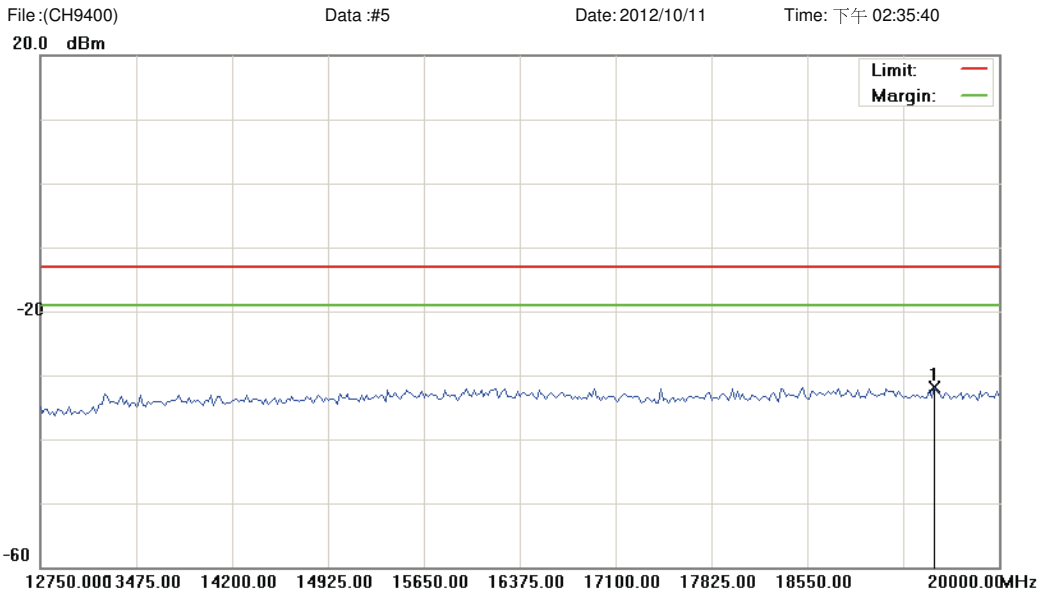
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9400

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3048.750	-36.98	5.47	-31.51	-13.00	-18.51	peak			

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



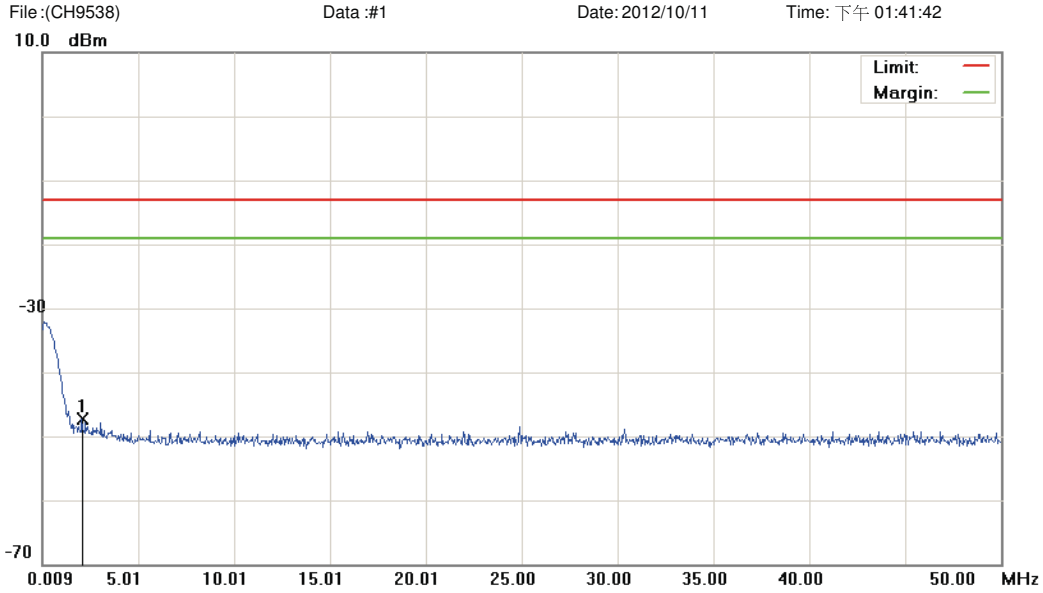
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9400

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	19510.625	-39.15	7.30	-31.85	-13.00	-18.85	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9538

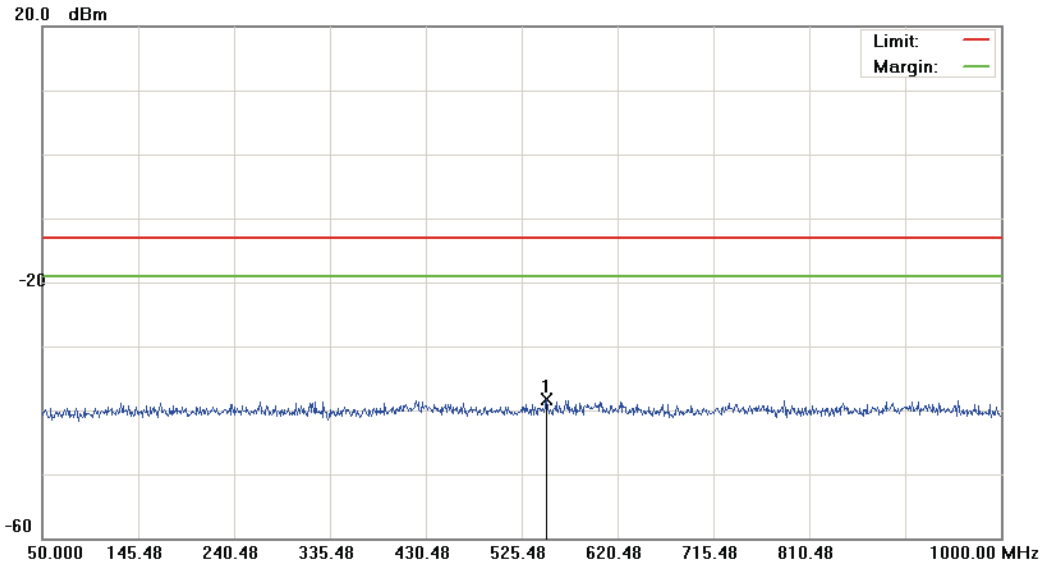
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2.0836	-60.50	13.17	-47.33	-13.00	-34.33	peak			

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

File :(CH9538) Data :#2 Date: 2012/10/11 Time: 下午 01:42:06



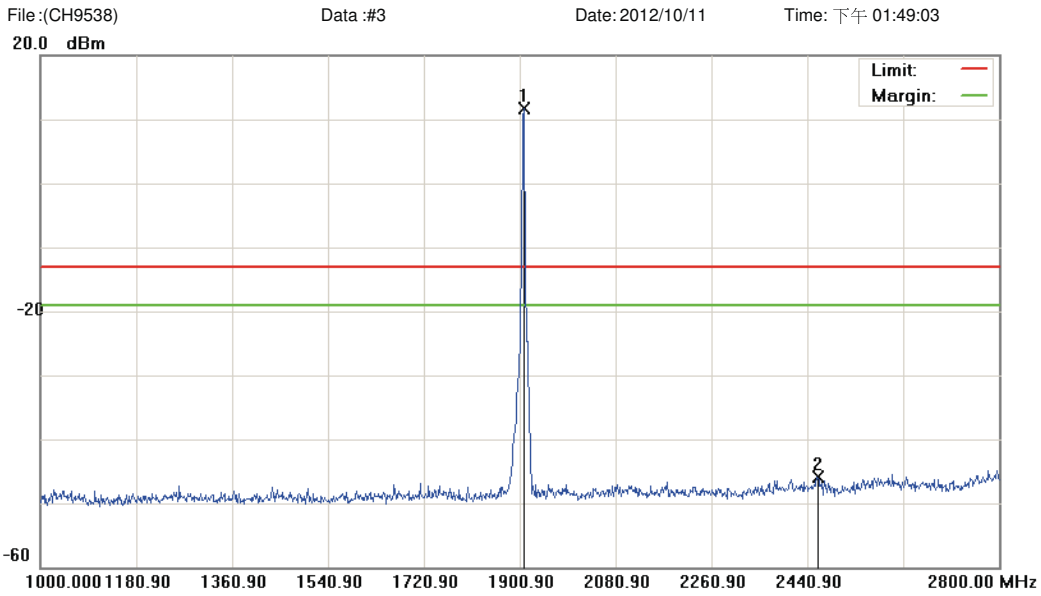
Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9538

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	549.7000	-51.52	13.17	-38.35	-13.00	-25.35	peak			

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



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9538

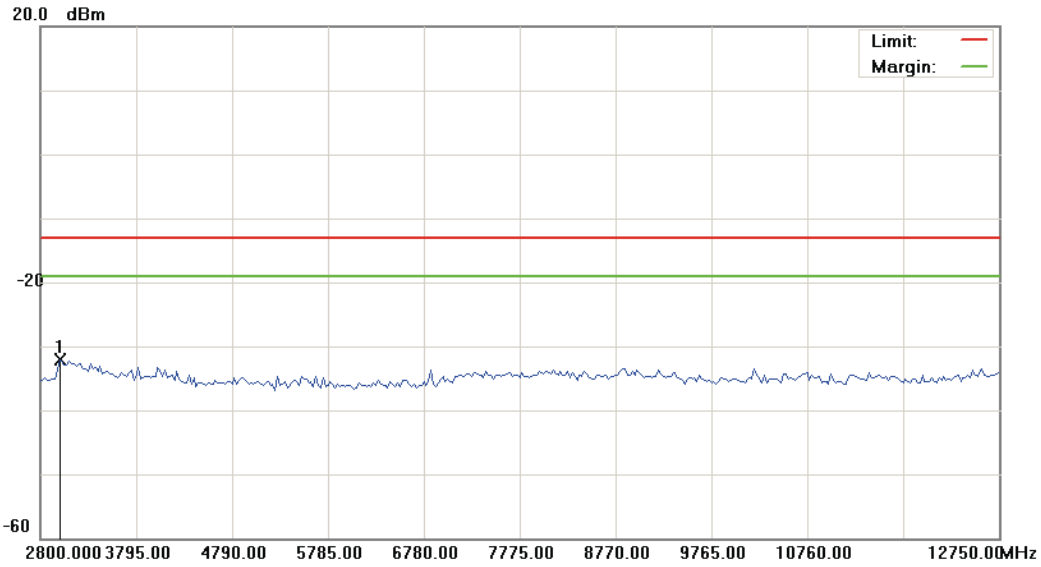
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1909.000	5.99	5.80	11.79	-13.00	24.79	peak			Tx
2		2458.900	-50.69	4.78	-45.91	-13.00	-32.91	peak			

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

File :(CH9538) Data :#4 Date: 2012/10/11 Time: 下午 02:36:13



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9538

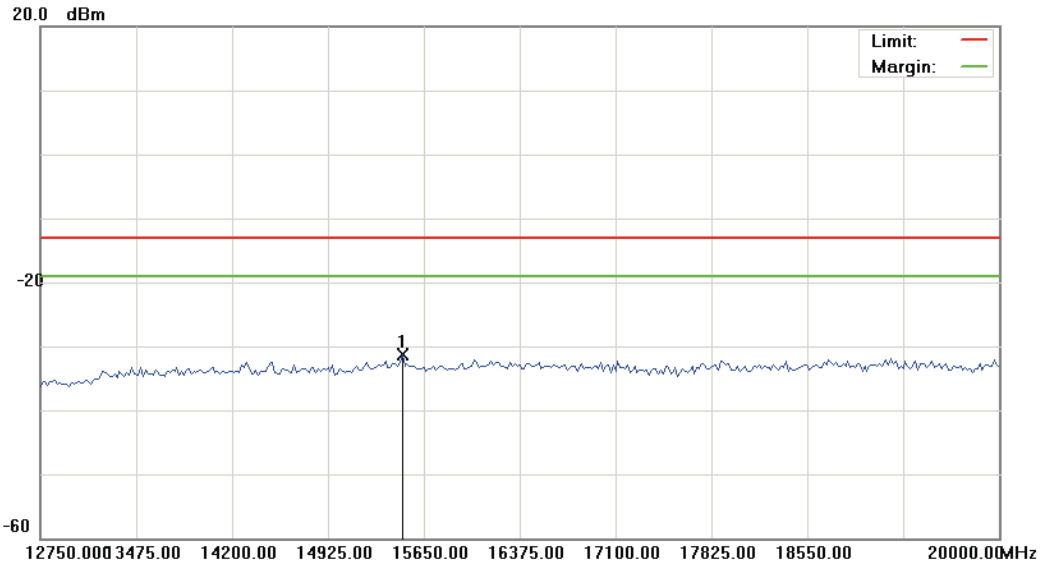
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2999.000	-37.61	5.48	-32.13	-13.00	-19.13	peak			

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

File :(CH9538) Data :#5 Date: 2012/10/11 Time: 下午 02:36:33



Site: : RF Conducted
Limit: FCC Part 24 conducted(9k-20G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 3
Note: CH9538

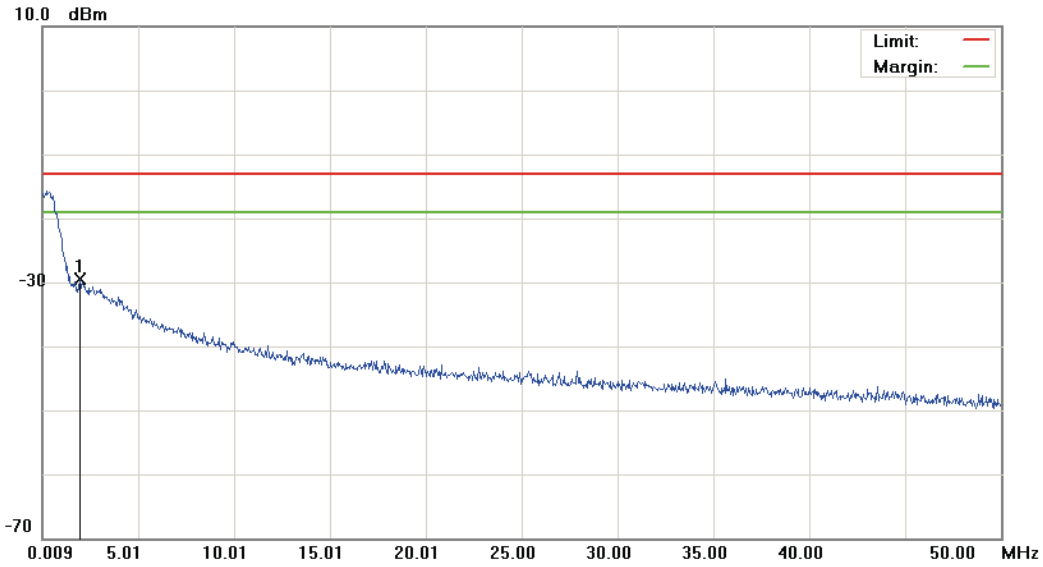
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	15486.875	-37.54	6.15	-31.39	-13.00	-18.39	peak			

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

File :(CH4132) Data :#1 Date: 2012/10/11 Time: 下午 01:52:07



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4132

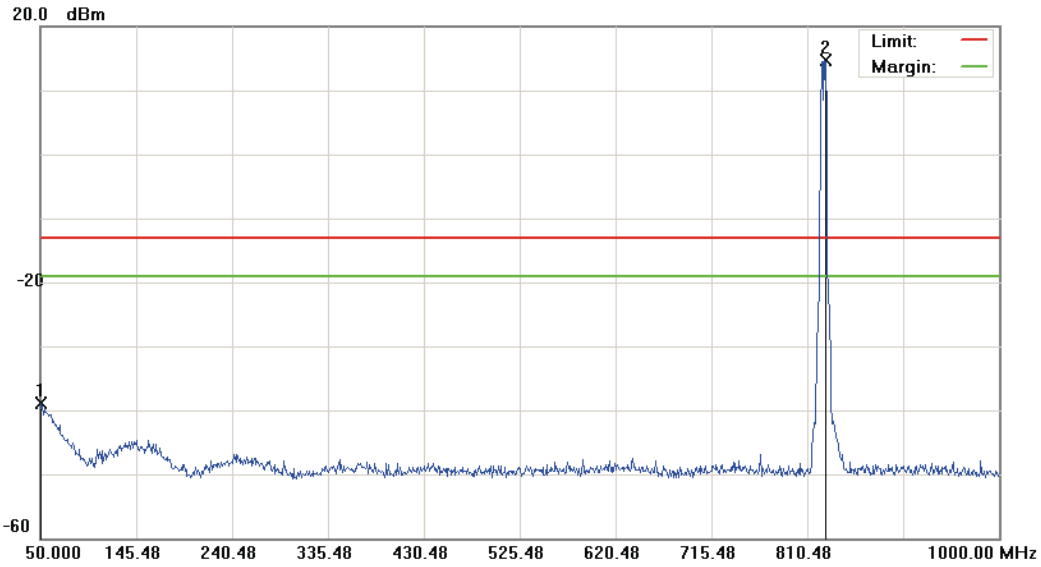
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.9585	-60.85	31.28	-29.57	-13.00	-16.57	peak			

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

File :(CH4132) Data :#2 Date: 2012/10/11 Time: 下午 01:52:31



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4132

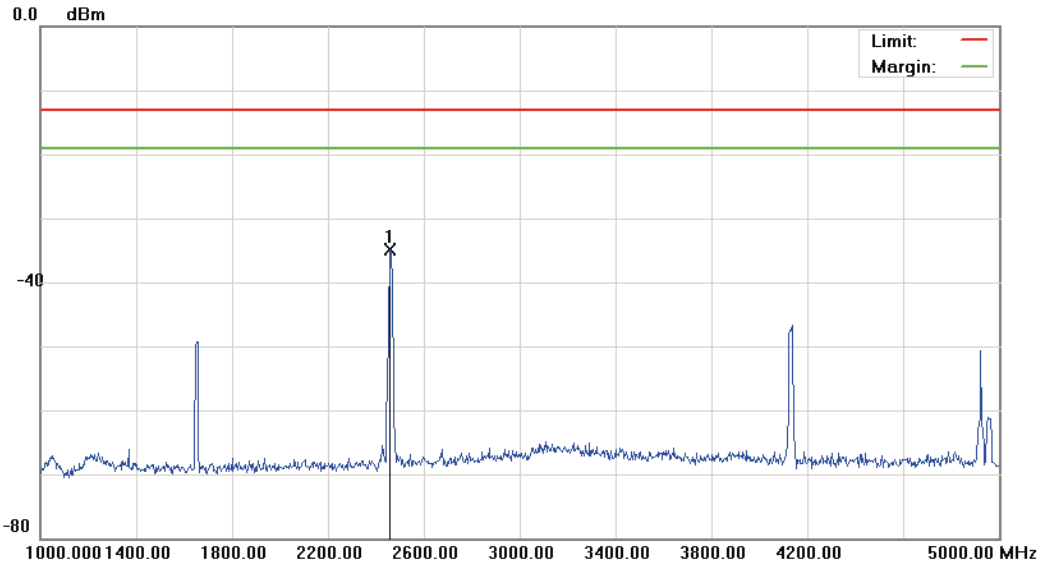
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.4750	-53.46	14.61	-38.85	-13.00	-25.85	peak			
2	*	827.5750	10.89	3.87	14.76	-13.00	27.76	peak			Tx

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

File :(CH4132) Data :#3 Date: 2012/10/11 Time: 下午 04:32:20



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4132

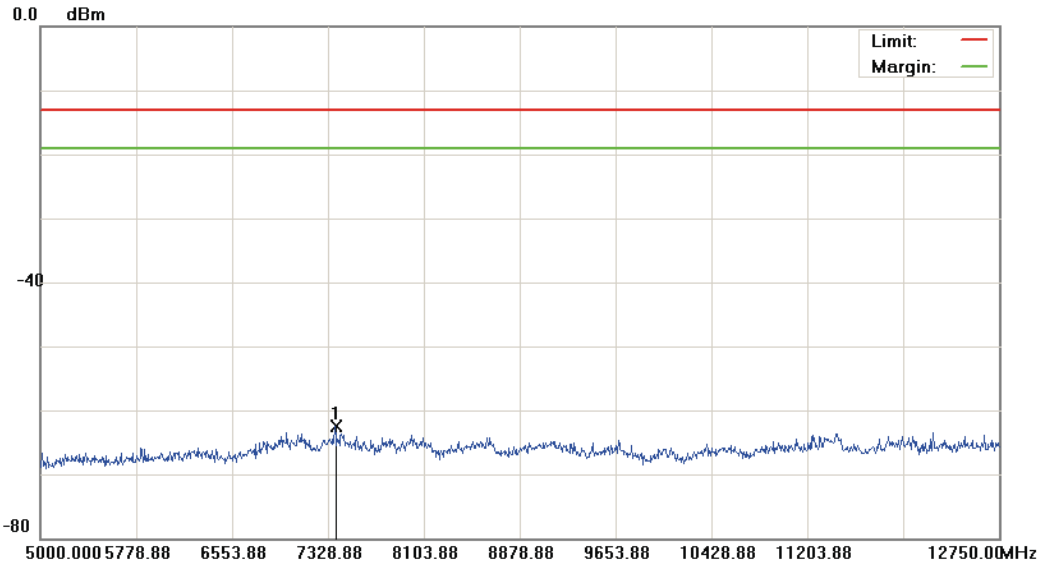
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2460.000	-39.40	4.49	-34.91	-13.00	-21.91	peak			

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

File :(CH4132) Data :#4 Date: 2012/10/11 Time: 下午 04:32:43



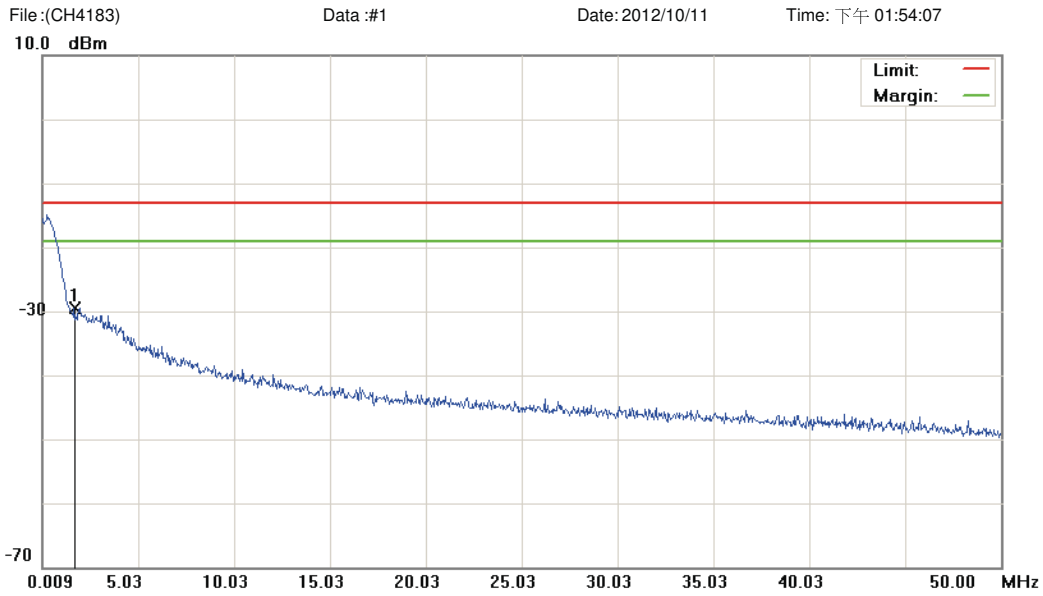
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4132

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	7383.125	-67.69	5.14	-62.55	-13.00	-49.55	peak			

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



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4183

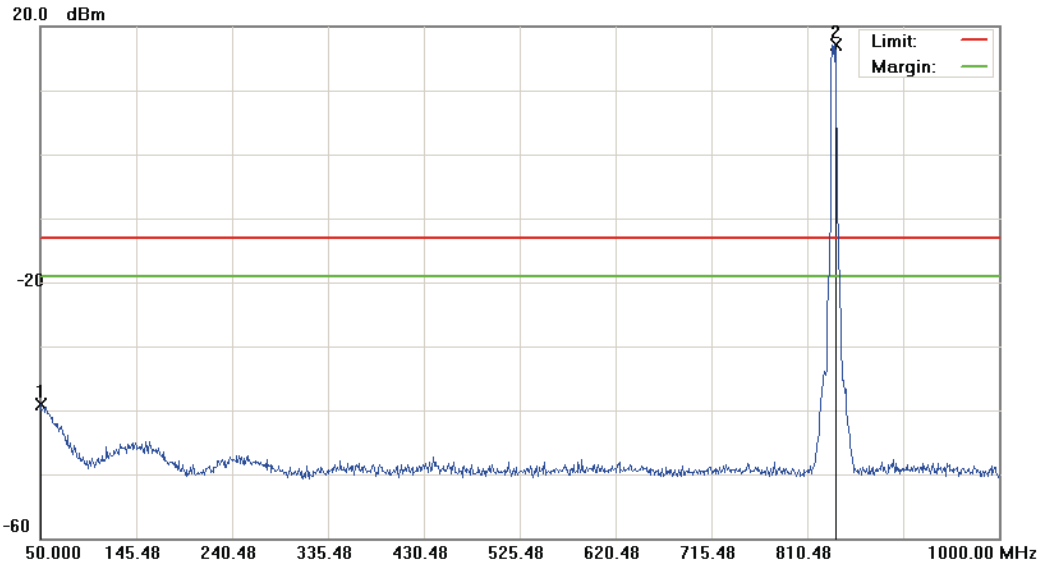
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.6836	-60.61	31.05	-29.56	-13.00	-16.56	peak			

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

File :(CH4183) Data :#2 Date: 2012/10/11 Time: 下午 01:54:31



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4183

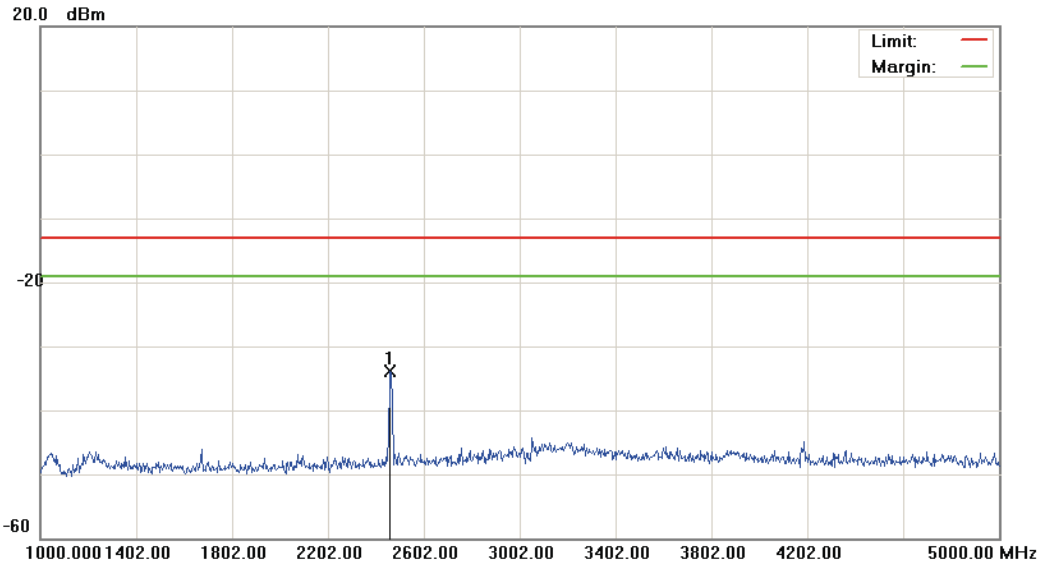
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.4750	-53.76	14.61	-39.15	-13.00	-26.15	peak			
2	*	838.0250	13.18	3.97	17.15	-13.00	30.15	peak			Tx

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

File :(CH4183) Data :#3 Date: 2012/10/11 Time: 下午 04:33:48



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4183

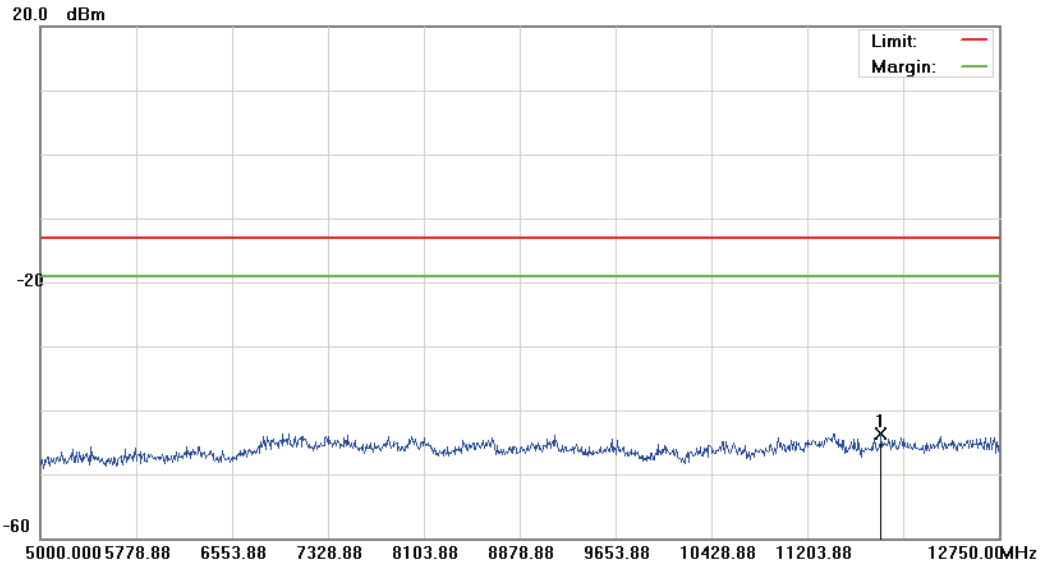
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2460.000	-38.37	4.49	-33.88	-13.00	-20.88	peak			

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

File :(CH4183) Data :#4 Date: 2012/10/11 Time: 下午 04:34:11



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4183

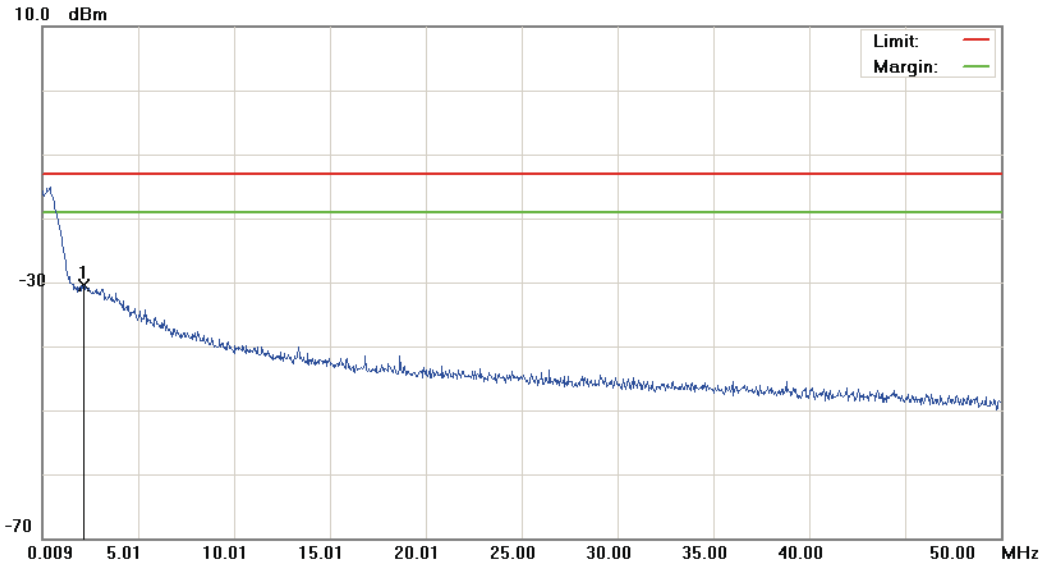
Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	11796.750	-48.71	5.09	-43.62	-13.00	-30.62	peak			

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

File :(CH4233) Data :#1 Date: 2012/10/11 Time: 下午 01:56:33



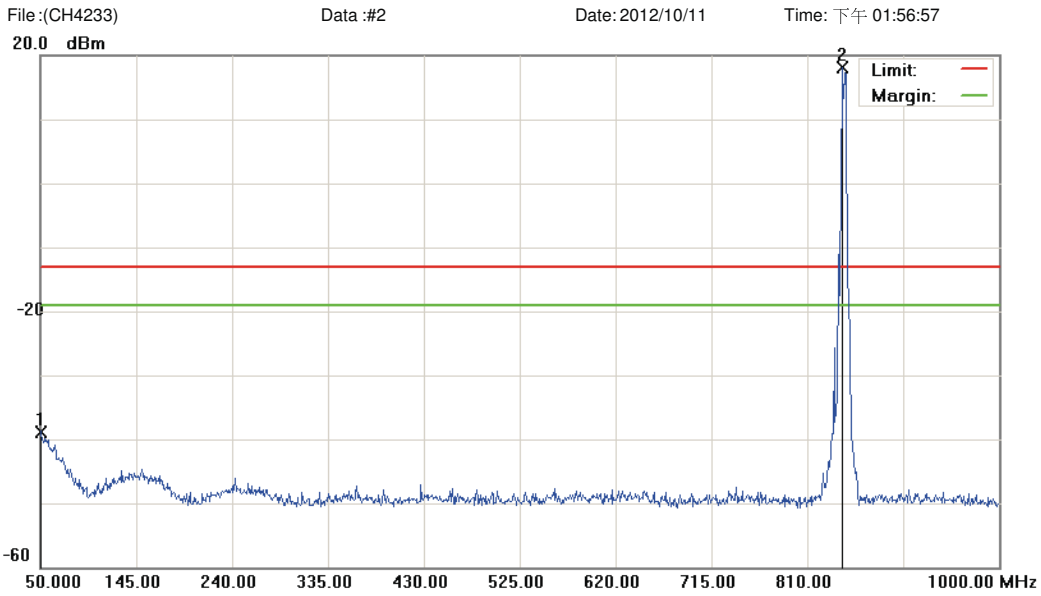
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4233

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2.1585	-61.84	31.41	-30.43	-13.00	-17.43	peak			

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



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4233

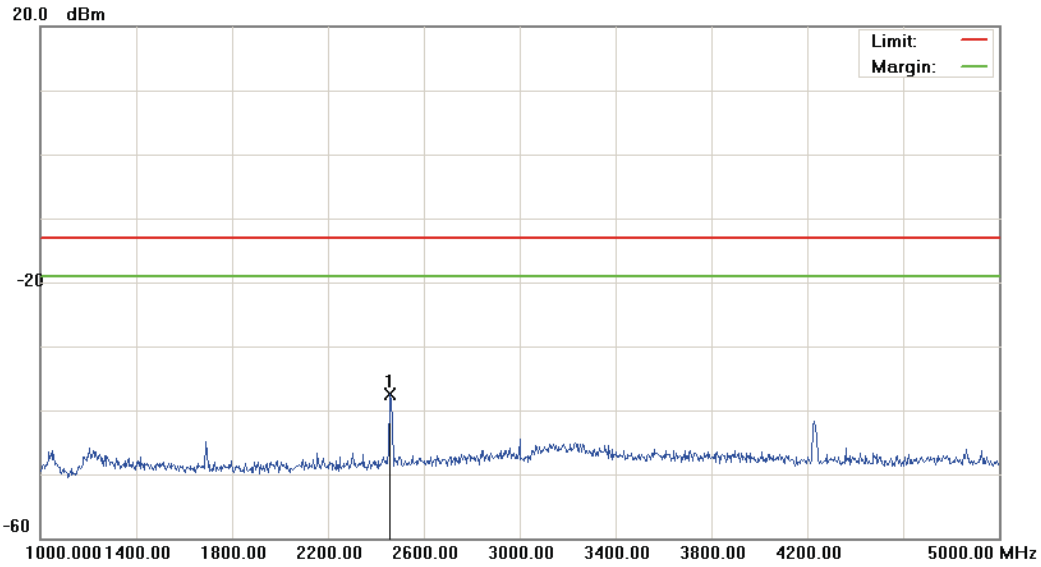
Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		50.0000	-53.49	14.69	-38.80	-13.00	-25.80	peak			
2	*	845.1500	14.10	3.99	18.09	-13.00	31.09	peak			Tx

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

File :(CH4233) Data :#3 Date: 2012/10/11 Time: 下午 04:37:11



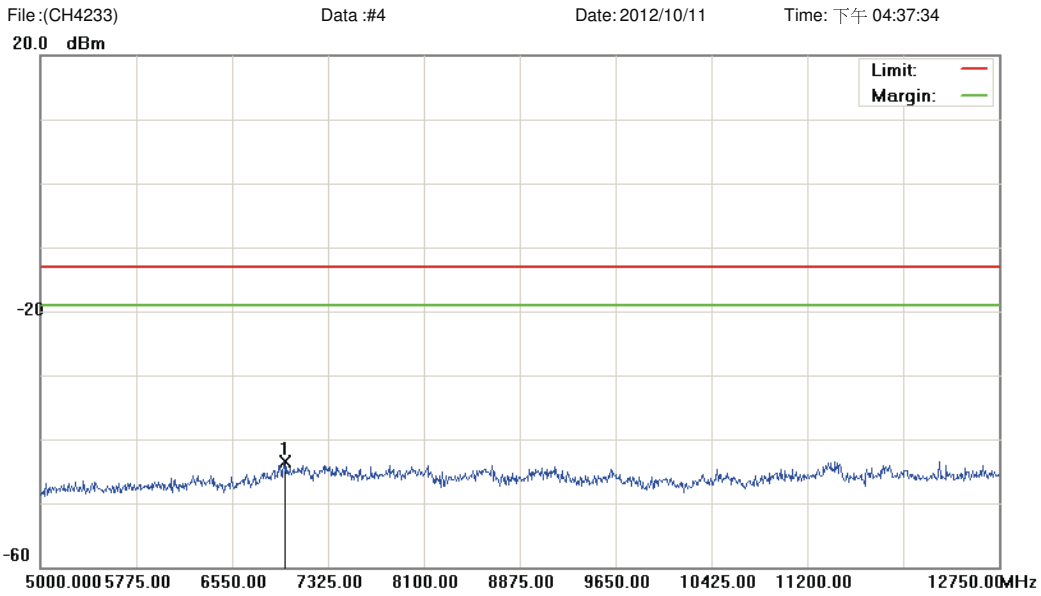
Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4233

Polarization: Conducted po
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2460.000	-41.96	4.49	-37.47	-13.00	-24.47	peak			

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



Site: : RF Conducted
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: Wireless Mobile Hotspot
M/N: AirCard 770S
Mode: 4
Note: CH4233

Polarization: *Conducted po*
Power: AC 120V/60Hz
Distance:

Temperature: 23 ℃
Humidity: 55.2 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	6972.375	-48.53	4.98	-43.55	-13.00	-30.55	peak			

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

7 Field Strength of Spurious Radiation Test

7.1. 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.

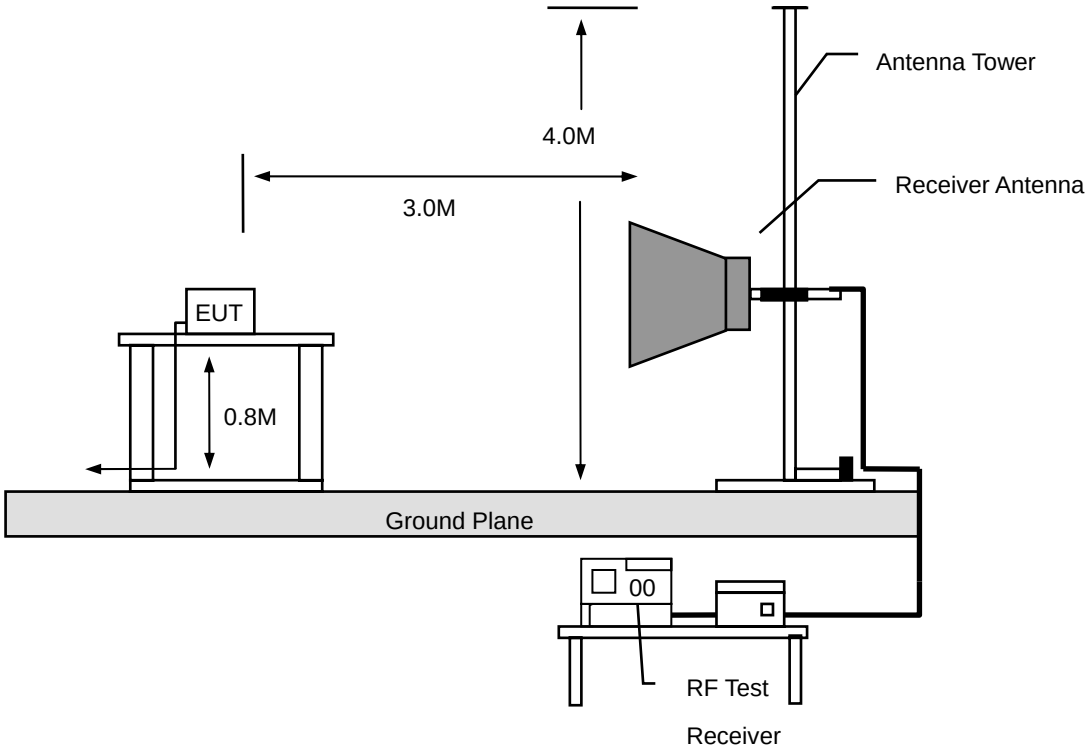
It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

7.2. 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.

7.3. Setup



7.4. 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 tree 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 (mode 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 pre meter (uV/m).
The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).
The actual field is intensity in 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) 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) 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

7.5. Uncertainty

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

7.6. Test Result

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 1: GPRS 850 Link Mode	Date:	10/12/2012
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
345.5000	-80.76	-0.39	-81.15	-13.00	-68.15	peak	H
545.5000	-81.73	8.13	-73.60	-13.00	-60.60	peak	H
672.0000	-81.83	7.07	-74.76	-13.00	-61.76	peak	H
742.5000	-81.52	8.30	-73.22	-13.00	-60.22	peak	H
935.5000	-83.44	14.83	-68.61	-13.00	-55.61	peak	H
970.0000	-82.73	14.58	-68.15	-13.00	-55.15	peak	H
4180.000	-72.02	16.66	-55.36	-13.00	-42.36	peak	H
7396.000	-73.59	28.87	-44.72	-13.00	-31.72	peak	H
10084.000	-74.42	32.67	-41.75	-13.00	-28.75	peak	H
119.0000	-77.22	4.09	-73.13	-13.00	-60.13	peak	V
160.5000	-70.47	12.20	-58.27	-13.00	-45.27	peak	V
366.0000	-73.10	2.19	-70.91	-13.00	-57.91	peak	V
525.5000	-82.51	3.42	-79.09	-13.00	-66.09	peak	V
701.0000	-81.97	10.22	-71.75	-13.00	-58.75	peak	V
908.5000	-83.51	11.13	-72.38	-13.00	-59.38	peak	V
4900.000	-71.22	23.19	-48.03	-13.00	-35.03	peak	V
7708.000	-71.97	26.43	-45.54	-13.00	-32.54	peak	V
10252.000	-74.71	31.88	-42.83	-13.00	-29.83	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 1: GPRS 850 Link Mode	Date:	10/12/2012
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
105.5000	-82.65	-3.48	-86.13	-13.00	-73.13	peak	H
167.0000	-65.26	-4.01	-69.27	-13.00	-56.27	peak	H
248.5000	-82.57	-3.90	-86.47	-13.00	-73.47	peak	H
397.5000	-82.28	2.33	-79.95	-13.00	-66.95	peak	H
588.5000	-81.72	7.74	-73.98	-13.00	-60.98	peak	H
736.0000	-82.68	8.06	-74.62	-13.00	-61.62	peak	H
3712.000	-72.20	15.90	-56.30	-13.00	-43.30	peak	H
8404.000	-74.93	28.93	-46.00	-13.00	-33.00	peak	H
10912.000	-77.64	36.03	-41.61	-13.00	-28.61	peak	H
137.0000	-66.86	10.58	-56.28	-13.00	-43.28	peak	V
215.5000	-80.29	6.94	-73.35	-13.00	-60.35	peak	V
372.5000	-76.03	1.94	-74.09	-13.00	-61.09	peak	V
565.0000	-82.22	4.76	-77.46	-13.00	-64.46	peak	V
715.0000	-82.58	10.69	-71.89	-13.00	-58.89	peak	V
952.5000	-83.40	12.51	-70.89	-13.00	-57.89	peak	V
3052.000	-71.22	16.74	-54.48	-13.00	-41.48	peak	V
6772.000	-73.90	25.23	-48.67	-13.00	-35.67	peak	V
11932.000	-77.79	38.84	-38.95	-13.00	-25.95	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 1: GPRS 850 Link Mode	Date:	10/12/2012
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
211.5000	-68.41	0.47	-67.94	-13.00	-54.94	peak	H
330.5000	-82.52	-0.73	-83.25	-13.00	-70.25	peak	H
442.5000	-82.87	3.99	-78.88	-13.00	-65.88	peak	H
578.5000	-81.88	7.61	-74.27	-13.00	-61.27	peak	H
683.5000	-76.28	7.01	-69.27	-13.00	-56.27	peak	H
949.5000	-84.28	14.84	-69.44	-13.00	-56.44	peak	H
2272.000	-69.37	11.44	-57.93	-13.00	-44.93	peak	H
5884.000	-74.29	22.73	-51.56	-13.00	-38.56	peak	H
10432.000	-75.77	33.84	-41.93	-13.00	-28.93	peak	H
159.5000	-73.43	12.45	-60.98	-13.00	-47.98	peak	V
231.5000	-83.56	1.93	-81.63	-13.00	-68.63	peak	V
362.5000	-77.41	2.34	-75.07	-13.00	-62.07	peak	V
494.5000	-82.57	2.65	-79.92	-13.00	-66.92	peak	V
617.0000	-81.97	8.68	-73.29	-13.00	-60.29	peak	V
720.0000	-81.28	10.86	-70.42	-13.00	-57.42	peak	V
4972.000	-72.75	23.38	-49.37	-13.00	-36.37	peak	V
9556.000	-75.97	28.72	-47.25	-13.00	-34.25	peak	V
11872.000	-78.12	38.75	-39.37	-13.00	-26.37	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2: GPRS 1900 Link Mode	Date:	10/12/2012
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
123.0000	-79.66	-5.23	-84.89	-13.00	-71.89	peak	H
176.5000	-71.78	-6.66	-78.44	-13.00	-65.44	peak	H
276.0000	-75.83	-4.34	-80.17	-13.00	-67.17	peak	H
555.5000	-83.13	7.91	-75.22	-13.00	-62.22	peak	H
746.0000	-83.24	8.47	-74.77	-13.00	-61.77	peak	H
905.5000	-83.97	14.25	-69.72	-13.00	-56.72	peak	H
3004.000	-69.41	13.93	-55.48	-13.00	-42.48	peak	H
6052.000	-73.10	23.37	-49.73	-13.00	-36.73	peak	H
9436.000	-73.97	29.70	-44.27	-13.00	-31.27	peak	H
141.0000	-74.04	8.84	-65.20	-13.00	-52.20	peak	V
256.5000	-81.69	-1.33	-83.02	-13.00	-70.02	peak	V
517.5000	-83.36	3.06	-80.30	-13.00	-67.30	peak	V
778.0000	-82.38	11.25	-71.13	-13.00	-58.13	peak	V
881.5000	-84.48	10.87	-73.61	-13.00	-60.61	peak	V
985.5000	-83.85	12.71	-71.14	-13.00	-58.14	peak	V
4144.000	-71.01	21.05	-49.96	-13.00	-36.96	peak	V
5968.000	-72.74	22.79	-49.95	-13.00	-36.95	peak	V
9556.000	-74.24	28.72	-45.52	-13.00	-32.52	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2: GPRS 1900 Link Mode	Date:	10/12/2012
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
132.5000	-77.75	-4.78	-82.53	-13.00	-69.53	peak	H
202.0000	-65.46	2.48	-62.98	-13.00	-49.98	peak	H
309.0000	-83.19	-1.71	-84.90	-13.00	-71.90	peak	H
590.5000	-83.29	7.77	-75.52	-13.00	-62.52	peak	H
708.5000	-81.76	7.18	-74.58	-13.00	-61.58	peak	H
862.0000	-82.16	13.05	-69.11	-13.00	-56.11	peak	H
3100.000	-69.42	14.24	-55.18	-13.00	-42.18	peak	H
5956.000	-73.74	22.94	-50.80	-13.00	-37.80	peak	H
10132.000	-74.21	32.83	-41.38	-13.00	-28.38	peak	H
78.0000	-77.03	-8.98	-86.01	-13.00	-73.01	peak	V
157.0000	-74.58	11.23	-63.35	-13.00	-50.35	peak	V
323.0000	-83.33	1.06	-82.27	-13.00	-69.27	peak	V
502.5000	-80.63	2.79	-77.84	-13.00	-64.84	peak	V
733.5000	-83.12	10.61	-72.51	-13.00	-59.51	peak	V
897.0000	-84.60	10.63	-73.97	-13.00	-60.97	peak	V
6640.000	-73.15	25.06	-48.09	-13.00	-35.09	peak	V
10132.000	-75.12	31.23	-43.89	-13.00	-30.89	peak	V
11716.000	-76.33	38.47	-37.86	-13.00	-24.86	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 2: GPRS 1900 Link Mode	Date:	10/12/2012
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
41.0000	-78.05	9.47	-68.58	-13.00	-55.58	peak	H
161.0000	-65.44	0.68	-64.76	-13.00	-51.76	peak	H
207.0000	-75.26	1.33	-73.93	-13.00	-60.93	peak	H
436.5000	-83.39	3.81	-79.58	-13.00	-66.58	peak	H
714.0000	-83.22	7.33	-75.89	-13.00	-62.89	peak	H
874.0000	-83.64	13.16	-70.48	-13.00	-57.48	peak	H
4540.000	-72.38	17.30	-55.08	-13.00	-42.08	peak	H
7468.000	-74.03	29.10	-44.93	-13.00	-31.93	peak	H
9844.000	-76.11	31.71	-44.40	-13.00	-31.40	peak	H
122.5000	-77.08	6.93	-70.15	-13.00	-57.15	peak	V
172.5000	-74.87	2.95	-71.92	-13.00	-58.92	peak	V
357.0000	-72.96	2.24	-70.72	-13.00	-57.72	peak	V
438.5000	-83.41	1.44	-81.97	-13.00	-68.97	peak	V
618.5000	-82.96	8.77	-74.19	-13.00	-61.19	peak	V
885.5000	-84.64	10.81	-73.83	-13.00	-60.83	peak	V
5968.000	-72.62	22.79	-49.83	-13.00	-36.83	peak	V
9148.000	-73.91	25.46	-48.45	-13.00	-35.45	peak	V
11140.000	-76.69	37.07	-39.62	-13.00	-26.62	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 5: WCDMA Band II Link Mode	Date:	10/12/2012
Frequency:	1852.4 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
144.0000	-76.01	-3.56	-79.57	-13.00	-66.57	peak	H
235.0000	-82.80	-1.51	-84.31	-13.00	-71.31	peak	H
463.0000	-83.61	4.79	-78.82	-13.00	-65.82	peak	H
672.5000	-82.97	7.07	-75.90	-13.00	-62.90	peak	H
839.5000	-83.76	12.10	-71.66	-13.00	-58.66	peak	H
883.0000	-83.59	13.34	-70.25	-13.00	-57.25	peak	H
2548.000	-68.84	12.36	-56.48	-13.00	-43.48	peak	H
6244.000	-72.96	24.57	-48.39	-13.00	-35.39	peak	H
9280.000	-73.59	28.43	-45.16	-13.00	-32.16	peak	H
138.5000	-72.17	9.75	-62.42	-13.00	-49.42	peak	V
341.5000	-80.42	1.29	-79.13	-13.00	-66.13	peak	V
381.0000	-77.12	1.61	-75.51	-13.00	-62.51	peak	V
606.5000	-83.79	7.92	-75.87	-13.00	-62.87	peak	V
786.5000	-84.75	11.47	-73.28	-13.00	-60.28	peak	V
879.5000	-83.14	10.91	-72.23	-13.00	-59.23	peak	V
3484.000	-70.14	19.41	-50.73	-13.00	-37.73	peak	V
10132.000	-75.29	31.23	-44.06	-13.00	-31.06	peak	V
11056.000	-76.27	36.83	-39.44	-13.00	-26.44	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 5: WCDMA Band II Link Mode	Date:	10/12/2012
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
128.0000	-76.81	-4.91	-81.72	-13.00	-68.72	peak	H
389.5000	-79.60	1.61	-77.99	-13.00	-64.99	peak	H
610.5000	-80.88	7.82	-73.06	-13.00	-60.06	peak	H
758.0000	-81.48	9.01	-72.47	-13.00	-59.47	peak	H
851.5000	-82.37	12.63	-69.74	-13.00	-56.74	peak	H
929.5000	-82.18	14.79	-67.39	-13.00	-54.39	peak	H
2428.000	-71.62	11.96	-59.66	-13.00	-46.66	peak	H
5764.000	-73.29	22.41	-50.88	-13.00	-37.88	peak	H
10012.000	-74.91	32.43	-42.48	-13.00	-29.48	peak	H
161.0000	-70.33	11.75	-58.58	-13.00	-45.58	peak	V
330.5000	-82.44	1.12	-81.32	-13.00	-68.32	peak	V
354.0000	-71.29	2.06	-69.23	-13.00	-56.23	peak	V
784.5000	-81.81	11.41	-70.40	-13.00	-57.40	peak	V
891.5000	-81.11	10.72	-70.39	-13.00	-57.39	peak	V
974.5000	-83.10	12.48	-70.62	-13.00	-57.62	peak	V
4480.000	-71.84	22.10	-49.74	-13.00	-36.74	peak	V
7540.000	-72.00	26.49	-45.51	-13.00	-32.51	peak	V
11140.000	-75.62	37.07	-38.55	-13.00	-25.55	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 5: WCDMA Band II Link Mode	Date:	10/12/2012
Frequency:	1907.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
33.5000	-76.87	8.10	-68.77	-13.00	-55.77	peak	H
187.0000	-74.45	-6.44	-80.89	-13.00	-67.89	peak	H
285.5000	-72.86	-3.80	-76.66	-13.00	-63.66	peak	H
571.0000	-81.00	7.69	-73.31	-13.00	-60.31	peak	H
778.5000	-82.13	10.10	-72.03	-13.00	-59.03	peak	H
893.0000	-83.55	13.76	-69.79	-13.00	-56.79	peak	H
2800.000	-70.01	13.24	-56.77	-13.00	-43.77	peak	H
6364.000	-74.70	25.31	-49.39	-13.00	-36.39	peak	H
8128.000	-74.96	29.40	-45.56	-13.00	-32.56	peak	H
166.5000	-69.54	6.55	-62.99	-13.00	-49.99	peak	V
261.5000	-73.65	-1.37	-75.02	-13.00	-62.02	peak	V
312.0000	-82.07	1.71	-80.36	-13.00	-67.36	peak	V
429.0000	-80.79	1.39	-79.40	-13.00	-66.40	peak	V
710.0000	-81.93	10.52	-71.41	-13.00	-58.41	peak	V
872.0000	-82.18	11.18	-71.00	-13.00	-58.00	peak	V
3124.000	-68.93	17.19	-51.74	-13.00	-38.74	peak	V
6292.000	-74.62	24.00	-50.62	-13.00	-37.62	peak	V
8620.000	-74.24	25.62	-48.62	-13.00	-35.62	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 6: WCDMA Band V Link Mode	Date:	10/12/2012
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
74.0000	-78.59	-2.60	-81.19	-13.00	-68.19	peak	H
248.5000	-82.05	-3.90	-85.95	-13.00	-72.95	peak	H
424.5000	-81.38	3.54	-77.84	-13.00	-64.84	peak	H
592.0000	-81.03	7.81	-73.22	-13.00	-60.22	peak	H
731.5000	-81.79	7.90	-73.89	-13.00	-60.89	peak	H
931.5000	-82.90	14.81	-68.09	-13.00	-55.09	peak	H
3268.000	-69.83	14.77	-55.06	-13.00	-42.06	peak	H
6508.000	-73.20	26.18	-47.02	-13.00	-34.02	peak	H
9364.000	-74.40	29.11	-45.29	-13.00	-32.29	peak	H
136.5000	-66.90	10.85	-56.05	-13.00	-43.05	peak	V
214.5000	-72.73	7.30	-65.43	-13.00	-52.43	peak	V
339.5000	-82.52	1.19	-81.33	-13.00	-68.33	peak	V
563.0000	-81.41	4.59	-76.82	-13.00	-63.82	peak	V
654.0000	-83.31	9.16	-74.15	-13.00	-61.15	peak	V
759.0000	-82.68	10.94	-71.74	-13.00	-58.74	peak	V
5428.000	-72.99	23.49	-49.50	-13.00	-36.50	peak	V
9232.000	-73.80	26.19	-47.61	-13.00	-34.61	peak	V
10732.000	-75.56	34.83	-40.73	-13.00	-27.73	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 6: WCDMA Band V Link Mode	Date:	10/12/2012
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
56.5000	-81.37	5.80	-75.57	-13.00	-62.57	peak	H
164.0000	-64.96	-1.68	-66.64	-13.00	-53.64	peak	H
250.5000	-82.64	-4.22	-86.86	-13.00	-73.86	peak	H
502.5000	-82.30	7.06	-75.24	-13.00	-62.24	peak	H
691.0000	-70.42	6.98	-63.44	-13.00	-50.44	peak	H
916.5000	-82.65	14.62	-68.03	-13.00	-55.03	peak	H
4084.000	-70.98	16.56	-54.42	-13.00	-41.42	peak	H
8044.000	-74.17	29.54	-44.63	-13.00	-31.63	peak	H
11680.000	-76.58	36.80	-39.78	-13.00	-26.78	peak	H
125.0000	-75.52	9.40	-66.12	-13.00	-53.12	peak	V
230.5000	-82.51	2.10	-80.41	-13.00	-67.41	peak	V
448.5000	-79.81	1.56	-78.25	-13.00	-65.25	peak	V
668.5000	-82.60	9.46	-73.14	-13.00	-60.14	peak	V
800.0000	-84.74	11.87	-72.87	-13.00	-59.87	peak	V
964.5000	-84.81	12.41	-72.40	-13.00	-59.40	peak	V
5776.000	-73.26	23.09	-50.17	-13.00	-37.17	peak	V
7852.000	-75.67	26.39	-49.28	-13.00	-36.28	peak	V
9712.000	-77.27	29.35	-47.92	-13.00	-34.92	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AirCard 770S	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	Mode 6: WCDMA Band V Link Mode	Date:	10/12/2012
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
130.0000	-76.72	-4.79	-81.51	-13.00	-68.51	peak	H
169.5000	-63.23	-5.94	-69.17	-13.00	-56.17	peak	H
209.5000	-76.21	0.76	-75.45	-13.00	-62.45	peak	H
370.0000	-81.13	0.41	-80.72	-13.00	-67.72	peak	H
590.0000	-83.14	7.77	-75.37	-13.00	-62.37	peak	H
688.0000	-84.27	6.99	-77.28	-13.00	-64.28	peak	H
4060.000	-71.22	16.52	-54.70	-13.00	-41.70	peak	H
8212.000	-74.51	29.26	-45.25	-13.00	-32.25	peak	H
12460.000	-75.64	36.30	-39.34	-13.00	-26.34	peak	H
182.5000	-81.65	1.72	-79.93	-13.00	-66.93	peak	V
307.5000	-84.77	2.08	-82.69	-13.00	-69.69	peak	V
466.0000	-83.85	1.92	-81.93	-13.00	-68.93	peak	V
586.0000	-82.35	6.37	-75.98	-13.00	-62.98	peak	V
734.0000	-81.98	10.60	-71.38	-13.00	-58.38	peak	V
952.0000	-84.87	12.53	-72.34	-13.00	-59.34	peak	V
3316.000	-70.26	18.38	-51.88	-13.00	-38.88	peak	V
8140.000	-73.19	26.28	-46.91	-13.00	-33.91	peak	V
12352.000	-76.28	38.82	-37.46	-13.00	-24.46	peak	V

8 Frequency Stability (Temperature & Voltage Variation) Test

8.1. Limit

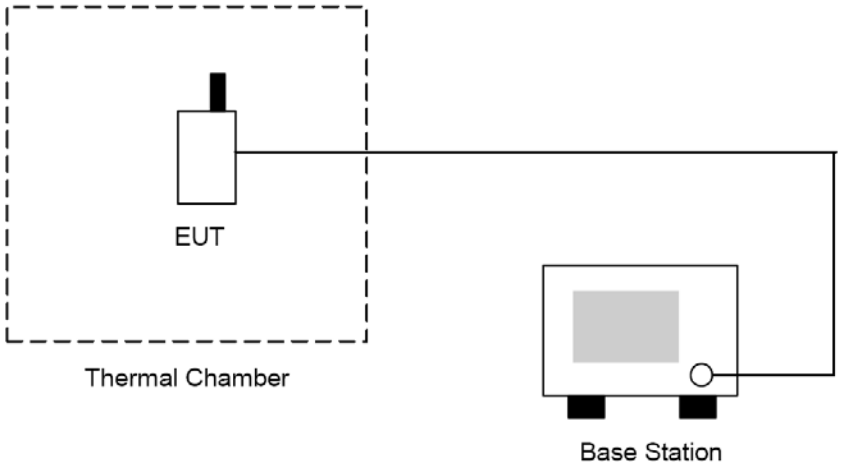
The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center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

8.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/07/2012	(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

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℃ 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℃ 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 EUT was placed in a temperature chamber at 25±5 ℃ and connected as the following section.
5. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
6. The temperature tests were performed for the worst case.
7. Test data was recorded.

8.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Temperature Variation) measurement is ± 10Hz.

8.6. Test Result

Model Number	AirCard 770S					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 1: GPRS 850 Link Mode					
Date of Test	10/11/2012				Test Site	TE05
Level	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal Voltage	3.70	-30	14	0.017	±2.5	Pass
Normal Voltage	3.70	-20	11	0.013	±2.5	Pass
Normal Voltage	3.70	-10	9	0.011	±2.5	Pass
Normal Voltage	3.70	0	10	0.012	±2.5	Pass
Normal Voltage	3.70	10	8	0.010	±2.5	Pass
High Voltage	4.25	20	10	0.012	±2.5	Pass
Normal	3.70	20	9	0.011	±2.5	Pass
Battery cut-off point	3.50	20	6	0.007	±2.5	Pass
Normal Voltage	3.70	30	19	0.023	±2.5	Pass
Normal Voltage	3.70	40	16	0.019	±2.5	Pass
Normal Voltage	3.70	50	-5	-0.006	±2.5	Pass

Model Number	AirCard 770S					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 2: GPRS 1900 Link Mode					
Date of Test	10/11/2012				Test Site	TE05
Level	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal Voltage	3.70	-30	-19	-0.010	±2.5	Pass
Normal Voltage	3.70	-20	-22	-0.012	±2.5	Pass
Normal Voltage	3.70	-10	-23	-0.012	±2.5	Pass
Normal Voltage	3.70	0	-28	-0.015	±2.5	Pass
Normal Voltage	3.70	10	-23	-0.012	±2.5	Pass
High Voltage	4.25	20	-22	-0.012	±2.5	Pass
Normal	3.70	20	-26	-0.014	±2.5	Pass
Battery cut-off point	3.50	20	-21	-0.011	±2.5	Pass
Normal Voltage	3.70	30	-22	-0.012	±2.5	Pass
Normal Voltage	3.70	40	-15	-0.008	±2.5	Pass
Normal Voltage	3.70	50	-21	-0.011	±2.5	Pass

Model Number	AirCard 770S					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 5: WCDMA Band II Link Mode					
Date of Test	10/11/2012				Test Site	TE05
Level	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal Voltage	3.70	-30	-9	-0.005	±2.5	Pass
Normal Voltage	3.70	-20	-10	-0.005	±2.5	Pass
Normal Voltage	3.70	-10	-8	-0.004	±2.5	Pass
Normal Voltage	3.70	0	-10	-0.005	±2.5	Pass
Normal Voltage	3.70	10	-11	-0.006	±2.5	Pass
High Voltage	4.25	20	10	0.005	±2.5	Pass
Normal	3.70	20	-11	-0.006	±2.5	Pass
Battery cut-off point	3.50	20	9	0.005	±2.5	Pass
Normal Voltage	3.70	30	-10	-0.005	±2.5	Pass
Normal Voltage	3.70	40	-8	-0.004	±2.5	Pass
Normal Voltage	3.70	50	-10	-0.005	±2.5	Pass

Model Number	AirCard 770S					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 6: WCDMA Band V Link Mode					
Date of Test	10/11/2012				Test Site	TE05
Level	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal Voltage	3.70	-30	-3	-0.004	±2.5	Pass
Normal Voltage	3.70	-20	2	0.002	±2.5	Pass
Normal Voltage	3.70	-10	-4	-0.005	±2.5	Pass
Normal Voltage	3.70	0	-2	-0.002	±2.5	Pass
Normal Voltage	3.70	10	1	0.001	±2.5	Pass
High Voltage	4.25	20	5	0.006	±2.5	Pass
Normal	3.70	20	-3	-0.004	±2.5	Pass
Battery cut-off point	3.50	20	6	0.007	±2.5	Pass
Normal Voltage	3.70	30	-3	-0.004	±2.5	Pass
Normal Voltage	3.70	40	-6	-0.007	±2.5	Pass
Normal Voltage	3.70	50	-4	-0.005	±2.5	Pass