

FCC**RF Test Report**

Product Type : Mobile Hotspot
Applicant : Netgear Inc.
Address : 350 East Plumeria Drive, San Jose, CA 95134
Trade Name : NETGEAR
Model Number : AC810S-300
Test Specification : FCC 47 CFR PART 22H
FCC 47 CFR PART 24E
FCC 47 CFR PART 90S
ANSI/TIA-603-D 2010

Application Purpose : Original
Receive Date : Jul. 13, 2015
Test Period : Aug. 14 ~ Oct. 06, 2015
Issue Date : Nov. 24, 2015

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

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Nov. 02, 2015	Initial Issue	
01	Nov. 24, 2015	Revised report information.	Joyce Liao

Verification of Compliance

Issued Date: 11/24/2015

Product Type : Mobile Hotspot
Applicant : Netgear Inc.
Address : 350 East Plumeria Drive, San Jose, CA 95134
Trade Name : NETGEAR
Model Number : AC810S-300
FCC ID : PY3AC810S
EUT Rated Voltage : DC 5V, 1A
Test Voltage : 120 Vac / 60 Hz, DC 3.50 / DC 3.80 / DC 4.35
Applicable Standard : FCC 47 CFR PART 22H
FCC 47 CFR PART 24E
FCC 47 CFR PART 90S
ANSI/TIA-603-D 2010
Application Purpose : Original
Test Result : Complied
Performing Lab. : A Test Lab Techno Corp.

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



The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI/TIA-603-D 2010 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 : Fly Lu Reviewed By : Eric Ou Yang
(Manager) (Fly Lu) (Testing Engineer) (Eric Ou Yang)

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1 General Information

1.1. EUT Description

Applicant		Netgear Inc.			
Applicant Address		350 East Plumeria Drive, San Jose, CA 95134			
Manufacturer		Netgear Inc.			
Manufacturer Address		350 East Plumeria Drive, San Jose, CA 95134			
Product Type		Mobile Hotspot			
Trade Name		NETGEAR			
Model Number		AC810S-300			
IMEI No.		351639070006457			
Hardware Version		DV3.2			
Software Version		11.02.00.00			
FCC ID		PY3AC810S			
Mode	WCDMA (RMC12.2K)/ 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
	CDMA/ 1xRTT/ 1xEV-DO	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		850 (BC 0)	824.70 ~ 848.31	869.70 ~ 893.31	QPSK
		1900 (BC 1)	1851.25 ~ 1908.75	1931.25 ~ 1988.75	QPSK
		Sec. 800 (BC 10)	817.25 ~ 822.75	862.25 ~ 867.75	QPSK
Type of Antenna		Internal PIFA type			
Antenna Gain (dBi)		WCDMA/HSDPA/HSUPA Band II : 1.5 dBi			
		WCDMA/HSDPA/HSUPA Band V : 1.0 dBi			
		CDMA/1xRTT/1xEV-DO 850 (BC 0) : 1.0 dBi			
		CDMA/1xRTT/1xEV-DO 1900 (BC 1) : 1.5 dBi			
		CDMA/1xRTT/1xEV-DO Sec. 800 (BC 10) : 1.0 dBi			
Channel Control		Auto			

Max. RF Output power	WCDMA/HSDPA/HSUPA Band II	:	26.38 dBm / 0.435 W
	WCDMA/HSDPA/HSUPA Band V	:	27.56 dBm / 0.570 W
	CDMA/1xRTT 850 (BC 0)	:	24.29 dBm / 0.269 W
	1xEV-DO 850 (BC 0)	:	28.08 dBm / 0.643 W
	CDMA/1xRTT 1900 (BC 1)	:	23.54 dBm / 0.226 W
	1xEV-DO 1900 (BC 1)	:	27.16 dBm / 0.520 W
	CDMA/1xRTT Sec. 800 (BC 10)	:	25.38 dBm / 0.345 W
	1xEV-DO Sec. 800 (BC 10)	:	29.02 dBm / 0.798 W
Max. ERP/EIRP	WCDMA/ HSDPA/ HSUPA Band II	:	22.41 dBm / 0.174 W
	WCDMA/ HSDPA/ HSUPA Band V	:	23.92 dBm / 0.247 W
	CDMA 850 (BC 0)	:	23.56 dBm / 0.227 W
	1xEV-DO 850 (BC 0)	:	23.10 dBm / 0.204 W
	CDMA 1900 (BC 1)	:	21.88 dBm / 0.154 W
	1xEV-DO 1900 (BC 1)	:	21.25 dBm / 0.133 W
	CDMA Sec. 800 (BC 10)	:	24.23 dBm / 0.265 W
	1xEV-DO Sec. 800 (BC 10)	:	22.88 dBm / 0.194 W

Power adapter List				
Power adapter (1)	Trade Name	NETGEAR	Model Number	MU05BT050100-A1
	I/P: 100-240VAC, 50/60Hz, 0.15A			
	O/P: 5VDC, 1A			
Power adapter (2)	Trade Name	NETGEAR	Model Number	AD2038F20
	I/P: 100-240VAC, 50/60Hz, 0.13A			
	O/P: 5.0VDC, 1.0A			

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: WCDMA Band II Link Mode
Mode 2: WCDMA Band V Link Mode
Mode 3.: CDMA 850 (BC 0) Link Mode
Mode 4: CDMA 1900 (BC 1) Link Mode
Mode 5: CDMA Sec. 800 (BC 10) Link Mode
Mode 6: 1xEV-DO 850 (BC 0) Link Mode
Mode 7: 1xEV-DO 1900 (BC 1) Link Mode
Mode 8: 1xEV-DO Sec. 800 (BC 10) 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.

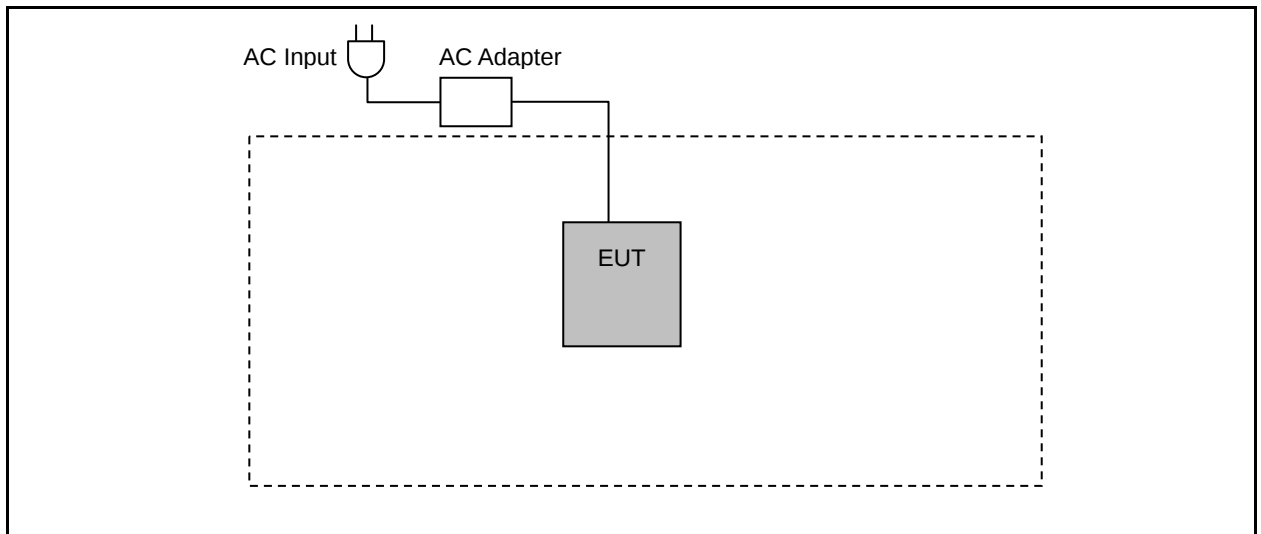
By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "Y axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

Note: The device used two models of adapter, adapter number: AD2038F20 is worst case to perform testing.

1.3. EUT Exercise Software

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

1.4. Configuration of Test System Details



1.5. Test Site Environment

Items	Required (IEC 60068-1)	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	Limit	Result
Conducted Output Power	§2.1046	N/A	Pass
	§90.635	< 100 Watts	
Effective Radiated Power	§22.913(a)(2)	< 7 Watts	Pass
Equivalent Isotropic Radiated Power	§24.232(c)	< 2 Watts	Pass
Peak to average ratio	§24.232(d)	< 13 dB	Pass
Emission Bandwidth & Occupied Bandwidth	§2.1049 §22.917(a) §24.238(a) §90.691	N/A	Pass
Band Edge Measurement	§2.1051 §22.917(a) §24.238(a) §90.691	< $43 + 10\log_{10}(P[\text{Watts}])$	Pass
	§2.1051 §90.691	< $50 + 10\log_{10}(P[\text{Watts}])$ at Band Edge and for all out-of-band emissions within 37.5Khz of Block Edge	Pass
Conducted Spurious Emission	§2.1051 §22.917(a) §24.238(a)	< $43 + 10\log_{10}(P[\text{Watts}])$	Pass
	§2.1051 §90.691	< $50 + 10\log_{10}(P[\text{Watts}])$ at Band Edge and for all out-of-band emissions within 37.5Khz of Block Edge	Pass
Field Strength of Spurious Radiation	§2.1053 §22.917(a) §24.238(a) §90.691	< $43 + 10\log_{10}(P[\text{Watts}])$	Pass
Frequency Stability for Temperature & Voltage	§2.1055 §22.355 §24.235 §90.213	< 2.5 ppm	Pass

2 RF Output Power Test

2.1. Limit

§2.1046: N/A

§90.635: The maximum output power of the transmitter for mobile stations is 100 watts.

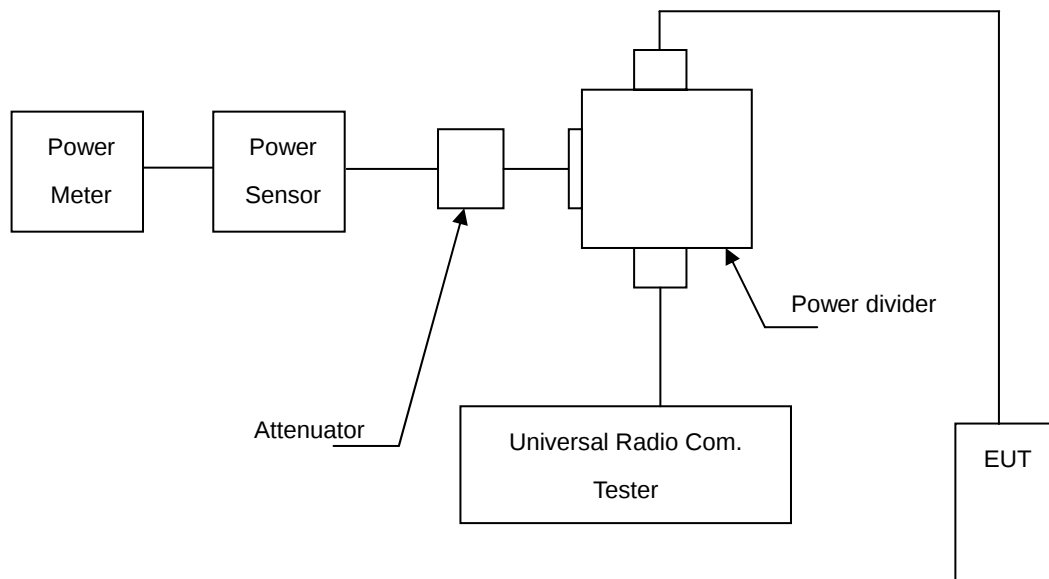
2.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	10/21/2014	(2)
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	12/15/2014	(1)
Wideband Power Meter	Agilent	N1921A	MY45241957	12/15/2014	(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.

2.3. Test Setup



2.4. Test Procedure

The measurement is made according to 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	AC810S-300						
Test Item	RF Output Power						
Date of Test	08/14/2015			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	22.39	0.173	25.57	0.361
			1880.0	22.88	0.194	25.82	0.382
			1907.6	23.32	0.215	26.38	0.435
HSDPA Band II	QPSK	1	1852.4	20.37	0.109	23.53	0.225
			1880.0	20.76	0.119	23.68	0.233
			1907.6	21.24	0.133	24.29	0.269
		2	1852.4	20.31	0.107	23.46	0.222
			1880.0	20.72	0.118	23.64	0.231
			1907.6	21.13	0.130	24.15	0.260
		3	1852.4	20.25	0.106	23.23	0.210
			1880.0	20.31	0.107	23.40	0.219
			1907.6	20.73	0.118	23.76	0.238
		4	1852.4	20.19	0.104	23.16	0.207
			1880.0	20.23	0.105	23.34	0.216
			1907.6	20.71	0.118	23.77	0.238
HSUPA Band II	QPSK	1	1852.4	20.32	0.108	23.47	0.222
			1880.0	20.82	0.121	23.75	0.237
			1907.6	21.21	0.132	24.25	0.266
		2	1852.4	19.01	0.080	22.13	0.163
			1880.0	19.28	0.085	22.21	0.166
			1907.6	20.18	0.104	23.20	0.209
		3	1852.4	18.05	0.064	21.14	0.130
			1880.0	18.26	0.067	21.18	0.131
			1907.6	18.67	0.074	21.69	0.148
		4	1852.4	20.08	0.102	23.13	0.206
			1880.0	20.21	0.105	23.20	0.209
			1907.6	20.61	0.115	23.63	0.231
		5	1852.4	20.31	0.107	23.28	0.213
			1880.0	20.38	0.109	23.44	0.221
			1907.6	20.98	0.125	24.00	0.251

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

Model Number	AC810S-300						
Test Item	RF Output Power						
Date of Test	08/14/2015			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	24.33	0.271	27.56	0.570
			836.6	24.25	0.266	27.40	0.550
			846.6	24.08	0.256	27.18	0.522
HSDPA Band V	QPSK	1	826.4	21.75	0.150	24.99	0.316
			836.6	21.68	0.147	24.80	0.302
			846.6	21.72	0.149	24.83	0.304
		2	826.4	21.71	0.148	24.87	0.307
			836.6	21.58	0.144	24.69	0.294
			846.6	21.64	0.146	24.79	0.301
		3	826.4	21.28	0.134	24.41	0.276
			836.6	21.16	0.131	24.08	0.256
			846.6	21.23	0.133	24.25	0.266
		4	826.4	21.26	0.134	24.38	0.274
			836.6	21.14	0.130	24.06	0.255
			846.6	21.21	0.132	24.23	0.265
HSUPA Band V	QPSK	1	826.4	21.76	0.150	24.83	0.304
			836.6	21.68	0.147	24.79	0.301
			846.6	21.72	0.149	24.82	0.303
		2	826.4	19.88	0.097	22.95	0.197
			836.6	19.81	0.096	22.87	0.194
			846.6	19.83	0.096	22.93	0.196
		3	826.4	19.31	0.085	22.58	0.181
			836.6	19.23	0.084	22.21	0.166
			846.6	19.28	0.085	22.54	0.179
		4	826.4	21.59	0.144	24.61	0.289
			836.6	21.48	0.141	24.41	0.276
			846.6	21.54	0.143	24.46	0.279
		5	826.4	20.82	0.121	23.84	0.242
			836.6	20.73	0.118	23.65	0.232
			846.6	20.79	0.120	23.71	0.235

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

Model Number	AC810S-300						
Test Item	RF Output Power						
Date of Test	08/14/2015			Test Site		TE05	
Bands	Modulation Type	RC/TAP (REV)	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
CDMA 850 (BC 0)	QPSK	RC1/SO55	824.70	23.93	0.247	24.21	0.264
			836.52	23.88	0.244	24.19	0.262
			848.31	23.81	0.240	24.12	0.258
		RC3/SO55	824.70	23.91	0.246	24.29	0.269
			836.52	23.87	0.244	24.21	0.264
			848.31	23.80	0.240	24.19	0.262
1xRTT 850 (BC 0)	QPSK	RC3/SO32	824.70	23.94	0.248	24.23	0.265
			836.52	23.87	0.244	24.14	0.259
			848.31	23.81	0.240	24.07	0.255
1xEV-DO 850 (BC 0)	QPSK	Rel.0 RTAP	824.70	22.98	0.199	27.93	0.621
			836.52	22.54	0.179	27.34	0.542
			848.31	23.03	0.201	28.08	0.643
		Rel.A RETAP	824.70	22.87	0.194	27.63	0.579
			836.52	22.51	0.178	27.20	0.525
			848.31	23.00	0.200	27.89	0.615
CDMA 1900 (BC 1)	QPSK	RC1/SO55	1851.25	22.48	0.177	23.54	0.226
			1880.00	21.99	0.158	22.35	0.172
			1908.75	22.22	0.167	22.90	0.195
		RC3/SO55	1851.25	22.40	0.174	23.38	0.218
			1880.00	21.97	0.157	22.24	0.167
			1908.75	22.37	0.173	22.80	0.191
1xRTT 1900 (BC 1)	QPSK	RC3/SO32	1851.25	22.44	0.175	22.84	0.192
			1880.00	21.96	0.157	22.23	0.167
			1908.75	22.39	0.173	22.27	0.169
1xEV-DO 1900 (BC 1)	QPSK	Rel.0 RTAP	1851.25	22.22	0.167	27.16	0.520
			1880.00	21.74	0.149	26.77	0.475
			1908.75	21.68	0.147	26.69	0.467
		Rel.A RETAP	1851.25	22.23	0.167	26.89	0.489
			1880.00	21.76	0.150	26.78	0.476
			1908.75	21.70	0.148	26.25	0.422

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

Model Number	AC810S-300						
Test Item	RF Output Power						
Date of Test	08/14/2015			Test Site		TE05	
Bands	Modulation Type	RC/TAP (REV)	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
CDMA Sec. 800 (BC 10)	QPSK	RC1/SO55	817.25	24.98	0.315	25.38	0.345
			820.00	24.78	0.301	25.08	0.322
			822.75	24.96	0.313	25.29	0.338
		RC3/SO55	817.25	24.92	0.310	25.25	0.335
			820.00	24.80	0.302	25.11	0.324
			822.75	24.91	0.310	25.21	0.332
1xRTT Sec. 800 (BC 10)	QPSK	RC3/SO32	817.25	24.86	0.306	25.08	0.322
			820.00	24.91	0.310	25.16	0.328
			822.75	24.95	0.313	25.18	0.330
1xEV-DO Sec. 800 (BC 10)	QPSK	Rel.0 RTAP	817.25	23.46	0.222	27.91	0.618
			820.00	23.54	0.226	28.26	0.670
			822.75	23.71	0.235	29.02	0.798
		Rel.A RETAP	817.25	23.24	0.211	28.08	0.643
			820.00	23.46	0.222	28.13	0.650
			822.75	23.49	0.223	28.18	0.658

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(c): The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

3.2. Test Instruments

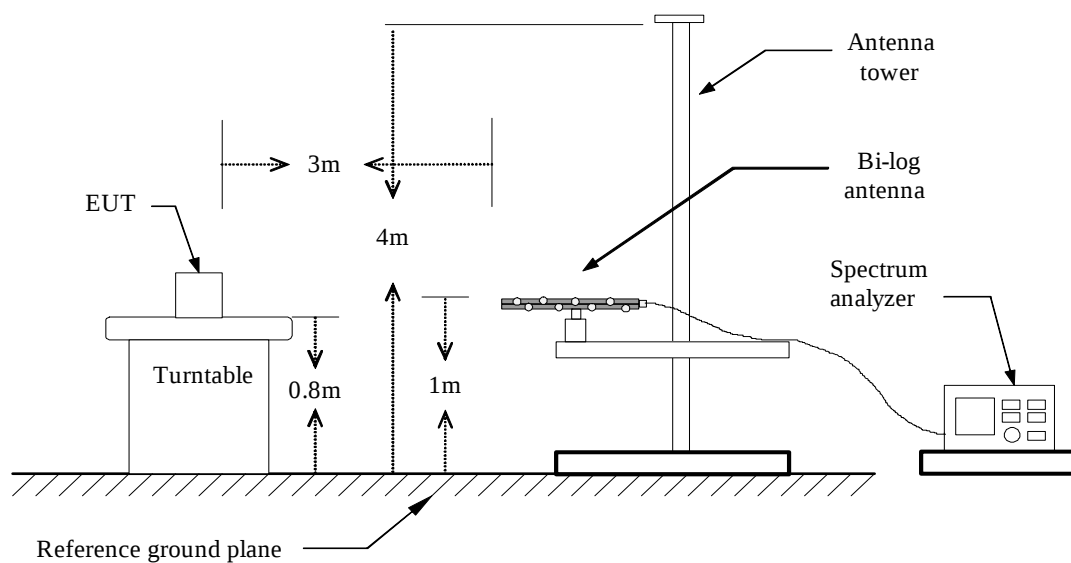
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/06/2015	(1)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/06/2015	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/24/2015	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/24/2015	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	08/11/2015	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/12/2015	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	07/06/2015	(1)
Test Site	ATL	TE01	888001	08/27/2015	(1)

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

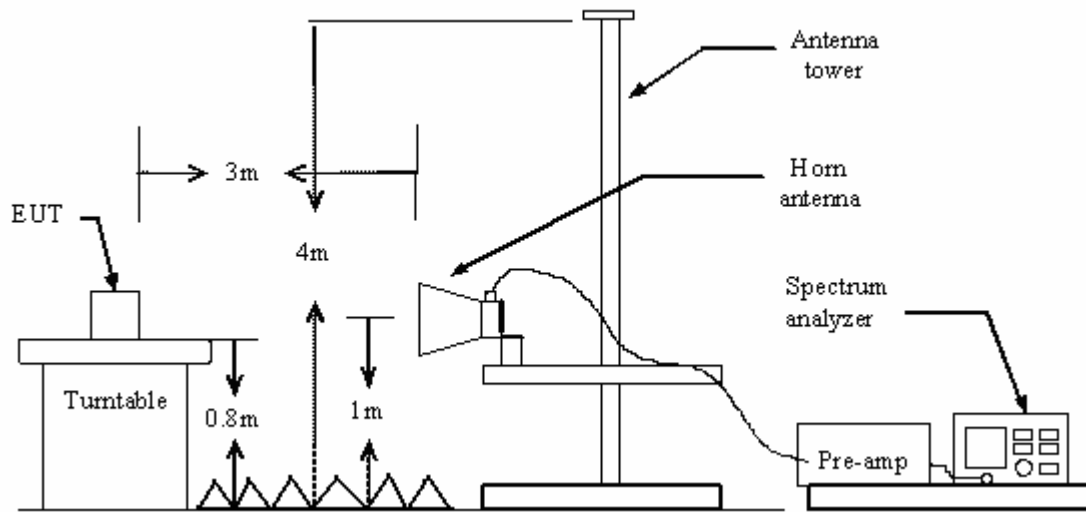
Note: N.C.R. = No Calibration Request.

3.3. Setup

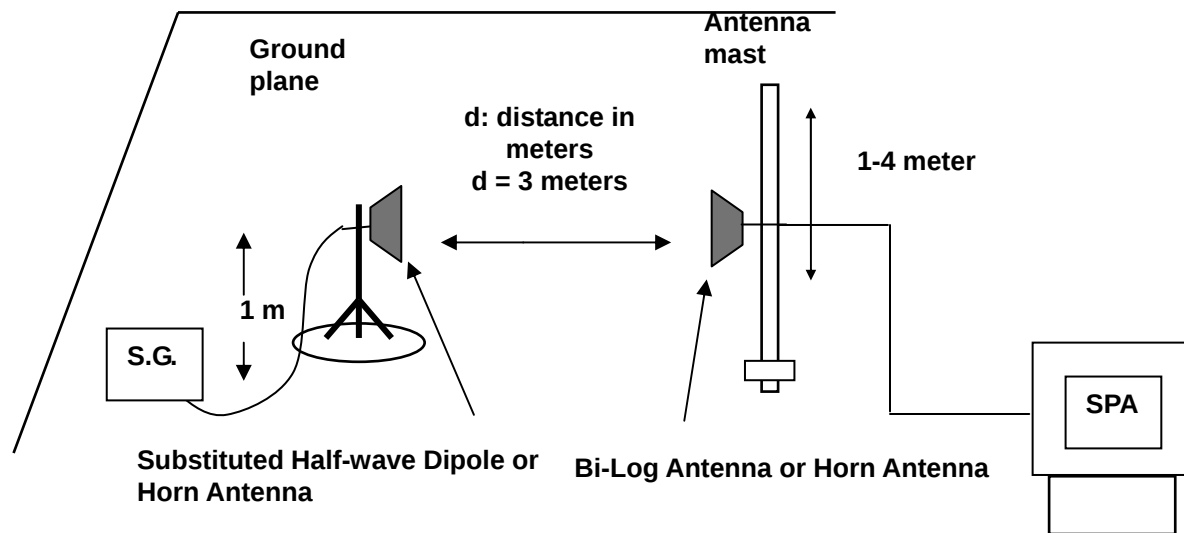
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



3.4. Test Procedure

- a. The EUT was set up for the maximum power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- b. Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- d. $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- e. $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. For WCDMA and CDMA signals, a peak detector is used with $RBW = VBW = 5\text{MHz}$.

2. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with $RBW = VBW = 1 \text{ MHz}$.

3.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.

3.6. Test Result

Model Number	AC810S-300							
Test Item	EIRP							
Date of Test	08/29/2015					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	7.36	10.03	17.39	0.055	< 2W
			V	11.65	10.03	21.68	0.147	< 2W
		1880.0	H	6.65	10.02	16.67	0.046	< 2W
			V	11.89	10.02	21.91	0.155	< 2W
		1907.6	H	7.80	10.02	17.82	0.061	< 2W
			V	12.40	10.01	22.41	0.174	< 2W

Model Number	AC810S-300							
Test Item	ERP							
Date of Test	08/29/2015					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	7.38	11.71	19.09	0.081	< 7W
			V	12.22	11.70	23.92	0.247	< 7W
		836.6	H	7.74	11.72	19.46	0.088	< 7W
			V	12.06	11.72	23.78	0.239	< 7W
		846.6	H	7.80	11.78	19.58	0.091	< 7W
			V	11.73	11.78	23.51	0.224	< 7W

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

2. For WCDMA and CDMA 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	AC810S-300							
Test Item	ERP							
Date of Test	08/29/2015					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	ERP		Limit
						(dBm)	(W)	
CDMA 850 (BC 0)	QPSK	824.70	H	8.71	11.70	20.41	0.110	< 7W
			V	11.86	11.70	23.56	0.227	< 7W
		836.52	H	8.56	11.72	20.28	0.107	< 7W
			V	11.67	11.72	23.39	0.218	< 7W
		848.31	H	8.39	11.80	20.19	0.104	< 7W
			V	11.53	11.80	23.33	0.215	< 7W
1xEV-DO 850 (BC 0)	QPSK	824.70	H	8.47	11.70	20.17	0.104	< 7W
			V	11.40	11.70	23.10	0.204	< 7W
		836.52	H	8.30	11.72	20.02	0.100	< 7W
			V	11.34	11.72	23.06	0.202	< 7W
		848.31	H	8.04	11.81	19.85	0.097	< 7W
			V	11.14	11.81	22.95	0.197	< 7W

Model Number	AC810S-300							
Test Item	EIRP							
Date of Test	08/29/2015					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	EIRP		Limit
						(dBm)	(W)	
CDMA 1900 (BC 1)	QPSK	1851.25	H	7.40	10.03	17.43	0.055	< 2W
			V	11.84	10.04	21.88	0.154	< 2W
		1880.00	H	7.44	10.02	17.46	0.056	< 2W
			V	11.19	10.02	21.21	0.132	< 2W
		1908.75	H	7.18	10.01	17.19	0.052	< 2W
			V	11.66	10.01	21.67	0.147	< 2W
1xEV-DO 1900 (BC 1)	QPSK	1851.25	H	7.14	10.03	17.17	0.052	< 2W
			V	11.21	10.04	21.25	0.133	< 2W
		1880.00	H	7.09	10.02	17.11	0.051	< 2W
			V	10.73	10.02	20.75	0.119	< 2W
		1908.75	H	6.59	10.01	16.60	0.046	< 2W
			V	11.21	10.01	21.22	0.132	< 2W

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

2. For WCDMA and CDMA 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	AC810S-300							
Test Item	ERP							
Date of Test	10/05/2015					Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	ERP		Limit
						(dBm)	(W)	
CDMA Sec. 800 (BC 10)	QPSK	817.25	H	9.72	11.79	21.51	0.142	---
			V	12.43	11.80	24.23	0.265	---
		820.00	H	9.49	11.69	21.18	0.131	---
			V	12.46	11.69	24.15	0.260	---
		822.75	H	9.67	11.70	21.37	0.137	---
			V	12.47	11.70	24.17	0.261	---
1xEV-DO Sec. 800 (BC 10)	QPSK	817.25	H	7.92	11.80	19.72	0.094	---
			V	11.06	11.80	22.86	0.193	---
		820.00	H	8.02	11.69	19.71	0.094	---
			V	11.19	11.69	22.88	0.194	---
		822.75	H	7.86	11.70	19.56	0.090	---
			V	10.82	11.70	22.52	0.179	---

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

2. For WCDMA and CDMA 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 Peak to Average Ratio Test

4.1. Limit

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

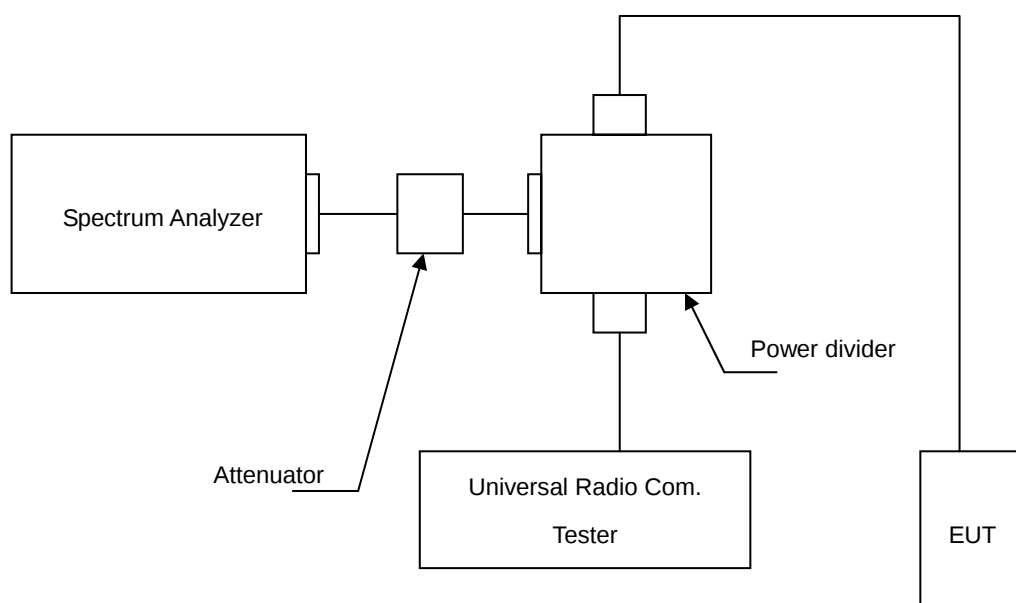
4.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2015	(1)
Wideband Radio Communication Test	R & S	CMW500	103168	11/05/2014	(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 24:

- Set resolution/measurement bandwidth signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

4.5. Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

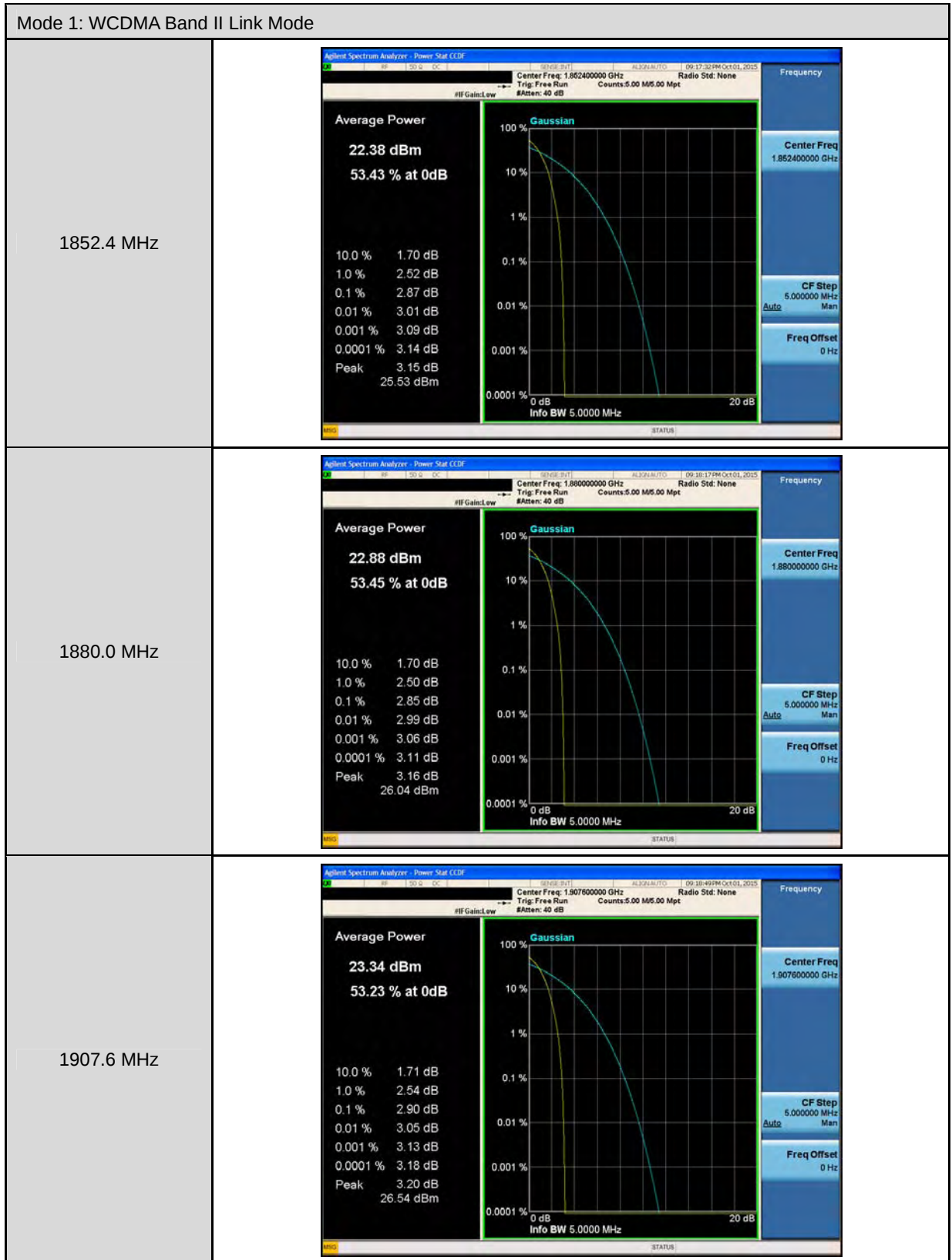
4.6. Test Result

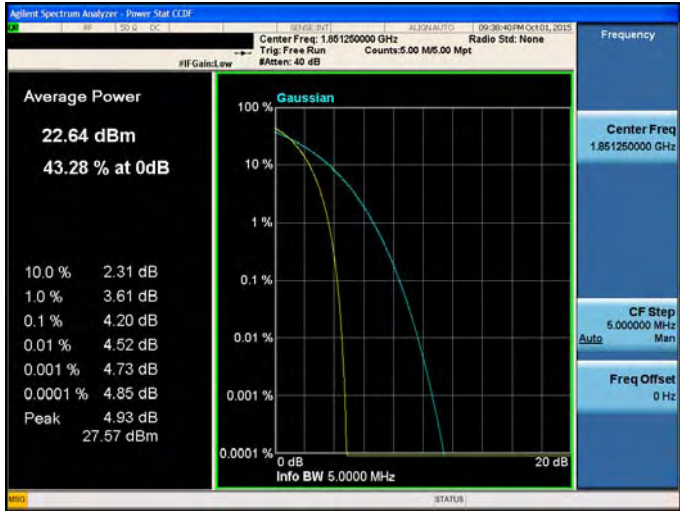
Model Number	AC810S-300			
Test Item	Peak to Average Ratio			
Mode	Mode 1			
Date of Test	10/01/2015			Test Site TE05
Bands	Channel	Frequency (MHz)	Peak to Average Ratio (dB)	Limit (dB)
WCDMA Band II	9262	1852.4	2.87	< 13
	9400	1880.0	2.85	< 13
	9538	1907.6	2.90	< 13

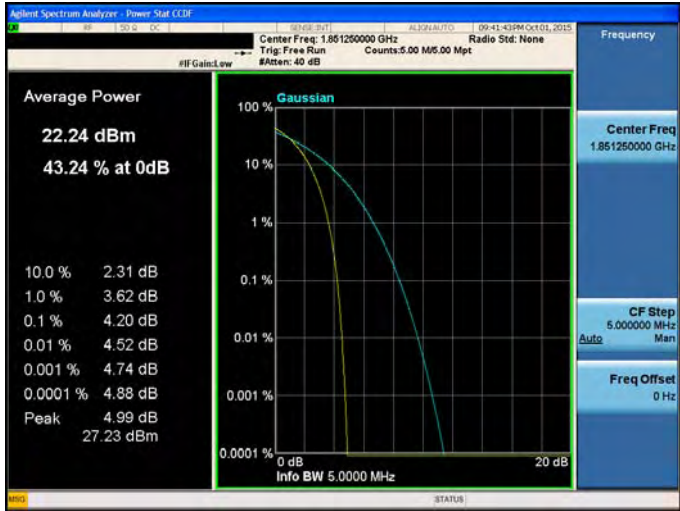
Model Number	AC810S-300			
Test Item	Peak to Average Ratio			
Mode	Mode 5			
Date of Test	10/01/2015			Test Site TE05
Bands	Channel	Frequency (MHz)	Peak to Average Ratio (dB)	Limit (dB)
CDMA 1900 (BC 1)	25	1851.25	4.20	< 13
	600	1880.00	4.32	< 13
	1175	1908.75	4.36	< 13

Model Number	AC810S-300			
Test Item	Peak to Average Ratio			
Mode	Mode 8			
Date of Test	10/01/2015			Test Site TE05
Bands	Channel	Frequency (MHz)	Peak to Average Ratio (dB)	Limit (dB)
1xEV-DO 1900 (BC 1)	25	1851.25	4.20	< 13
	600	1880.00	4.29	< 13
	1175	1908.75	4.35	< 13

4.7. Test Graphs



Mode 4: CDMA 1900 (BC 1) Link Mode																	
1851.25 MHz	 Average Power 22.64 dBm 43.28 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.31 dB</td></tr> <tr><td>1.0 %</td><td>3.61 dB</td></tr> <tr><td>0.1 %</td><td>4.20 dB</td></tr> <tr><td>0.01 %</td><td>4.52 dB</td></tr> <tr><td>0.001 %</td><td>4.73 dB</td></tr> <tr><td>0.0001 %</td><td>4.85 dB</td></tr> <tr><td>Peak</td><td>4.93 dB</td></tr> <tr><td></td><td>27.57 dBm</td></tr> </table> Center Freq: 1.851250000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.851250000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW 5.0000 MHz	10.0 %	2.31 dB	1.0 %	3.61 dB	0.1 %	4.20 dB	0.01 %	4.52 dB	0.001 %	4.73 dB	0.0001 %	4.85 dB	Peak	4.93 dB		27.57 dBm
10.0 %	2.31 dB																
1.0 %	3.61 dB																
0.1 %	4.20 dB																
0.01 %	4.52 dB																
0.001 %	4.73 dB																
0.0001 %	4.85 dB																
Peak	4.93 dB																
	27.57 dBm																
1880.00 MHz	 Average Power 21.98 dBm 43.17 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.34 dB</td></tr> <tr><td>1.0 %</td><td>3.69 dB</td></tr> <tr><td>0.1 %</td><td>4.32 dB</td></tr> <tr><td>0.01 %</td><td>4.68 dB</td></tr> <tr><td>0.001 %</td><td>4.90 dB</td></tr> <tr><td>0.0001 %</td><td>5.08 dB</td></tr> <tr><td>Peak</td><td>5.25 dB</td></tr> <tr><td></td><td>27.23 dBm</td></tr> </table> Center Freq: 1.880000000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.880000000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW 5.0000 MHz	10.0 %	2.34 dB	1.0 %	3.69 dB	0.1 %	4.32 dB	0.01 %	4.68 dB	0.001 %	4.90 dB	0.0001 %	5.08 dB	Peak	5.25 dB		27.23 dBm
10.0 %	2.34 dB																
1.0 %	3.69 dB																
0.1 %	4.32 dB																
0.01 %	4.68 dB																
0.001 %	4.90 dB																
0.0001 %	5.08 dB																
Peak	5.25 dB																
	27.23 dBm																
1908.75 MHz	 Average Power 22.16 dBm 43.22 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.35 dB</td></tr> <tr><td>1.0 %</td><td>3.71 dB</td></tr> <tr><td>0.1 %</td><td>4.36 dB</td></tr> <tr><td>0.01 %</td><td>4.74 dB</td></tr> <tr><td>0.001 %</td><td>4.98 dB</td></tr> <tr><td>0.0001 %</td><td>5.12 dB</td></tr> <tr><td>Peak</td><td>5.29 dB</td></tr> <tr><td></td><td>27.45 dBm</td></tr> </table> Center Freq: 1.908750000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.908750000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW 5.0000 MHz	10.0 %	2.35 dB	1.0 %	3.71 dB	0.1 %	4.36 dB	0.01 %	4.74 dB	0.001 %	4.98 dB	0.0001 %	5.12 dB	Peak	5.29 dB		27.45 dBm
10.0 %	2.35 dB																
1.0 %	3.71 dB																
0.1 %	4.36 dB																
0.01 %	4.74 dB																
0.001 %	4.98 dB																
0.0001 %	5.12 dB																
Peak	5.29 dB																
	27.45 dBm																

Mode 7: 1xEV-DO 1900 (BC 1) Link Mode																	
1851.25 MHz	 Average Power 22.24 dBm 43.24 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.31 dB</td></tr> <tr><td>1.0 %</td><td>3.62 dB</td></tr> <tr><td>0.1 %</td><td>4.20 dB</td></tr> <tr><td>0.01 %</td><td>4.52 dB</td></tr> <tr><td>0.001 %</td><td>4.74 dB</td></tr> <tr><td>0.0001 %</td><td>4.88 dB</td></tr> <tr><td>Peak</td><td>4.99 dB</td></tr> <tr><td></td><td>27.23 dBm</td></tr> </table> Center Freq: 1.851250000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.851250000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW: 5.0000 MHz	10.0 %	2.31 dB	1.0 %	3.62 dB	0.1 %	4.20 dB	0.01 %	4.52 dB	0.001 %	4.74 dB	0.0001 %	4.88 dB	Peak	4.99 dB		27.23 dBm
10.0 %	2.31 dB																
1.0 %	3.62 dB																
0.1 %	4.20 dB																
0.01 %	4.52 dB																
0.001 %	4.74 dB																
0.0001 %	4.88 dB																
Peak	4.99 dB																
	27.23 dBm																
1880.00 MHz	 Average Power 21.75 dBm 43.20 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.33 dB</td></tr> <tr><td>1.0 %</td><td>3.67 dB</td></tr> <tr><td>0.1 %</td><td>4.29 dB</td></tr> <tr><td>0.01 %</td><td>4.65 dB</td></tr> <tr><td>0.001 %</td><td>4.88 dB</td></tr> <tr><td>0.0001 %</td><td>5.05 dB</td></tr> <tr><td>Peak</td><td>5.11 dB</td></tr> <tr><td></td><td>26.86 dBm</td></tr> </table> Center Freq: 1.880000000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.880000000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW: 5.0000 MHz	10.0 %	2.33 dB	1.0 %	3.67 dB	0.1 %	4.29 dB	0.01 %	4.65 dB	0.001 %	4.88 dB	0.0001 %	5.05 dB	Peak	5.11 dB		26.86 dBm
10.0 %	2.33 dB																
1.0 %	3.67 dB																
0.1 %	4.29 dB																
0.01 %	4.65 dB																
0.001 %	4.88 dB																
0.0001 %	5.05 dB																
Peak	5.11 dB																
	26.86 dBm																
1908.75 MHz	 Average Power 21.65 dBm 43.17 % at 0dB <table border="1"> <tr><td>10.0 %</td><td>2.34 dB</td></tr> <tr><td>1.0 %</td><td>3.71 dB</td></tr> <tr><td>0.1 %</td><td>4.35 dB</td></tr> <tr><td>0.01 %</td><td>4.72 dB</td></tr> <tr><td>0.001 %</td><td>4.99 dB</td></tr> <tr><td>0.0001 %</td><td>5.14 dB</td></tr> <tr><td>Peak</td><td>5.26 dB</td></tr> <tr><td></td><td>26.91 dBm</td></tr> </table> Center Freq: 1.908750000 GHz Trig: Free Run #Att: 40 dB Counts: 5.00 M/5.00 Mpt Radio Std: None Frequency: 1.908750000 GHz CF Step: 5.000000 MHz Auto Freq Offset: 0 Hz Info BW: 5.0000 MHz	10.0 %	2.34 dB	1.0 %	3.71 dB	0.1 %	4.35 dB	0.01 %	4.72 dB	0.001 %	4.99 dB	0.0001 %	5.14 dB	Peak	5.26 dB		26.91 dBm
10.0 %	2.34 dB																
1.0 %	3.71 dB																
0.1 %	4.35 dB																
0.01 %	4.72 dB																
0.001 %	4.99 dB																
0.0001 %	5.14 dB																
Peak	5.26 dB																
	26.91 dBm																

5 Emission Bandwidth & Occupied Bandwidth Test

5.1. Limit

The Occupied Bandwidth Limit:

N/A.

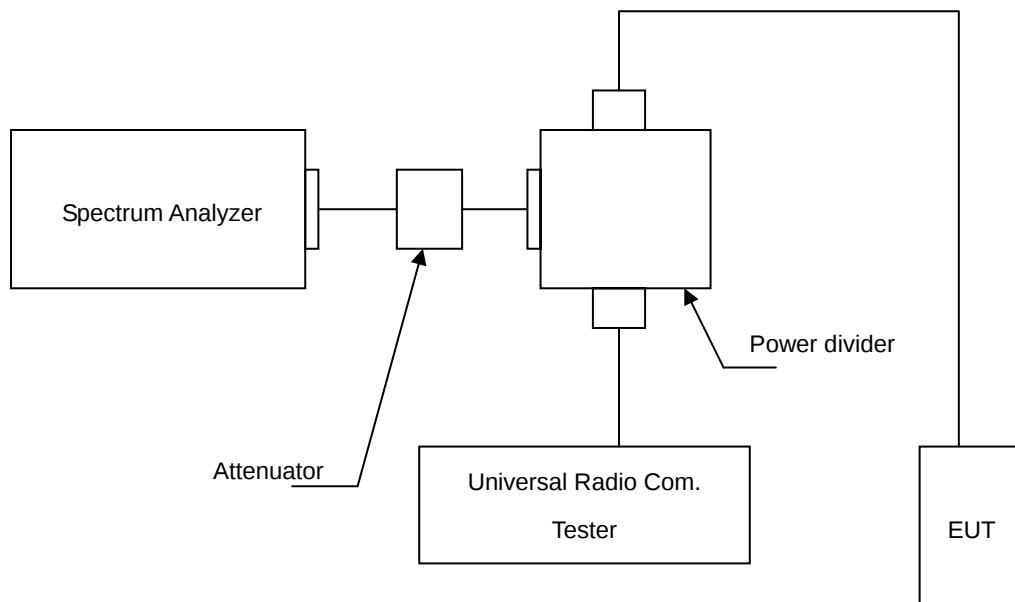
5.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	10/21/2014	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2015	(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, 24 and 90:

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.

5.5. Uncertainty

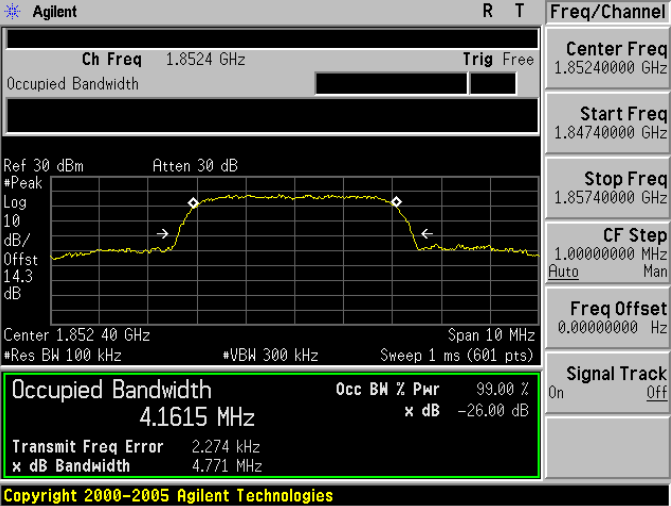
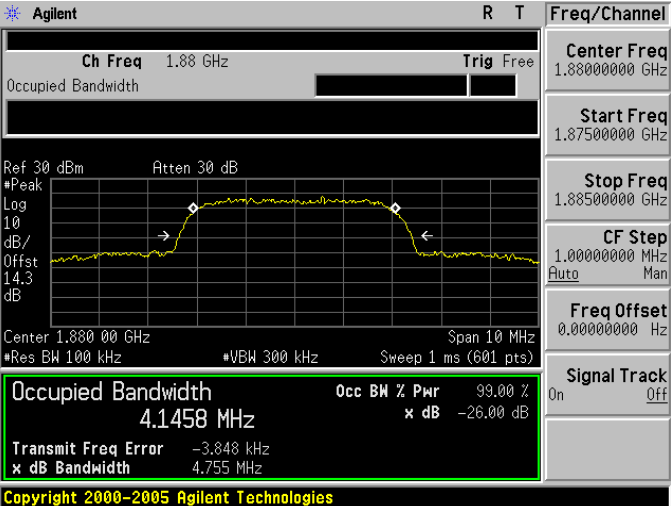
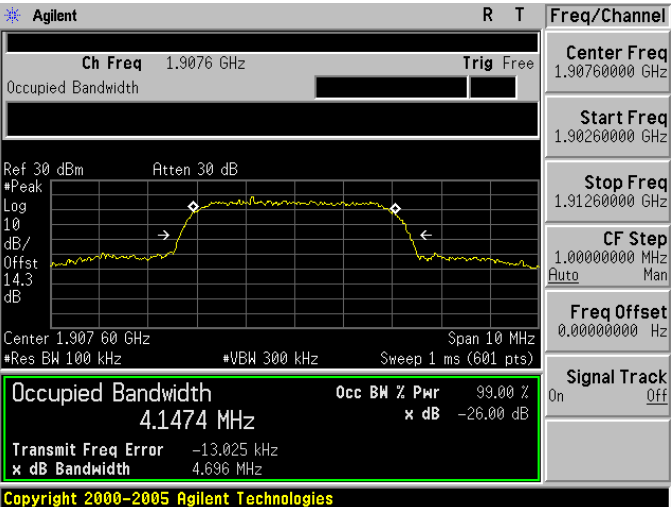
The measurement uncertainty is defined as $\pm 10\text{Hz}$

5.6. Test Result

Model Number	AC810S-300				
Test Item	Emission Bandwidth & Occupied Bandwidth				
Date of Test	08/17/2015				Test Site
					TE05
Bands	Channel	Frequency (MHz)	-26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Note
WCDMA Band II	9262	1852.4	4.771	4.1615	RBW:100KHz , VBW:300KHz
	9400	1880.0	4.755	4.1458	RBW:100KHz , VBW:300KHz
	9538	1907.6	4.696	4.1474	RBW:100KHz , VBW:300KHz
WCDMA Band V	4132	826.4	4.722	4.1223	RBW:100KHz , VBW:300KHz
	4183	836.6	4.751	4.1465	RBW:100KHz , VBW:300KHz
	4233	846.6	4.744	4.1819	RBW:100KHz , VBW:300KHz

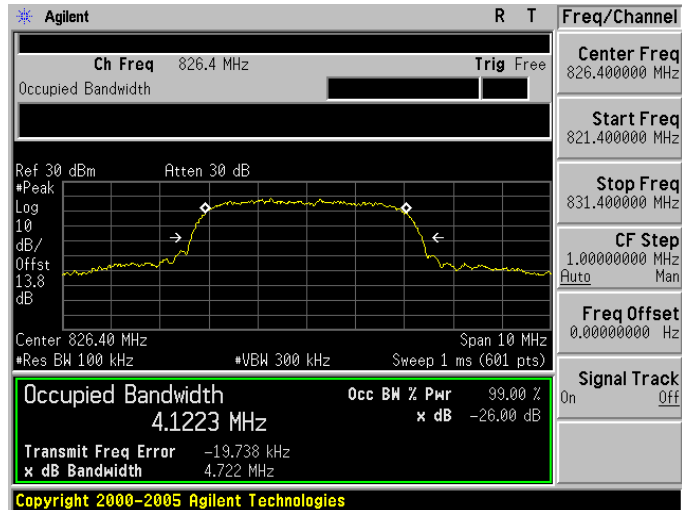
Model Number	AC810S-300				
Test Item	Emission Bandwidth & Occupied Bandwidth				
Date of Test	08/17/2015			Test Site	TE05
Bands	Channel	Frequency (MHz)	-26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Note
CDMA 850 (BC 0)	1013	824.70	1.432	1.2845	RBW:30KHz , VBW:100KHz
	384	836.52	1.447	1.2820	RBW:30KHz , VBW:100KHz
	777	848.31	1.569	1.2886	RBW:30KHz , VBW:100KHz
CDMA 1900 (BC 1)	25	1851.25	1.448	1.2892	RBW:30KHz , VBW:100KHz
	600	1880.00	1.443	1.2795	RBW:30KHz , VBW:100KHz
	1175	1908.75	1.497	1.2863	RBW:30KHz , VBW:100KHz
CDMA Sec. 800 (BC 10)	450	817.25	1.455	1.2833	RBW:30KHz , VBW:100KHz
	560	820.00	1.446	1.2788	RBW:30KHz , VBW:100KHz
	670	822.75	1.456	1.2807	RBW:30KHz , VBW:100KHz
1xEV-DO 850 (BC 0)	1013	824.70	1.436	1.2772	RBW:30KHz , VBW:100KHz
	384	836.52	1.447	1.2807	RBW:30KHz , VBW:100KHz
	777	848.31	1.570	1.2925	RBW:30KHz , VBW:100KHz
1xEV-DO 1900 (BC 1)	25	1851.25	1.476	1.2832	RBW:30KHz , VBW:100KHz
	600	1880.00	1.447	1.2845	RBW:30KHz , VBW:100KHz
	1175	1908.75	1.498	1.2870	RBW:30KHz , VBW:100KHz
1xEV-DO Sec. 800 (BC 10)	450	817.25	1.461	1.2869	RBW:30KHz , VBW:100KHz
	560	820.00	1.446	1.2827	RBW:30KHz , VBW:100KHz
	670	822.75	1.456	1.2795	RBW:30KHz , VBW:100KHz

5.7. Test Graphs

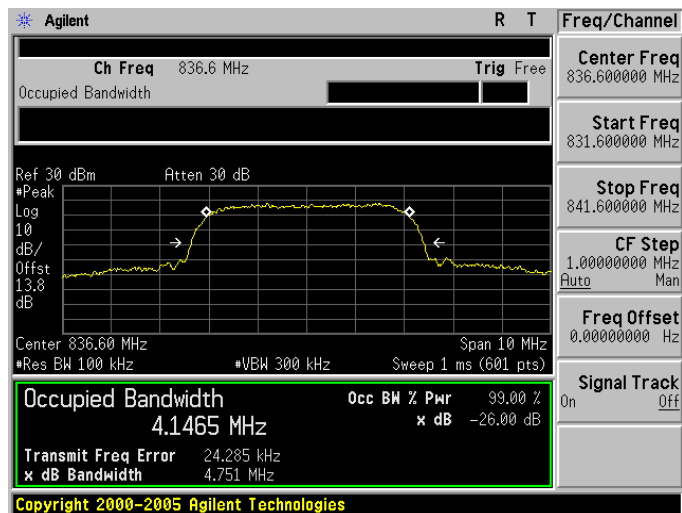
Mode 1: WCDMA Band II Link Mode	
1850.20 MHz	 Agilent R T Freq/Channel Ch Freq 1.8524 GHz Trig Free Center Freq 1.85240000 GHz Start Freq 1.84740000 GHz Stop Freq 1.85740000 GHz CF Step 1.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB #Peak Log 10 dB/Offst 14.3 dB Center 1.852 40 GHz Span 10 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts) Occupied Bandwidth 4.1615 MHz Occ BH % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 2.274 kHz x dB Bandwidth 4.771 MHz Copyright 2000-2005 Agilent Technologies
1880.00 MHz	 Agilent R T Freq/Channel Ch Freq 1.88 GHz Trig Free Center Freq 1.88000000 GHz Start Freq 1.87500000 GHz Stop Freq 1.88500000 GHz CF Step 1.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB #Peak Log 10 dB/Offst 14.3 dB Center 1.880 00 GHz Span 10 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts) Occupied Bandwidth 4.1458 MHz Occ BH % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -3.848 kHz x dB Bandwidth 4.755 MHz Copyright 2000-2005 Agilent Technologies
1909.80 MHz	 Agilent R T Freq/Channel Ch Freq 1.9076 GHz Trig Free Center Freq 1.90760000 GHz Start Freq 1.90260000 GHz Stop Freq 1.91260000 GHz CF Step 1.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB #Peak Log 10 dB/Offst 14.3 dB Center 1.907 60 GHz Span 10 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts) Occupied Bandwidth 4.1474 MHz Occ BH % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -13.025 kHz x dB Bandwidth 4.696 MHz Copyright 2000-2005 Agilent Technologies

Mode 2: WCDMA Band V Link Mode

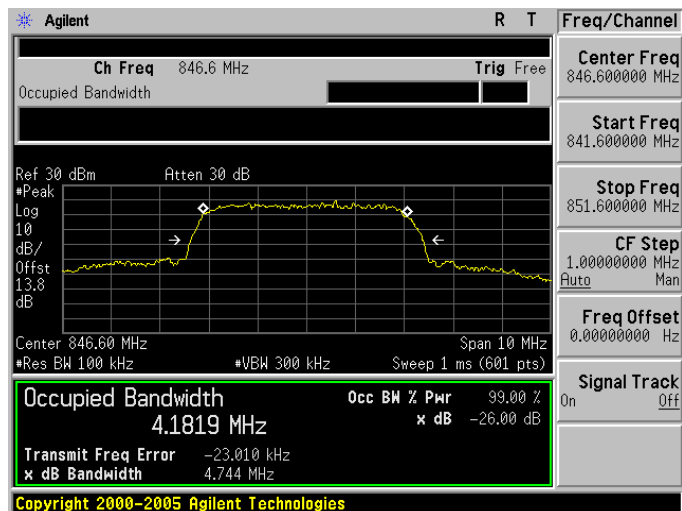
826.4 MHz



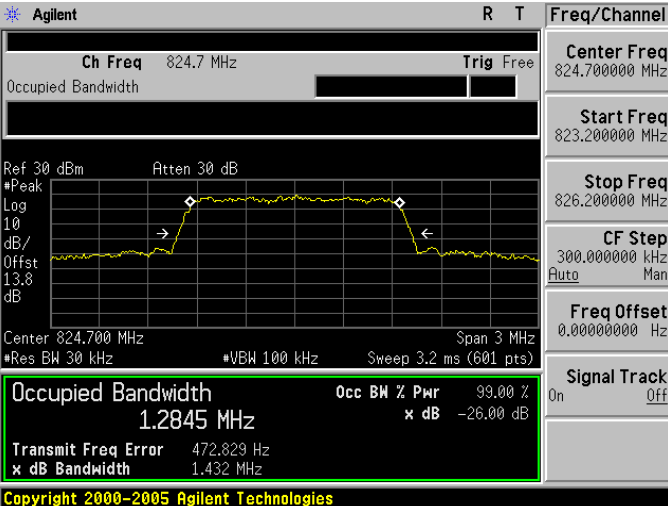
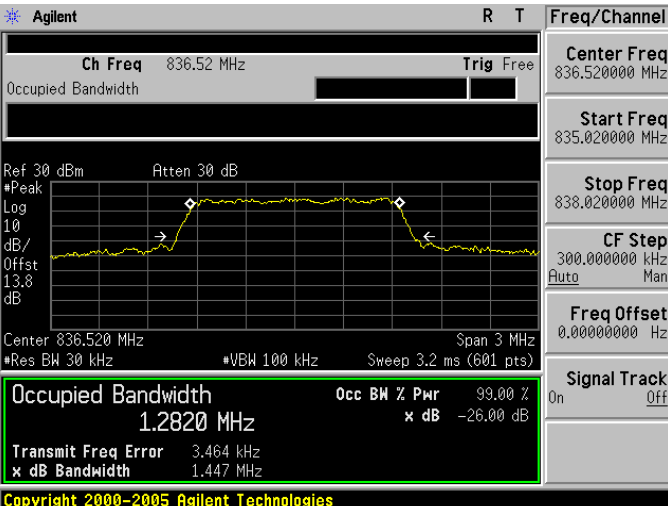
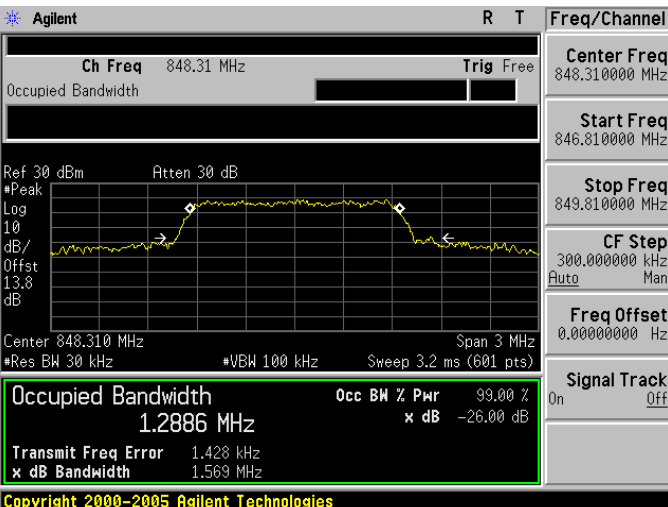
836.6 MHz



846.6 MHz

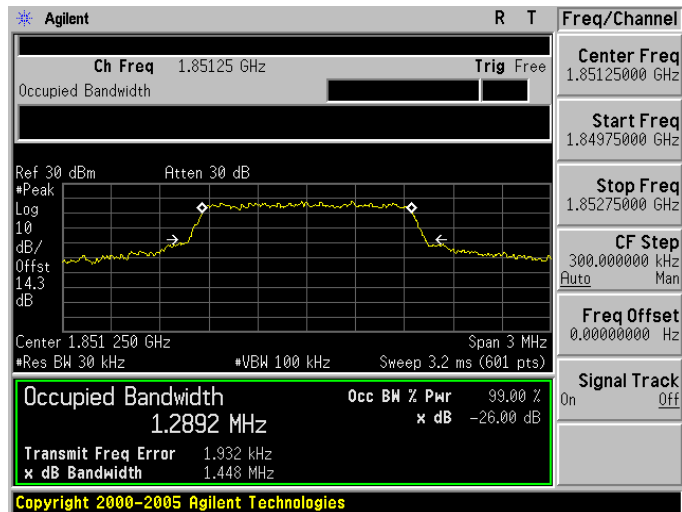


Mode 3.: CDMA 850 (BC 0) Link Mode

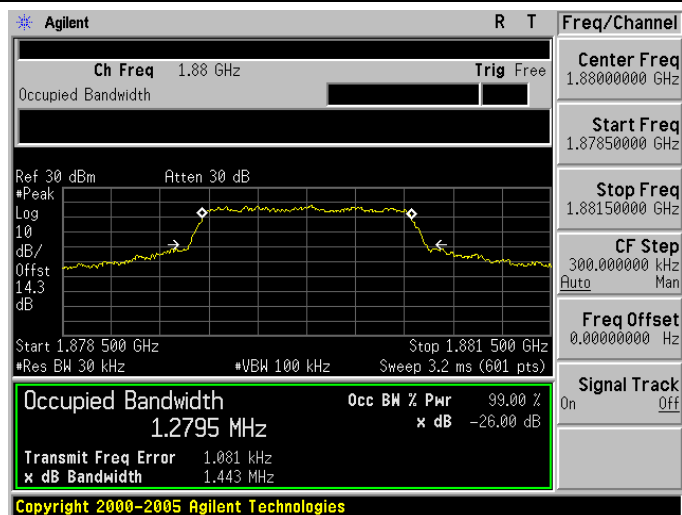
824.70	 Agilent R T Freq/Channel Ch Freq 824.7 MHz Trig Free Center Freq 824.700000 MHz Start Freq 823.200000 MHz Stop Freq 826.200000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 824.700 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2845 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 472.829 Hz x dB Bandwidth 1.432 MHz Copyright 2000-2005 Agilent Technologies
836.52	 Agilent R T Freq/Channel Ch Freq 836.52 MHz Trig Free Center Freq 836.520000 MHz Start Freq 835.020000 MHz Stop Freq 838.020000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 836.520 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2820 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.464 kHz x dB Bandwidth 1.447 MHz Copyright 2000-2005 Agilent Technologies
848.31	 Agilent R T Freq/Channel Ch Freq 848.31 MHz Trig Free Center Freq 848.310000 MHz Start Freq 846.810000 MHz Stop Freq 849.810000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 848.310 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2886 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 1.428 kHz x dB Bandwidth 1.569 MHz Copyright 2000-2005 Agilent Technologies

Mode 4: CDMA 1900 (BC 1) Link Mode

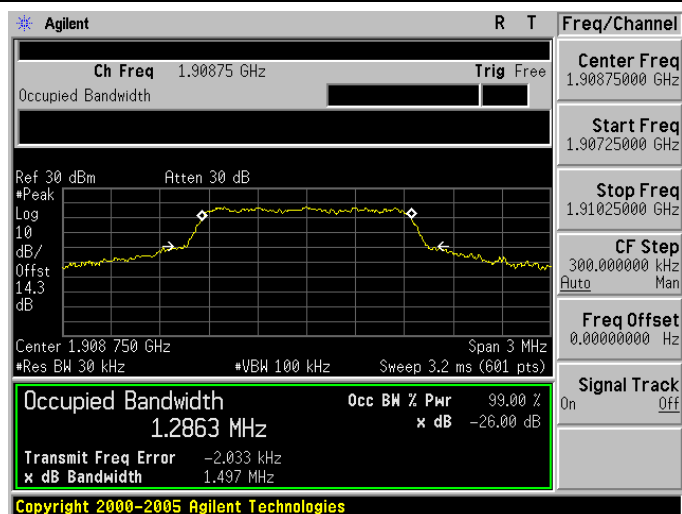
1851.25



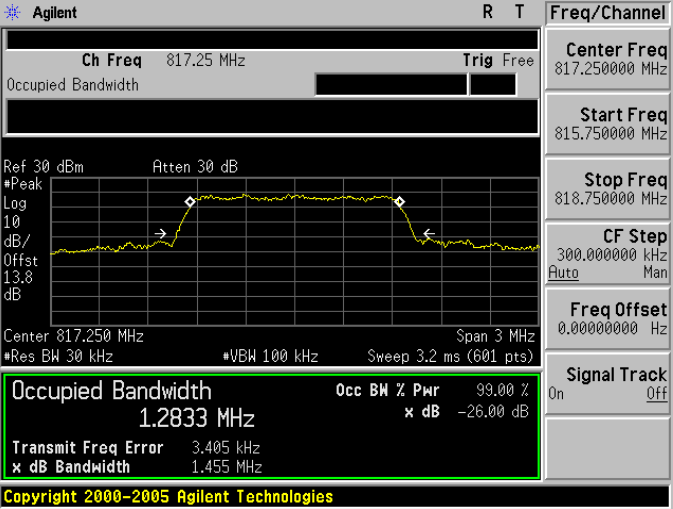
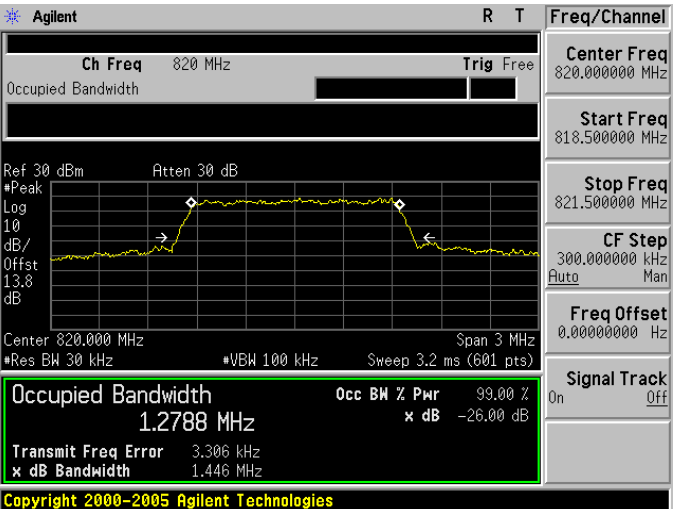
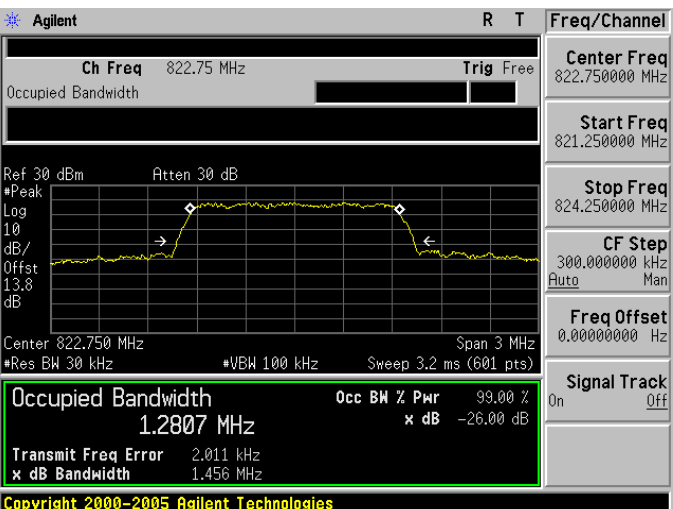
1880.00



1908.75

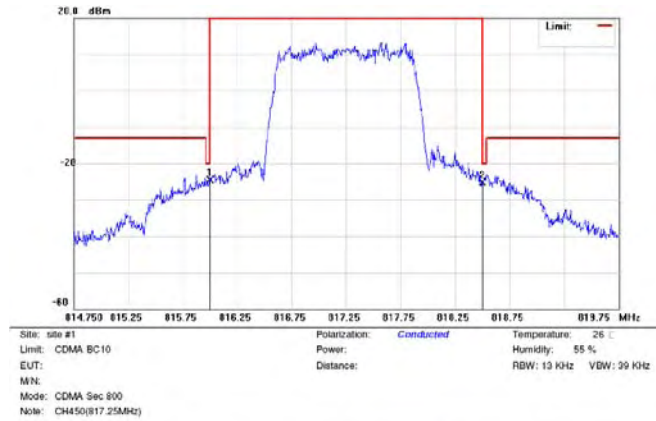


Mode 5: CDMA Sec. 800 (BC 10) Link Mode

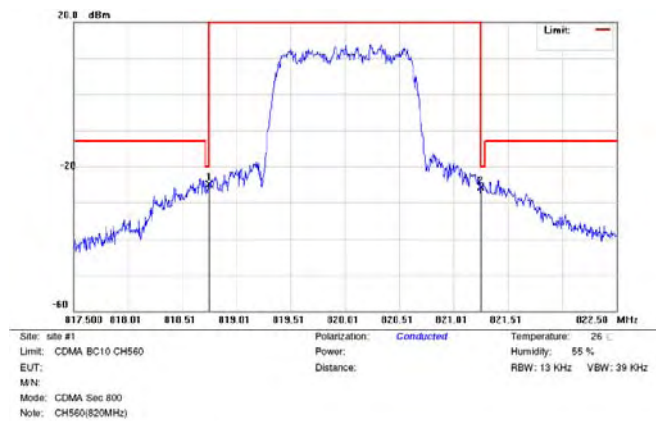
817.25	 Agilent R T Freq/Channel Ch Freq 817.25 MHz Trig Free Center Freq 817.250000 MHz Start Freq 815.750000 MHz Stop Freq 818.750000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 817.250 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2833 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.405 kHz x dB Bandwidth 1.455 MHz Copyright 2000-2005 Agilent Technologies
820.00	 Agilent R T Freq/Channel Ch Freq 820 MHz Trig Free Center Freq 820.000000 MHz Start Freq 818.500000 MHz Stop Freq 821.500000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 820.000 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2788 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.306 kHz x dB Bandwidth 1.446 MHz Copyright 2000-2005 Agilent Technologies
822.75	 Agilent R T Freq/Channel Ch Freq 822.75 MHz Trig Free Center Freq 822.750000 MHz Start Freq 821.250000 MHz Stop Freq 824.250000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 822.750 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2807 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 2.011 kHz x dB Bandwidth 1.456 MHz Copyright 2000-2005 Agilent Technologies

Mode 5: CDMA Sec. 800 (BC 10) Link Mode

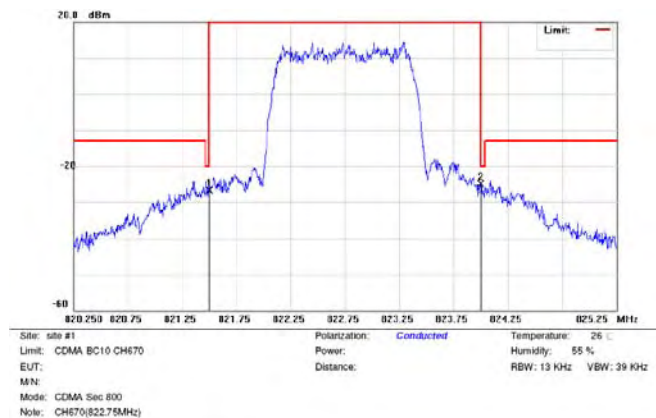
817.25



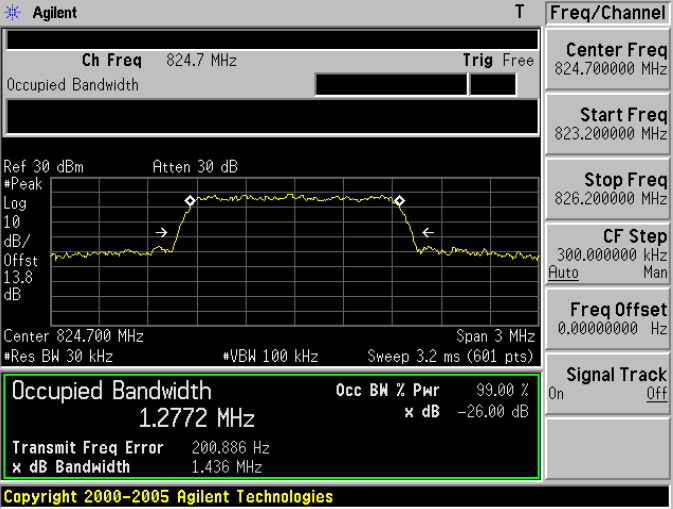
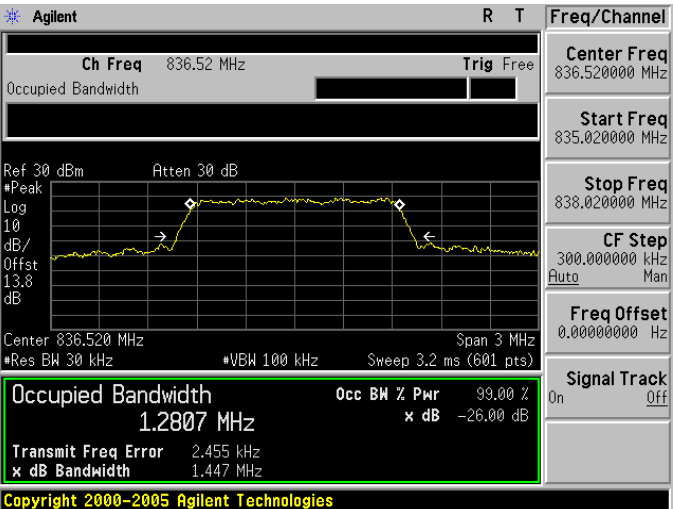
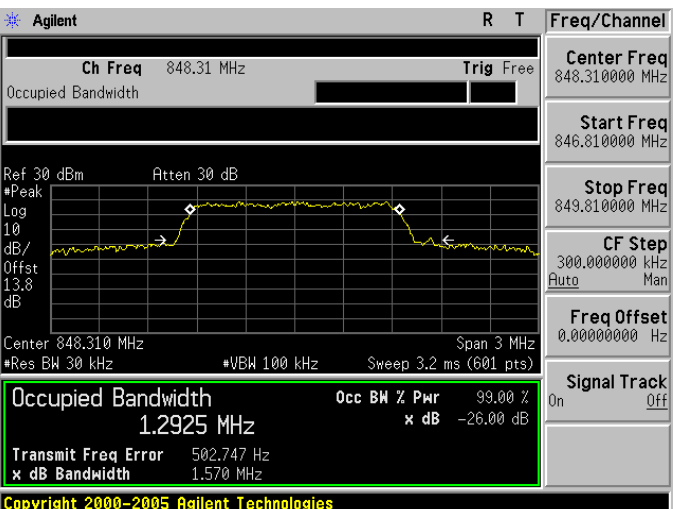
820.00



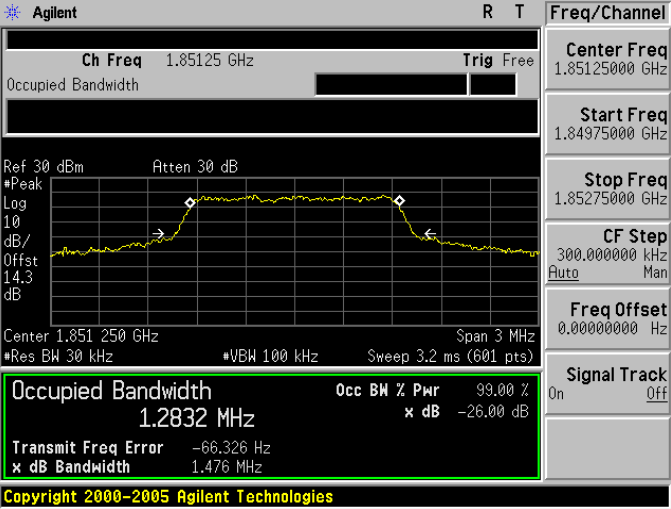
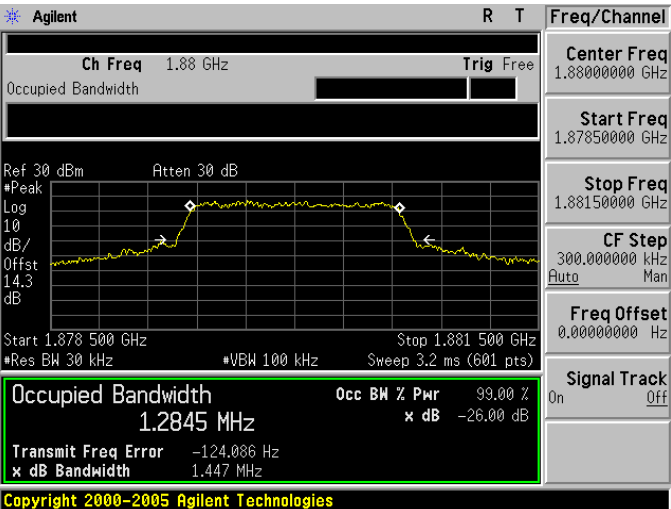
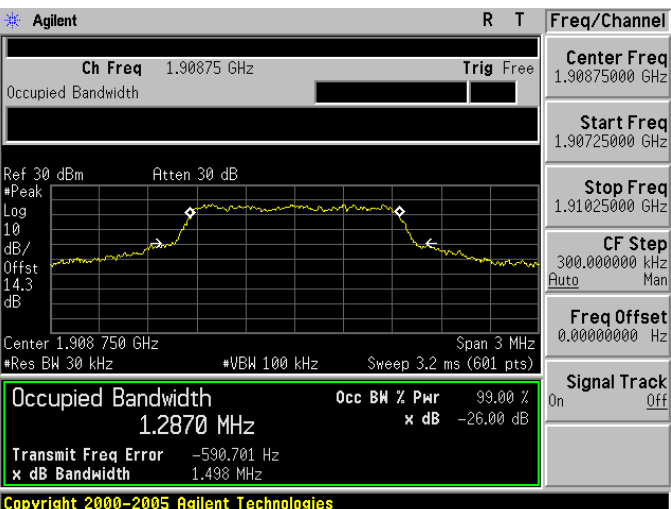
822.75



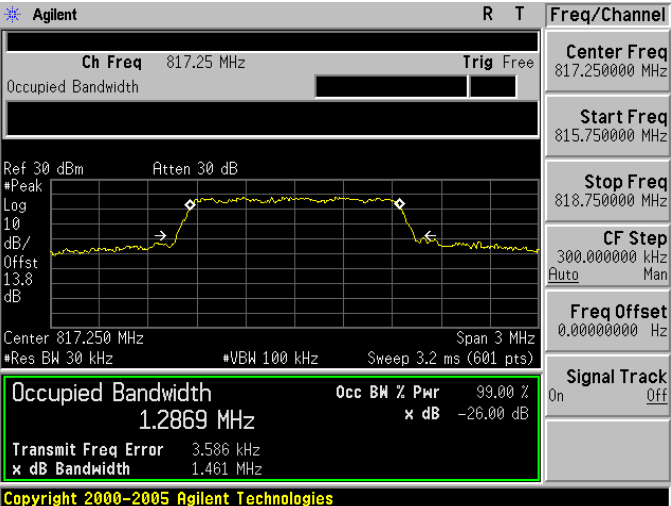
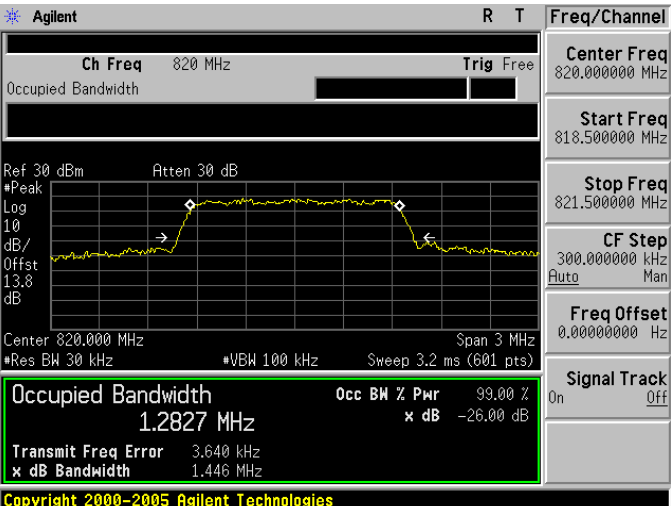
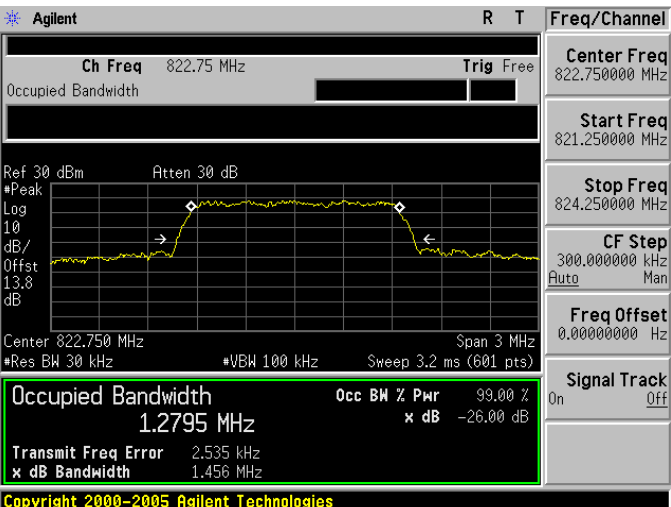
Mode 6: 1xEV-DO 850 (BC 0) Link Mode

824.70	 Agilent T Ch Freq 824.7 MHz Trig Free Center Freq 824.700000 MHz Start Freq 823.200000 MHz Stop Freq 826.200000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 824.700 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2772 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 200.886 Hz x dB Bandwidth 1.436 MHz Copyright 2000-2005 Agilent Technologies
836.52	 Agilent R T Ch Freq 836.52 MHz Trig Free Center Freq 836.520000 MHz Start Freq 835.020000 MHz Stop Freq 838.020000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 836.520 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2807 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 2.455 kHz x dB Bandwidth 1.447 MHz Copyright 2000-2005 Agilent Technologies
848.31	 Agilent R T Ch Freq 848.31 MHz Trig Free Center Freq 848.310000 MHz Start Freq 846.810000 MHz Stop Freq 849.810000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 848.310 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2925 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 502.747 Hz x dB Bandwidth 1.570 MHz Copyright 2000-2005 Agilent Technologies

Mode 7: 1xEV-DO 1900 (BC 1) Link Mode

1851.25	 Agilent R T Freq/Channel Ch Freq 1.85125 GHz Trig Free Center Freq 1.85125000 GHz Start Freq 1.84975000 GHz Stop Freq 1.85275000 GHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB *Peak Log 10 dB/Offst 14.3 dB Center 1.851 250 GHz Span 3 MHz *Res BW 30 kHz *VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2832 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -66.326 Hz x dB Bandwidth 1.476 MHz Copyright 2000-2005 Agilent Technologies
1880.00	 Agilent R T Freq/Channel Ch Freq 1.88 GHz Trig Free Center Freq 1.88000000 GHz Start Freq 1.87850000 GHz Stop Freq 1.88150000 GHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB *Peak Log 10 dB/Offst 14.3 dB Start 1.878 500 GHz Stop 1.881 500 GHz *Res BW 30 kHz *VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2845 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -124.086 Hz x dB Bandwidth 1.447 MHz Copyright 2000-2005 Agilent Technologies
1908.75	 Agilent R T Freq/Channel Ch Freq 1.90875 GHz Trig Free Center Freq 1.90875000 GHz Start Freq 1.90725000 GHz Stop Freq 1.91025000 GHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB *Peak Log 10 dB/Offst 14.3 dB Center 1.908 750 GHz Span 3 MHz *Res BW 30 kHz *VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2870 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -590.701 Hz x dB Bandwidth 1.498 MHz Copyright 2000-2005 Agilent Technologies

Mode 8: 1xEV-DO Sec. 800 (BC 10) Link Mode

817.25	 Agilent R T Freq/Channel Ch Freq 817.25 MHz Trig Free Center Freq 817.250000 MHz Start Freq 815.750000 MHz Stop Freq 818.750000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 817.250 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2869 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.586 kHz x dB Bandwidth 1.461 MHz Copyright 2000-2005 Agilent Technologies
820.00	 Agilent R T Freq/Channel Ch Freq 820 MHz Trig Free Center Freq 820.000000 MHz Start Freq 818.500000 MHz Stop Freq 821.500000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 820.000 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2827 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.640 kHz x dB Bandwidth 1.446 MHz Copyright 2000-2005 Agilent Technologies
822.75	 Agilent R T Freq/Channel Ch Freq 822.75 MHz Trig Free Center Freq 822.750000 MHz Start Freq 821.250000 MHz Stop Freq 824.250000 MHz CF Step 300.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Ref 30 dBm Atten 30 dB Peak Log 10 dB/Offst 13.8 dB Center 822.750 MHz Span 3 MHz Res BW 30 kHz VBW 100 kHz Sweep 3.2 ms (601 pts) Occupied Bandwidth 1.2795 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 2.535 kHz x dB Bandwidth 1.456 MHz Copyright 2000-2005 Agilent Technologies

6 Band Edge Test

6.1. Limit

The Band Edge Limit:

§22.917(a), §24.238(a)

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

§90.691

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 $50 + 10\log_{10}(P[\text{Watts}])$ at Band Edge and for all out-of-band emissions within 37.5Khz of Block Edge.

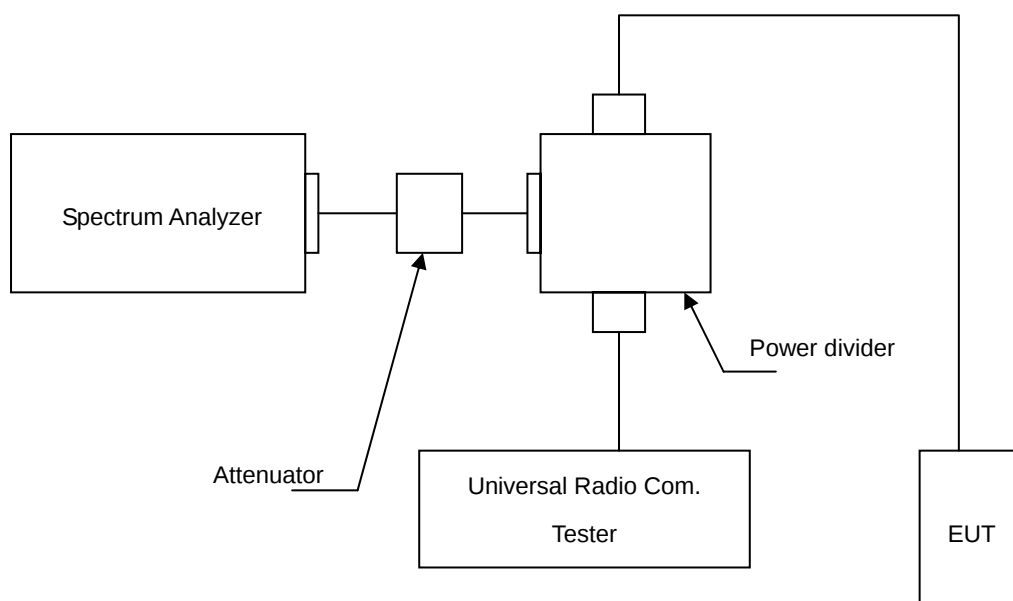
6.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	10/21/2014	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2015	(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



6.4. Test Procedure

The measurement is made according to FCC rules part 22, 24 and 90:

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. RB=10 kHz; VB=30 kHz for GSM system.
 - b. RB=51 kHz; VB=160 kHz for WCDMA system.

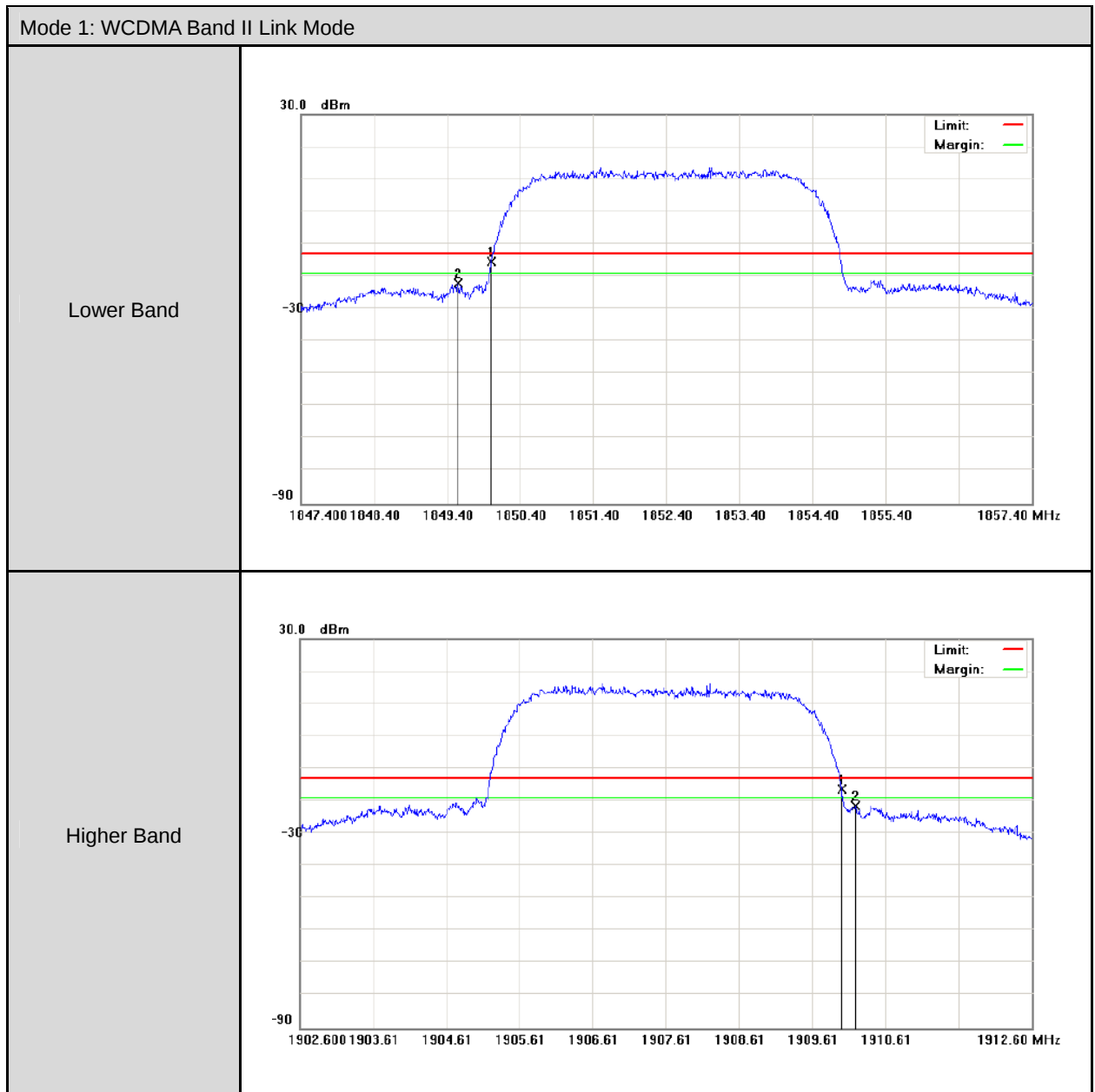
6.5. Uncertainty

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

6.6. Test Result

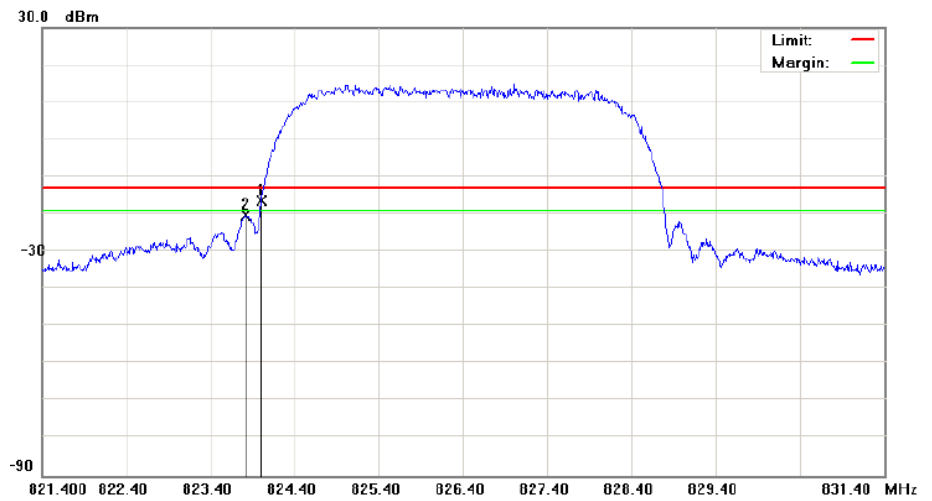
Model Number		AC810S-300				
Test Item		Band Edge				
Date of Test		08/14/2015			Test Site	TE05
Bands		Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
WCDMA Band II	Lower	9262	1850.000	-15.48	-13	Pass
	Higher	9538	1910.000	-16.26	-13	Pass
WCDMA Band V	Lower	4132	824.0000	-16.49	-13	Pass
	Higher	4233	849.0000	-16.47	-13	Pass

6.7. Test Graphs

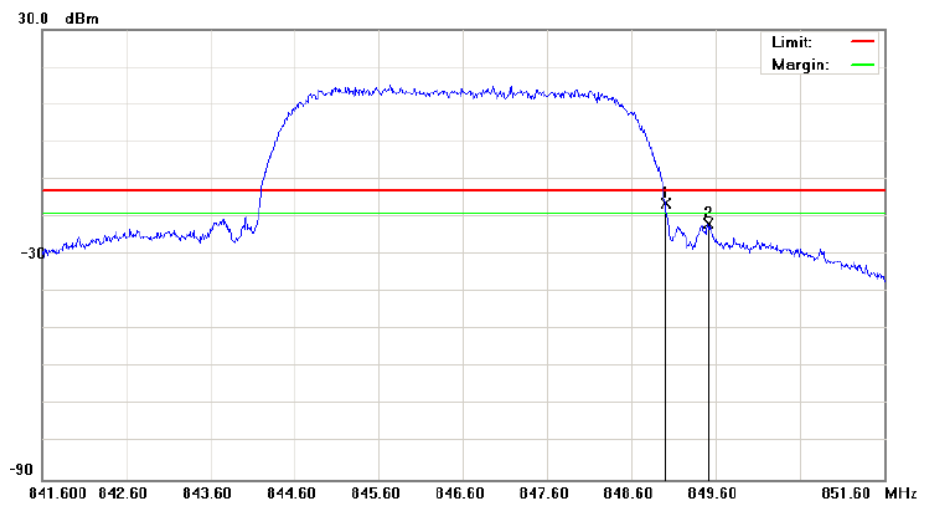


Mode 2: WCDMA Band V Link Mode

Lower Band

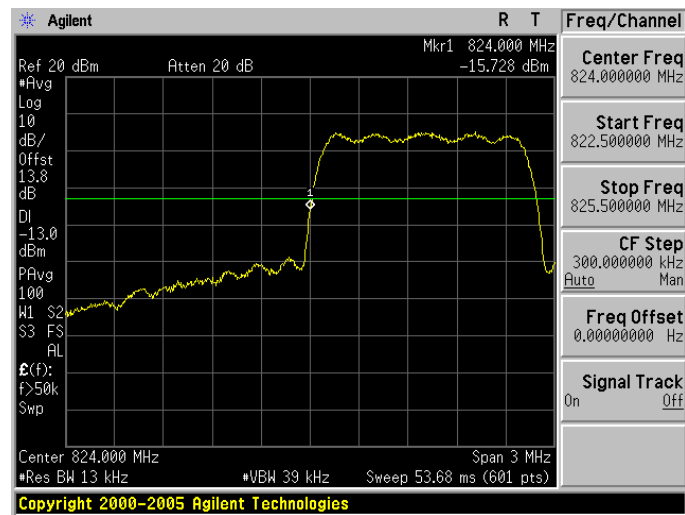


Higher Band

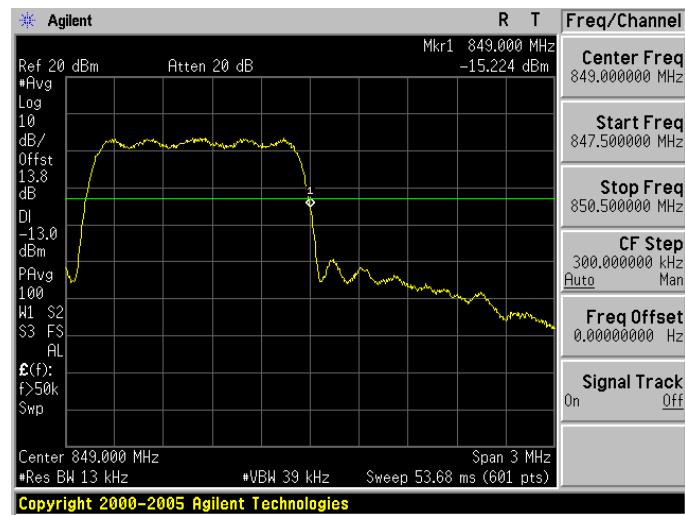


Mode 3.: CDMA 850 (BC 0) Link Mode

Lower Band

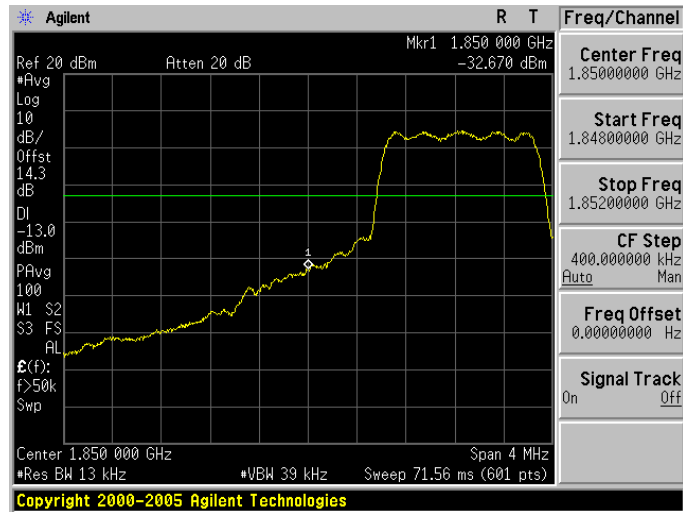


Higher Band



Mode 4: CDMA 1900 (BC 1) Link Mode

Lower Band

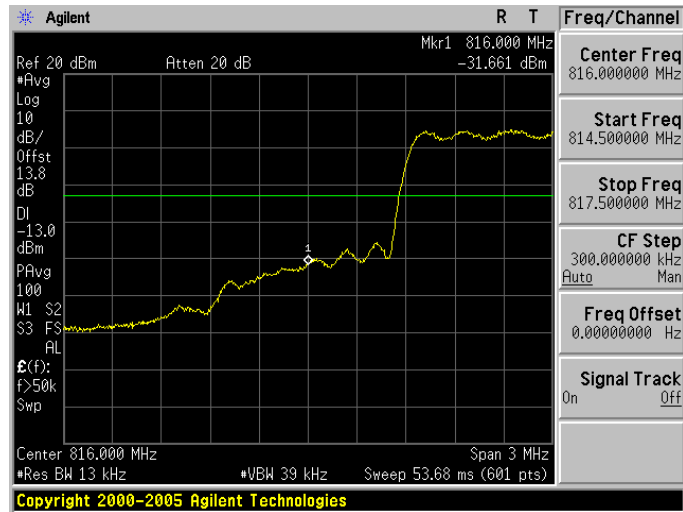


Higher Band

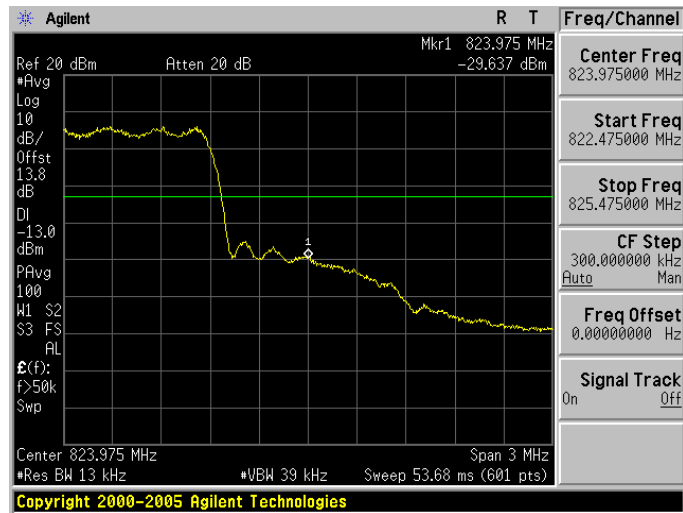


Mode 5: CDMA Sec. 800 (BC 10) Link Mode

Lower Band



Higher Band



7 Conducted Spurious Emission 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 $43 + 10\log(P)$ dB.

7.2. Test Instruments

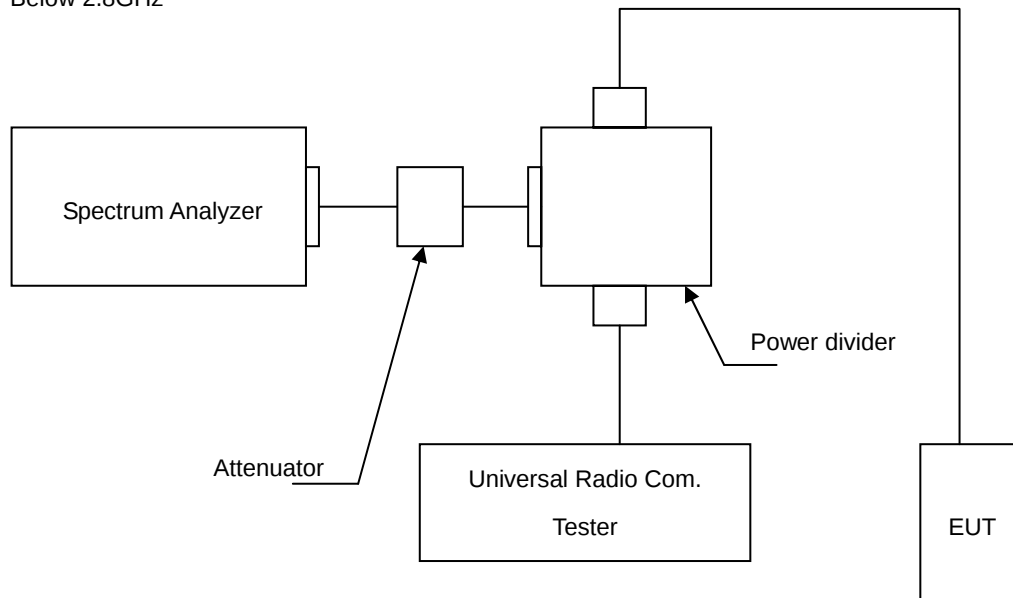
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	10/21/2014	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2015	(1)
Attenuator	RADIAL	R41572000	0603033073	N.C.R.	-----
Power Divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

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

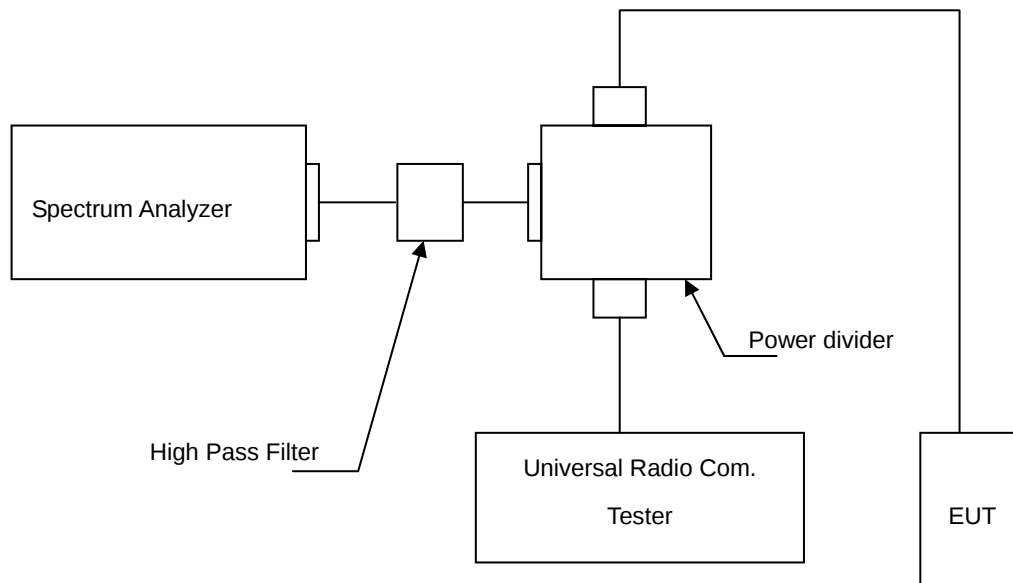
Note: N.C.R. = No Calibration Request.

7.3. Setup

Below 2.8GHz



Above 2.8GHz



7.4. 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.

7.5. Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

7.6. Test Result

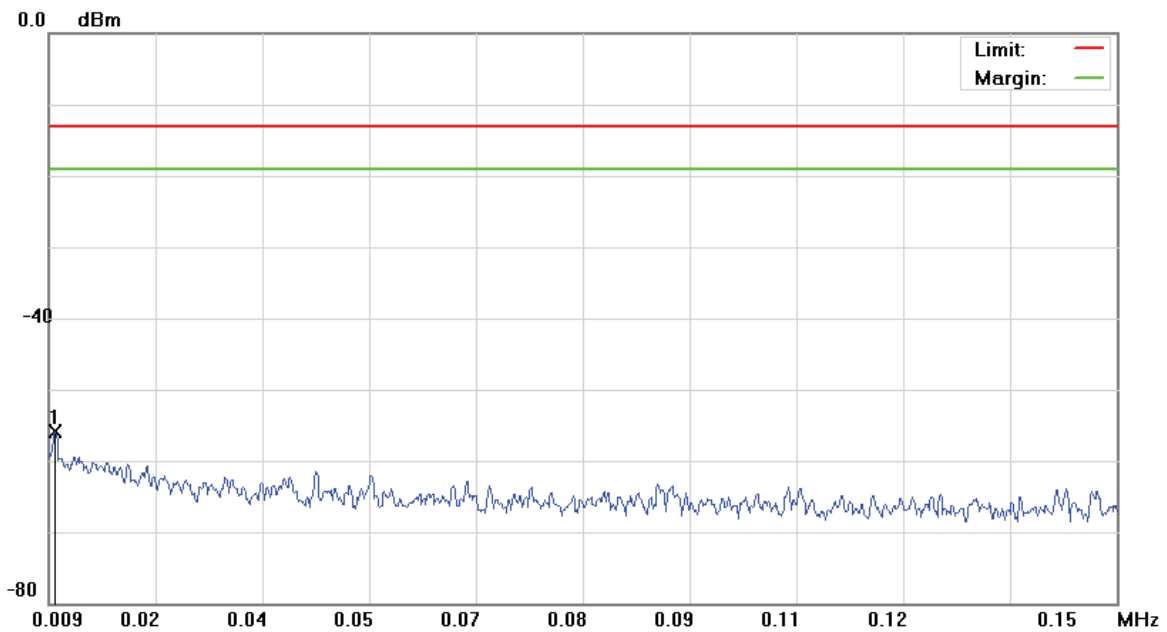
Model Number	AC810S-300		
Test Item	Conducted Emission		
Test Mode	Mode 1 / Mode 2 / Mode 3 / Mode 4 / Mode 5		
Date of Test	08/14/2015 ~ 08/17/2015	Test Site	TE05

File :AC810-300(CH9262)

Data :#1

Date: 2015/8/14

Time: 下午 04:02:00



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: WCDMA Band II

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0098	-67.18	11.33	-55.85	-13.00	-42.85	peak		

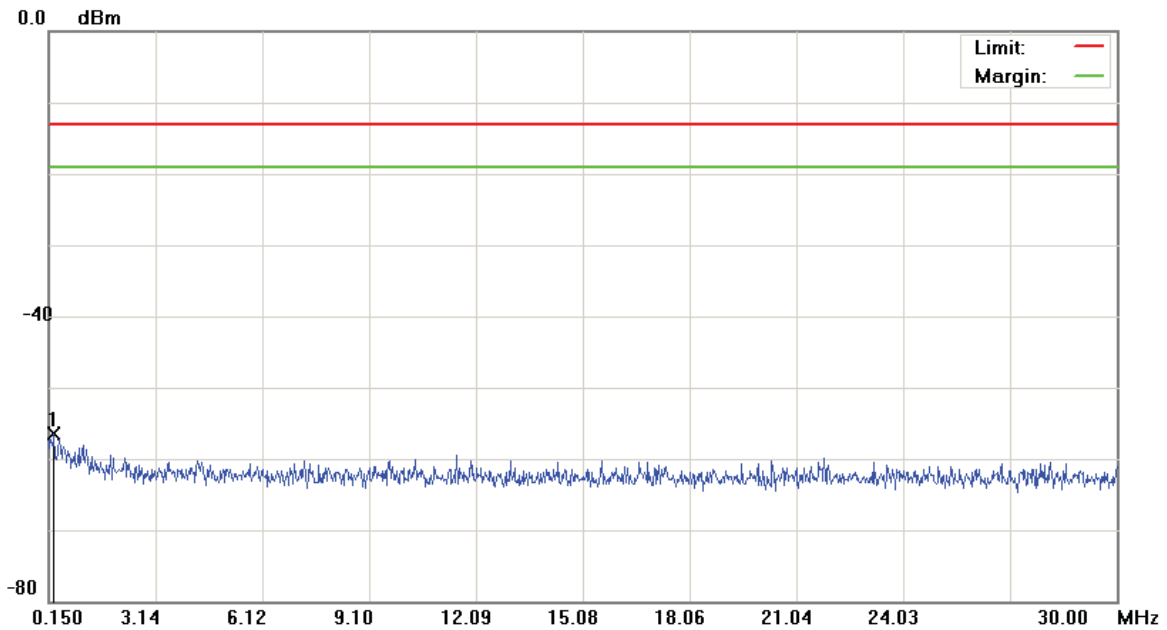
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9262)

Data :#2

Date: 2015/8/14

Time: 下午 04:02:24



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: AC810S-300

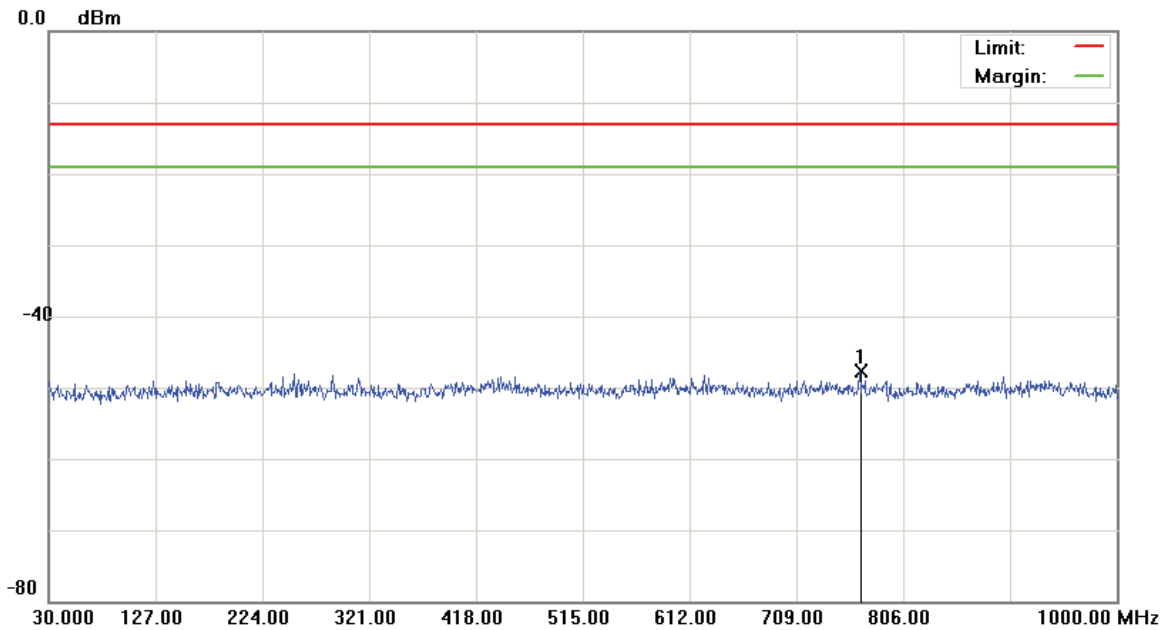
Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2993	-69.06	12.62	-56.44	-13.00	-43.44	peak		

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

File :AC810-300(CH9262) Data :#3 Date: 2015/8/14 Time: 下午 04:02:48



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 100 KHz VBW: 300 KHz
M/N: AC810S-300		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	766.7150	-60.89	13.14	-47.75	-13.00	-34.75	peak		

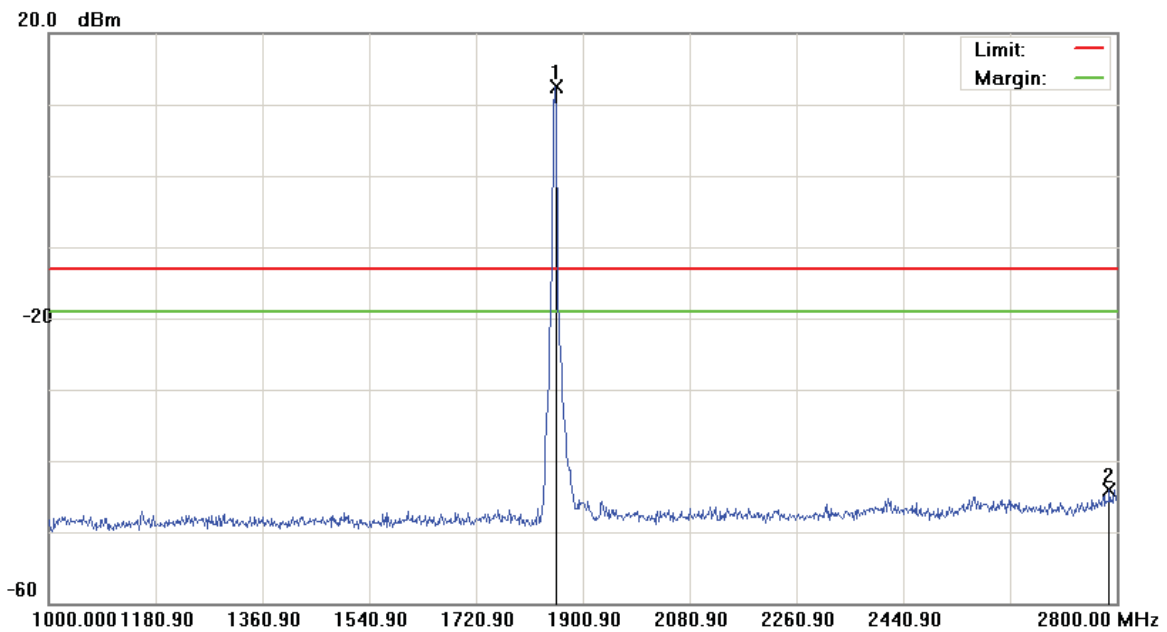
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9262)

Data :#4

Date: 2015/8/14

Time: 下午 04:17:49



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1854.100	8.13	4.28	12.41	-13.00	25.41	peak		Tx
2		2787.400	-49.94	5.89	-44.05	-13.00	-31.05	peak		

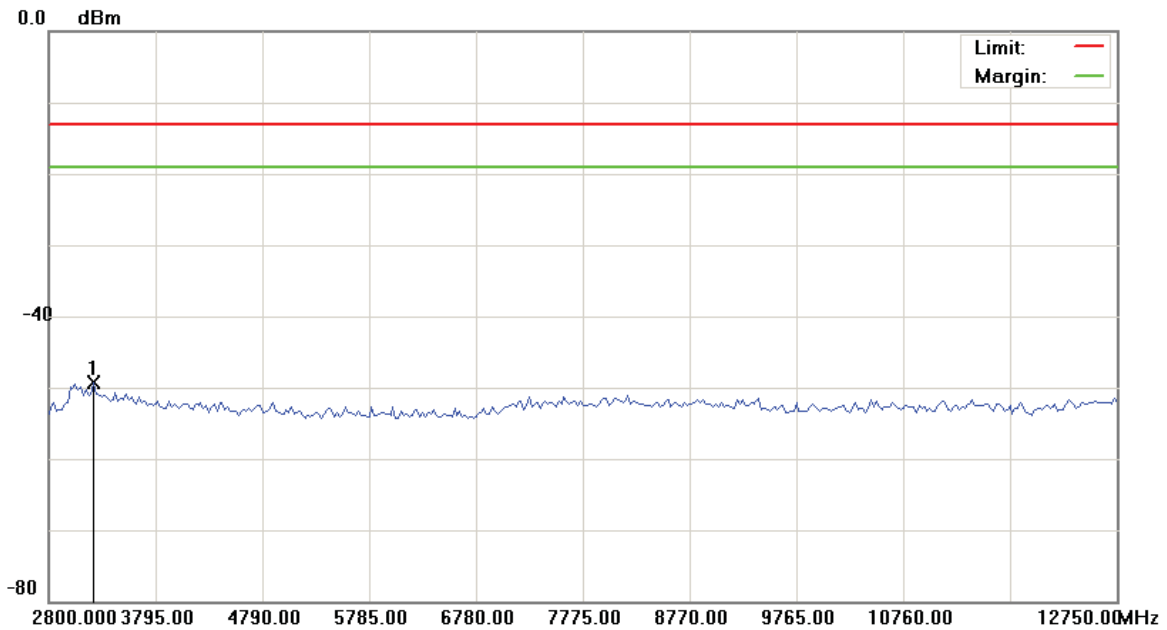
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9262)

Data :#5

Date: 2015/8/14

Time: 下午 04:33:31



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3222.875	-54.54	5.17	-49.37	-13.00	-36.37	peak		

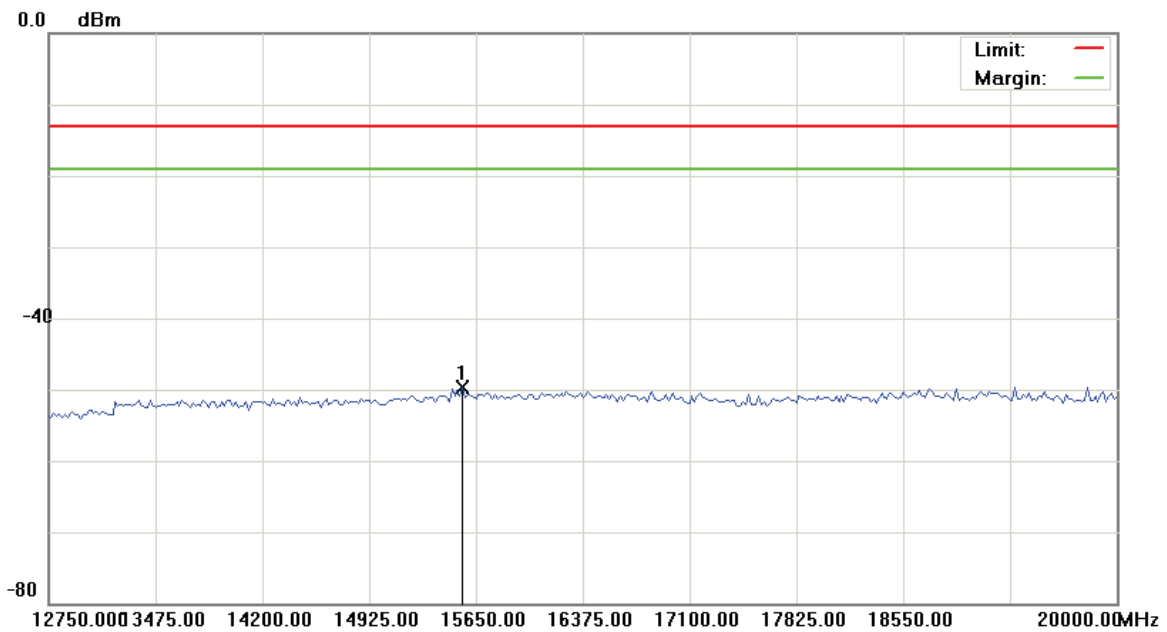
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9262)

Data :#6

Date: 2015/8/14

Time: 下午 04:33:50

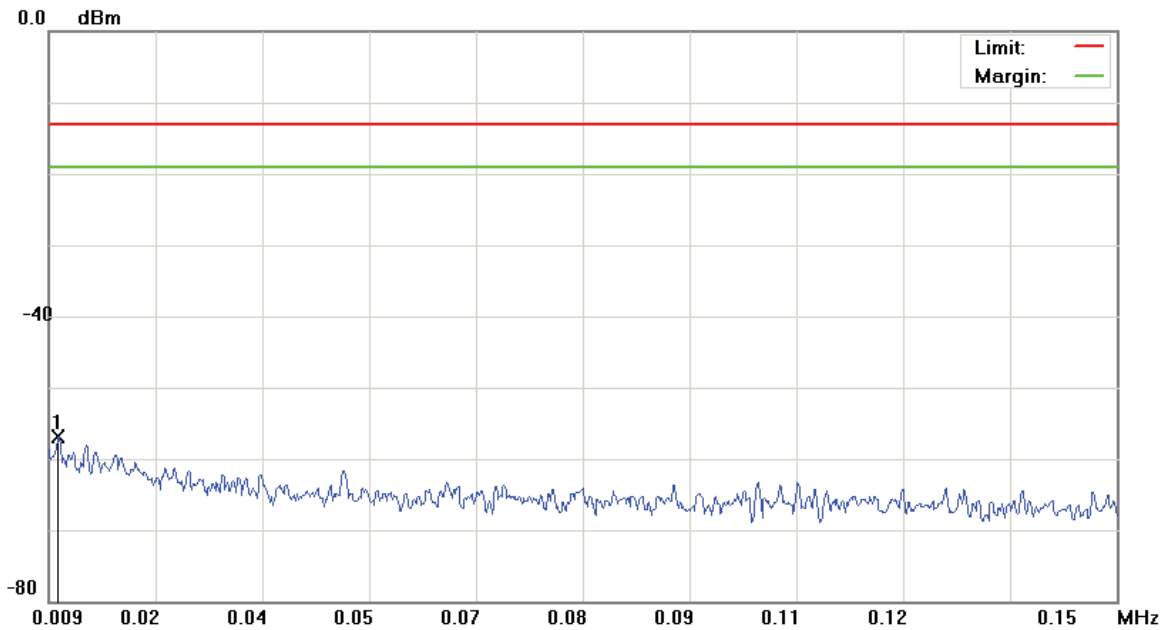


Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band II
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	15559.375	-55.84	6.17	-49.67	-13.00	-36.67	peak		

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

File :AC810-300(CH9400) Data :#1 Date: 2015/8/14 Time: 下午 04:06:16



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
 Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
 EUT: Mobile Hotspot Distance: RBW: 1 KHz VBW: 3 KHz
 M/N: AC810S-300
 Mode: WCDMA Band II
 Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0103	-68.20	11.34	-56.86	-13.00	-43.86	peak		

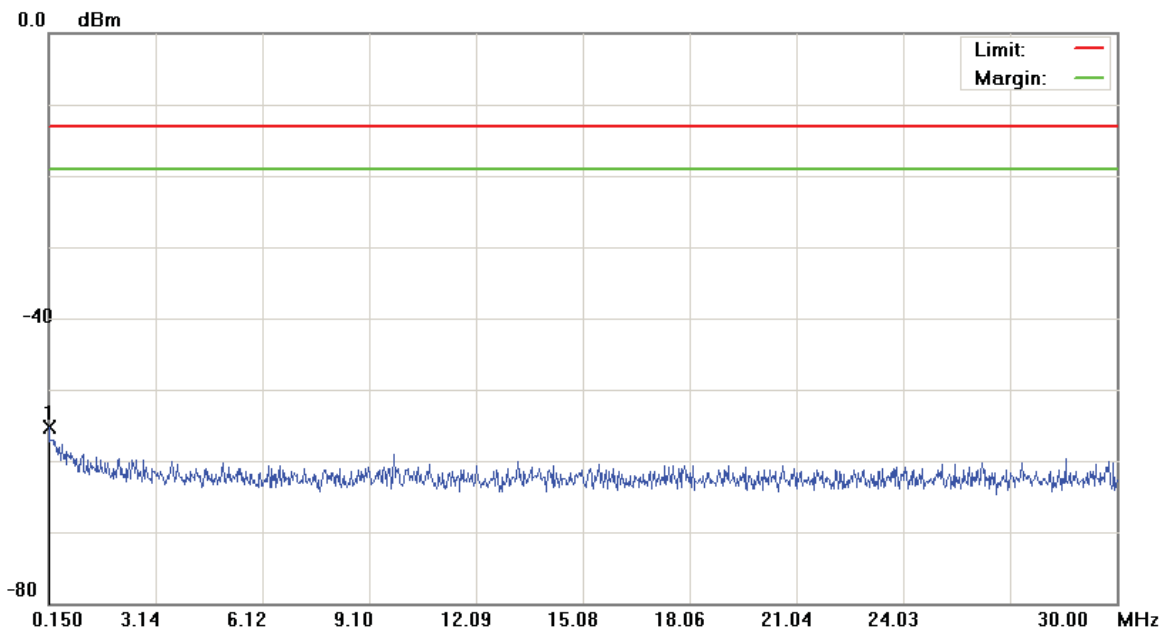
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9400)

Data :#2

Date: 2015/8/14

Time: 下午 04:06:40



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: AC810S-300

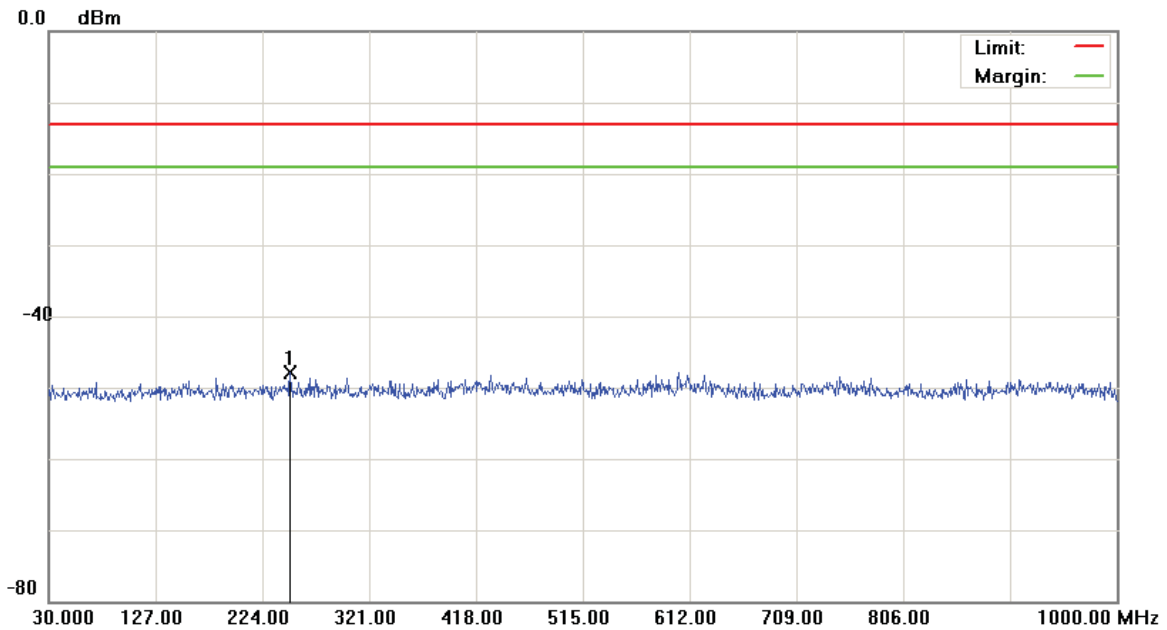
Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1500	-67.69	12.47	-55.22	-13.00	-42.22	peak		

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

File :AC810-300(CH9400) Data :#3 Date: 2015/8/14 Time: 下午 04:07:04

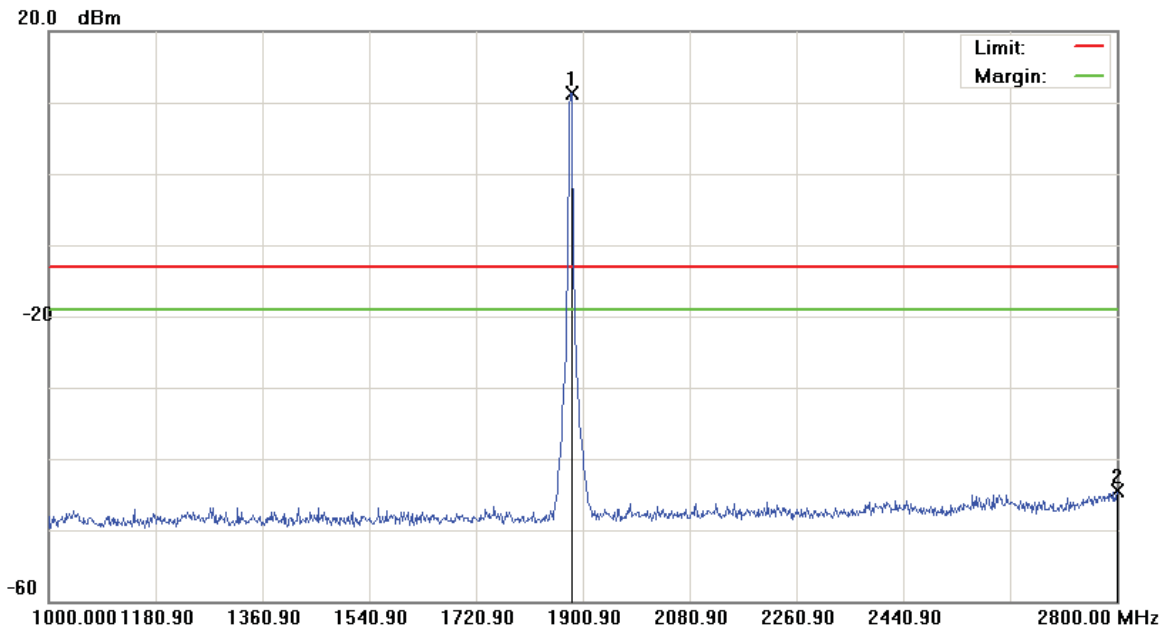


Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 100 KHz VBW: 300 KHz
M/N: AC810S-300
Mode: WCDMA Band II
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	249.2200	-61.15	13.30	-47.85	-13.00	-34.85	peak		

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

File :AC810-300(CH9400) Data :#4 Date: 2015/8/14 Time: 下午 04:19:04

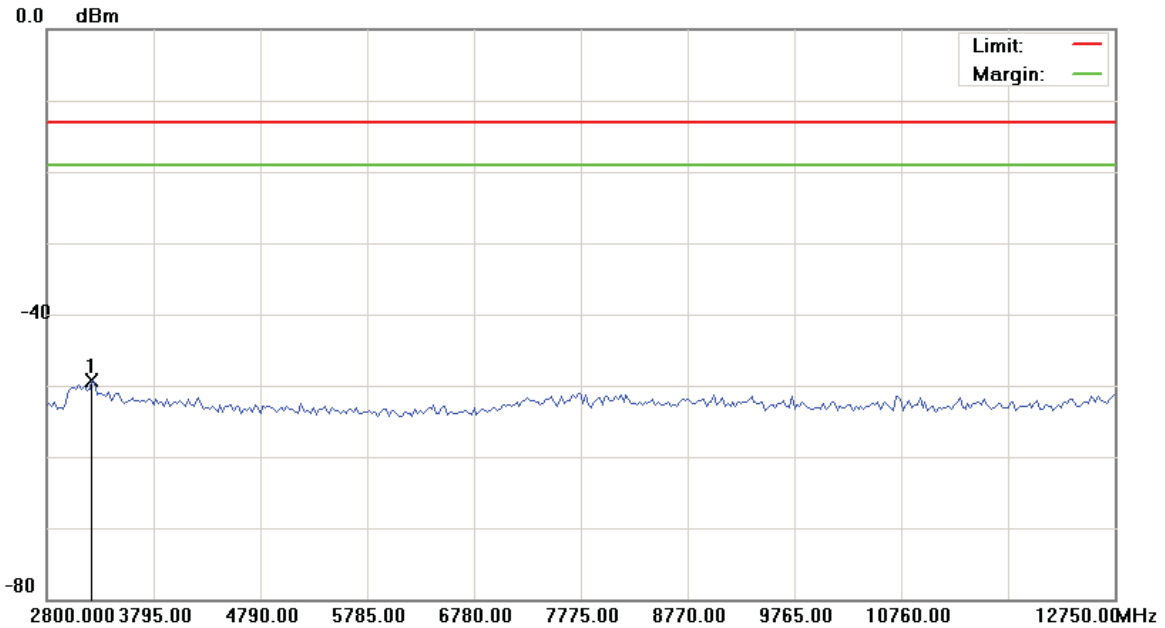


Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band II
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1881.100	6.63	4.74	11.37	-13.00	24.37	peak		Tx
2		2800.000	-50.47	5.91	-44.56	-13.00	-31.56	peak		

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

File :AC810-300(CH9400) Data :#5 Date: 2015/8/14 Time: 下午 04:34:54

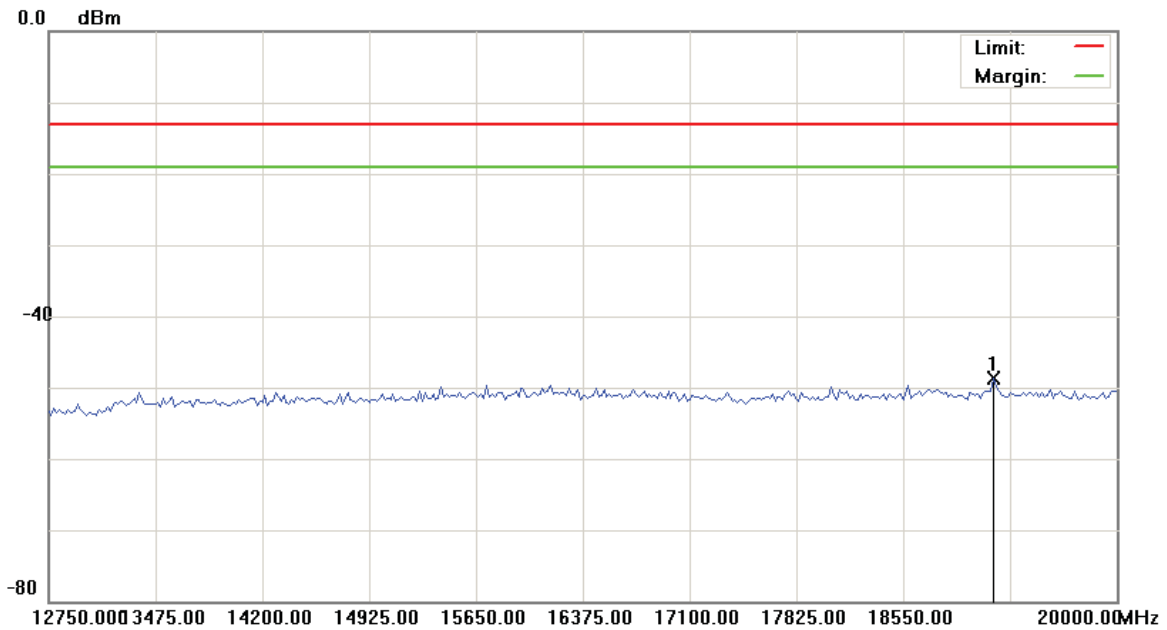


Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band II
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3222.875	-54.51	5.17	-49.34	-13.00	-36.34	peak		

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

File :AC810-300(CH9400) Data :#6 Date: 2015/8/14 Time: 下午 04:35:14



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band II
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	19166.250	-55.99	7.20	-48.79	-13.00	-35.79	peak		

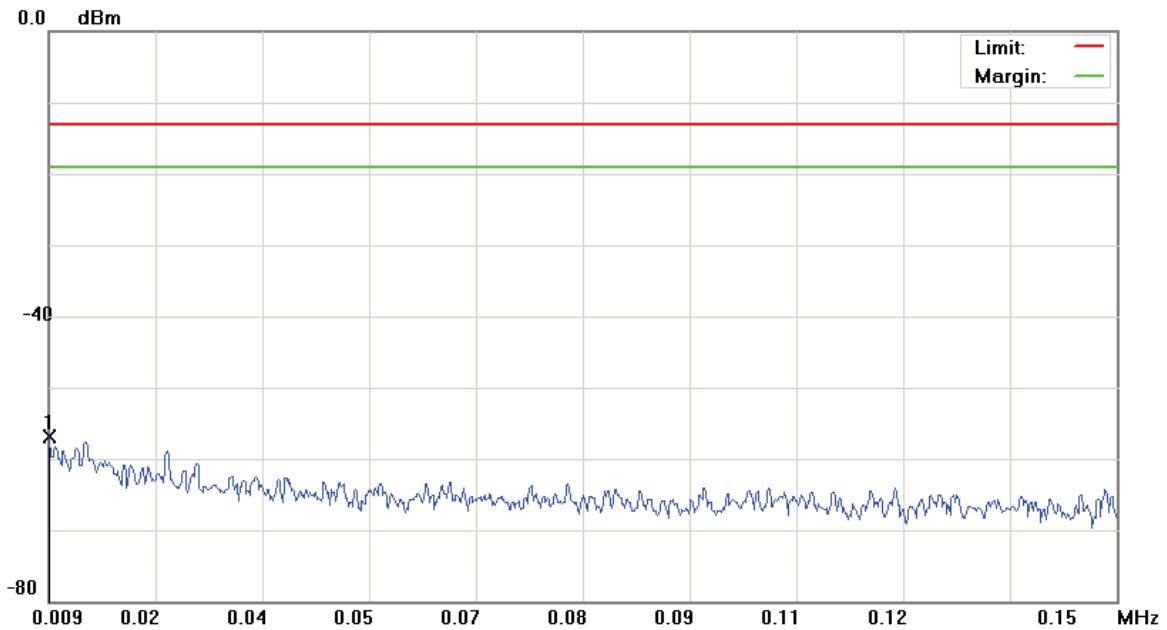
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9538)

Data :#1

Date: 2015/8/14

Time: 下午 04:08:21



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: WCDMA Band II

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-68.24	11.32	-56.92	-13.00	-43.92	peak		

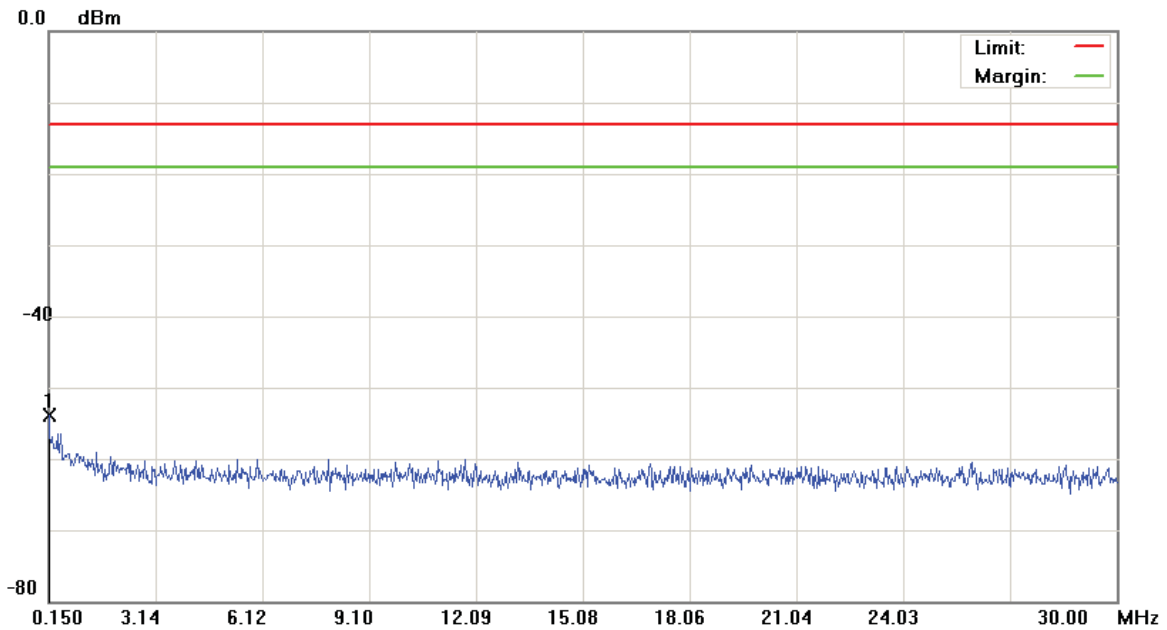
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9538)

Data :#2

Date: 2015/8/14

Time: 下午 04:08:45



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: AC810S-300

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1500	-66.39	12.47	-53.92	-13.00	-40.92	peak		

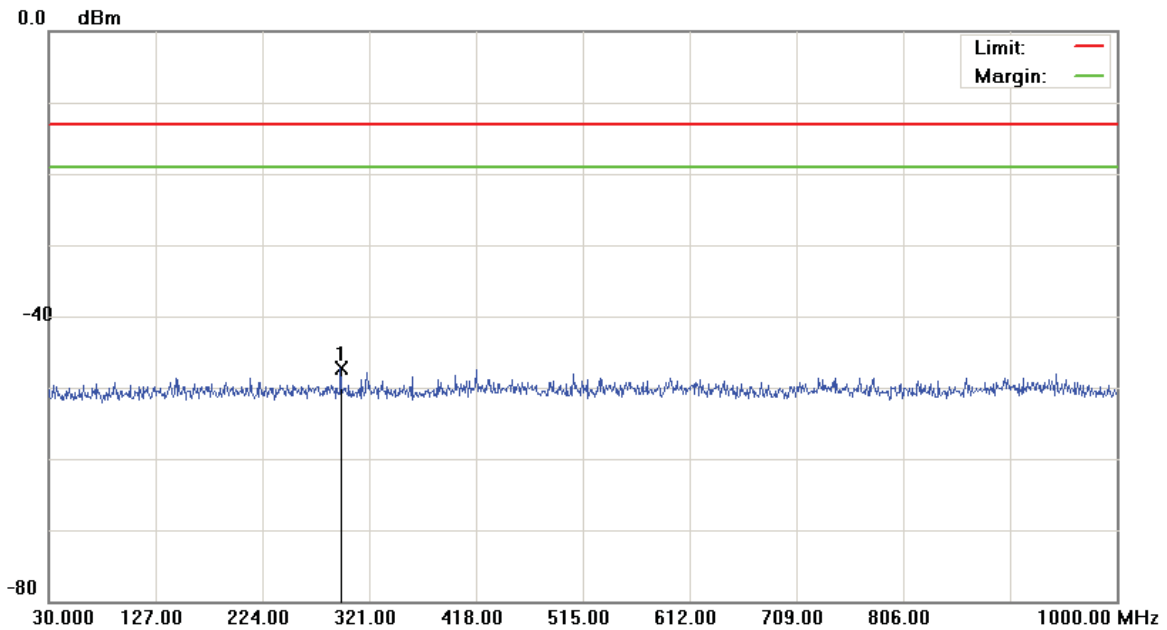
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9538)

Data :#3

Date: 2015/8/14

Time: 下午 04:09:09



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	295.2950	-60.62	13.29	-47.33	-13.00	-34.33	peak		

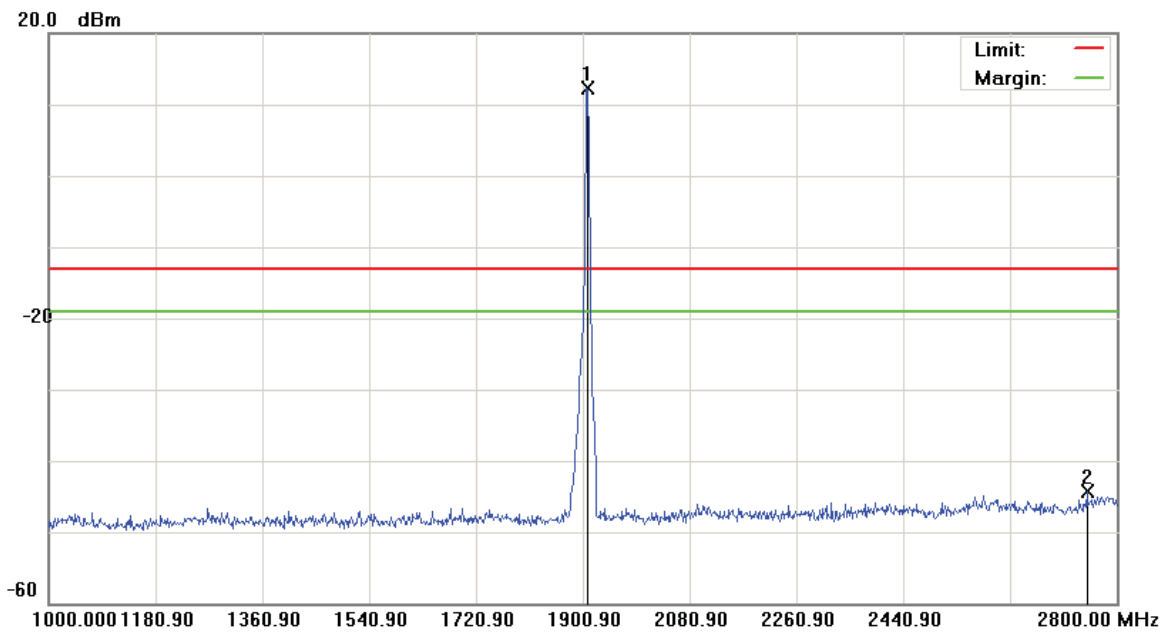
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9538)

Data :#4

Date: 2015/8/14

Time: 下午 04:20:24



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

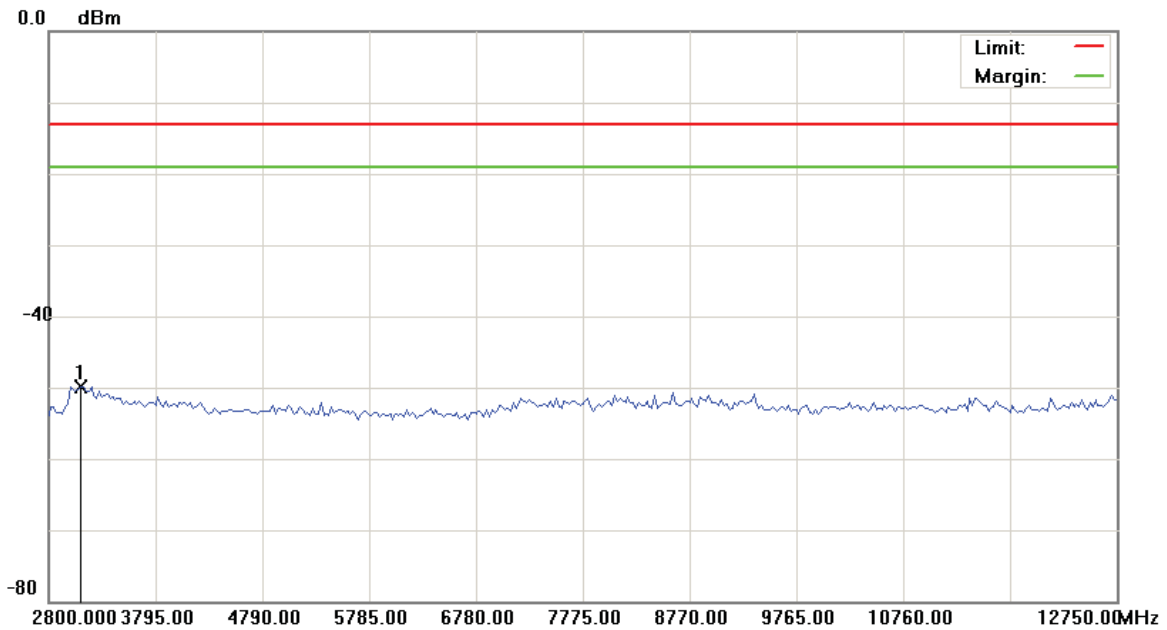
Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1906.300	6.27	6.05	12.32	-13.00	25.32	peak		Tx
2		2750.500	-49.74	5.38	-44.36	-13.00	-31.36	peak		

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

File :AC810-300(CH9538) Data :#5 Date: 2015/8/14 Time: 下午 04:36:00



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
 Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
 EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
 M/N: AC810S-300
 Mode: WCDMA Band II
 Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3098.500	-55.20	5.32	-49.88	-13.00	-36.88	peak		

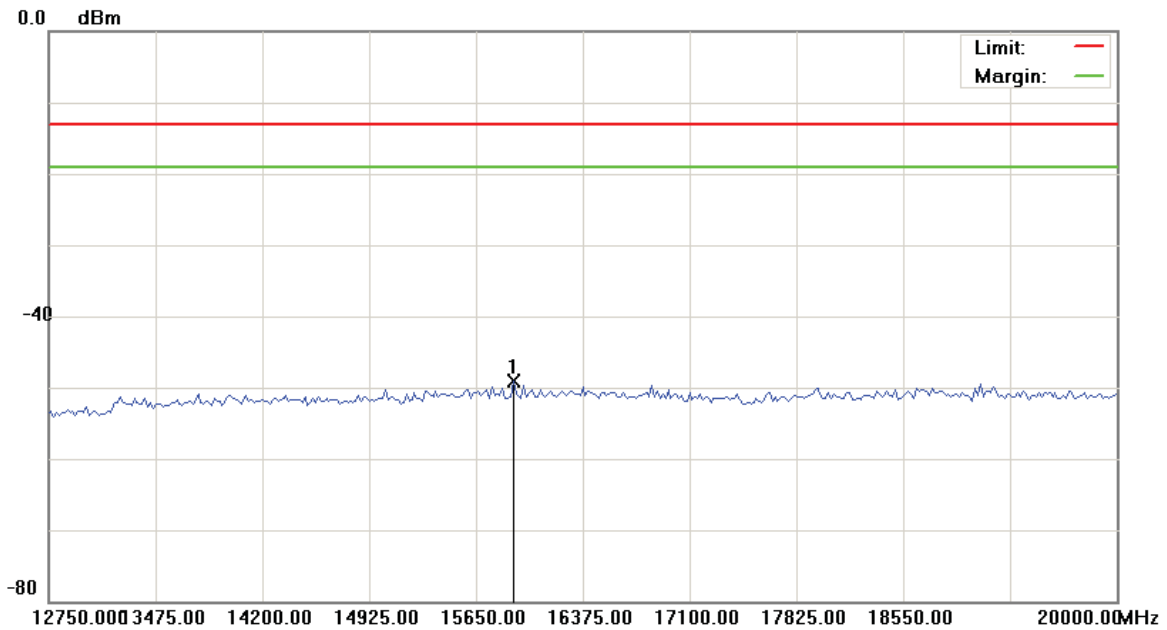
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH9538)

Data :#6

Date: 2015/8/14

Time: 下午 04:36:20



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	15903.750	-55.27	6.27	-49.00	-13.00	-36.00	peak		

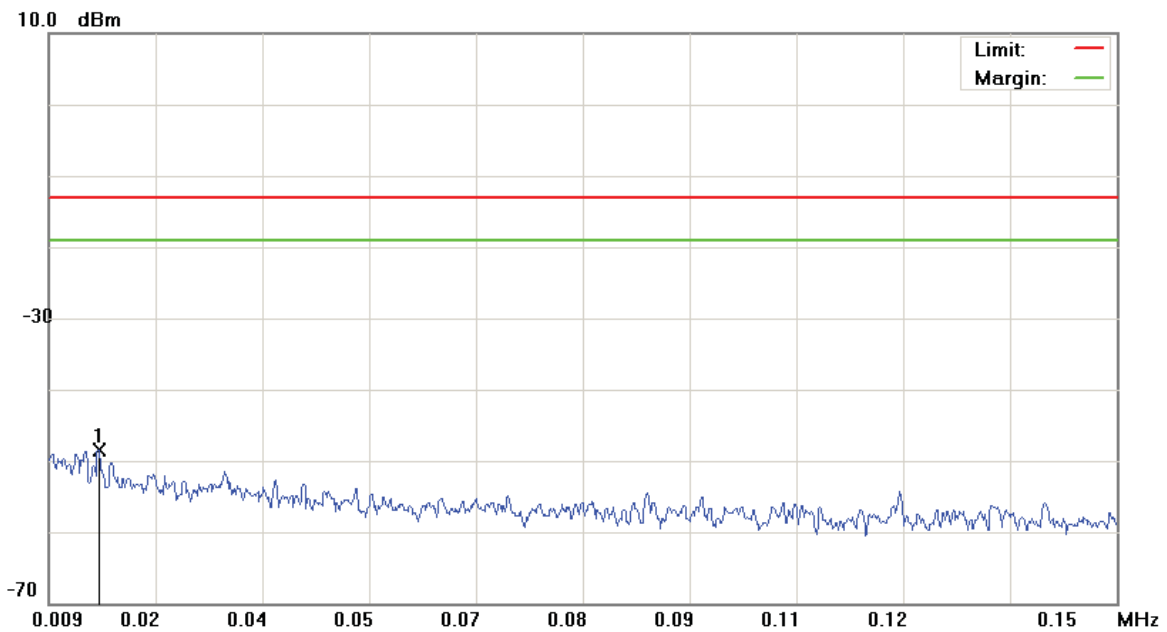
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4132)

Data :#1

Date: 2015/8/14

Time: 下午 04:58:22



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0156	-79.08	30.55	-48.53	-13.00	-35.53	peak		

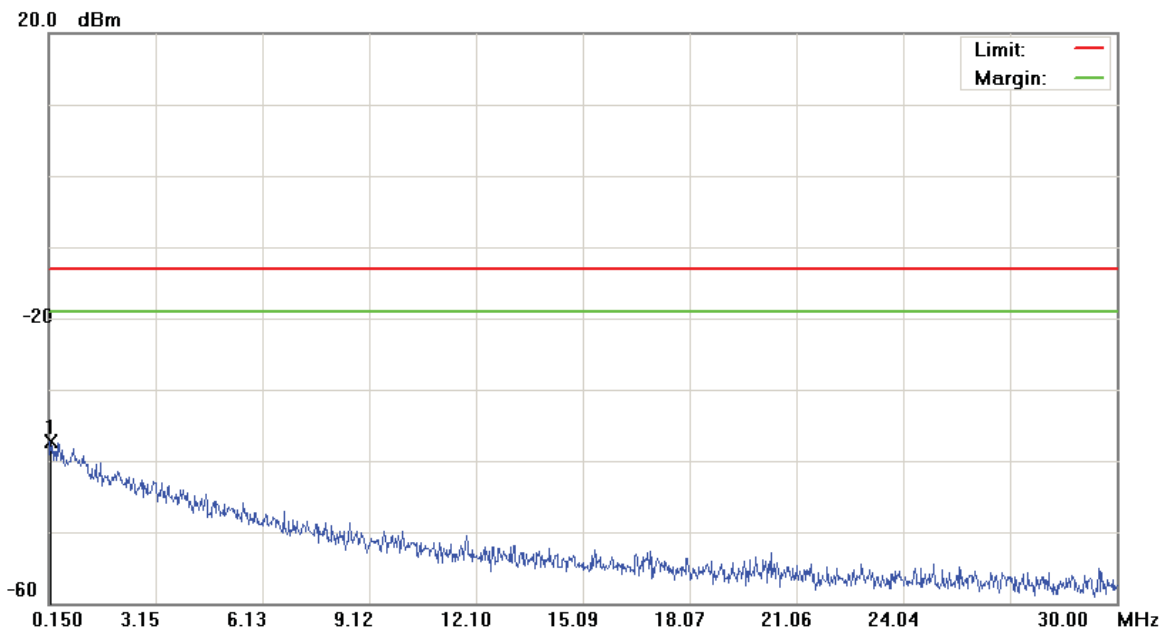
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4132)

Data :#2

Date: 2015/8/14

Time: 下午 04:58:46



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1948	-68.16	30.88	-37.28	-13.00	-24.28	peak		

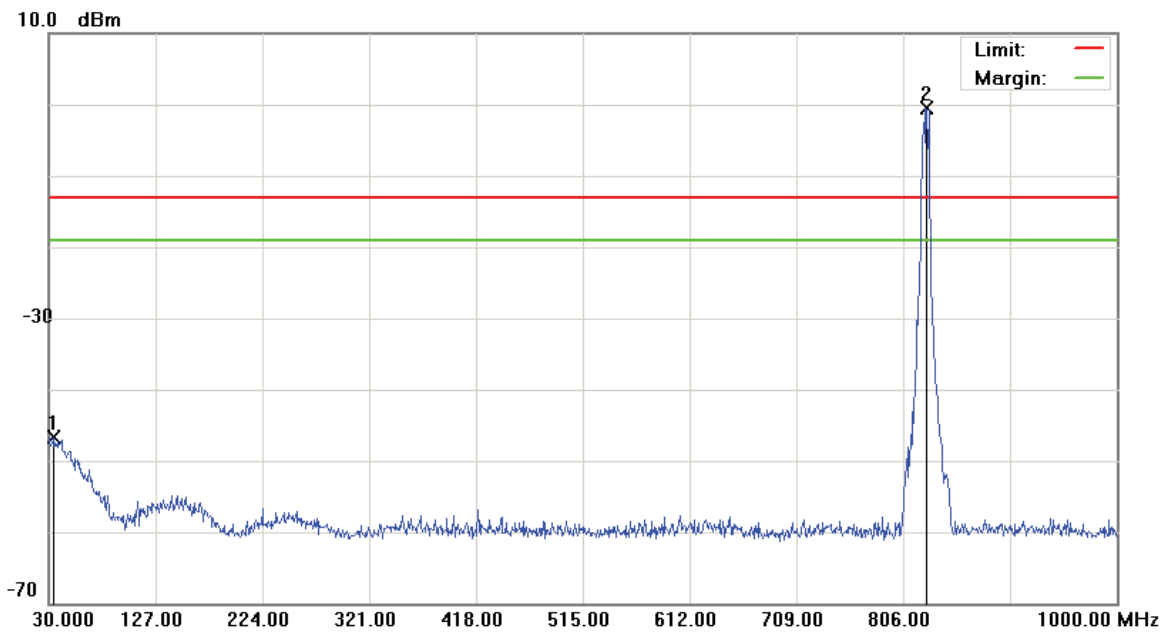
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4132)

Data :#3

Date: 2015/8/14

Time: 下午 04:59:10



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		34.8500	-63.29	16.66	-46.63	-13.00	-33.63	peak		
2	*	826.8550	-4.37	3.86	-0.51	-13.00	12.49	peak		Tx

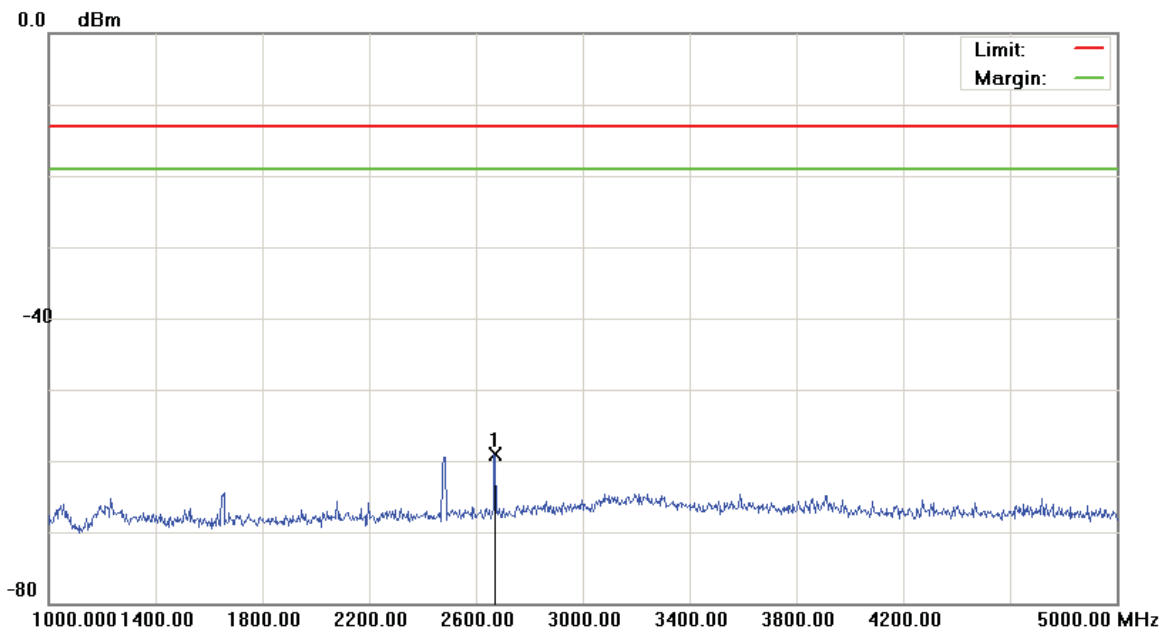
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4132)

Data :#4

Date: 2015/8/14

Time: 下午 05:13:47



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

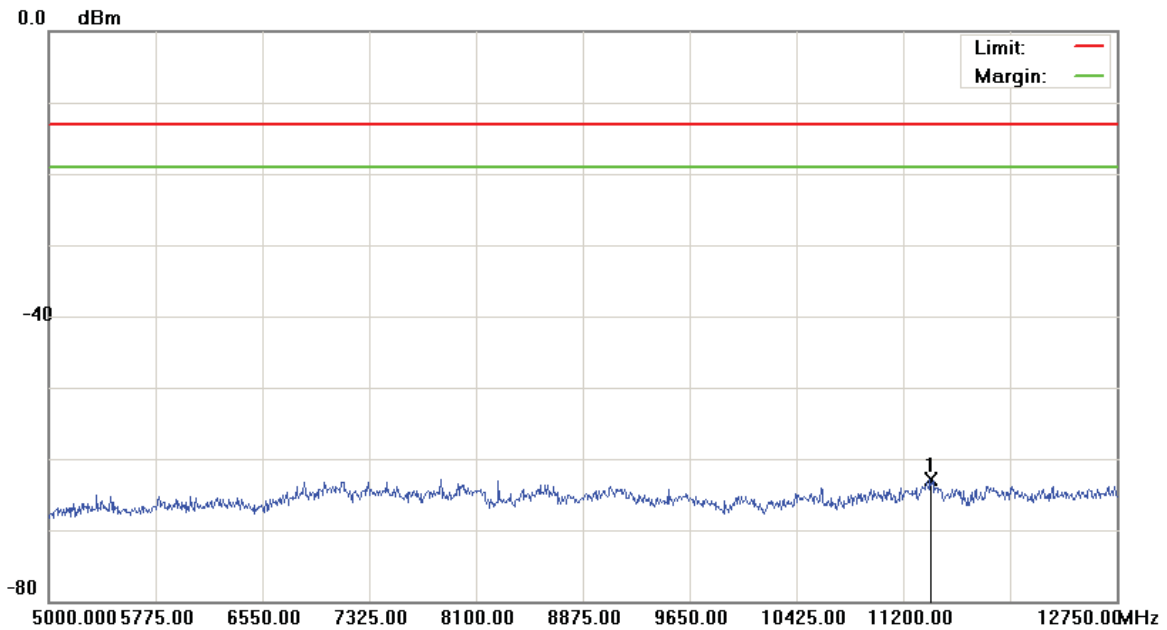
Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2670.000	-63.45	4.43	-59.02	-13.00	-46.02	peak		

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

File :AC810-300(CH4132) Data :#5 Date: 2015/8/14 Time: 下午 05:14:10



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band V
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11397.625	-68.38	5.55	-62.83	-13.00	-49.83	peak		

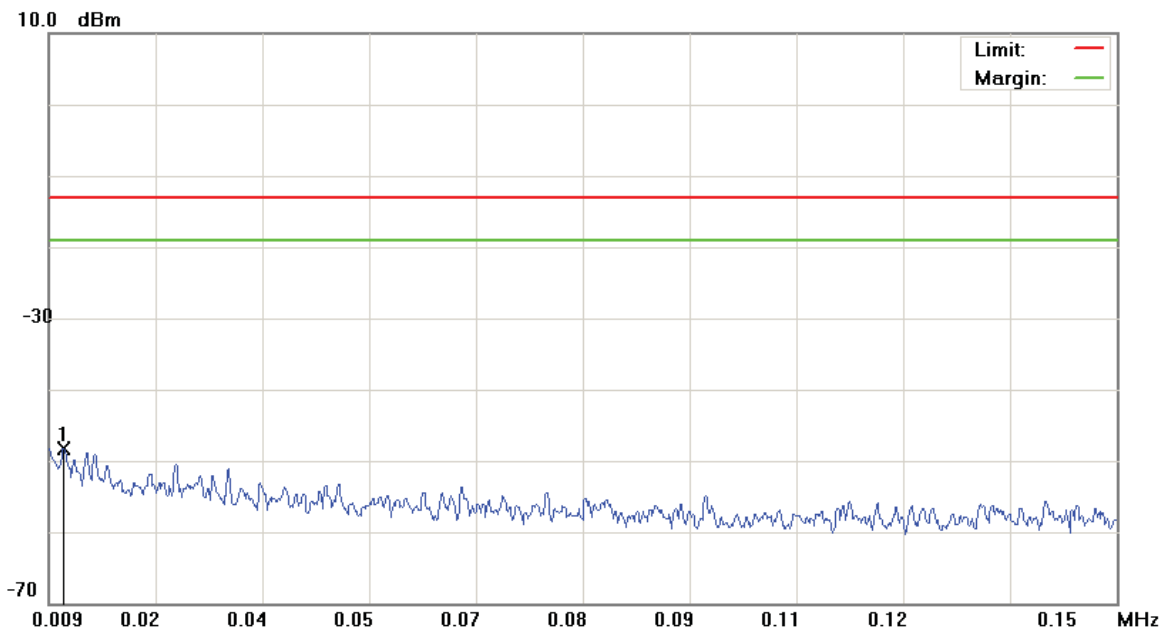
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4183)

Data :#1

Date: 2015/8/14

Time: 下午 05:01:24



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: WCDMA Band V

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0110	-78.81	30.57	-48.24	-13.00	-35.24	peak		

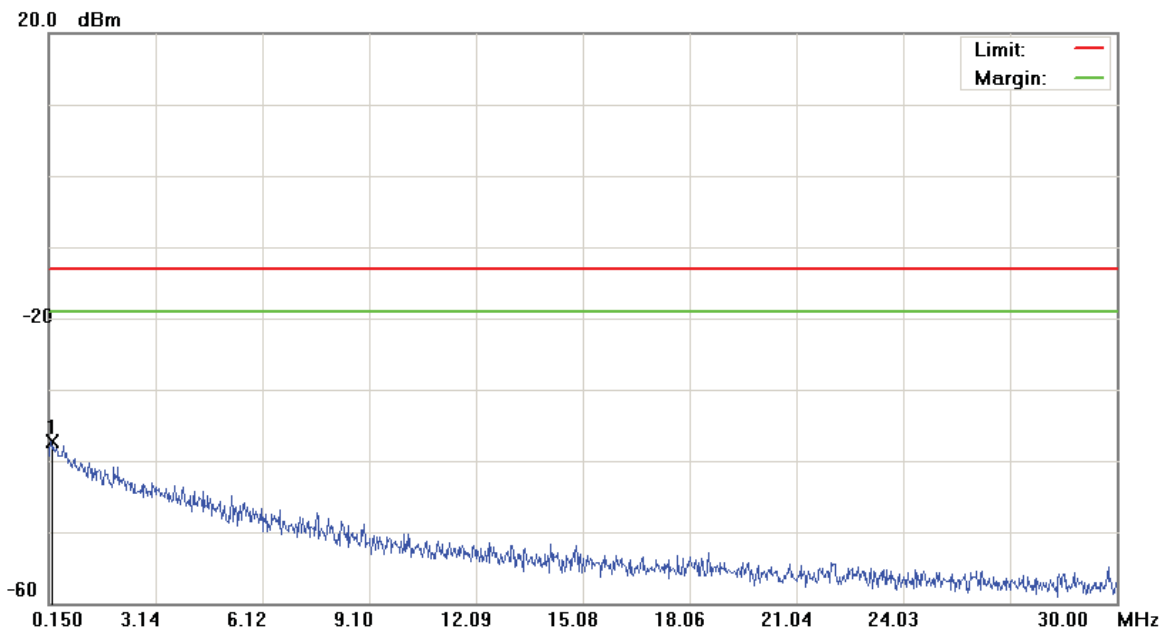
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4183)

Data :#2

Date: 2015/8/14

Time: 下午 05:01:48



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2246	-68.43	31.12	-37.31	-13.00	-24.31	peak		

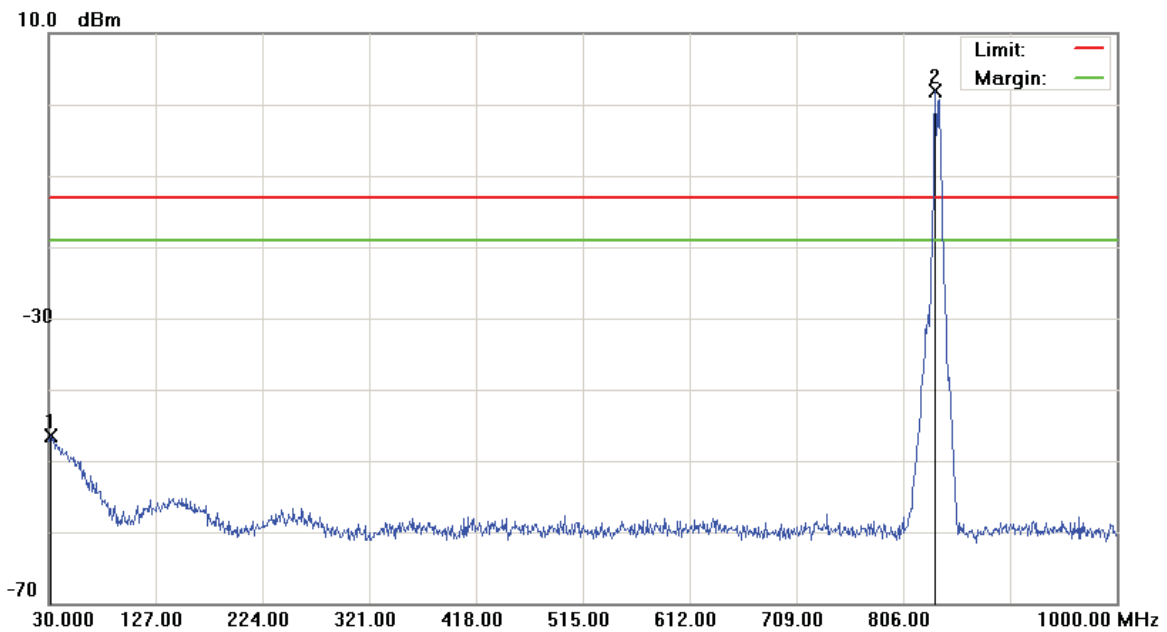
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4183)

Data :#3

Date: 2015/8/14

Time: 下午 05:02:12



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		31.9400	-63.52	16.99	-46.53	-13.00	-33.53	peak		
2	*	835.1000	-2.00	3.95	1.95	-13.00	14.95	peak		Tx

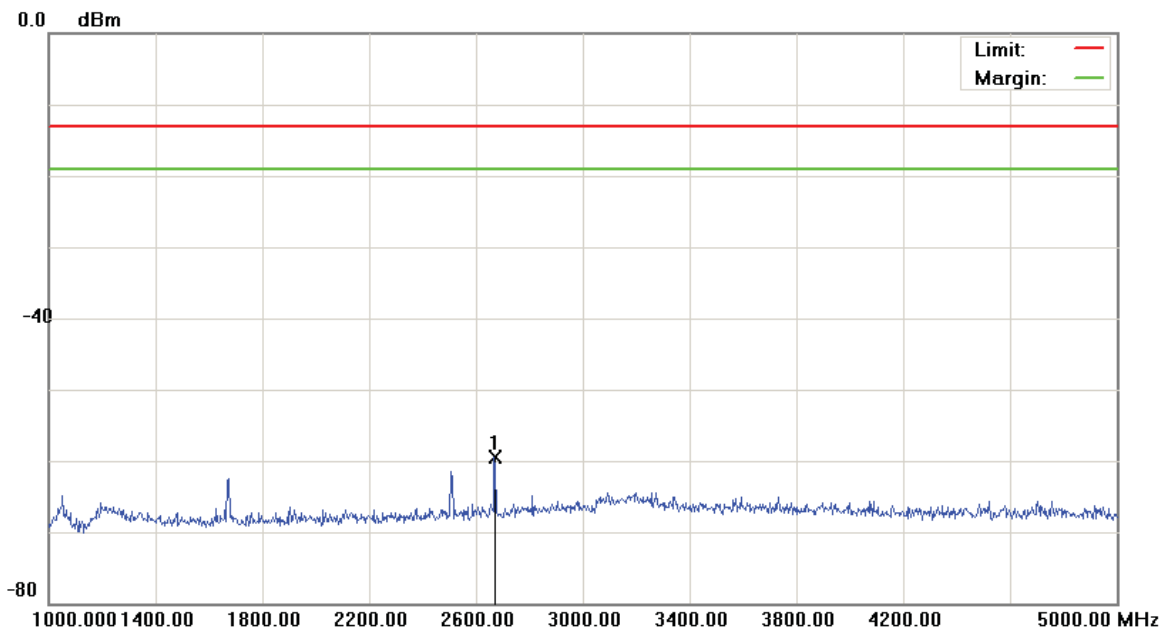
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4183)

Data :#4

Date: 2015/8/14

Time: 下午 05:15:48



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2670.000	-63.98	4.43	-59.55	-13.00	-46.55	peak		

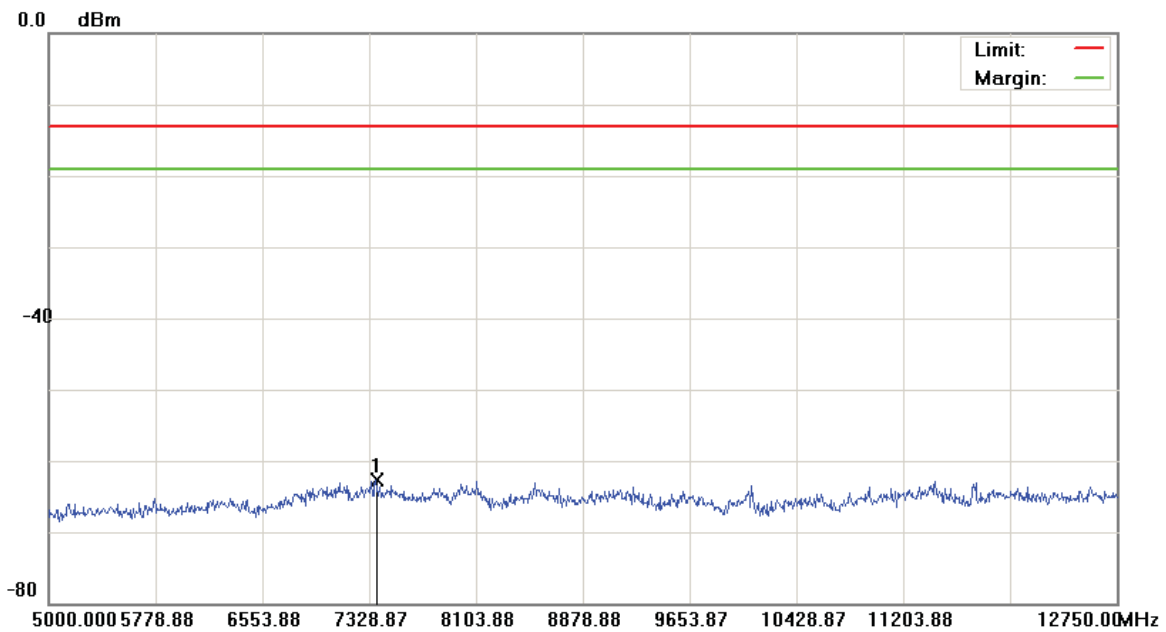
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4183)

Data :#5

Date: 2015/8/14

Time: 下午 05:16:11



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: WCDMA Band V
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	7375.375	-67.78	5.12	-62.66	-13.00	-49.66	peak		

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

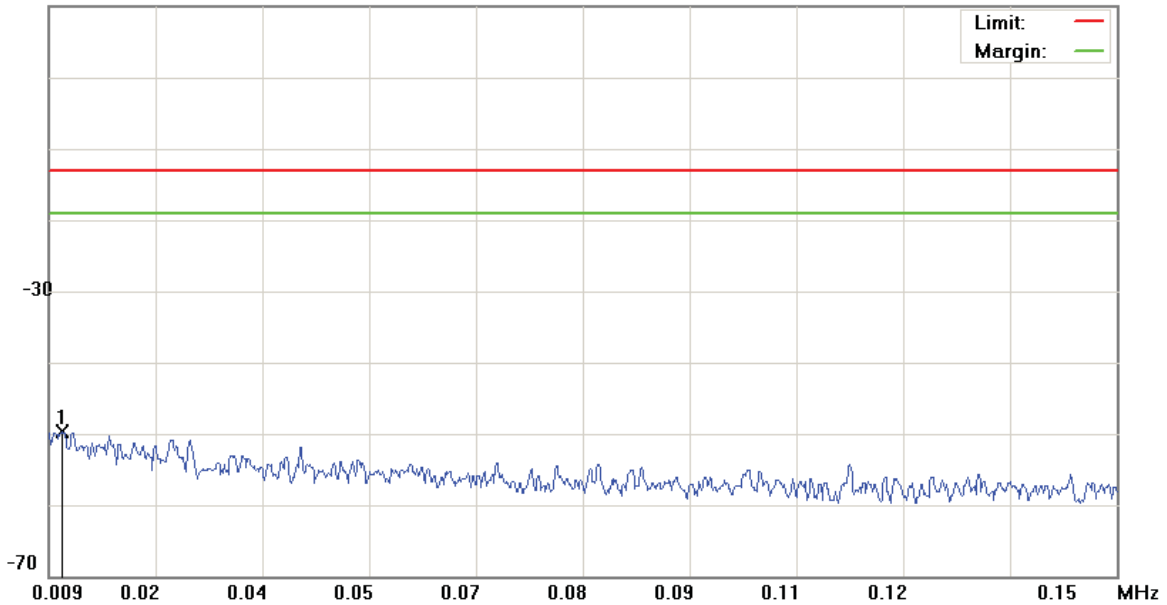
File :AC810-300(CH4233)

Data :#1

Date: 2015/8/14

Time: 下午 05:05:19

10.0 dBm



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: WCDMA Band V

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0108	-80.36	30.57	-49.79	-13.00	-36.79	peak		

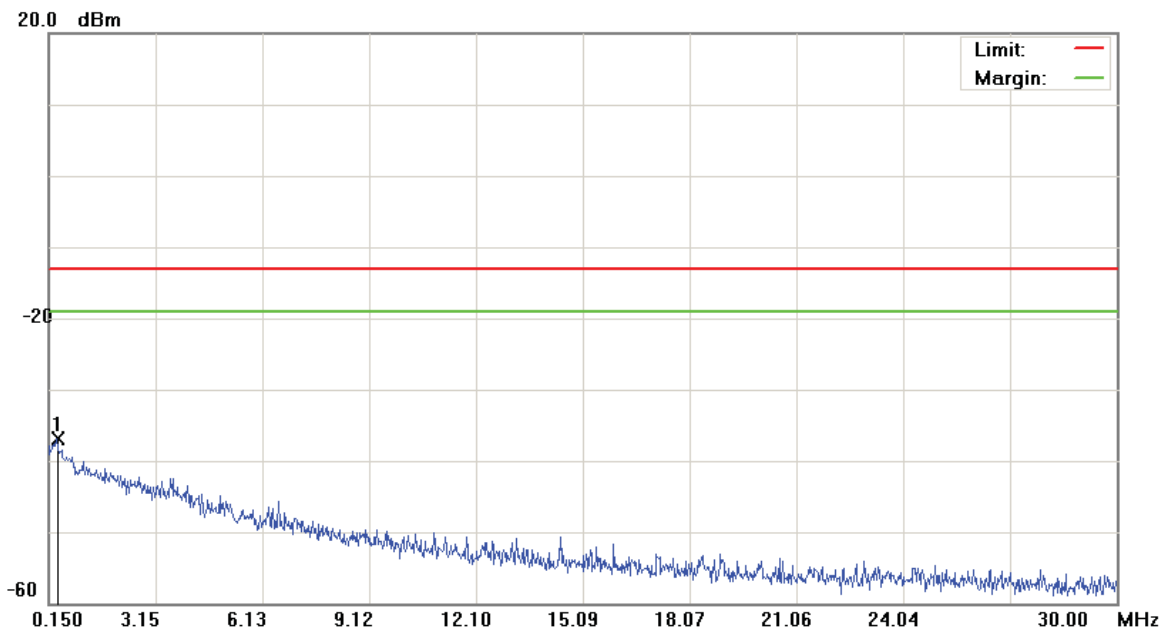
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4233)

Data :#2

Date: 2015/8/14

Time: 下午 05:05:43



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3738	-68.80	31.88	-36.92	-13.00	-23.92	peak		

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

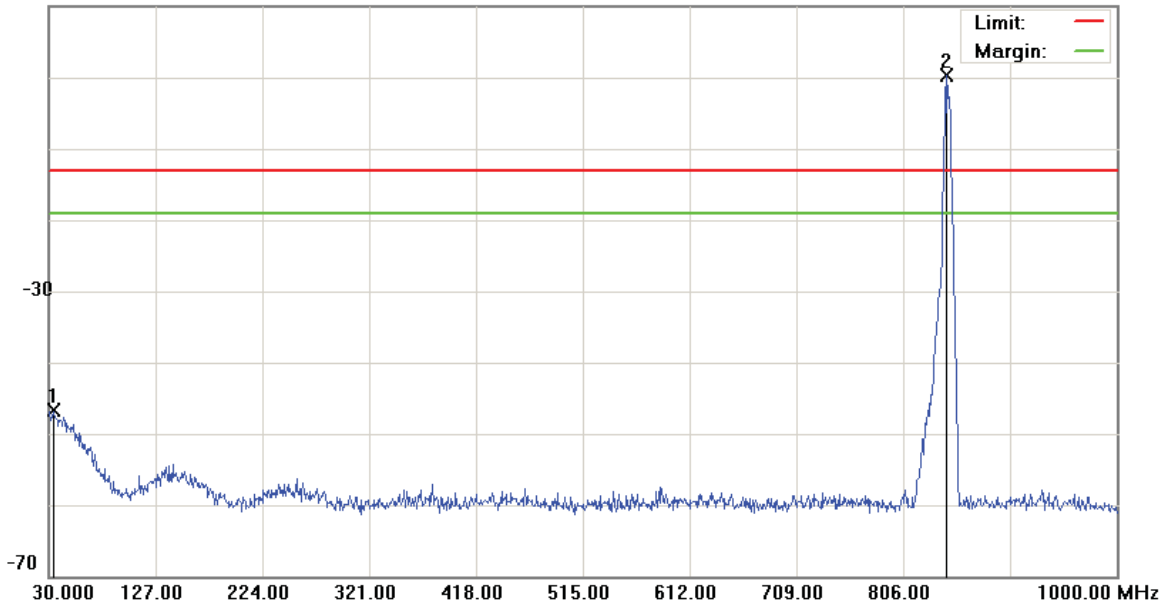
File :AC810-300(CH4233)

Data :#3

Date: 2015/8/14

Time: 下午 05:06:07

10.0 dBm

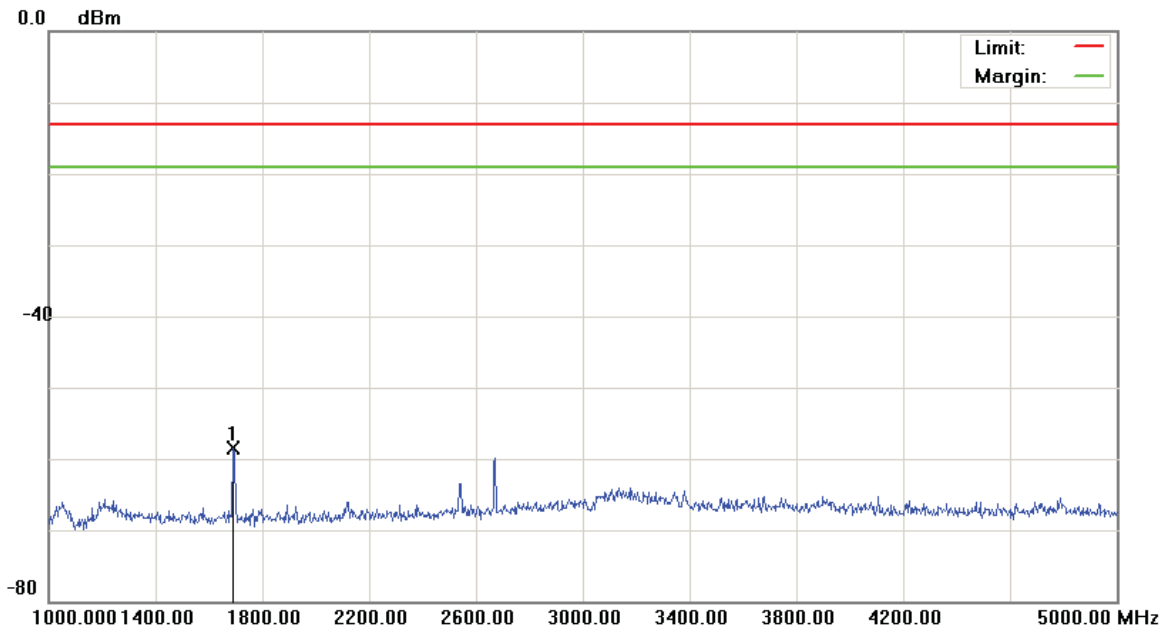


Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 100 KHz VBW: 300 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		33.8800	-63.57	16.77	-46.80	-13.00	-33.80	peak		
2	*	844.8000	-3.73	3.99	0.26	-13.00	13.26	peak		Tx

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

File :AC810-300(CH4233) Data :#4 Date: 2015/8/14 Time: 下午 05:16:48



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1692.000	-62.89	4.48	-58.41	-13.00	-45.41	peak		

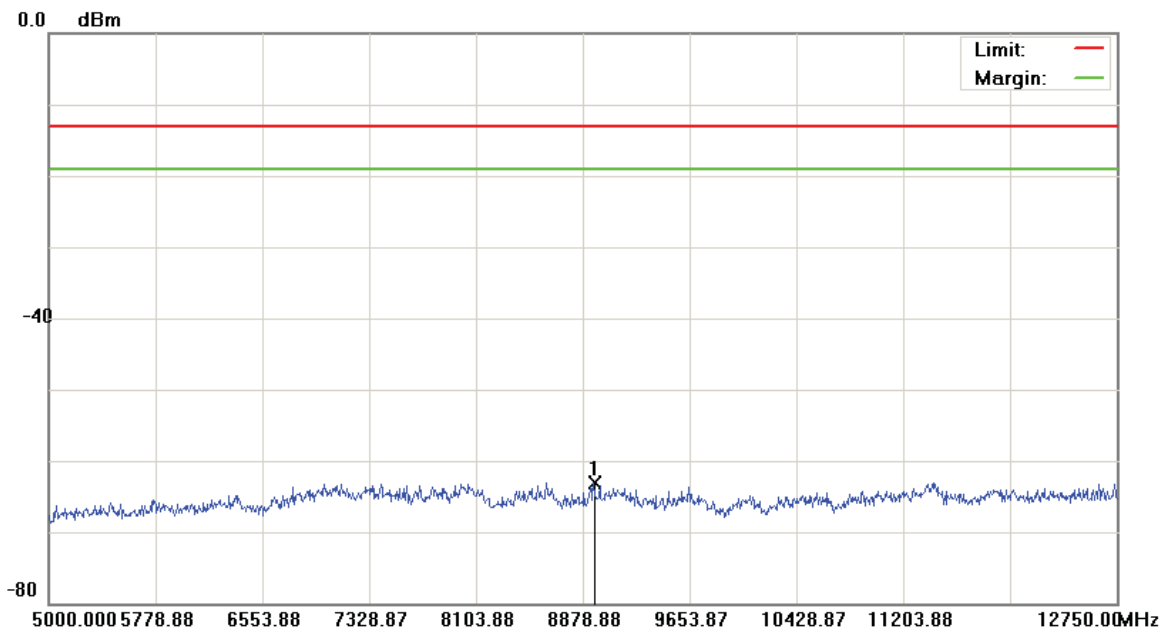
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH4233)

Data :#5

Date: 2015/8/14

Time: 下午 05:17:11



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	8956.375	-68.54	5.51	-63.03	-13.00	-50.03	peak		

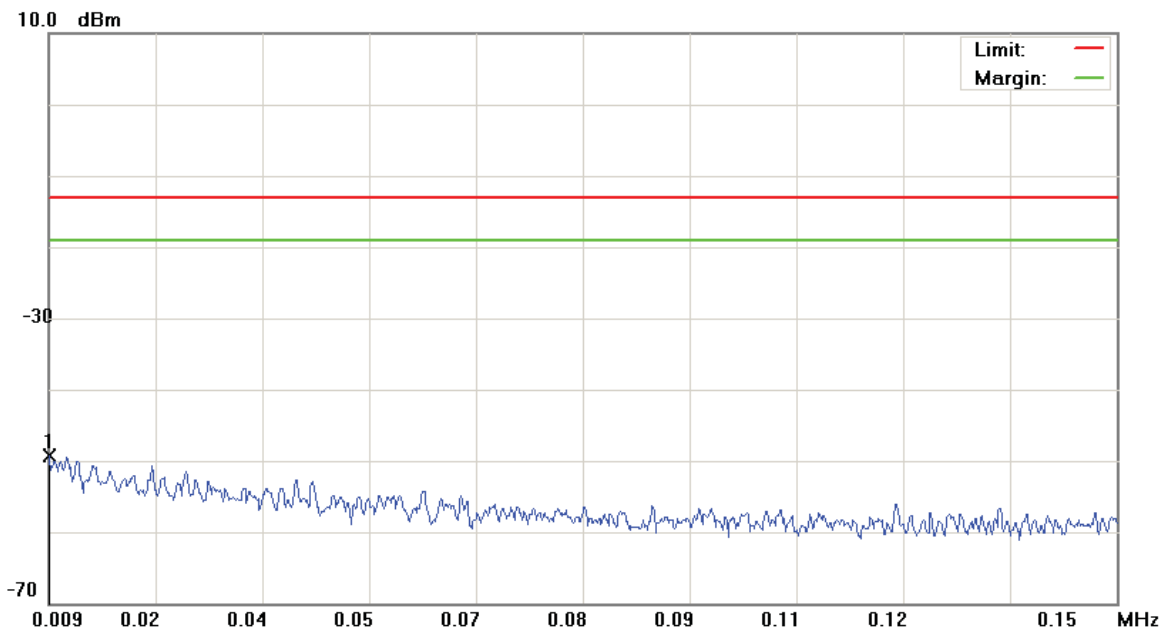
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1013)

Data :#1

Date: 2015/8/17

Time: 下午 03:45:16



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-79.91	30.58	-49.33	-13.00	-36.33	peak		

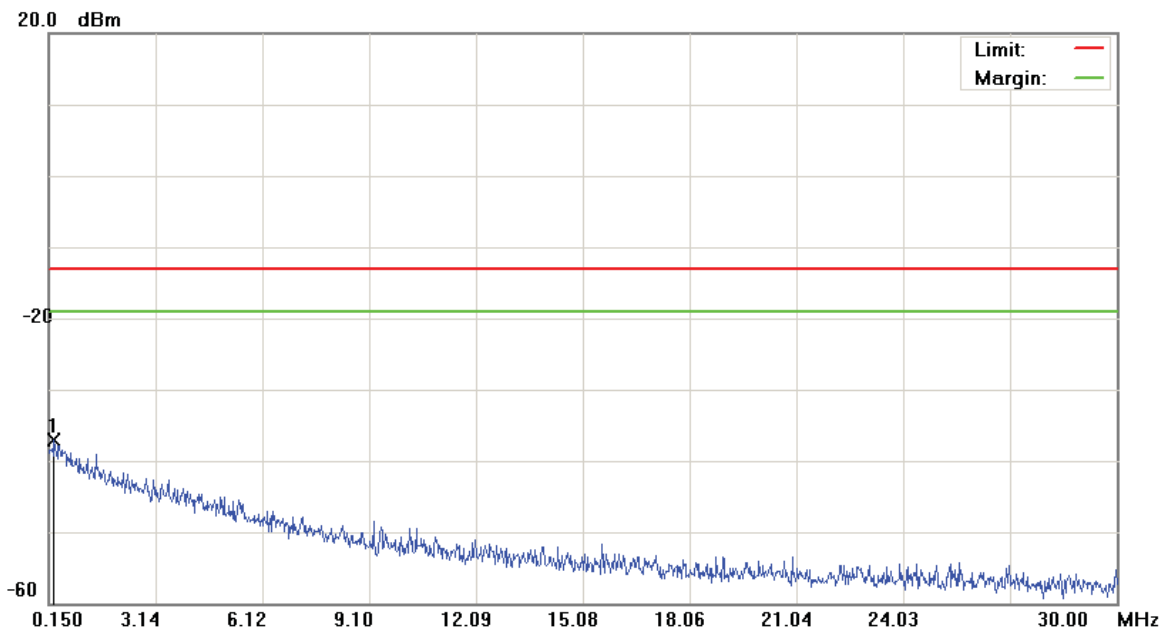
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1013)

Data :#2

Date: 2015/8/17

Time: 下午 03:45:40



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2993	-68.74	31.73	-37.01	-13.00	-24.01	peak		

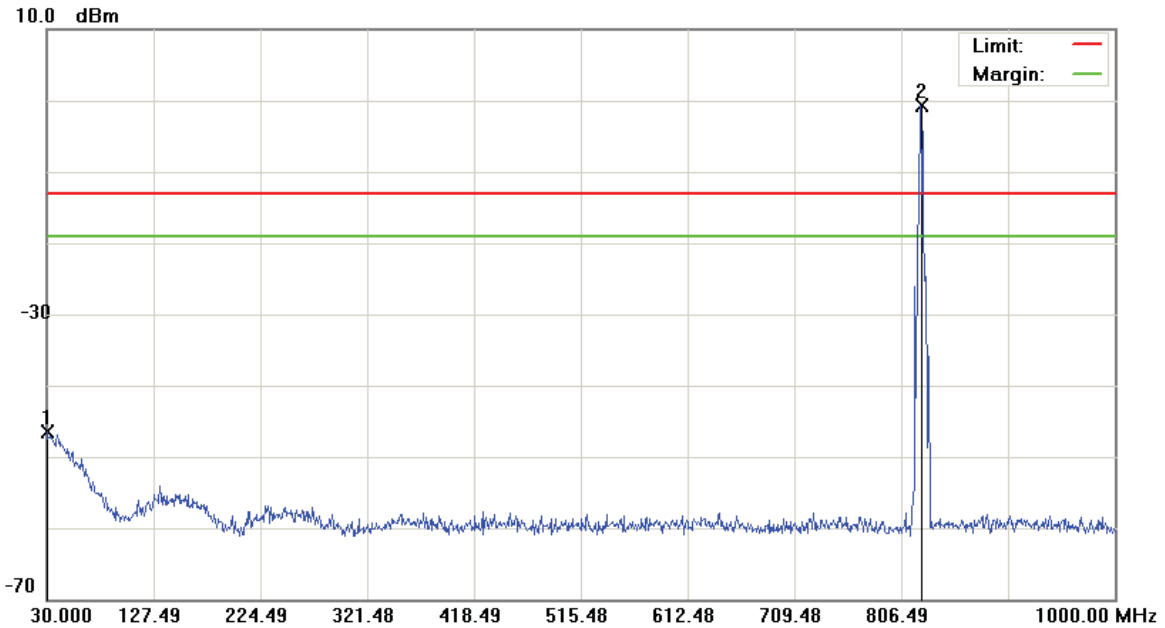
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1013)

Data :#3

Date: 2015/8/17

Time: 下午 03:46:04



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		30.4850	-63.75	17.16	-46.59	-13.00	-33.59	peak		
2	*	823.9450	-4.62	3.83	-0.79	-13.00	12.21	peak		Tx

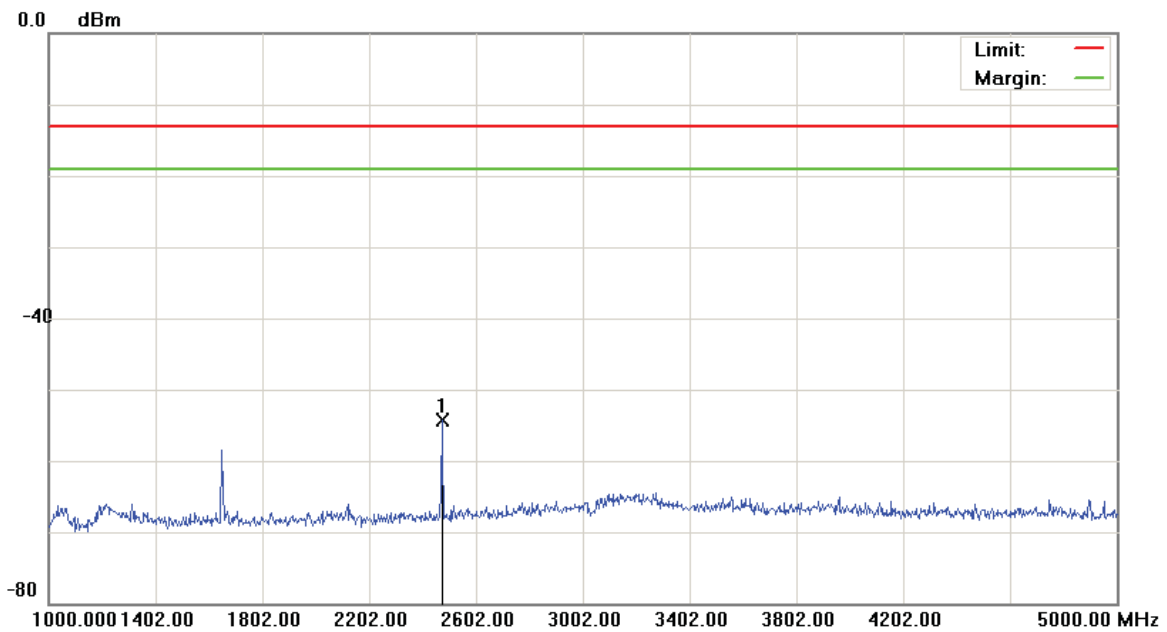
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1013)

Data :#4

Date: 2015/8/17

Time: 下午 05:24:44



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Cellular

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

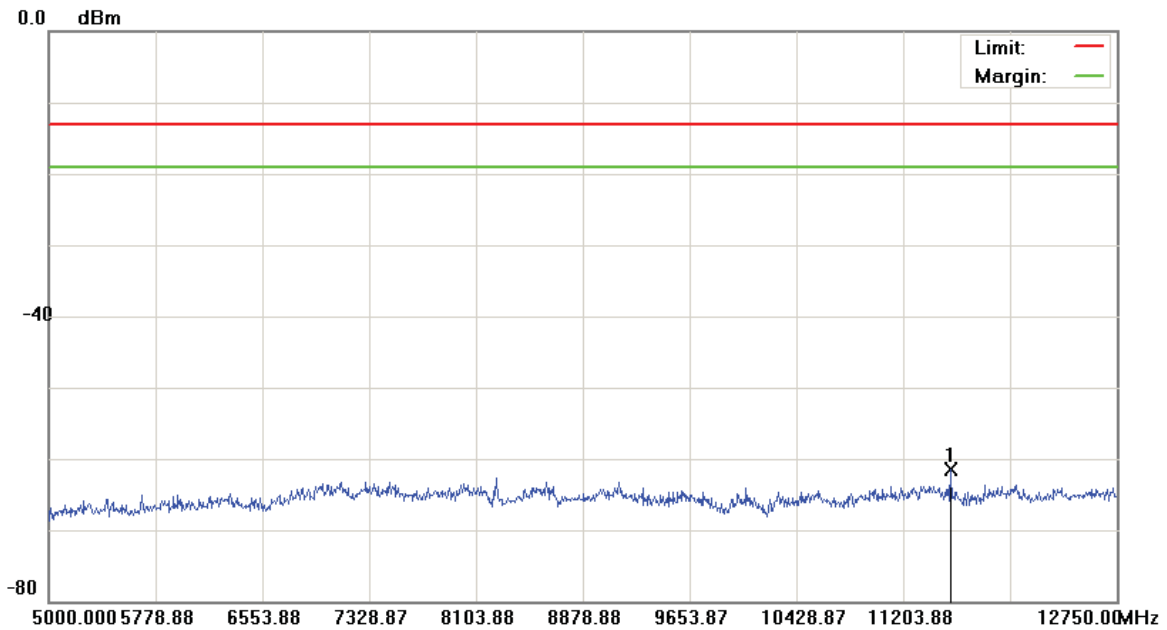
Humidity: 55 %

RBW: 1000 KHz VBW: 3000 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2474.000	-58.74	4.45	-54.29	-13.00	-41.29	peak		

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

File :AC810-300(CH1013) Data :#5 Date: 2015/8/17 Time: 下午 05:25:07



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11544.875	-66.46	4.99	-61.47	-13.00	-48.47	peak		

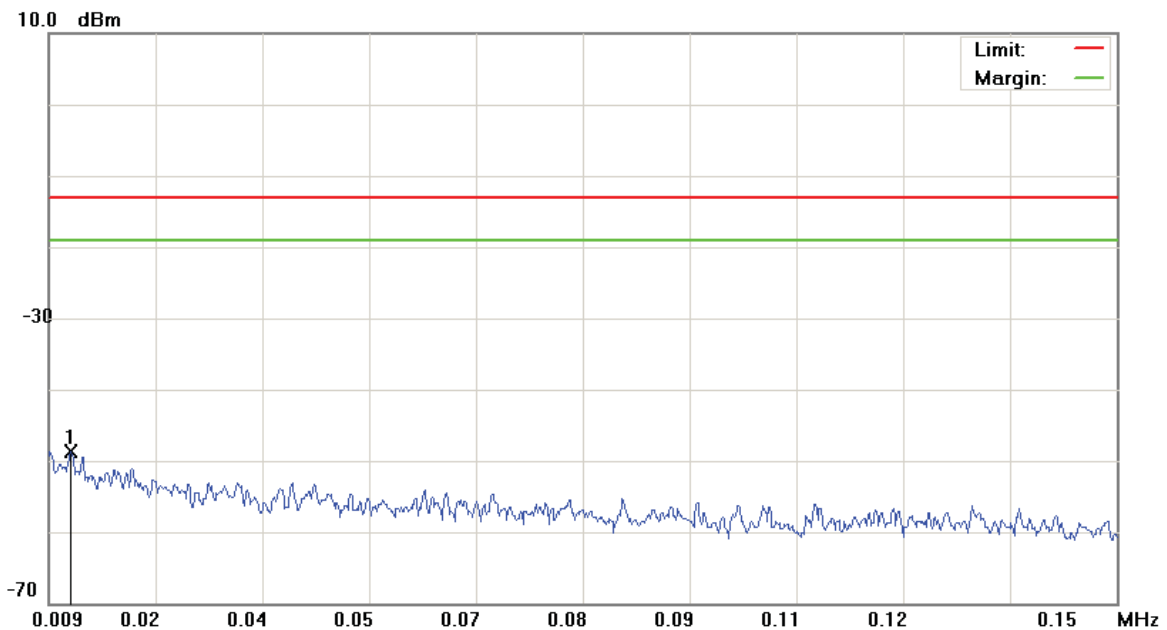
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH384)

Data :#1

Date: 2015/8/17

Time: 下午 04:52:35



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Cellular

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0120	-79.32	30.57	-48.75	-13.00	-35.75	peak		

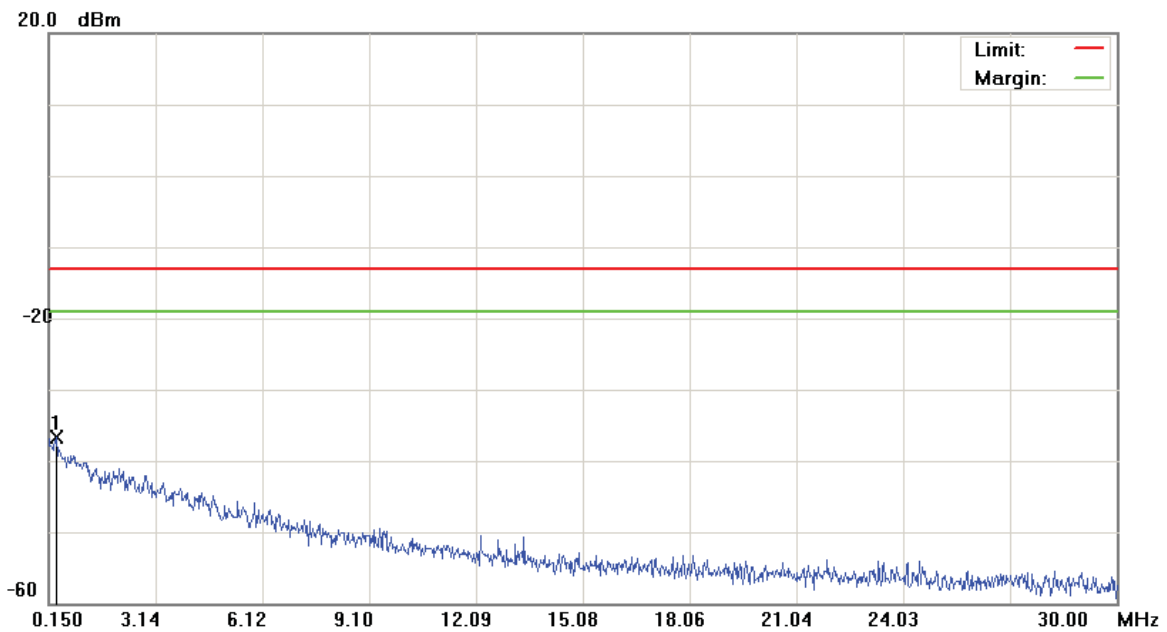
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH384)

Data :#2

Date: 2015/8/17

Time: 下午 04:52:59



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3590	-68.65	31.86	-36.79	-13.00	-23.79	peak		

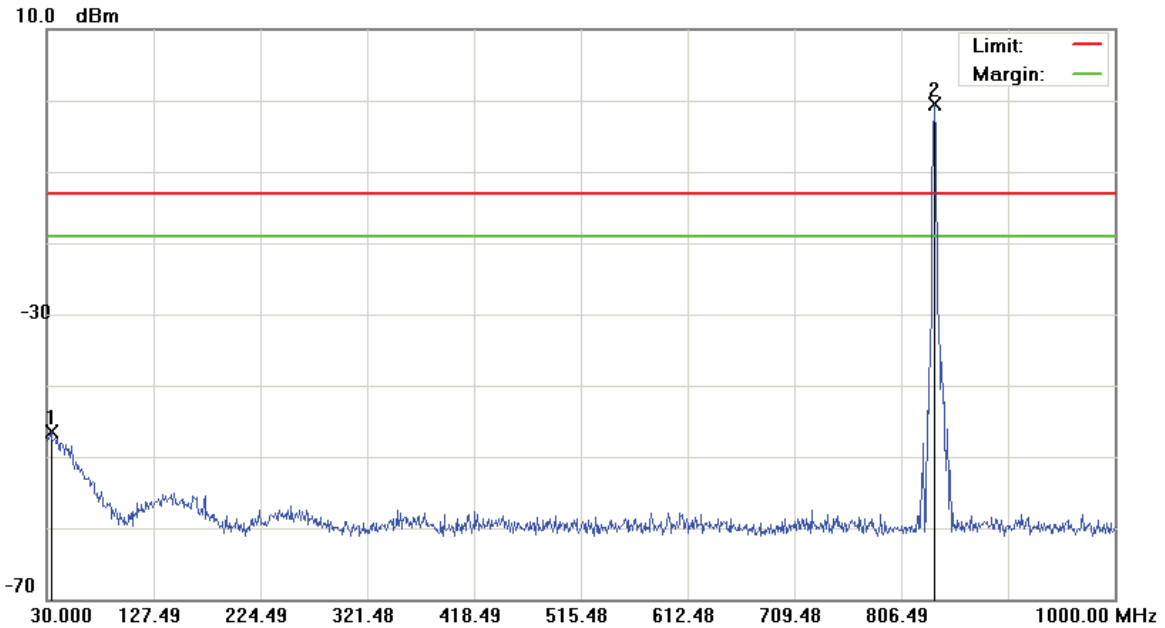
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH384)

Data :#3

Date: 2015/8/17

Time: 下午 04:53:23



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Cellular

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

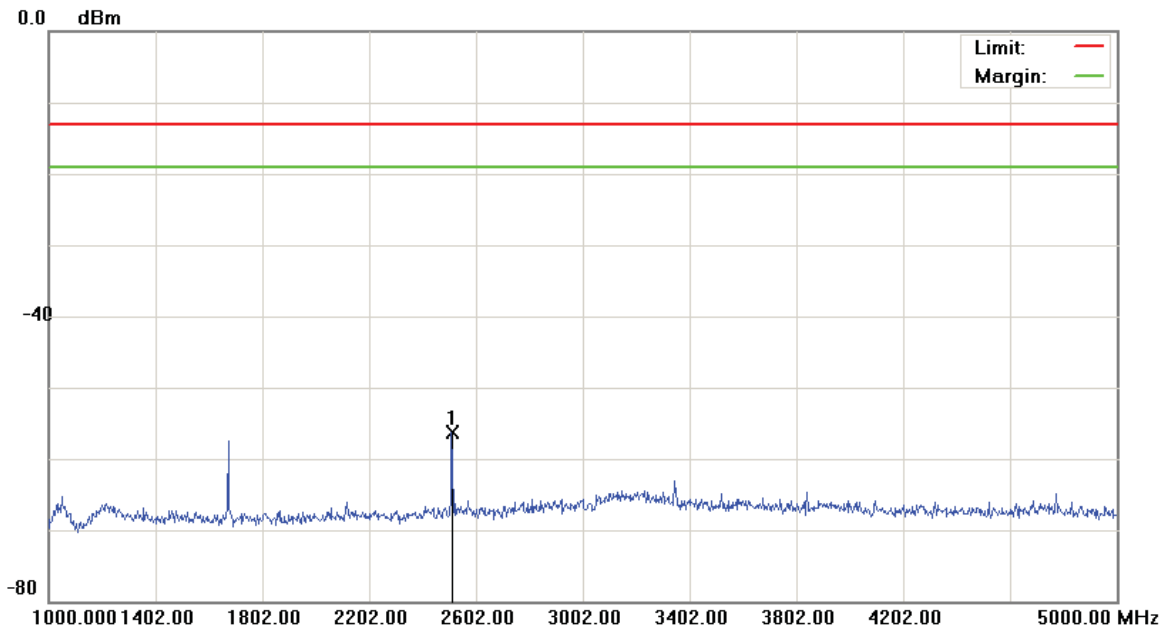
Humidity: 55 %

RBW: 100 KHz VBW: 300 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		33.8800	-63.24	16.77	-46.47	-13.00	-33.47	peak		
2	*	836.0700	-4.53	3.96	-0.57	-13.00	12.43	peak		Tx

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

File :AC810-300(CH384) Data :#4 Date: 2015/8/17 Time: 下午 05:25:44



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2510.000	-60.61	4.36	-56.25	-13.00	-43.25	peak		

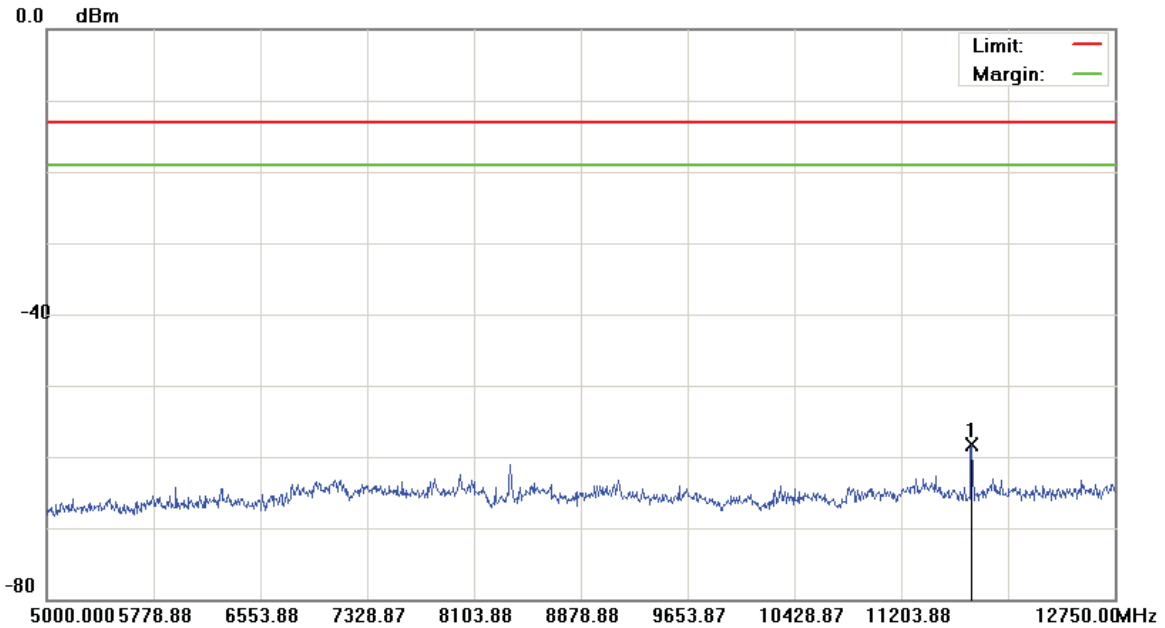
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH384)

Data :#5

Date: 2015/8/17

Time: 下午 05:26:07



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11711.500	-62.96	4.67	-58.29	-13.00	-45.29	peak		

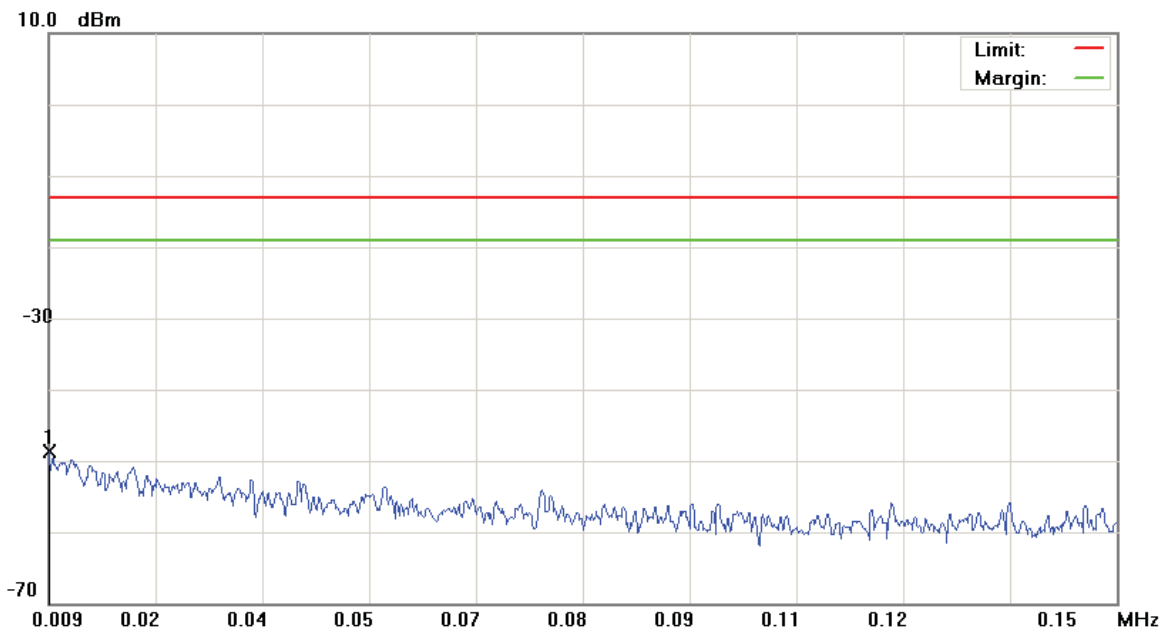
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH777)

Data :#1

Date: 2015/8/17

Time: 下午 04:56:48



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-79.34	30.58	-48.76	-13.00	-35.76	peak		

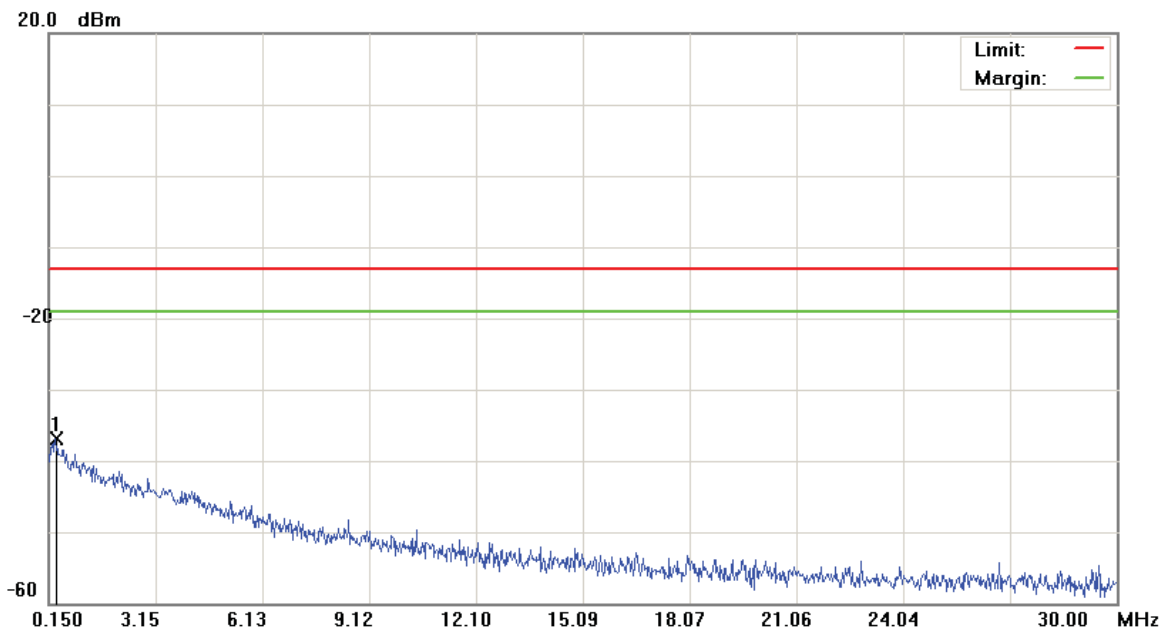
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH777)

Data :#2

Date: 2015/8/17

Time: 下午 04:57:12



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3440	-68.83	31.85	-36.98	-13.00	-23.98	peak		

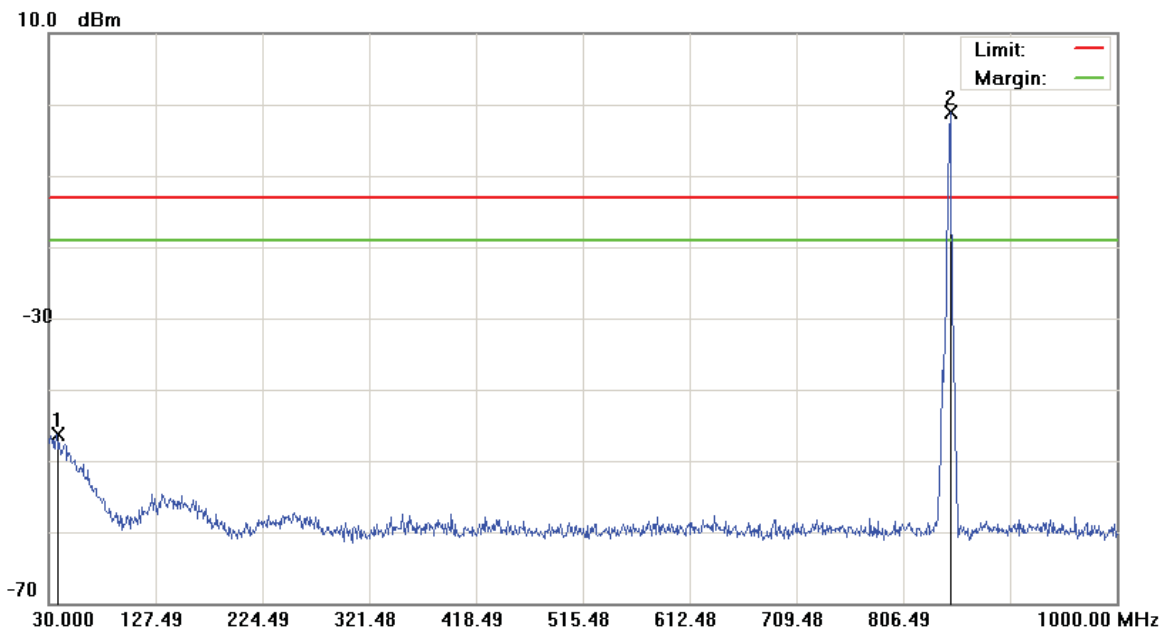
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH777)

Data :#3

Date: 2015/8/17

Time: 下午 04:57:36



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

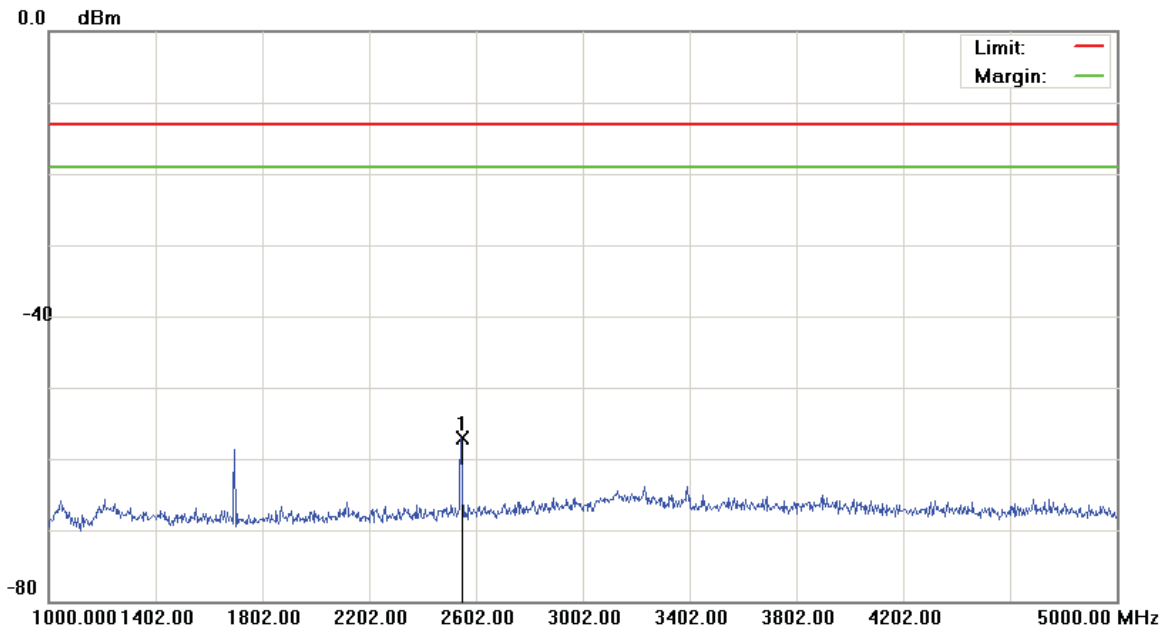
Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		37.2750	-62.76	16.39	-46.37	-13.00	-33.37	peak		
2	*	848.6800	-5.09	3.98	-1.11	-13.00	11.89	peak		Tx

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

File :AC810-300(CH777) Data :#4 Date: 2015/8/17 Time: 下午 05:26:48



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: CDMA Cellular		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2546.000	-61.64	4.45	-57.19	-13.00	-44.19	peak		

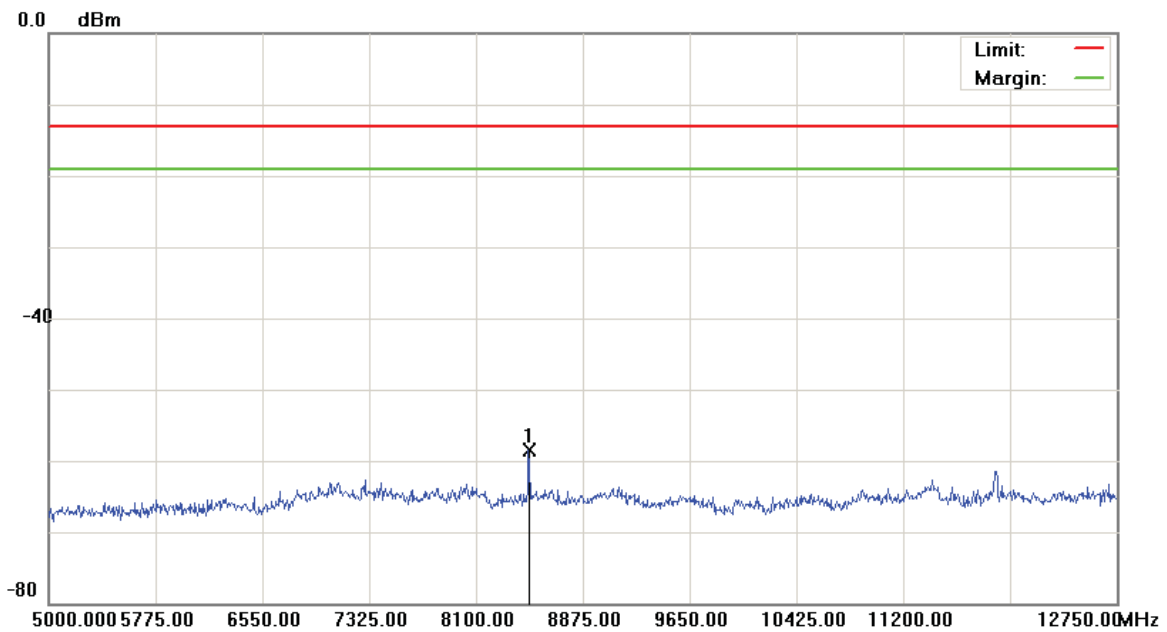
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH777)

Data :#5

Date: 2015/8/17

Time: 下午 05:27:11



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA Cellular

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	8483.625	-64.16	5.60	-58.56	-13.00	-45.56	peak		

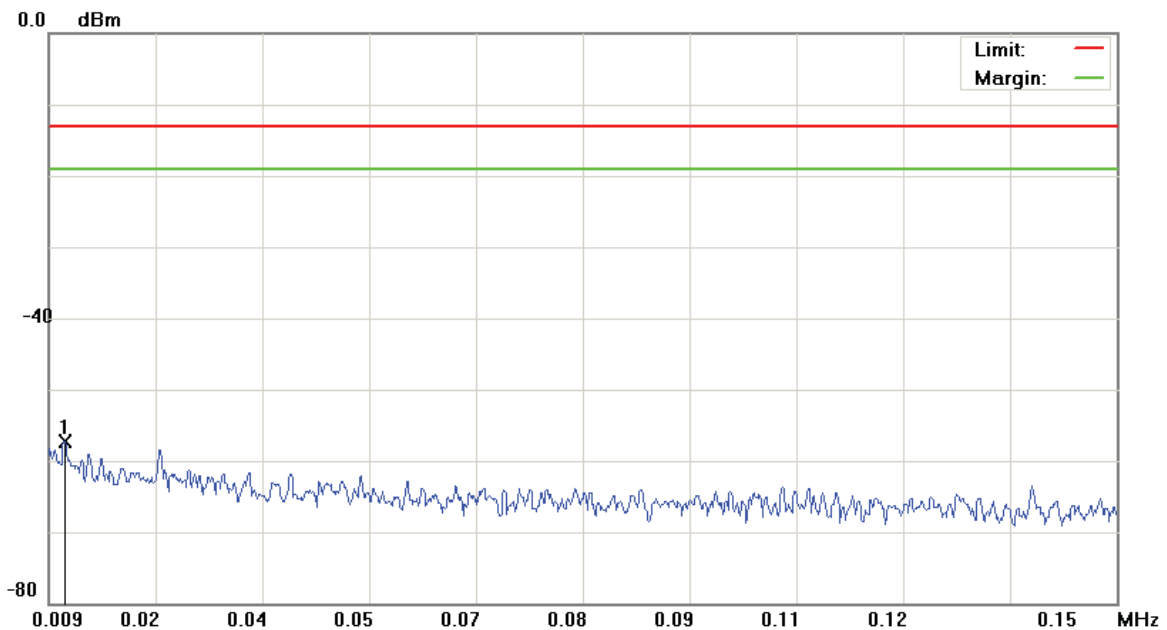
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#1

Date: 2015/8/17

Time: 下午 03:15:05



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0111	-68.68	11.35	-57.33	-13.00	-44.33	peak		

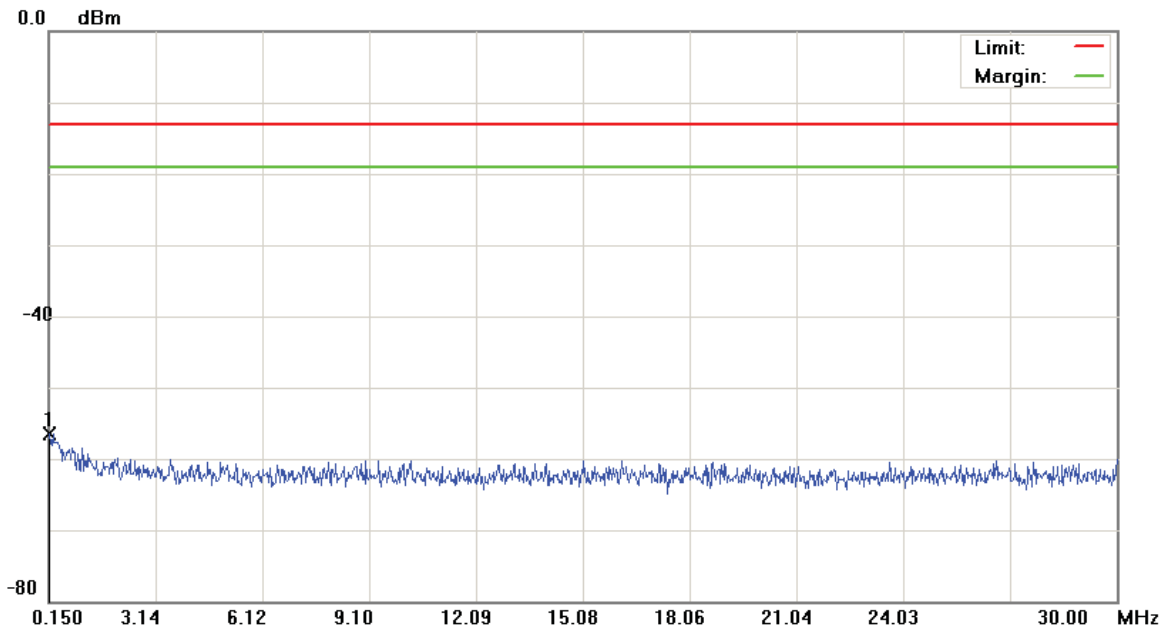
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#2

Date: 2015/8/17

Time: 下午 03:15:29



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: AC810S-300

Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1798	-68.92	12.45	-56.47	-13.00	-43.47	peak		

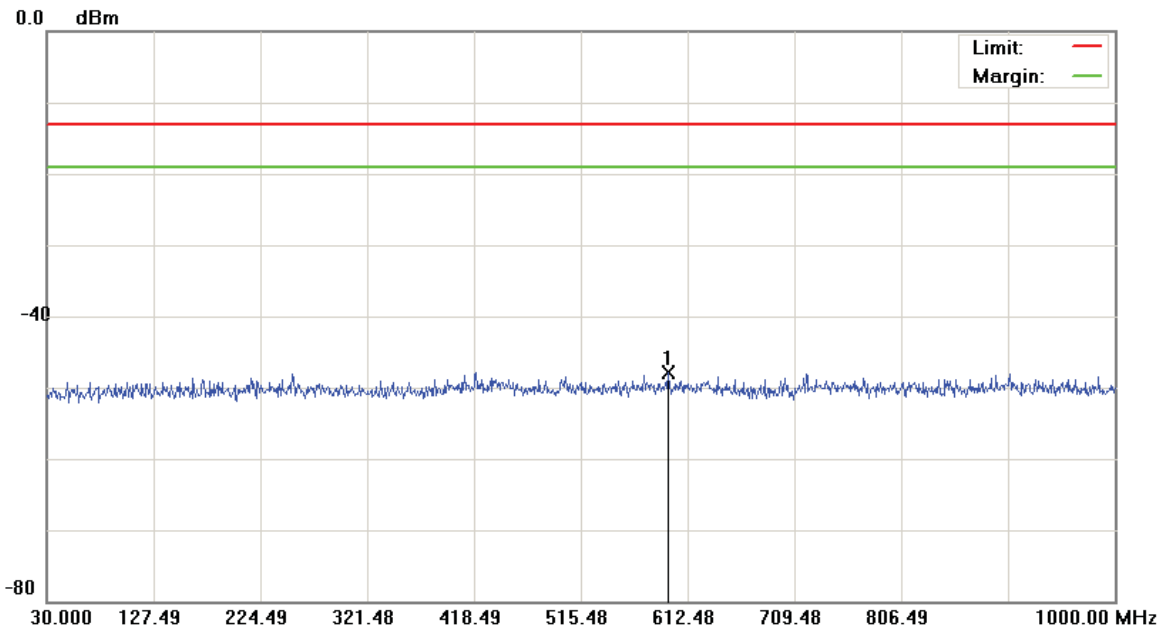
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#3

Date: 2015/8/17

Time: 下午 03:15:53



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 100 KHz VBW: 300 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	594.5400	-61.06	13.18	-47.88	-13.00	-34.88	peak		

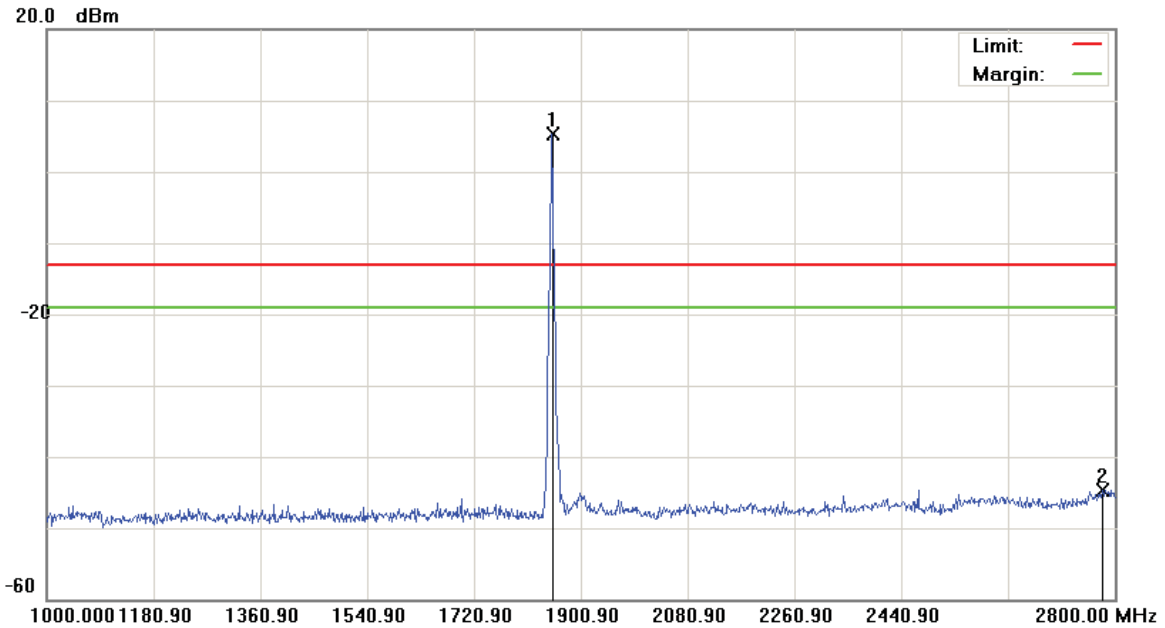
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#4

Date: 2015/8/17

Time: 下午 03:23:28



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1000 KHz VBW: 3000 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1852.300	0.96	4.27	5.23	-13.00	18.23	peak		Tx
2		2780.200	-50.54	5.88	-44.66	-13.00	-31.66	peak		

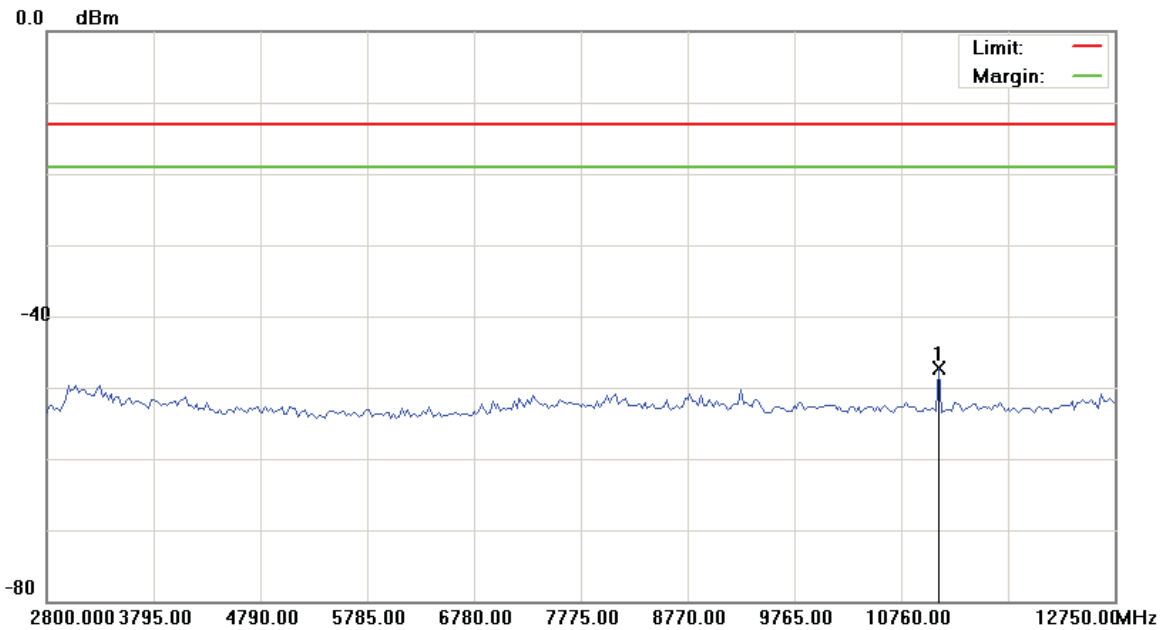
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#5

Date: 2015/8/17

Time: 下午 04:44:29



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11108.250	-52.28	5.01	-47.27	-13.00	-34.27	peak		

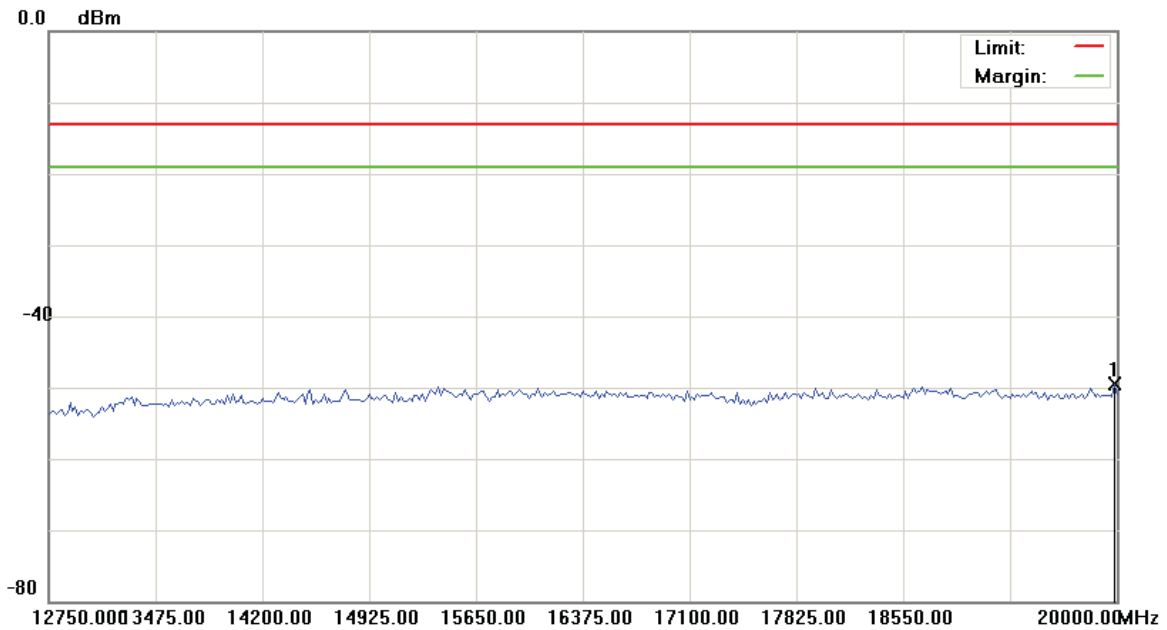
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH25)

Data :#6

Date: 2015/8/17

Time: 下午 04:44:49



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	19981.875	-56.90	7.43	-49.47	-13.00	-36.47	peak		

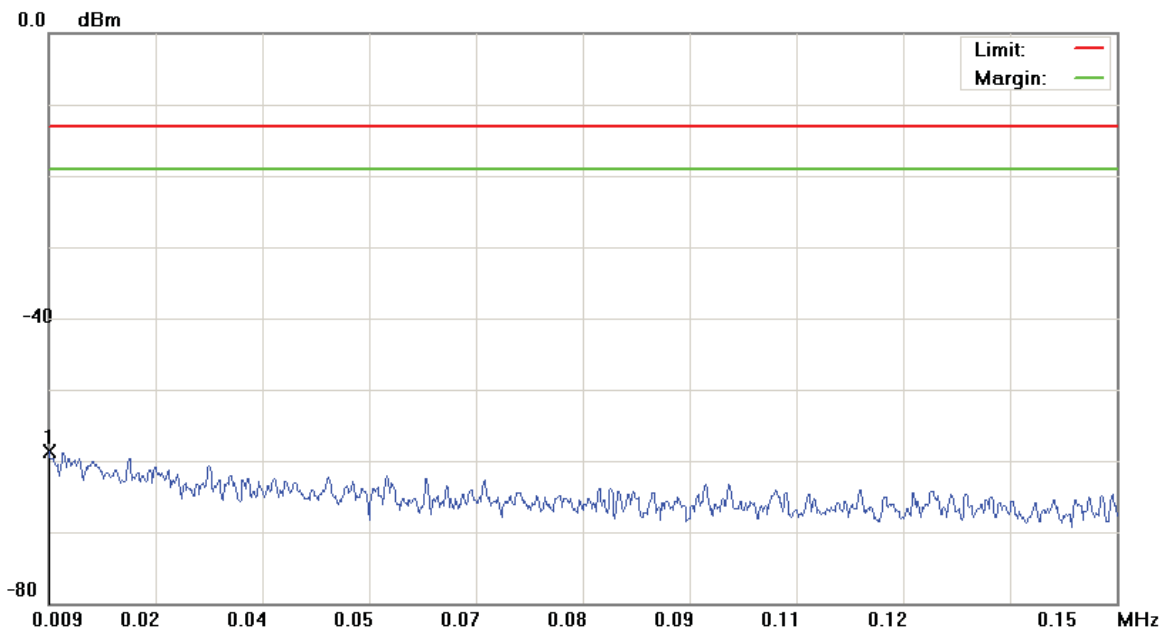
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH600)

Data :#1

Date: 2015/8/17

Time: 下午 03:16:39



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-70.08	11.32	-58.76	-13.00	-45.76	peak		

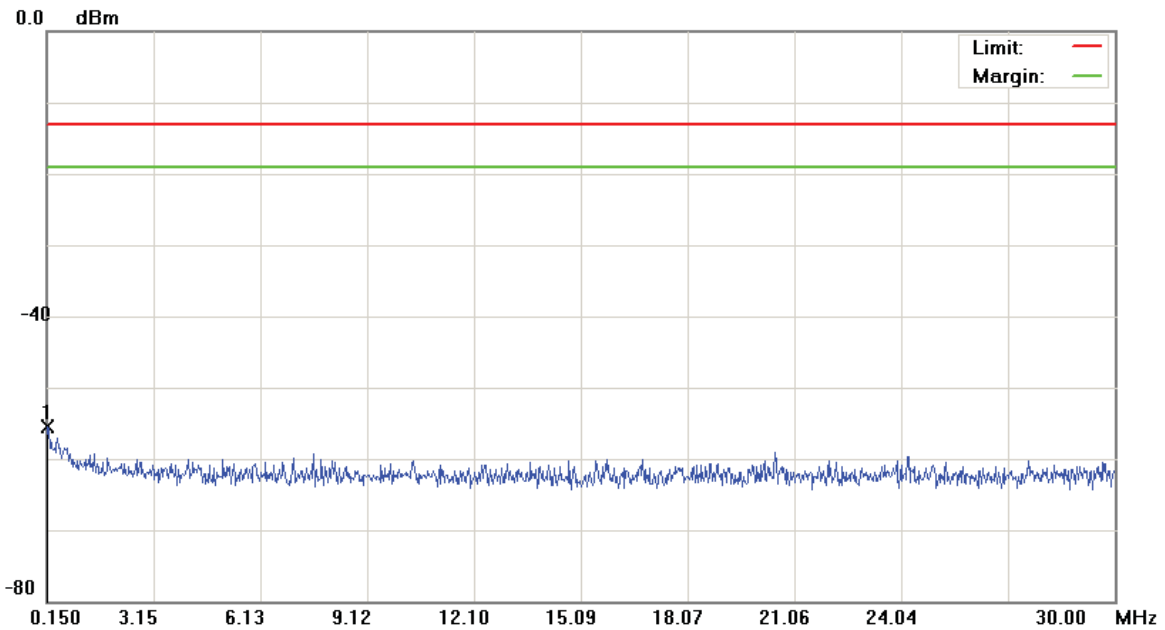
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH600)

Data :#2

Date: 2015/8/17

Time: 下午 03:17:03



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 10 KHz VBW: 30 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1650	-67.99	12.46	-55.53	-13.00	-42.53	peak		

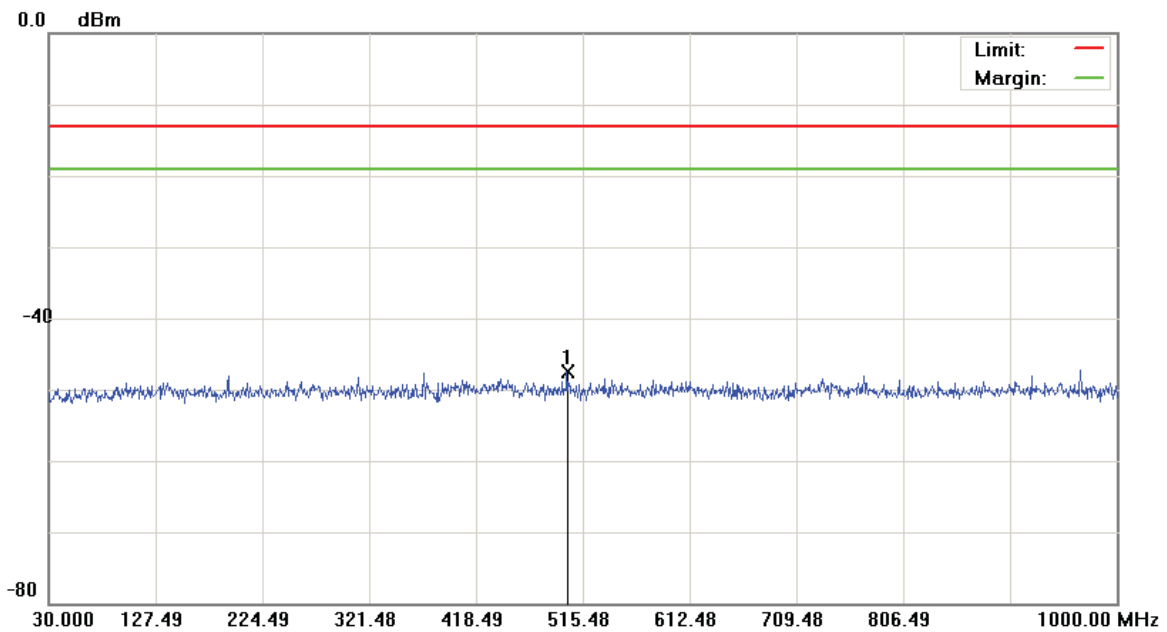
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH600)

Data :#3

Date: 2015/8/17

Time: 下午 03:17:27



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	500.9350	-60.67	13.14	-47.53	-13.00	-34.53	peak		

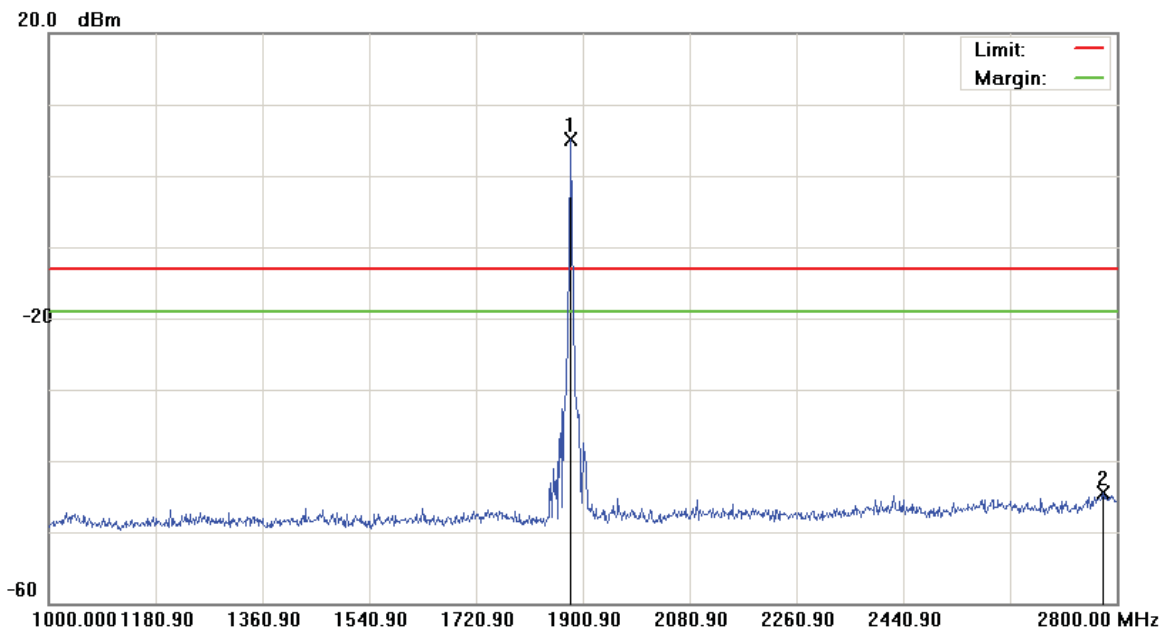
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH600)

Data :#4

Date: 2015/8/17

Time: 下午 03:24:24



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: CDMA PCS		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1879.300	0.42	4.62	5.04	-13.00	18.04	peak		Tx
2		2776.600	-50.26	5.83	-44.43	-13.00	-31.43	peak		

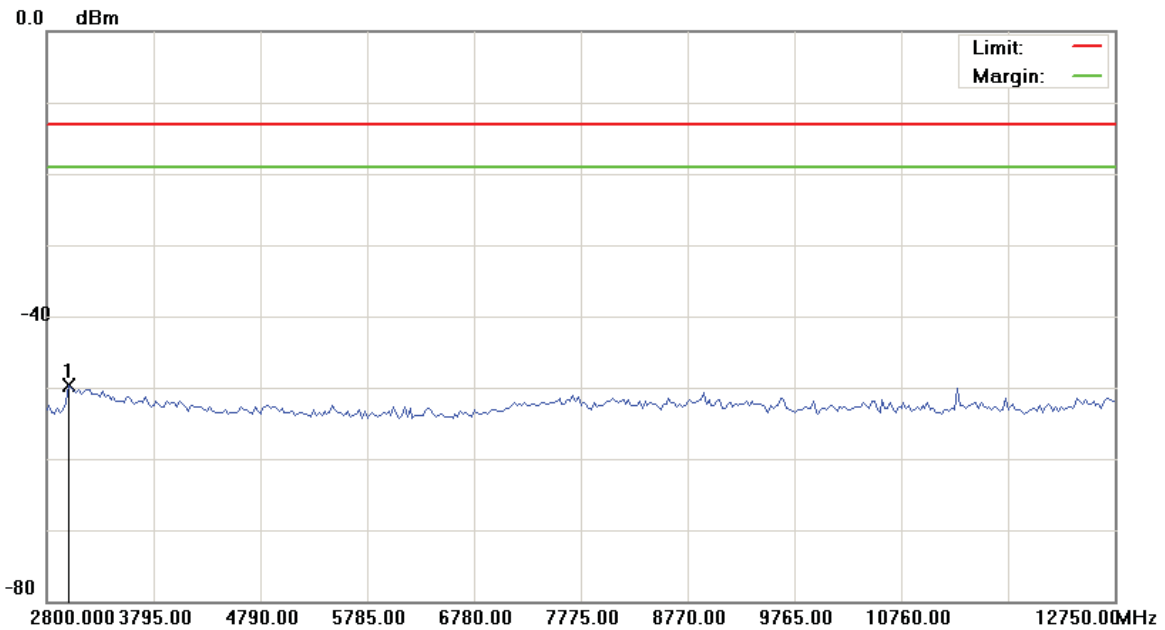
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH600)

Data :#5

Date: 2015/8/17

Time: 下午 04:45:34



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

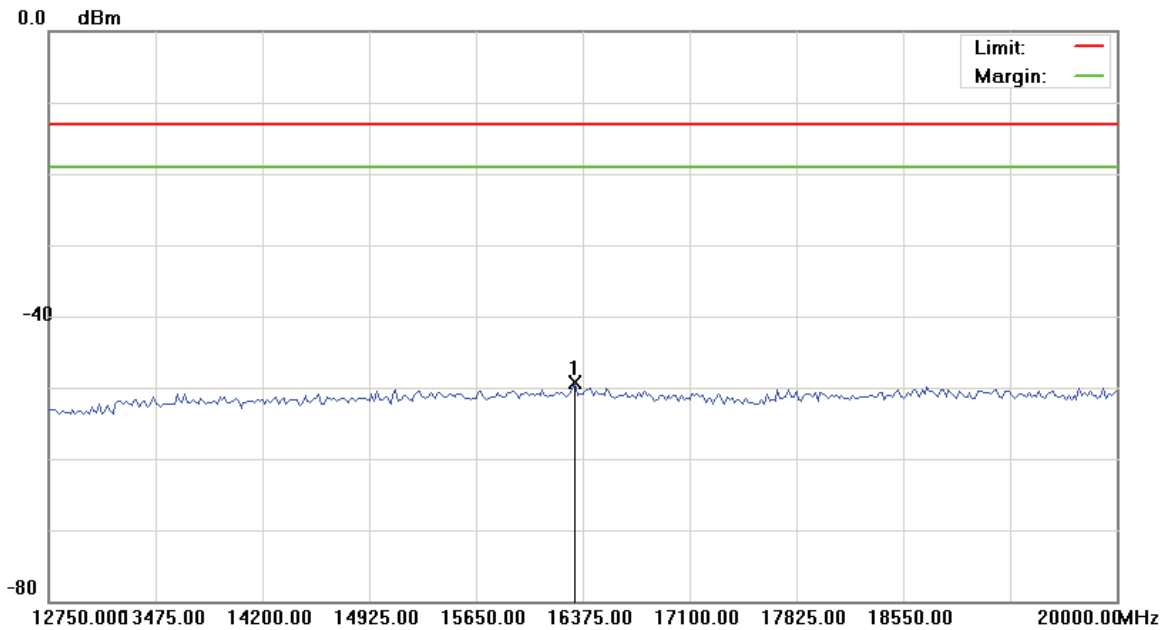
Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2999.000	-55.18	5.48	-49.70	-13.00	-36.70	peak		

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

File :AC810-300(CH600) Data :#6 Date: 2015/8/17 Time: 下午 04:45:54



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
 Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
 EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
 M/N: AC810S-300
 Mode: CDMA PCS
 Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	16320.625	-55.64	6.39	-49.25	-13.00	-36.25	peak		

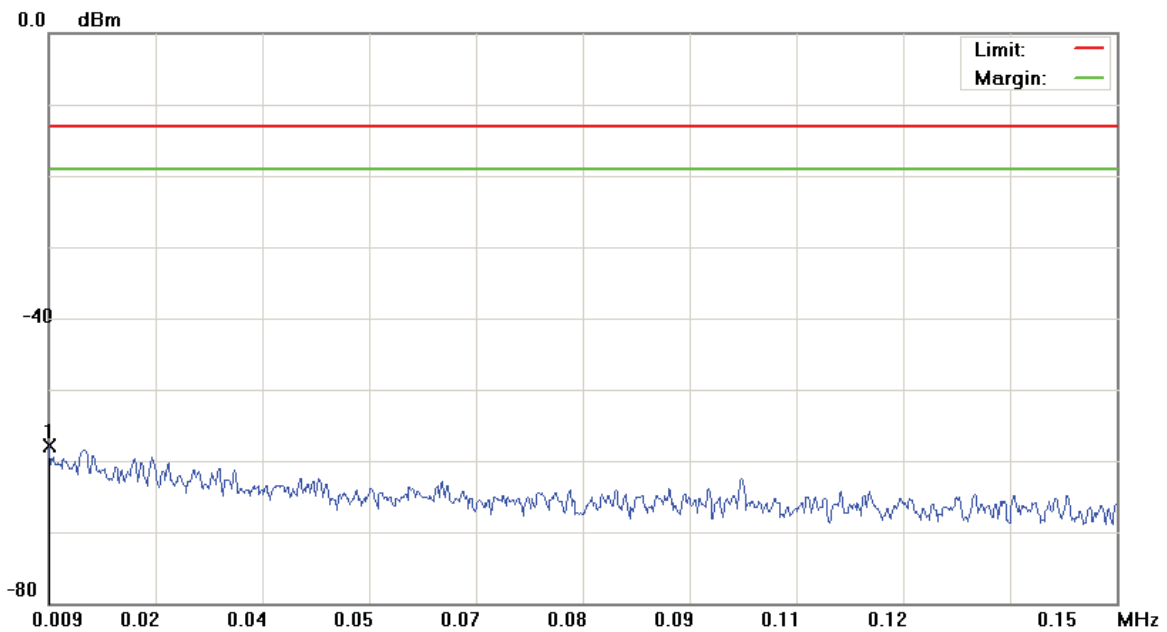
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1175)

Data :#1

Date: 2015/8/17

Time: 下午 03:18:35



Site: site #1

Limit: FCC Part 24 conducted(9k-26.5G)

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA PCS

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1 KHz VBW: 3 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-69.31	11.32	-57.99	-13.00	-44.99	peak		

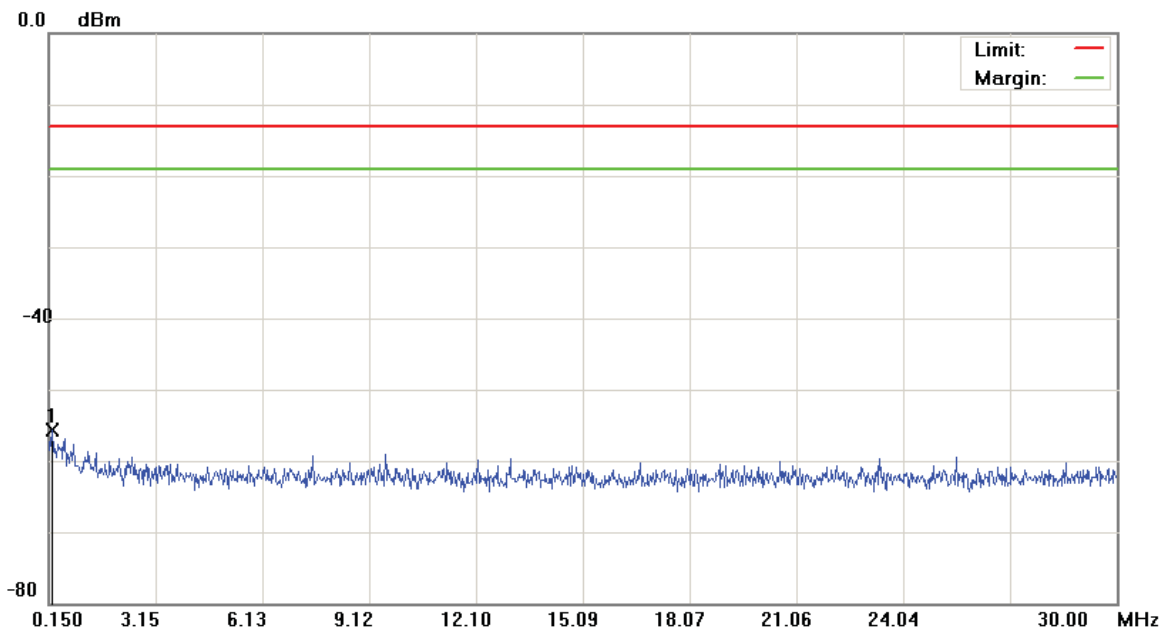
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1175)

Data :#2

Date: 2015/8/17

Time: 下午 03:18:59



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: AC810S-300

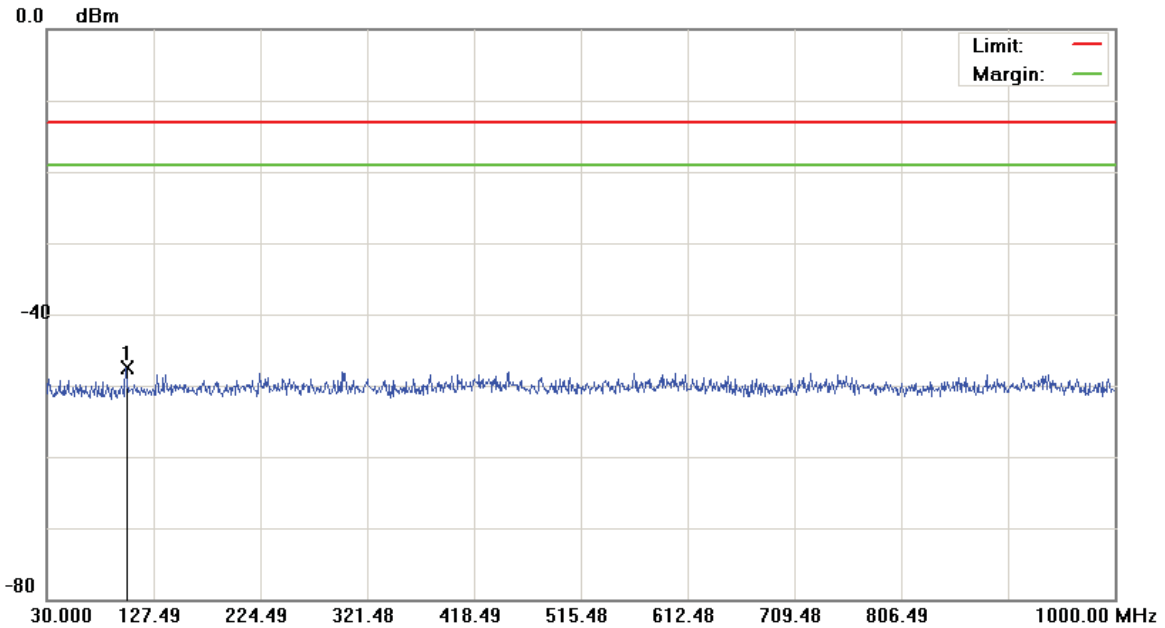
Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2395	-68.23	12.50	-55.73	-13.00	-42.73	peak		

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

File :AC810-300(CH1175) Data :#3 Date: 2015/8/17 Time: 下午 03:19:23



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 100 KHz VBW: 300 KHz
M/N: AC810S-300
Mode: CDMA PCS
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	102.2650	-60.89	13.31	-47.58	-13.00	-34.58	peak		

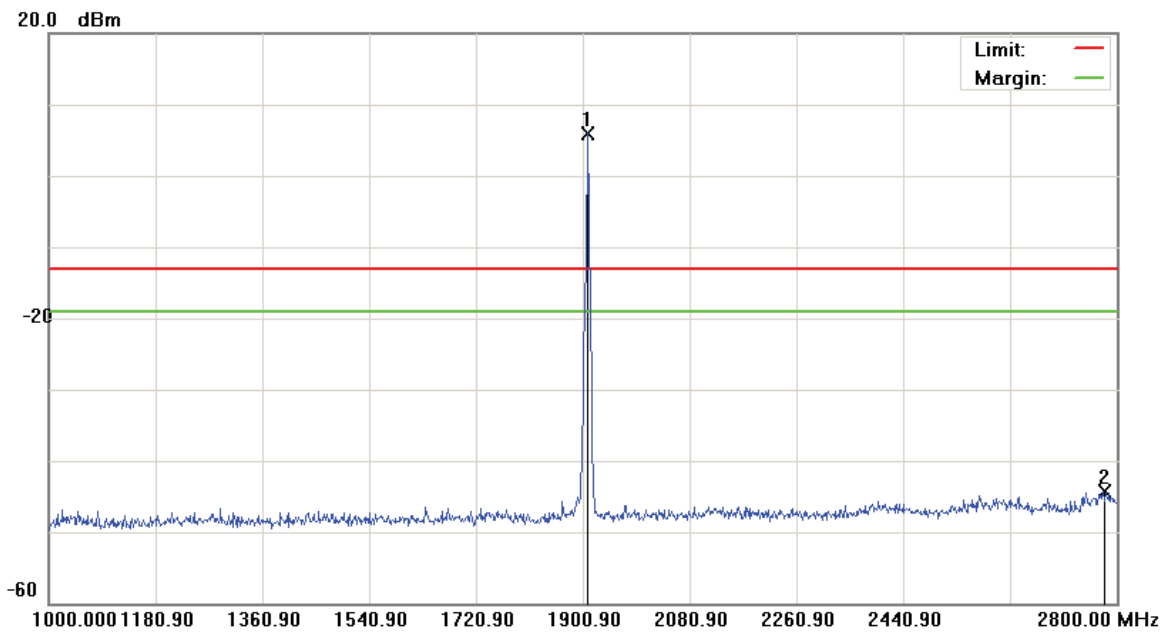
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1175)

Data :#4

Date: 2015/8/17

Time: 下午 03:25:27



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1909.000	0.20	5.80	6.00	-13.00	19.00	peak		Tx
2		2777.500	-50.16	5.84	-44.32	-13.00	-31.32	peak		

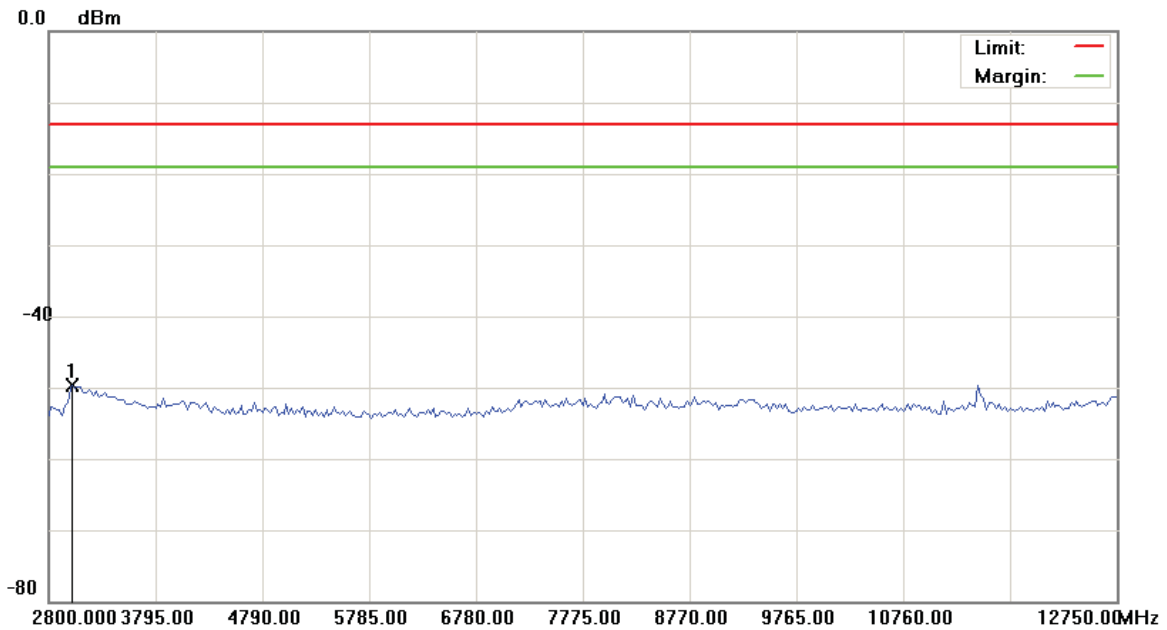
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH1175)

Data :#5

Date: 2015/8/17

Time: 下午 04:46:34



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

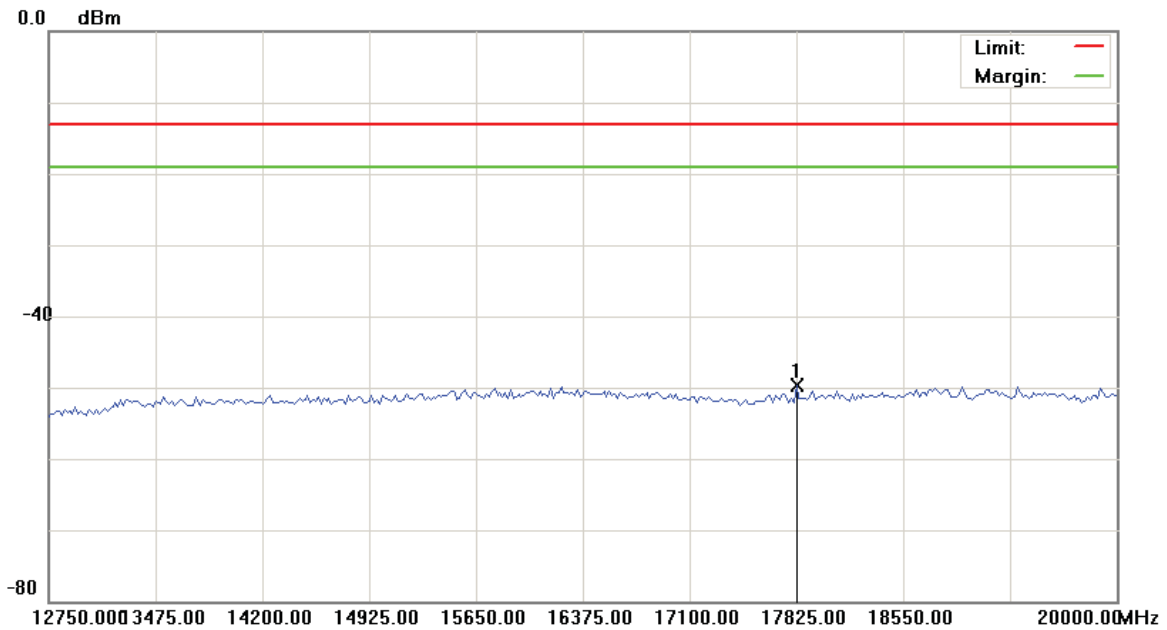
Mode: CDMA PCS

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3023.875	-55.16	5.48	-49.68	-13.00	-36.68	peak		

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

File :AC810-300(CH1175) Data :#6 Date: 2015/8/17 Time: 下午 04:46:54



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G) Power: DC 3.8V Humidity: 55 %
EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300
Mode: CDMA PCS
Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	17825.000	-56.57	6.82	-49.75	-13.00	-36.75	peak		

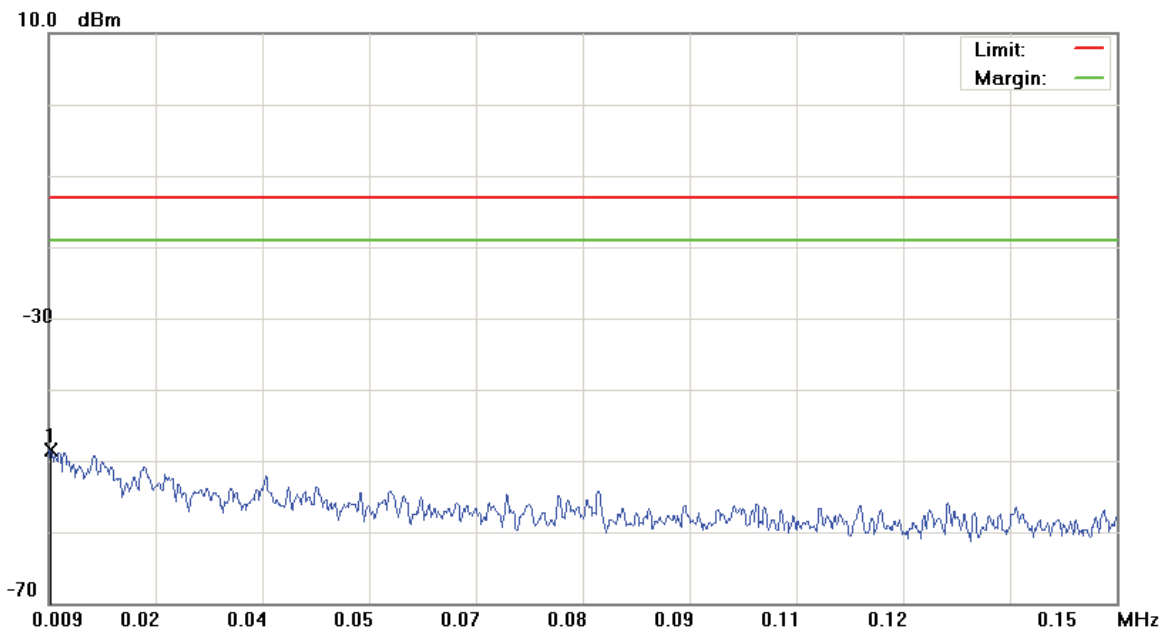
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH450)

Data :#1

Date: 2015/8/17

Time: 下午 05:12:01



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0092	-79.16	30.58	-48.58	-13.00	-35.58	peak		

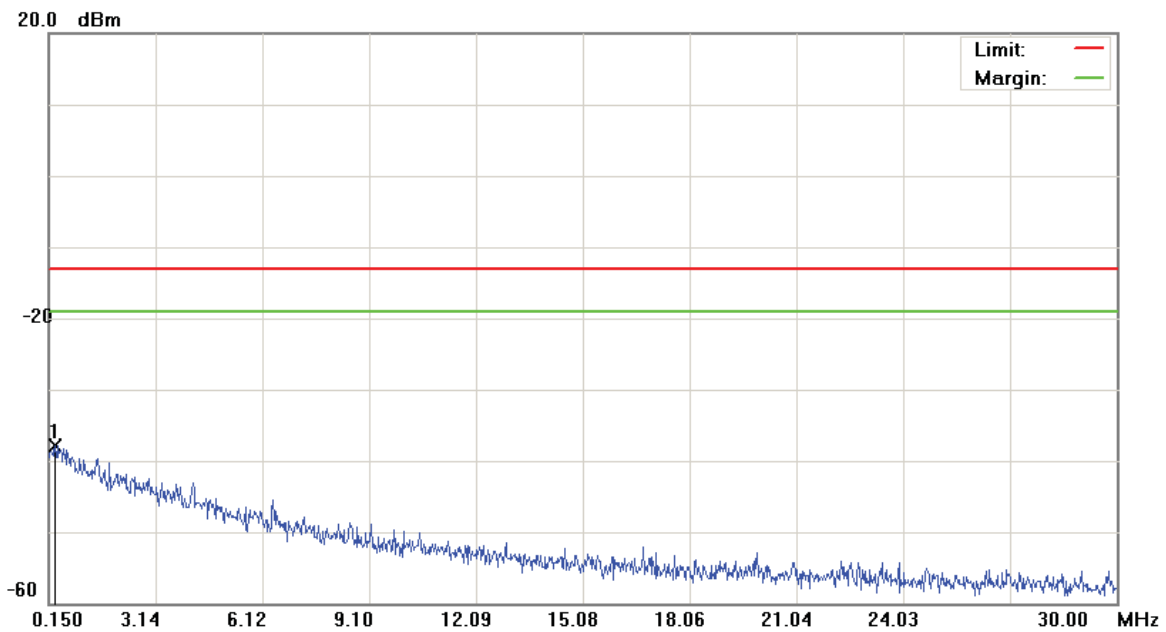
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH450)

Data :#2

Date: 2015/8/17

Time: 下午 05:12:25



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: CDMA Sec 800		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3291	-69.73	31.83	-37.90	-13.00	-24.90	peak		

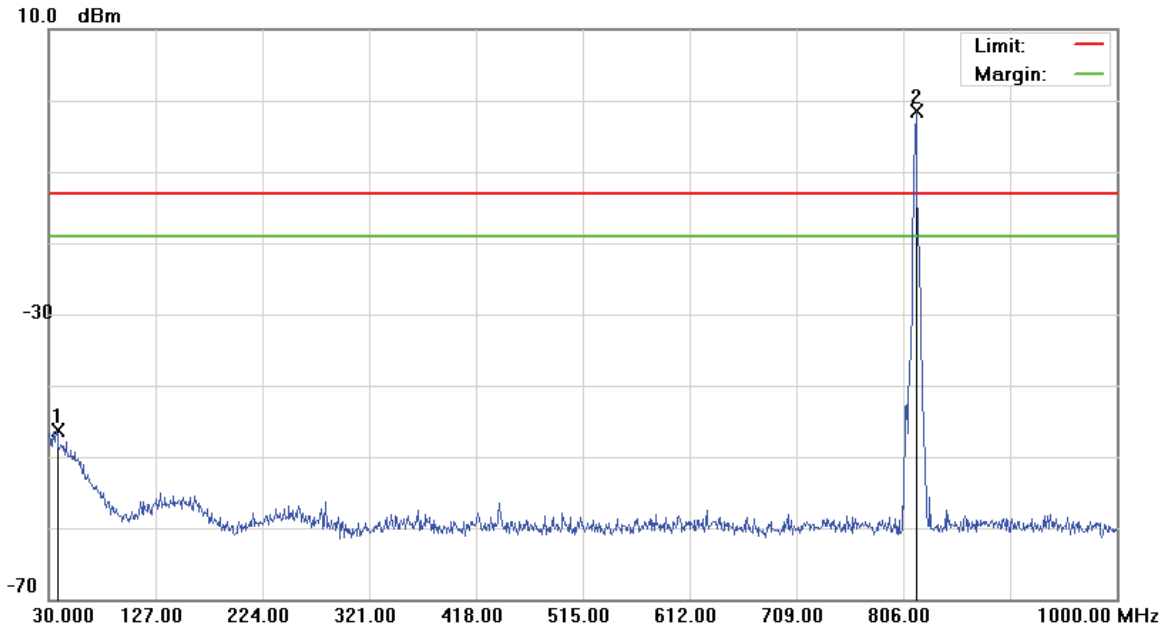
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH450)

Data :#3

Date: 2015/8/17

Time: 下午 05:12:50



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		37.2750	-62.77	16.39	-46.38	-13.00	-33.38	peak		
2	*	817.6400	-5.29	3.78	-1.51	-13.00	11.49	peak		Tx

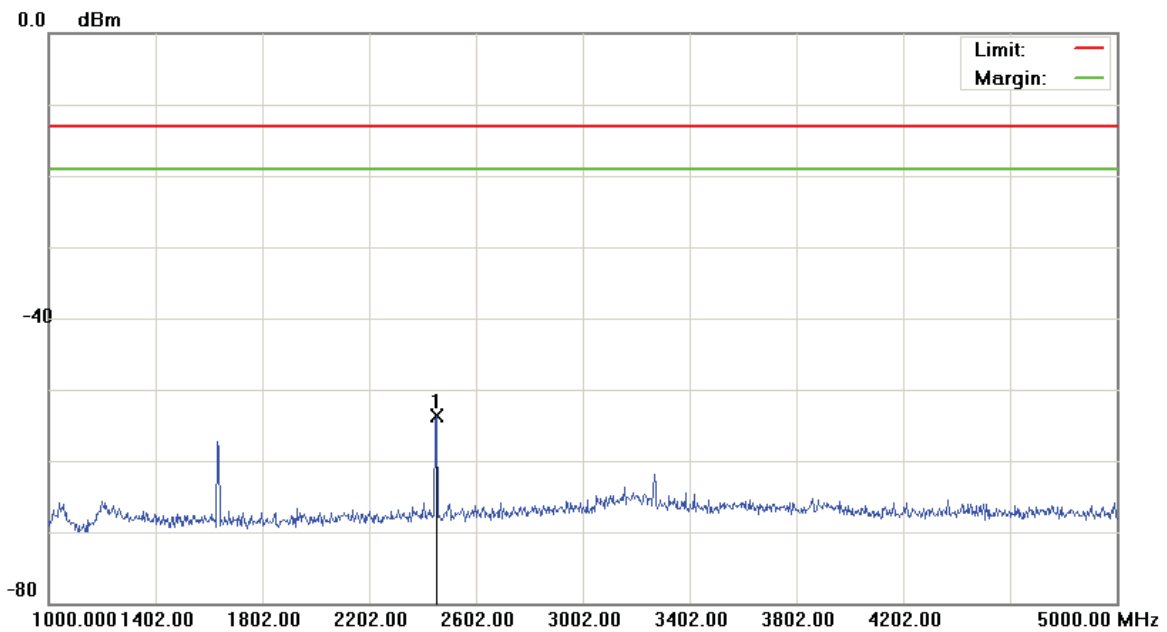
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH450)

Data :#4

Date: 2015/8/17

Time: 下午 05:31:13



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

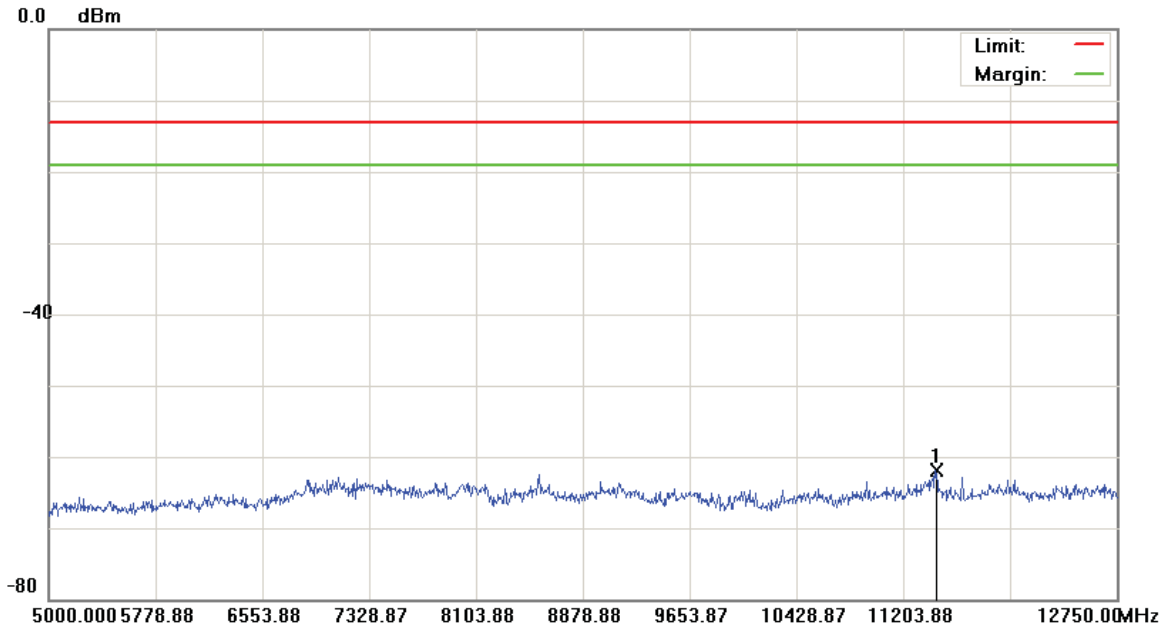
Humidity: 55 %

RBW: 1000 KHz VBW: 3000 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2452.000	-58.23	4.48	-53.75	-13.00	-40.75	peak		

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

File :AC810-300(CH450) Data :#5 Date: 2015/8/17 Time: 下午 05:31:36



Site: site #1 Polarization: Conducted Power Temperature: 26 °C
 Limit: FCC Part 22 conducted(9k-12.75G) Power: DC 3.8V Humidity: 55 %
 EUT: Mobile Hotspot Distance: RBW: 1000 KHz VBW: 3000 KHz
 M/N: AC810S-300
 Mode: CDMA Sec 800
 Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11436.375	-67.48	5.57	-61.91	-13.00	-48.91	peak		

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

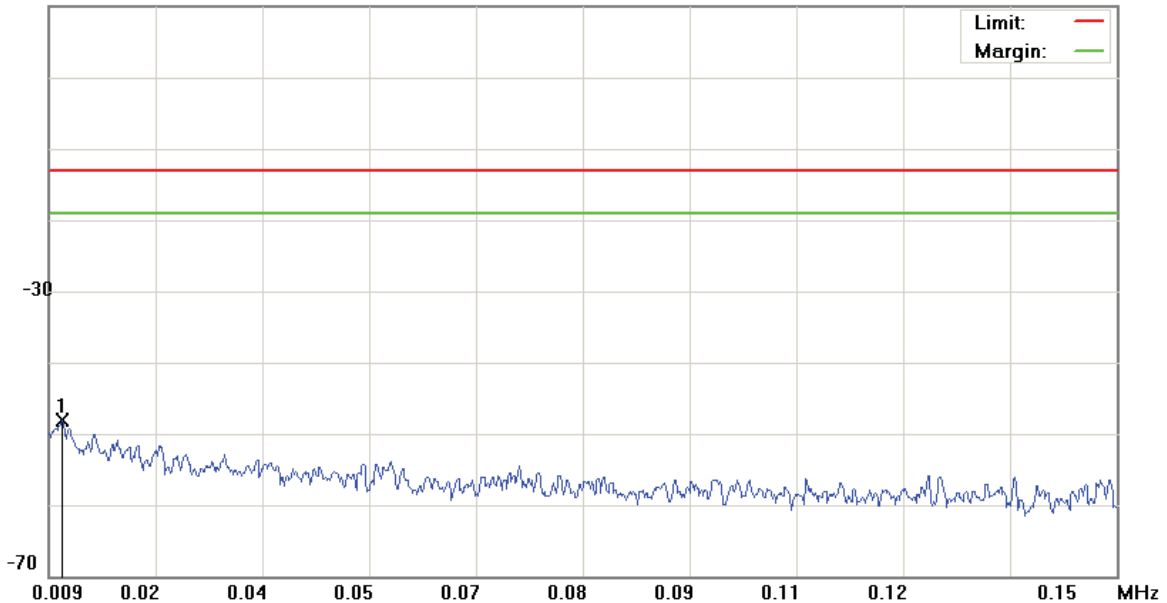
File :AC810-300(CH560)

Data :#1

Date: 2015/8/17

Time: 下午 05:14:47

10.0 dBm



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0108	-78.58	30.57	-48.01	-13.00	-35.01	peak		

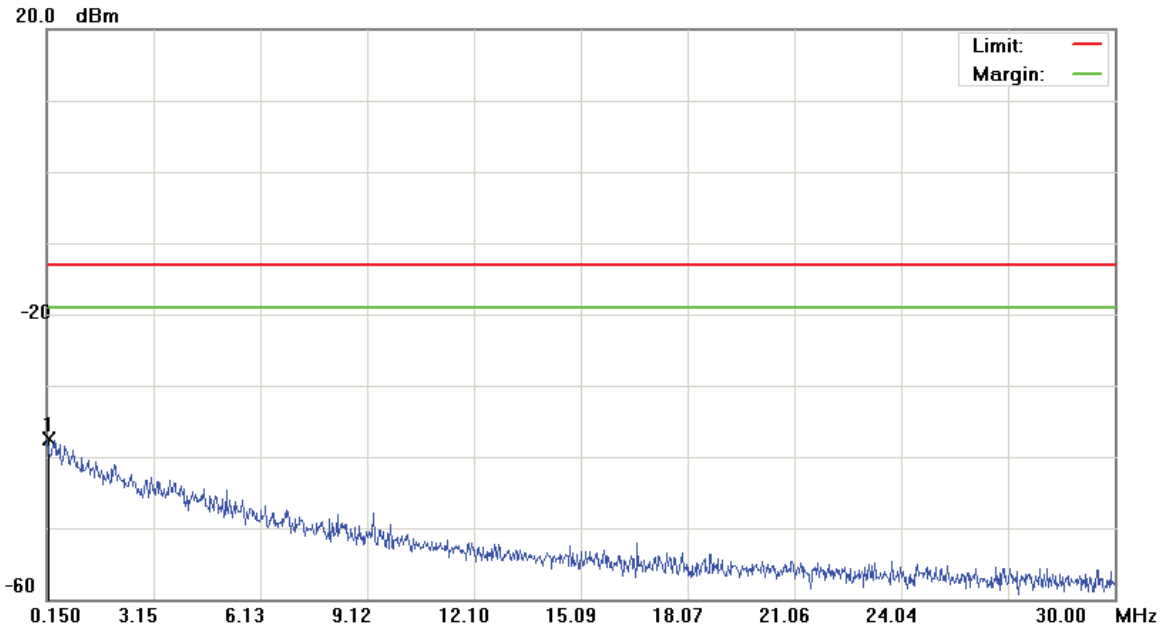
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH560)

Data :#2

Date: 2015/8/17

Time: 下午 05:15:11



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 10 KHz VBW: 30 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1948	-68.41	30.88	-37.53	-13.00	-24.53	peak		

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

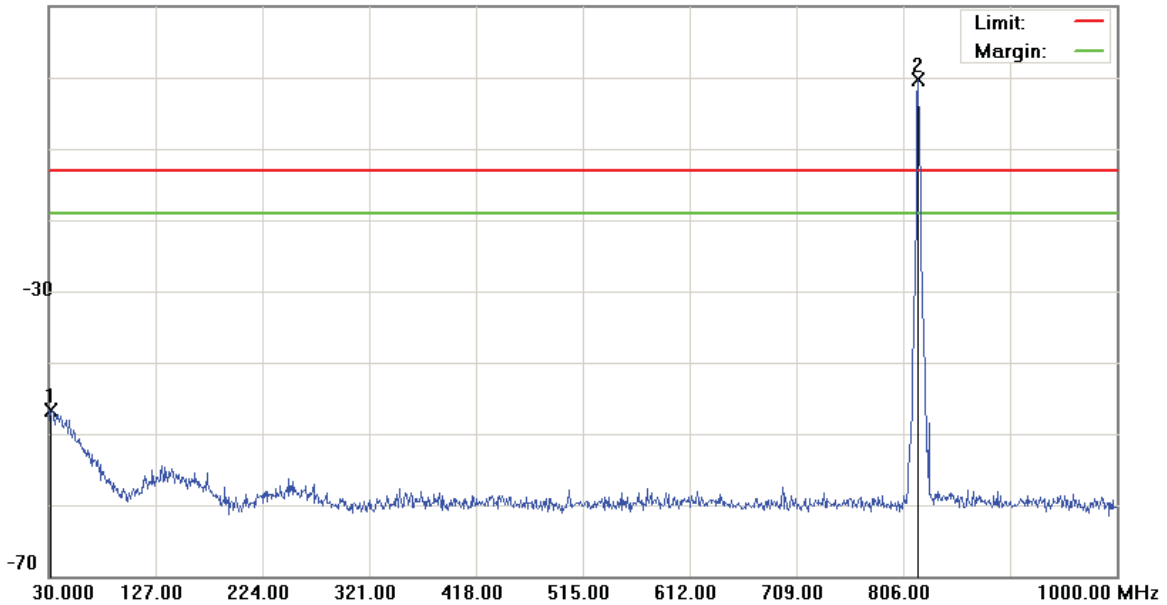
File :AC810-300(CH560)

Data :#3

Date: 2015/8/17

Time: 下午 05:15:36

10.0 dBm



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 100 KHz VBW: 300 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		31.4550	-63.69	17.05	-46.64	-13.00	-33.64	peak		
2	*	819.5800	-4.14	3.80	-0.34	-13.00	12.66	peak		Tx

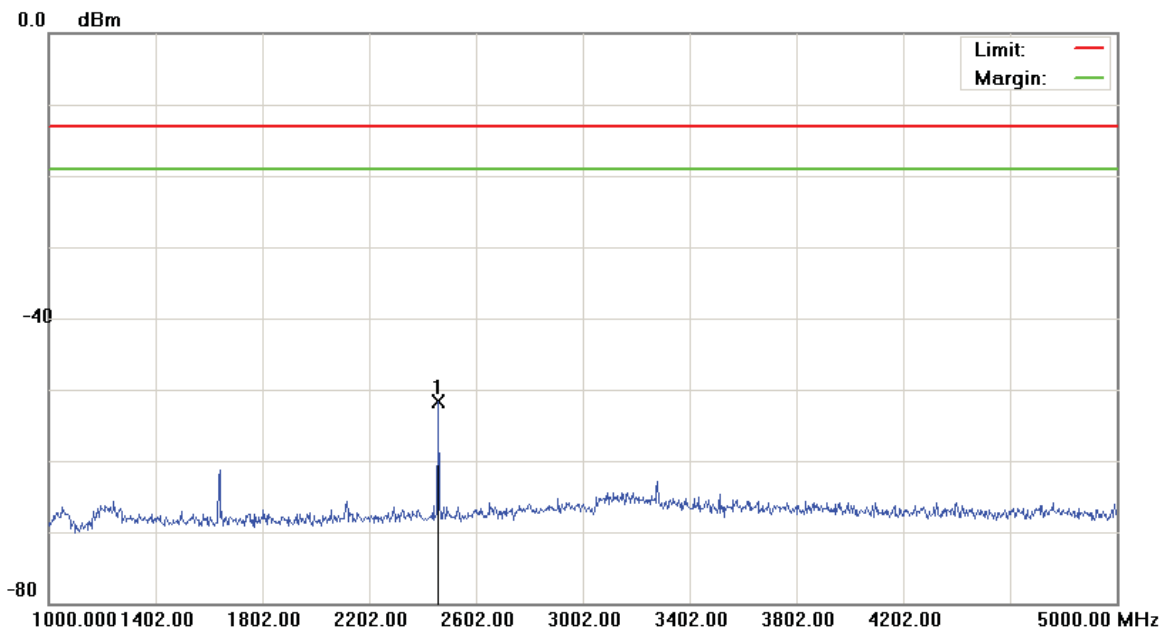
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH560)

Data :#4

Date: 2015/8/17

Time: 下午 05:32:29



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

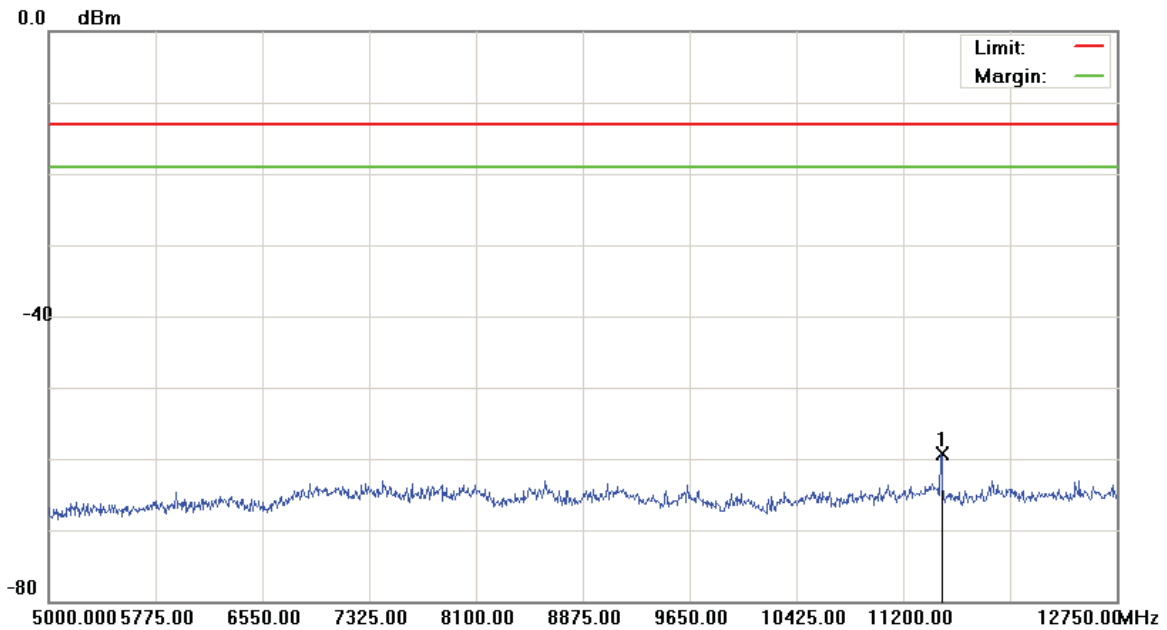
Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2460.000	-56.13	4.49	-51.64	-13.00	-38.64	peak		

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

File :AC810-300(CH560) Data :#5 Date: 2015/8/17 Time: 下午 05:32:52



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: AC810S-300		
Mode: CDMA Sec 800		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11475.125	-64.39	5.15	-59.24	-13.00	-46.24	peak		

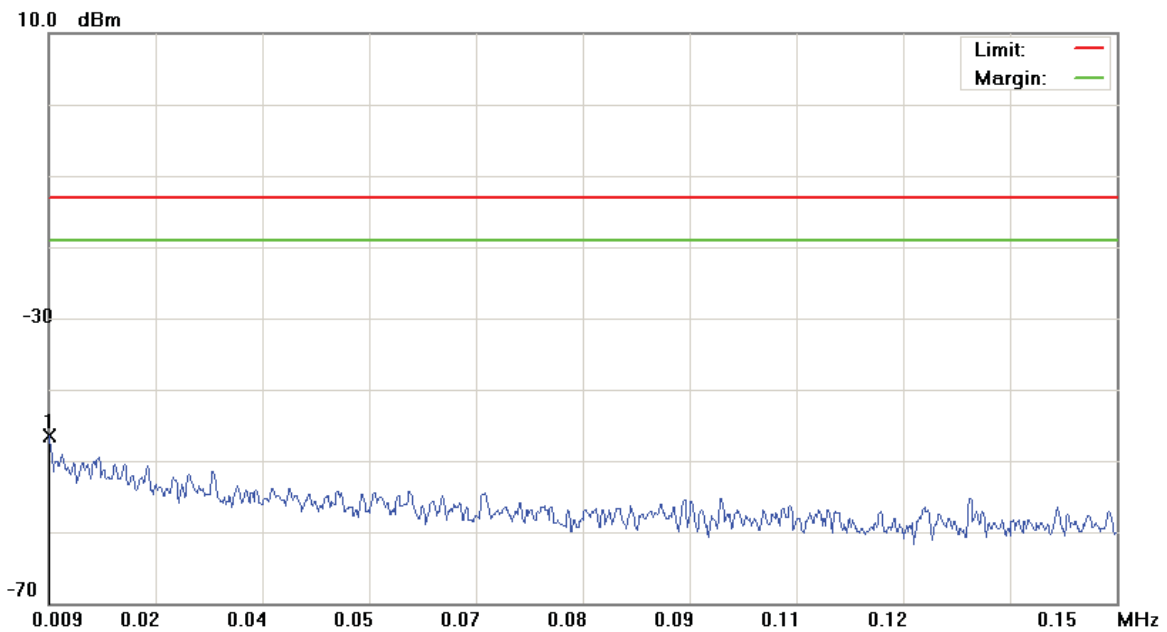
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH670)

Data :#1

Date: 2015/8/17

Time: 下午 05:17:45



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-77.07	30.58	-46.49	-13.00	-33.49	peak		

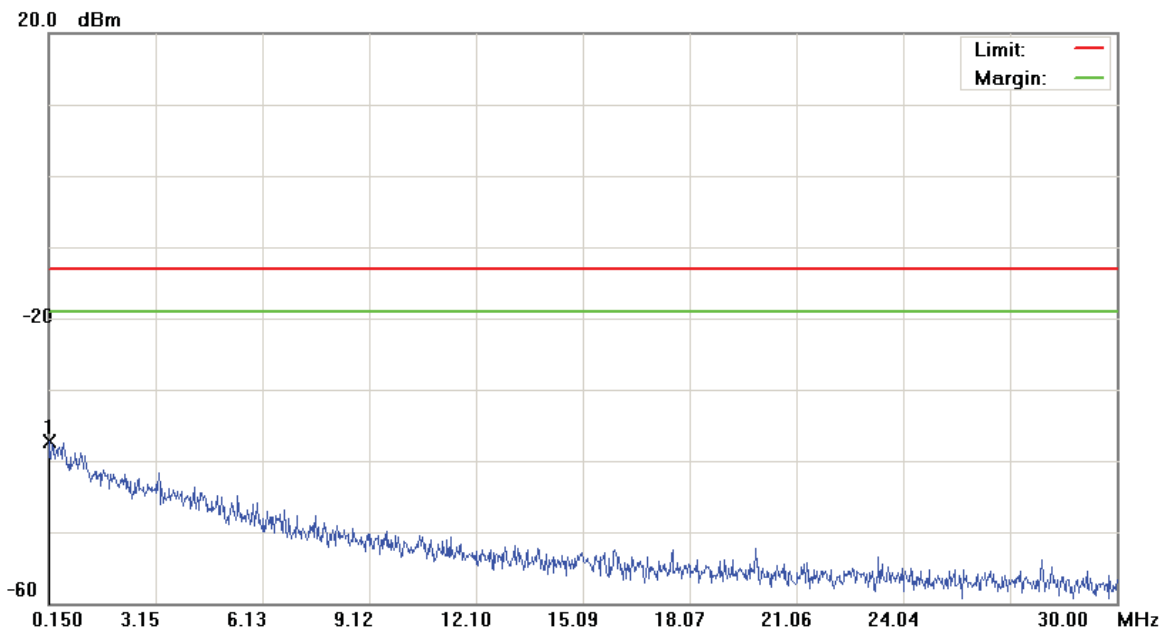
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH670)

Data :#2

Date: 2015/8/17

Time: 下午 05:18:09



Site: site #1	Polarization: Conducted Power	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 55 %
EUT: Mobile Hotspot	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: AC810S-300		
Mode: CDMA Sec 800		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1650	-67.90	30.63	-37.27	-13.00	-24.27	peak		

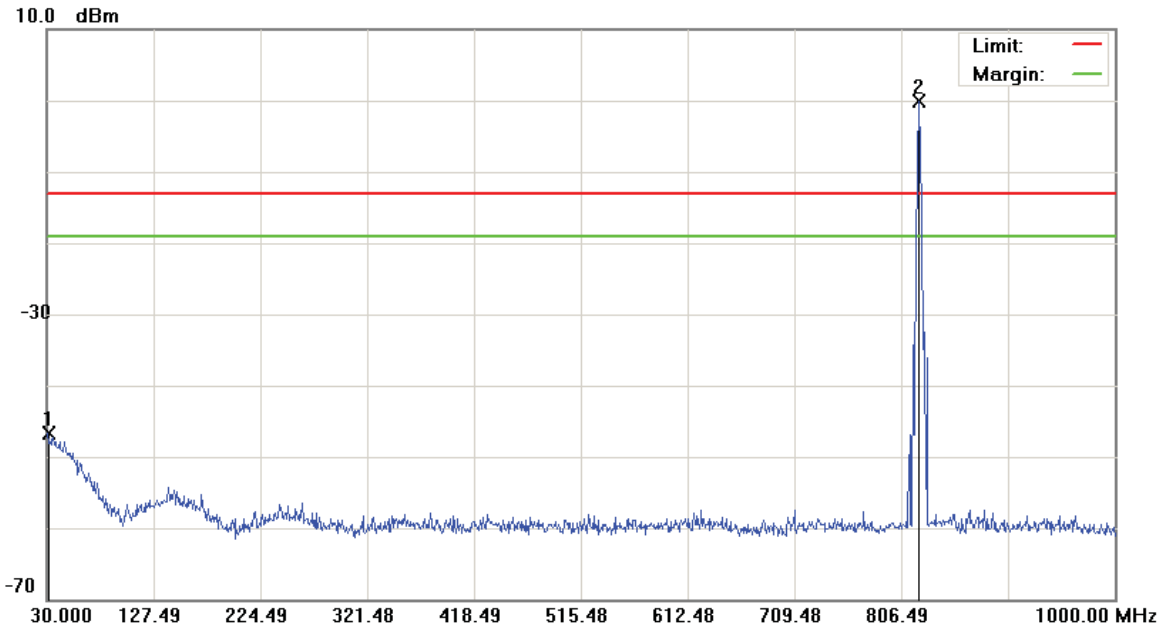
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH670)

Data :#3

Date: 2015/8/17

Time: 下午 05:18:33



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 100 KHz VBW: 300 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		31.4550	-63.76	17.05	-46.71	-13.00	-33.71	peak		
2	*	822.0050	-3.93	3.82	-0.11	-13.00	12.89	peak		Tx

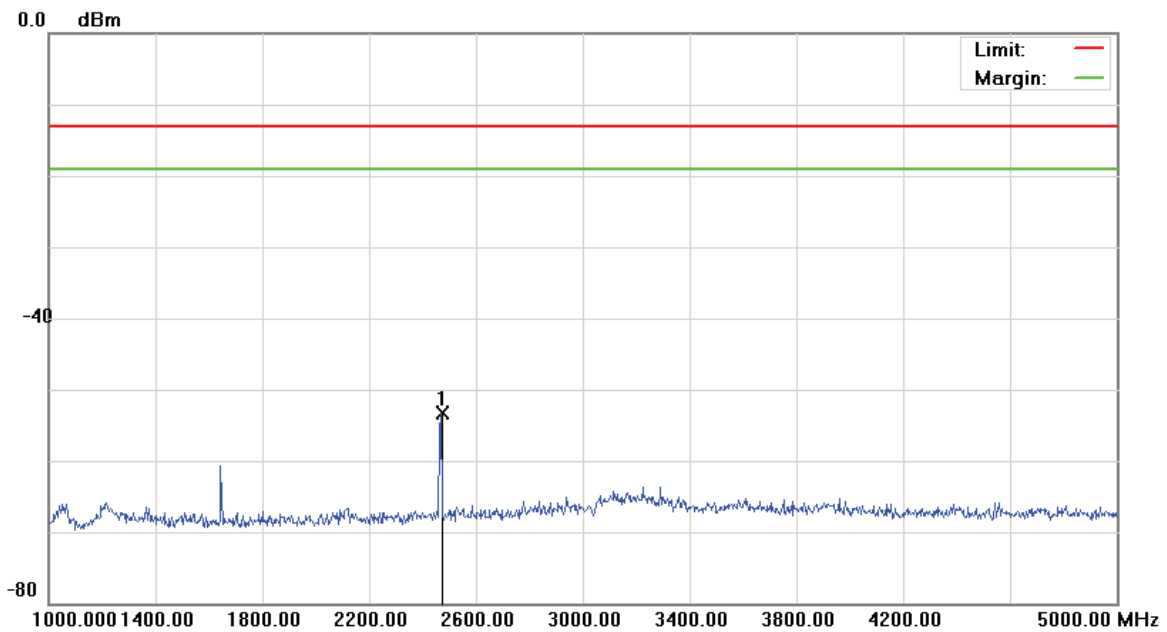
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH670)

Data :#4

Date: 2015/8/17

Time: 下午 05:34:11



Site: site #1

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

EUT: Mobile Hotspot

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

Polarization: Conducted Power

Power: DC 3.8V

Distance:

Temperature: 26 °C

Humidity: 55 %

RBW: 1000 KHz VBW: 3000 KHz

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2470.000	-57.78	4.46	-53.32	-13.00	-40.32	peak		

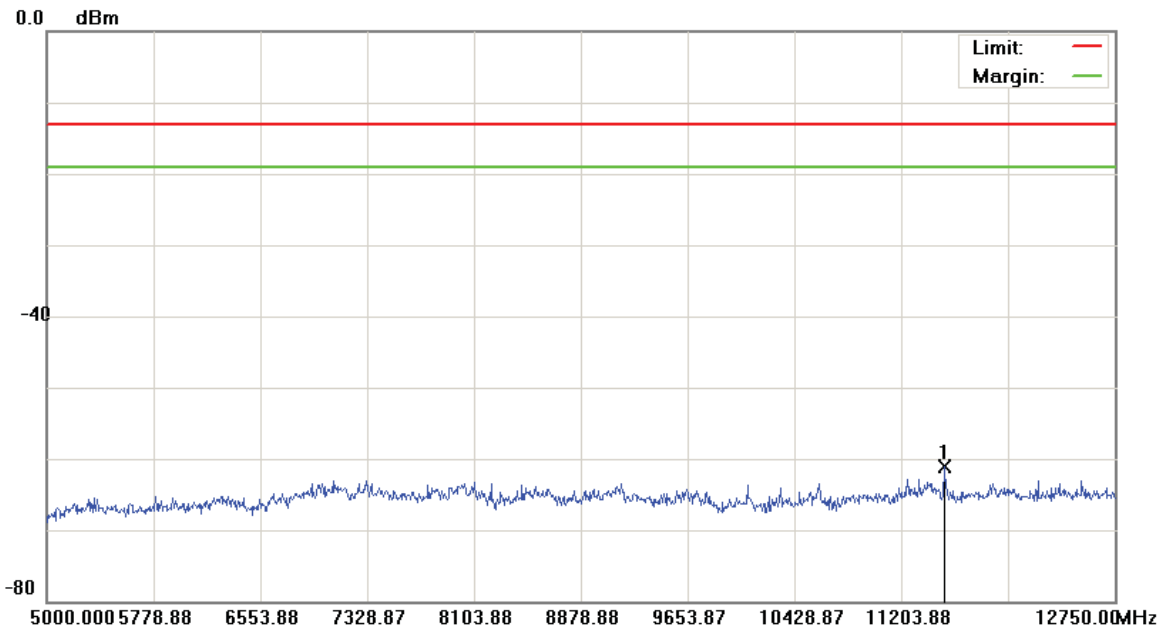
*:Maximum data x:Over limit !:over margin

File :AC810-300(CH670)

Data :#5

Date: 2015/8/17

Time: 下午 05:34:34



Site: site #1

Polarization: Conducted Power

Temperature: 26 °C

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

Power: DC 3.8V

Humidity: 55 %

EUT: Mobile Hotspot

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: AC810S-300

Mode: CDMA Sec 800

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11513.875	-65.83	4.80	-61.03	-13.00	-48.03	peak		

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

8 Field Strength of Spurious Radiation Test

8.1. Limit

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

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

8.2. Test Instruments

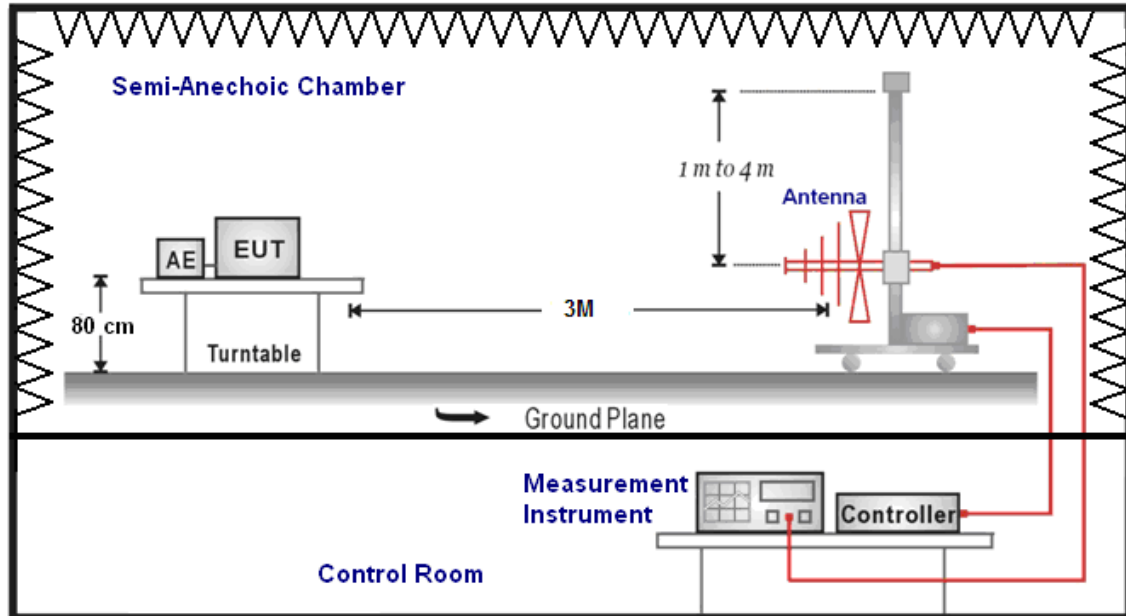
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/06/2015	(1)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/06/2015	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/24/2015	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/24/2015	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	08/11/2015	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/12/2015	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	07/06/2015	(1)
Test Site	ATL	TE01	888001	08/27/2015	(1)

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

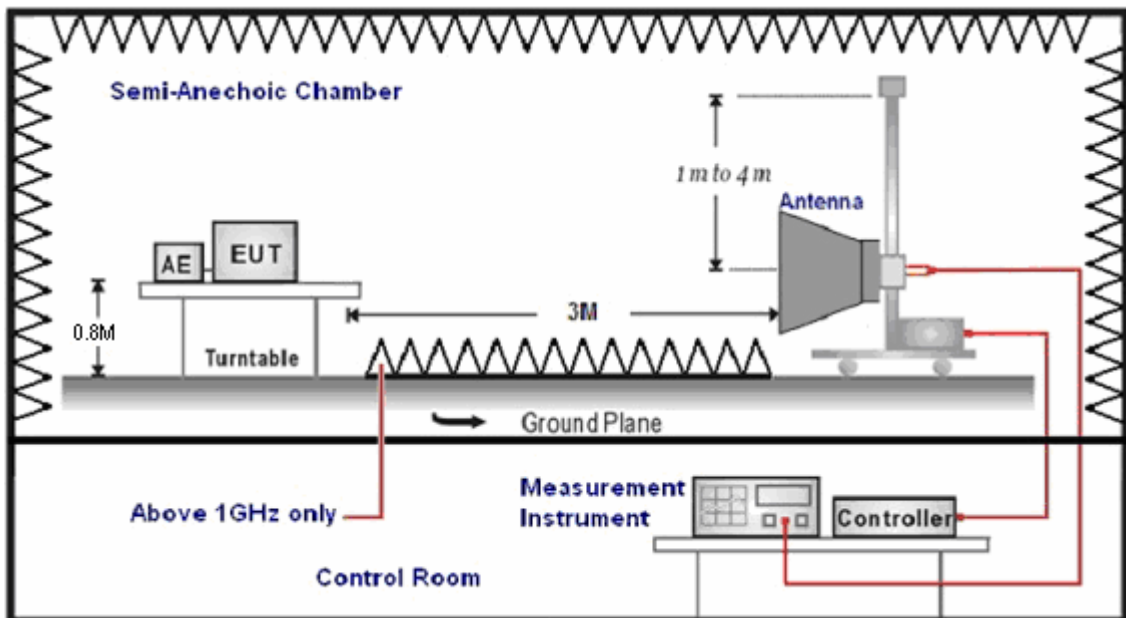
Note: N.C.R. = No Calibration Request.

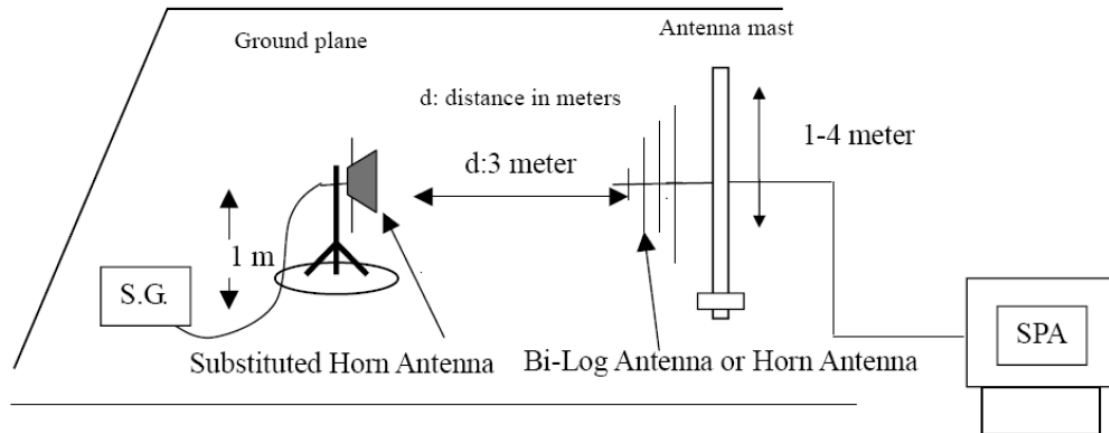
8.3. Setup

Below 1GHz



Above 1GHz





8.4. Test Procedure

- The EUT was set up for the maximum power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range). RWB and VBW is 1MHz.
- Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

8.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.

8.6. Test Result

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	08/29/2015
Frequency:	1852.4 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7372.000	-74.33	26.61	-47.72	-13.00	-34.72	peak	H
7036.000	-75.72	25.64	-50.08	-13.00	-37.08	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	08/29/2015
Frequency:	1880.0 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6772.000	-75.63	25.07	-50.56	-13.00	-37.56	peak	H
7600.000	-75.42	27.08	-48.34	-13.00	-35.34	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	08/29/2015
Frequency:	1907.6 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7180.000	-75.62	26.05	-49.57	-13.00	-36.57	peak	H
8044.000	-77.29	27.33	-49.96	-13.00	-36.96	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	08/29/2015
Frequency:	826.4 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6676.000	-73.95	24.86	-49.09	-13.00	-36.09	peak	H
7696.000	-76.09	27.18	-48.91	-13.00	-35.91	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	08/29/2015
Frequency:	836.6 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6544.000	-74.21	24.60	-49.61	-13.00	-36.61	peak	H
7420.000	-75.36	26.75	-48.61	-13.00	-35.61	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	08/29/2015
Frequency:	846.6 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6784.000	-74.85	25.10	-49.75	-13.00	-36.75	peak	H
7120.000	-74.71	25.88	-48.83	-13.00	-35.83	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3	Date:	08/29/2015
Frequency:	824.70 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6436.000	-76.08	24.20	-51.88	-13.00	-38.88	peak	H
7924.000	-74.92	27.40	-47.52	-13.00	-34.52	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3	Date:	08/29/2015
Frequency:	836.52 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
5608.000	-74.63	20.76	-53.87	-13.00	-40.87	peak	H
6256.000	-75.86	23.36	-52.50	-13.00	-39.50	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	3	Date:	08/29/2015
Frequency:	848.31 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7360.000	-74.64	26.57	-48.07	-13.00	-35.07	peak	H
6532.000	-74.77	24.57	-50.20	-13.00	-37.20	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4	Date:	08/29/2015
Frequency:	1851.25 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7264.000	-74.48	26.29	-48.19	-13.00	-35.19	peak	H
7516.000	-74.53	27.00	-47.53	-13.00	-34.53	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4	Date:	08/29/2015
Frequency:	1880.00 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6628.000	-73.12	24.77	-48.35	-13.00	-35.35	peak	H
8032.000	-74.98	27.37	-47.61	-13.00	-34.61	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4	Date:	08/29/2015
Frequency:	1908.75 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7840.000	-75.10	27.32	-47.78	-13.00	-34.78	peak	H
6280.000	-76.00	23.47	-52.53	-13.00	-39.53	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	10/05/2015
Frequency:	817.25 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6676.000	-74.87	24.86	-50.01	-13.00	-37.01	peak	H
6160.000	-76.15	22.91	-53.24	-13.00	-40.24	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	10/06/2015
Frequency:	820.00 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7168.000	-75.53	26.02	-49.51	-13.00	-36.51	peak	H
7708.000	-74.79	27.19	-47.60	-13.00	-34.60	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	10/06/2015
Frequency:	822.75 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6748.000	-75.38	25.02	-50.36	-13.00	-37.36	peak	H
7900.000	-76.68	27.38	-49.30	-13.00	-36.30	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	08/29/2015
Frequency:	824.70 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7948.000	-76.17	27.43	-48.74	-13.00	-35.74	peak	H
6316.000	-75.89	23.64	-52.25	-13.00	-39.25	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	08/29/2015
Frequency:	836.52 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6508.000	-74.78	24.54	-50.24	-13.00	-37.24	peak	H
6484.000	-74.27	24.44	-49.83	-13.00	-36.83	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	08/29/2015
Frequency:	848.31 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6760.000	-73.36	25.05	-48.31	-13.00	-35.31	peak	H
6496.000	-74.36	24.49	-49.87	-13.00	-36.87	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	7	Date:	08/29/2015
Frequency:	1851.25 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7360.000	-75.14	26.57	-48.57	-13.00	-35.57	peak	H
6496.000	-74.90	24.49	-50.41	-13.00	-37.41	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	7	Date:	08/29/2015
Frequency:	1880.00 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7492.000	-74.41	26.96	-47.45	-13.00	-34.45	peak	H
6568.000	-74.44	24.64	-49.80	-13.00	-36.80	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	7	Date:	08/29/2015
Frequency:	1908.75 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
6628.000	-74.47	24.77	-49.70	-13.00	-36.70	peak	H
6436.000	-75.14	24.20	-50.94	-13.00	-37.94	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	8	Date:	10/06/2015
Frequency:	817.25 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7396.000	-75.64	26.68	-48.96	-13.00	-35.96	peak	H
7972.000	-76.11	27.46	-48.65	-13.00	-35.65	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	8	Date:	10/06/2015
Frequency:	820.00 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7156.000	-74.82	25.99	-48.83	-13.00	-35.83	peak	H
6436.000	-76.78	24.20	-52.58	-13.00	-39.58	peak	V

Standard:	FCC Part 90	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	AC810S-300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	8	Date:	08/29/2015
Frequency:	822.75 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
7276.000	-77.85	26.34	-51.51	-13.00	-38.51	peak	H
6412.000	-74.40	24.09	-50.31	-13.00	-37.31	peak	V

9 Frequency Stability (Temperature & Voltage Variation) Test

9.1. Limit

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

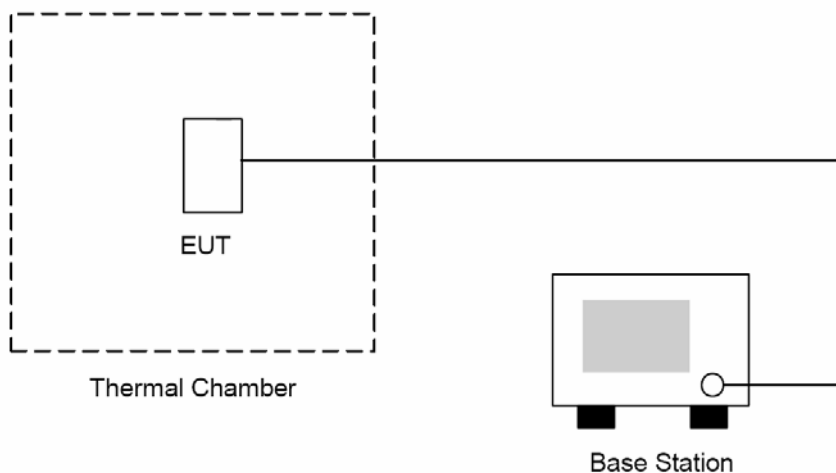
9.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	10/21/2014	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	04/27/2015	(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.

9.3. Setup



9.4. Test Procedure

The measurement is made according to FCC rules part 22, 24 and 90:

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ 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.

9.5. Uncertainty

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

9.6. Test Result

Model Number	AC810S-300					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 1					
Date of Test	10/02/2015				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-3.97	-0.002	±2.5	Pass
Normal	3.80	-20	-6.89	-0.004	±2.5	Pass
Normal	3.80	-10	-15.84	-0.008	±2.5	Pass
Normal	3.80	0	-0.77	0.000	±2.5	Pass
Normal	3.80	10	-15.04	-0.008	±2.5	Pass
Battery full point	4.35	20	-15.21	-0.008	±2.5	Pass
Normal	3.80	20	-2.23	-0.001	±2.5	Pass
Battery cut-off point	3.50	20	-3.69	-0.002	±2.5	Pass
Normal	3.80	30	9.02	0.005	±2.5	Pass
Normal	3.80	40	4.05	0.002	±2.5	Pass
Normal	3.80	50	-6.64	-0.004	±2.5	Pass

Model Number	AC810S-300					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 2					
Date of Test	10/02/2015				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-10.48	-0.013	±2.5	Pass
Normal	3.80	-20	-7.18	-0.009	±2.5	Pass
Normal	3.80	-10	-23.08	-0.028	±2.5	Pass
Normal	3.80	0	-6.99	-0.008	±2.5	Pass
Normal	3.80	10	-5.56	-0.007	±2.5	Pass
Battery full point	4.35	20	-12.34	-0.015	±2.5	Pass
Normal	3.80	20	-2.31	-0.003	±2.5	Pass
Battery cut-off point	3.50	20	-9.21	-0.011	±2.5	Pass
Normal	3.80	30	6.02	0.007	±2.5	Pass
Normal	3.80	40	-9.74	-0.012	±2.5	Pass
Normal	3.80	50	9.51	0.011	±2.5	Pass

Model Number	AC810S-300					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 3					
Date of Test	10/02/2015				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-9.27	-0.011	±2.5	Pass
Normal	3.80	-20	7.77	0.009	±2.5	Pass
Normal	3.80	-10	-14.71	-0.018	±2.5	Pass
Normal	3.80	0	-11.23	-0.013	±2.5	Pass
Normal	3.80	10	-6.31	-0.008	±2.5	Pass
Battery full point	4.35	20	-8.74	-0.010	±2.5	Pass
Normal	3.80	20	-14.59	-0.017	±2.5	Pass
Battery cut-off point	3.50	20	1.12	0.001	±2.5	Pass
Normal	3.80	30	-1.47	-0.002	±2.5	Pass
Normal	3.80	40	8.24	0.010	±2.5	Pass
Normal	3.80	50	5.55	0.007	±2.5	Pass

Model Number	AC810S-300					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 4					
Date of Test	10/02/2015				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	1.45	0.001	±2.5	Pass
Normal	3.80	-20	4.37	0.002	±2.5	Pass
Normal	3.80	-10	-15.98	-0.009	±2.5	Pass
Normal	3.80	0	3.69	0.002	±2.5	Pass
Normal	3.80	10	-9.72	-0.005	±2.5	Pass
Battery full point	4.35	20	-2.42	-0.001	±2.5	Pass
Normal	3.80	20	-19.11	-0.010	±2.5	Pass
Battery cut-off point	3.50	20	6.05	0.003	±2.5	Pass
Normal	3.80	30	-1.82	-0.001	±2.5	Pass
Normal	3.80	40	-7.44	-0.004	±2.5	Pass
Normal	3.80	50	5.24	0.003	±2.5	Pass

Model Number	AC810S-300					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 5					
Date of Test	10/02/2015				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-2.36	-0.003	±2.5	Pass
Normal	3.80	-20	-2.72	-0.003	±2.5	Pass
Normal	3.80	-10	-18.91	-0.023	±2.5	Pass
Normal	3.80	0	2.44	0.003	±2.5	Pass
Normal	3.80	10	-15.92	-0.019	±2.5	Pass
Battery full point	4.35	20	-8.38	-0.010	±2.5	Pass
Normal	3.80	20	-1.95	-0.002	±2.5	Pass
Battery cut-off point	3.50	20	-7.15	-0.009	±2.5	Pass
Normal	3.80	30	1.95	0.002	±2.5	Pass
Normal	3.80	40	8.36	0.010	±2.5	Pass
Normal	3.80	50	-6.99	-0.009	±2.5	Pass