

FCC 47 CFR PART 22H and 24E

Product Type : USB Broadband Modem

Applicant : SCT Wireless Inc

Address : 1894 US Hwy 50 East Building 4 Suite 281 Carson City NV
89701

Trade Name : SCT Wireless

Model Number : SCT-UM300

Test Specification : FCC 47 CFR PART 22H: Oct, 2009
FCC 47 CFR PART 24E: Oct, 2009
ANSI/TIA-603-C 2004

Issue Date : Nov. 26, 2010

Issue by

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

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Nov. 26, 2010	Initial Issue	

Verification of Compliance

Issued Date: 2010/11/26

Product Type : USB Broadband Modem
Applicant : SCT Wireless Inc
Address : 1894 US Hwy 50 East Building 4 Suite 281 Carson City NV 89701
Trade Name : SCT Wireless
Model Number : SCT-UM300
FCC ID : XZZSCT-UM300
EUT Rated Voltage : DC 5V (USB Interface)
Test Voltage : 120 Vac / 60 Hz
Applicable : FCC 47 CFR PART 22H: Oct, 2009
Standard : FCC 47 CFR PART 24E: Oct, 2009
ANSI/TIA-603-C 2004

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.

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

The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 22H, Part 24E.
The test results of this report relate only to the tested sample identified in this report.

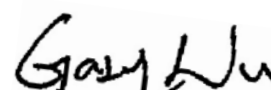
Approved By :



(Manager)

(Miller Lee)

Reviewed By :



(Testing Engineer)

(Gary Wu)

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1 General Information

1.1. EUT Description

Applicant		SCT Wireless Inc			
Applicant Address		1894 US Hwy 50 East Building 4 Suite 281 Carson City NV 89701			
Manufacturer		Airgoon LTD.			
Manufacturer Address		2207 Concord Pike, Suite 700, Wilmington, DELAWARE			
Product Type		USB Broadband Modem			
Trade Name		SCT Wireless			
Model Number		SCT-UM300			
FCC ID		XZZSCT-UM300			
Mode	CDMA 2000, 1xRTT revision A, EVDO release 0, EVDO release A	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		Cellular	824.0 ~ 849.0	869.0 ~ 893.0	QPSK
		PCS	1850.0 ~ 1910.0	1930.0 ~ 1990.0	QPSK
Channel Control		Auto			
Type of Antenna		monopole Antenna			
Antenna Gain (dBi)		Cellular Band: 0 dBi PCS Band: 0 dBi			
Max. RF Output power		Cellular Band: 28.75 dBm / 0.750 W PCS Band: 23.92 dBm / 0.247 W			
Max. ERP/EIRP		Cellular Band: 21.28 dBm / 0.134 W PCS Band: 25.02 dBm / 0.318 W			
Emission Designator		Cellular Band: 1M28F9W PCS Band: 1M56F9W			

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: CDMA 2000 Cellular Band Link
Mode 2: CDMA 2000 PCS Band Link
Mode 3: 1xRTT revision A Cellular Band Link
Mode 4: 1xRTT revision A PCS Band Link
Mode 5: EVDO release 0 Cellular Band Link
Mode 6: EVDO release 0 PCS Band Link
Mode 7: EVDO release A Cellular Band Link
Mode 8: EVDO release A PCS Band Link

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

Preliminary tests were performed in different modulation to find the worst case. The worst cases modulation is **EVDO release A**. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Tested System Details

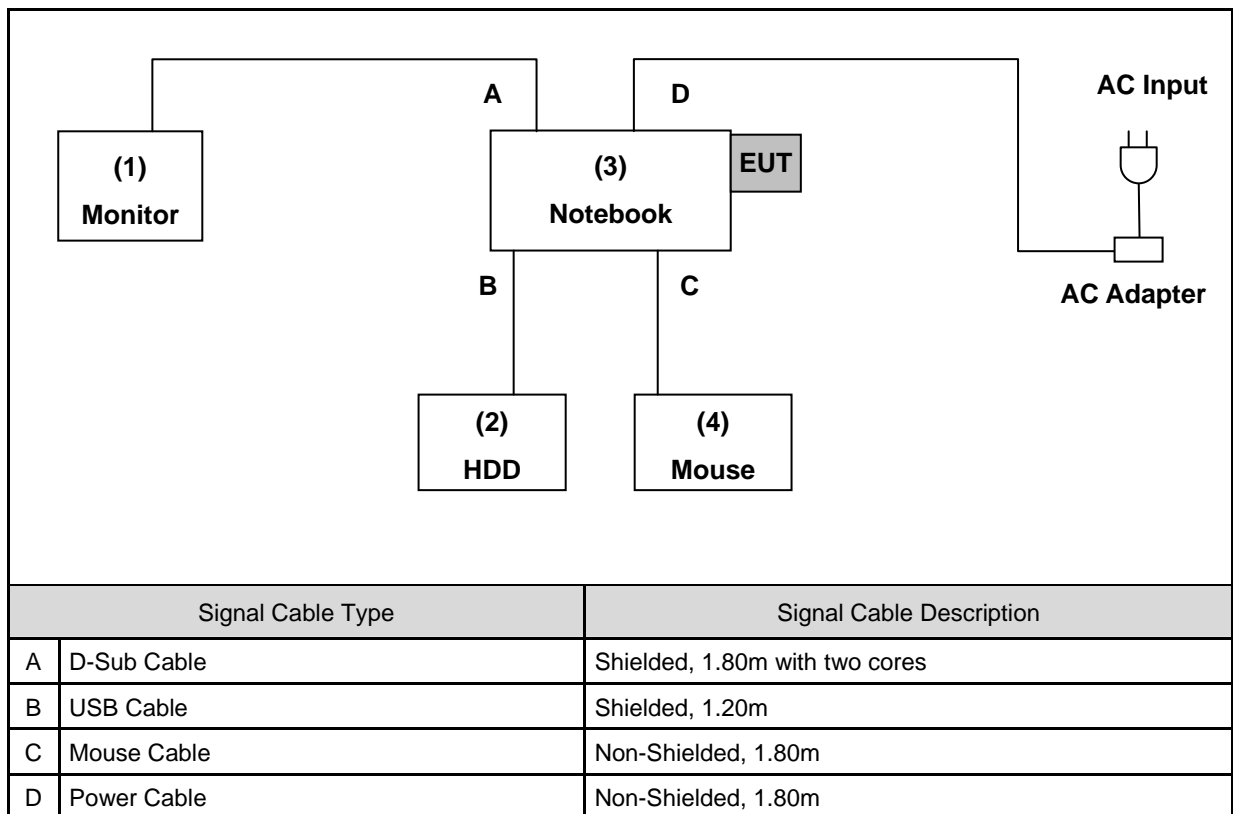
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

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

1.3. EUT Exercise Software

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



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
1.	LCD Monitor	DELL	2408WFT	CN-0G293H-74261-95M-1NGS	Non-Shielded, 1.8m
2.	Hard Disk Drive	Buffalo	HD-HXU3	15564891205910	Non-Shielded, 1.8m
3.	Notebook	DELL	D531	GCDGD-T6HYQ-3MQ8R-JCPD3-3G8G2	Non-Shielded, 1.8m
4.	Mouse	Logitech	M-UAG96B	PID-LZ815AA	N/A

1.5. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	25
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950

1.6. Summary of Test Result

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

2 RF Output Power Test

2.1. Limit

N/A

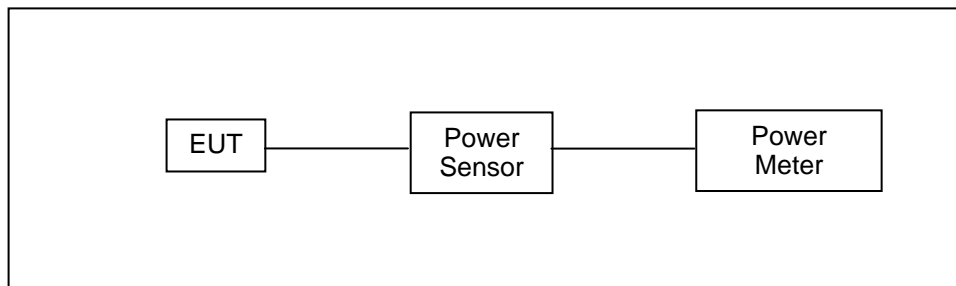
2.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	07/19/2010	(1)
Wideband Power Meter	Agilent	N1921A	MY45241957	07/19/2010	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

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

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

2.3. Test Setup



2.4. Test Procedure

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

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

2.5. Uncertainty

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

2.6. Test Result

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 1									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RC/TAP (REV)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
CDMA 2000 Cellular Band	RC1/SO2	824.70	20.70	0.117	21.00	0.126	20.61	0.115	20.97	0.125
		836.52	20.61	0.115	20.89	0.123	20.54	0.113	20.84	0.121
		848.31	20.62	0.115	20.94	0.124	20.57	0.114	20.89	0.123
	RC1/SO55	824.70	20.77	0.119	21.03	0.127	20.75	0.119	21.00	0.126
		836.52	20.48	0.112	20.74	0.119	20.45	0.111	20.73	0.118
		848.31	20.64	0.116	20.94	0.124	20.63	0.116	20.86	0.122
	RC2/SO9	824.70	20.75	0.119	21.06	0.128	20.68	0.117	21.05	0.127
		836.52	20.60	0.115	20.85	0.122	20.59	0.115	20.83	0.121
		848.31	20.59	0.115	20.81	0.121	20.55	0.114	20.77	0.119
	RC3/SO2	824.70	20.71	0.118	20.88	0.122	20.68	0.117	20.83	0.121
		836.52	20.55	0.114	20.72	0.118	20.51	0.112	20.65	0.116
		848.31	20.55	0.114	20.72	0.118	20.47	0.111	20.71	0.118
	RC3/SO55	824.70	20.70	0.117	20.97	0.125	20.64	0.116	20.91	0.123
		836.52	20.58	0.114	20.75	0.119	20.52	0.113	20.68	0.117
		848.31	20.54	0.113	20.76	0.119	20.44	0.111	20.69	0.117

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 2									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RC/TAP (REV)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
CDMA 2000 PCS Band	RC1/SO2	1851.25	15.75	0.038	16.25	0.042	15.74	0.037	16.17	0.041
		1880.00	16.57	0.045	16.90	0.049	16.55	0.045	16.88	0.049
		1908.75	15.44	0.035	15.84	0.038	15.43	0.035	15.82	0.038
	RC1/SO55	1851.25	15.80	0.038	16.33	0.043	15.72	0.037	16.29	0.043
		1880.00	16.56	0.045	16.99	0.050	16.53	0.045	16.97	0.050
		1908.75	15.37	0.034	15.62	0.036	15.27	0.034	15.59	0.036
	RC2/SO9	1851.25	15.60	0.036	16.14	0.041	15.54	0.036	16.07	0.040
		1880.00	16.56	0.045	16.87	0.049	16.53	0.045	16.83	0.048
		1908.75	15.48	0.035	15.82	0.038	15.42	0.035	15.73	0.037
	RC3/SO2	1851.25	15.80	0.038	16.21	0.042	15.79	0.038	16.17	0.041
		1880.00	16.56	0.045	17.02	0.050	16.48	0.044	16.94	0.049
		1908.75	15.45	0.035	15.65	0.037	15.44	0.035	15.55	0.036
	RC3/SO55	1851.25	15.57	0.036	15.94	0.039	15.48	0.035	15.86	0.039
		1880.00	16.53	0.045	17.09	0.051	16.45	0.044	17.02	0.050
		1908.75	15.37	0.034	15.63	0.037	15.36	0.034	15.55	0.036

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

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 3									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RC/TAP (REV)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
1xRTT revision A Cellular Band	RC3/SO32	824.70	20.75	0.119	21.04	0.127	20.72	0.118	21.02	0.126
		836.52	20.53	0.113	20.76	0.119	20.45	0.111	20.72	0.118
		848.31	20.66	0.116	20.92	0.124	20.58	0.114	20.85	0.122

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 4									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RC/TAP (REV)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
1xRTT revision A PCS Band	RC3/SO32	1851.25	15.85	0.038	16.53	0.045	15.76	0.038	16.53	0.045
		1880.00	16.55	0.045	16.76	0.047	16.47	0.044	16.71	0.047
		1908.75	15.38	0.035	15.55	0.036	15.32	0.034	15.53	0.036

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

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 5									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RTAP (kbps)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
EVDO release 0 Cellular Band	9.6	824.70	20.47	0.111	26.86	0.485	20.46	0.111	26.85	0.484
		836.52	20.37	0.109	26.86	0.485	20.37	0.109	26.84	0.483
		848.31	20.18	0.104	26.65	0.462	20.18	0.104	26.64	0.461
	19.2	824.70	20.36	0.109	26.65	0.462	20.36	0.109	26.64	0.461
		836.52	20.28	0.107	26.68	0.466	20.27	0.106	26.67	0.465
		848.31	20.20	0.105	26.68	0.466	20.18	0.104	26.68	0.466
	38.4	824.70	20.34	0.108	26.65	0.462	20.33	0.108	26.64	0.461
		836.52	20.24	0.106	26.55	0.452	20.23	0.105	26.55	0.452
		848.31	20.18	0.104	26.36	0.433	20.16	0.104	26.35	0.432
	76.8	824.70	20.43	0.110	26.45	0.442	20.41	0.110	26.44	0.441
		836.52	20.23	0.105	26.30	0.427	20.22	0.105	26.29	0.426
		848.31	20.24	0.106	26.42	0.439	20.24	0.106	26.40	0.437
	153.6	824.70	20.40	0.110	26.47	0.444	20.39	0.109	26.45	0.442
		836.52	20.35	0.108	26.09	0.406	20.34	0.108	26.08	0.406
		848.31	20.38	0.109	26.03	0.401	20.38	0.109	26.03	0.401

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 6									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RTAP (kbps)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
EVDO release 0 PCS Band	9.6	1851.25	15.41	0.035	22.43	0.175	15.40	0.035	22.41	0.174
		1880.00	16.01	0.040	22.69	0.186	16.00	0.040	22.68	0.185
		1908.75	14.88	0.031	21.64	0.146	14.88	0.031	21.64	0.146
	19.2	1851.25	15.28	0.034	21.89	0.155	15.28	0.034	21.88	0.154
		1880.00	16.02	0.040	22.48	0.177	16.01	0.040	22.46	0.176
		1908.75	14.80	0.030	21.64	0.146	14.79	0.030	21.63	0.146
	38.4	1851.25	15.14	0.033	21.93	0.156	15.14	0.033	21.92	0.156
		1880.00	16.08	0.041	22.31	0.170	16.07	0.040	22.29	0.169
		1908.75	14.96	0.031	21.20	0.132	14.94	0.031	21.19	0.132
	76.8	1851.25	15.21	0.033	21.28	0.134	15.19	0.033	21.27	0.134
		1880.00	15.95	0.039	21.86	0.153	15.95	0.039	21.84	0.153
		1908.75	14.84	0.030	21.21	0.132	14.84	0.030	21.20	0.132
	153.6	1851.25	15.26	0.034	21.28	0.134	15.25	0.033	21.27	0.134
		1880.00	16.05	0.040	21.57	0.144	16.04	0.040	21.56	0.143
		1908.75	14.90	0.031	20.70	0.117	14.89	0.031	20.69	0.117

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

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 7									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RTAP (kbps)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
EVDO release A Cellular Band	128	824.70	19.66	0.092	27.09	0.512	19.65	0.092	27.08	0.511
		836.52	19.86	0.097	27.06	0.508	19.85	0.097	27.05	0.507
		848.31	19.36	0.086	27.33	0.541	19.35	0.086	27.33	0.541
	256	824.70	20.36	0.109	27.15	0.519	20.35	0.108	27.13	0.516
		836.52	19.99	0.100	26.83	0.482	19.99	0.100	26.81	0.480
		848.31	20.04	0.101	26.83	0.482	20.02	0.100	26.81	0.480
	512	824.70	20.25	0.106	27.01	0.502	20.24	0.106	27.00	0.501
		836.52	20.40	0.110	26.98	0.499	20.38	0.109	26.97	0.498
		848.31	20.46	0.111	26.99	0.500	20.45	0.111	26.98	0.499
	768	824.70	20.45	0.111	27.09	0.512	20.44	0.111	27.09	0.512
		836.52	20.45	0.111	26.91	0.491	20.43	0.110	26.90	0.490
		848.31	20.51	0.112	26.97	0.498	20.50	0.112	26.96	0.497
	1024	824.70	20.37	0.109	26.77	0.475	20.37	0.109	26.77	0.475
		836.52	20.31	0.107	26.76	0.474	20.29	0.107	26.74	0.472
		848.31	20.38	0.109	26.93	0.493	20.37	0.109	26.91	0.491
	1536	824.70	20.50	0.112	27.48	0.560	20.49	0.112	27.47	0.558
		836.52	20.35	0.108	27.26	0.532	20.35	0.108	27.25	0.531
		848.31	20.32	0.108	27.22	0.527	20.31	0.107	27.22	0.527
	2048	824.70	20.49	0.112	27.27	0.533	20.48	0.112	27.26	0.532
		836.52	20.41	0.110	27.27	0.533	20.41	0.110	27.26	0.532
		848.31	20.37	0.109	27.19	0.524	20.36	0.109	27.18	0.522
	3072	824.70	20.47	0.111	28.39	0.690	20.45	0.111	28.38	0.689
		836.52	20.38	0.109	28.44	0.698	20.37	0.109	28.42	0.695
		848.31	20.12	0.103	27.97	0.627	20.11	0.103	27.96	0.625
	4096	824.70	20.57	0.114	28.25	0.668	20.55	0.114	28.24	0.667
		836.52	20.49	0.112	28.29	0.675	20.48	0.112	28.29	0.675
		848.31	20.39	0.109	28.12	0.649	20.38	0.109	28.10	0.646
	6144	824.70	20.59	0.115	28.72	0.745	20.58	0.114	28.71	0.743
		836.52	20.43	0.110	28.75	0.750	20.42	0.110	28.75	0.750
		848.31	20.43	0.110	28.40	0.692	20.41	0.110	28.38	0.689
	8192	824.70	20.49	0.112	28.31	0.678	20.48	0.112	28.30	0.676
		836.52	20.53	0.113	28.32	0.679	20.51	0.112	28.30	0.676
		848.31	20.42	0.110	28.42	0.695	20.41	0.110	28.41	0.693
	12288	824.70	20.44	0.111	28.57	0.719	20.43	0.110	28.56	0.718
		836.52	20.44	0.111	28.37	0.687	20.44	0.111	28.37	0.687
		848.31	20.37	0.109	28.39	0.690	20.37	0.109	28.38	0.689

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

Model Number	SCT-UM300									
Test Item	RF Output Power									
Test Mode	Mode 8									
Date of Test	08/23/2010						Test Site		TE02	
Bands	RTAP (kbps)	Frequency (MHz)	EUT Normal Test				EUT with USB cable			
			Average Power		Peak Power		Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
EVDO release A Cellular Band	128	1851.25	14.45	0.028	22.52	0.179	14.43	0.028	22.51	0.178
		1880.00	15.72	0.037	23.03	0.201	15.70	0.037	23.03	0.201
		1908.75	14.41	0.028	21.69	0.148	14.40	0.028	21.67	0.147
	256	1851.25	15.21	0.033	22.11	0.163	15.19	0.033	22.11	0.163
		1880.00	16.15	0.041	22.93	0.196	16.14	0.041	22.92	0.196
		1908.75	14.46	0.028	21.61	0.145	14.45	0.028	21.61	0.145
	512	1851.25	15.26	0.034	21.98	0.158	15.24	0.033	21.97	0.157
		1880.00	16.16	0.041	22.76	0.189	16.16	0.041	22.75	0.188
		1908.75	14.87	0.031	21.66	0.147	14.85	0.031	21.66	0.147
	768	1851.25	15.13	0.033	22.15	0.164	15.11	0.032	22.15	0.164
		1880.00	16.14	0.041	22.42	0.175	16.13	0.041	22.41	0.174
		1908.75	14.90	0.031	21.70	0.148	14.88	0.031	21.69	0.148
	1024	1851.25	15.17	0.033	21.91	0.155	15.17	0.033	21.91	0.155
		1880.00	15.94	0.039	22.56	0.180	15.93	0.039	22.55	0.180
		1908.75	14.62	0.029	21.45	0.140	14.62	0.029	21.44	0.139
	1536	1851.25	15.25	0.033	22.41	0.174	15.24	0.033	22.39	0.173
		1880.00	16.02	0.040	22.42	0.175	16.01	0.040	22.42	0.175
		1908.75	14.82	0.030	21.73	0.149	14.80	0.030	21.73	0.149
	2048	1851.25	15.26	0.034	21.60	0.145	15.24	0.033	21.59	0.144
		1880.00	15.97	0.040	22.66	0.185	15.96	0.039	22.66	0.185
		1908.75	15.02	0.032	21.96	0.157	15.01	0.032	21.95	0.157
	3072	1851.25	15.16	0.033	23.08	0.203	15.16	0.033	23.07	0.203
		1880.00	15.99	0.040	23.28	0.213	15.98	0.040	23.28	0.213
		1908.75	14.87	0.031	22.61	0.182	14.86	0.031	22.60	0.182
	4096	1851.25	15.24	0.033	23.25	0.211	15.23	0.033	23.23	0.210
		1880.00	16.02	0.040	23.57	0.228	16.01	0.040	23.56	0.227
		1908.75	15.01	0.032	22.52	0.179	15.00	0.032	22.51	0.178
	6144	1851.25	15.39	0.035	23.36	0.217	15.38	0.035	23.35	0.216
		1880.00	16.13	0.041	23.79	0.239	16.11	0.041	23.78	0.239
		1908.75	14.83	0.030	23.00	0.200	14.81	0.030	22.99	0.199
	8192	1851.25	15.39	0.035	23.57	0.228	15.37	0.034	23.57	0.228
		1880.00	16.07	0.040	23.90	0.245	16.06	0.040	23.88	0.244
		1908.75	14.88	0.031	22.80	0.191	14.87	0.031	22.80	0.191
	12288	1851.25	15.41	0.035	23.38	0.218	15.39	0.035	23.37	0.217
		1880.00	16.11	0.041	23.92	0.247	16.10	0.041	23.91	0.246
		1908.75	14.87	0.031	23.04	0.201	14.85	0.031	23.04	0.201

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

3 Effective Radiated Power / Equivalent Isotropic Radiated Power Test

3.1. Limit

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

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

3.2. Test Instruments

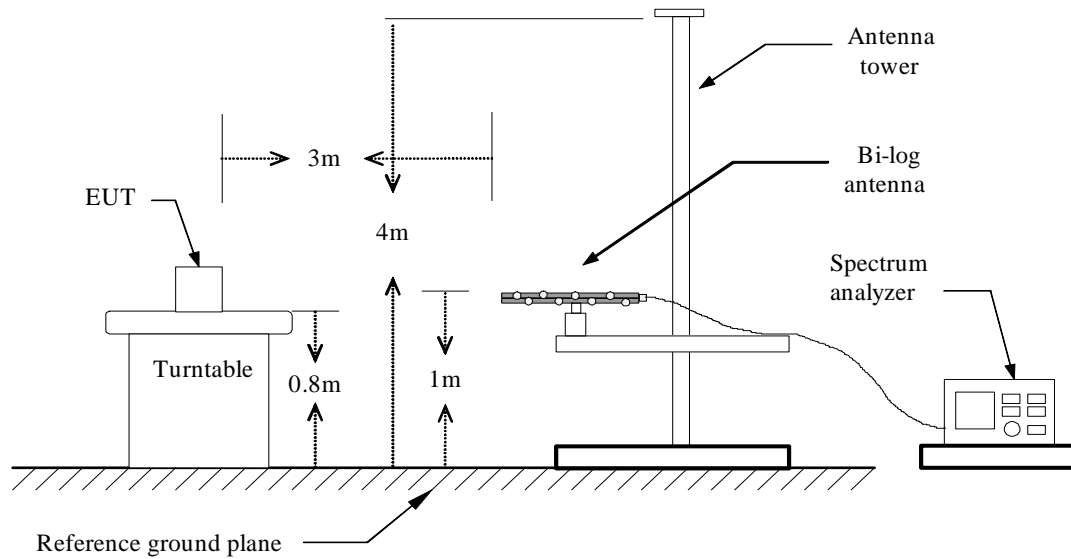
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/07/2009	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	02/24/2010	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/24/2010	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/24/2010	(1)
Bi-log Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	08/02/2010	(1)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/29/2010	(1)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/29/2010	(1)
Test Site	ATL	TE01	888001	07/30/2010	(1)

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

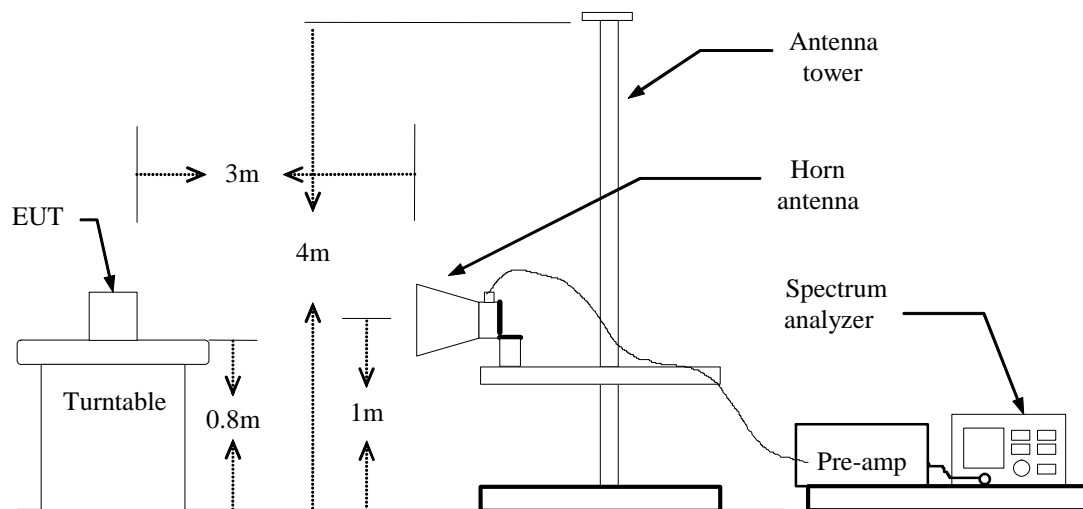
NOTE: N.C.R. = No Calibration Request.

3.3. Test Setup

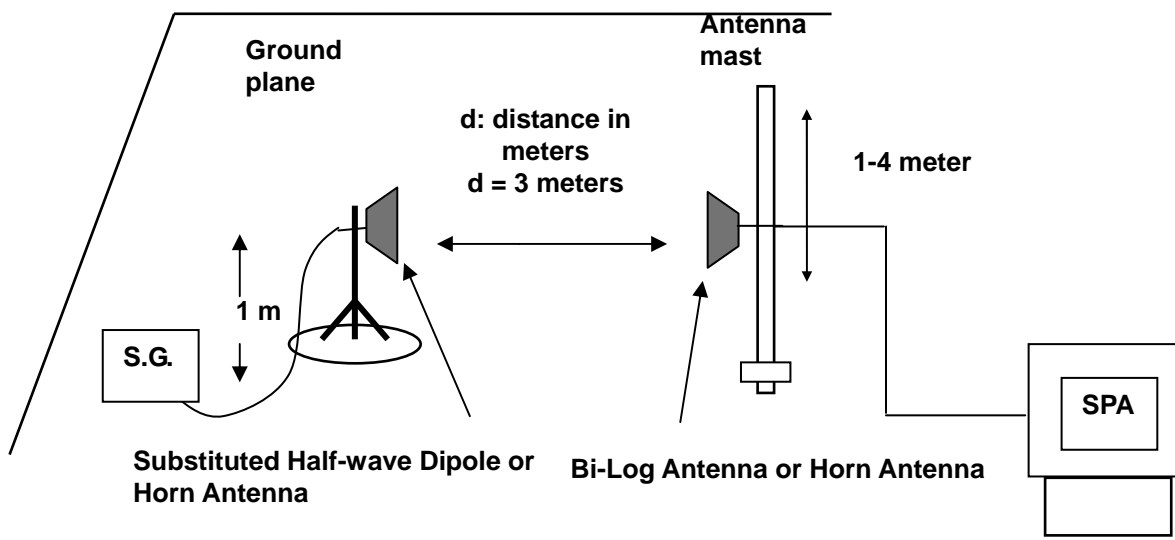
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



3.4. Test Procedure

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

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

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

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

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

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

3.5. Uncertainty

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

3.6. Test Result

Model Number	SCT-UM300						
Test Item	ERP						
Test Mode	Mode 7						
Date of Test	09/22/2010				Test Site	TE01	
Bands	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction factor (dBm)	ERP		Limit
					(dBm)	(W)	
EVDO release A Cellular Band	824.70	H	6.75	10.42	17.17	0.052	< 7W
		V	13.02	8.26	21.28	0.134	< 7W
	836.52	H	3.92	10.44	14.36	0.027	< 7W
		V	2.21	8.49	10.70	0.012	< 7W
	848.31	H	-0.20	10.44	10.24	0.011	< 7W
		V	4.50	8.72	13.22	0.021	< 7W

Model Number	SCT-UM300						
Test Item	EIRP						
Test Mode	Mode 8						
Date of Test	08/23/2010				Test Site	TE01	
Bands	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction factor (dBm)	EIRP		Limit
					(dBm)	(W)	
EVDO release A PCS Band	1851.25	H	-1.00	23.04	22.04	0.160	< 2W
		V	-1.25	22.10	20.85	0.122	< 2W
	1880.00	H	-1.01	24.66	23.65	0.232	< 2W
		V	-1.28	22.38	21.10	0.129	< 2W
	1908.75	H	-1.14	26.16	25.02	0.318	< 2W
		V	-1.43	22.44	21.01	0.126	< 2W

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

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

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

4 Occupied Bandwidth Test

4.1. Limit

The Occupied Bandwidth Limit:

N/A.

The Band Edge Limit:

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

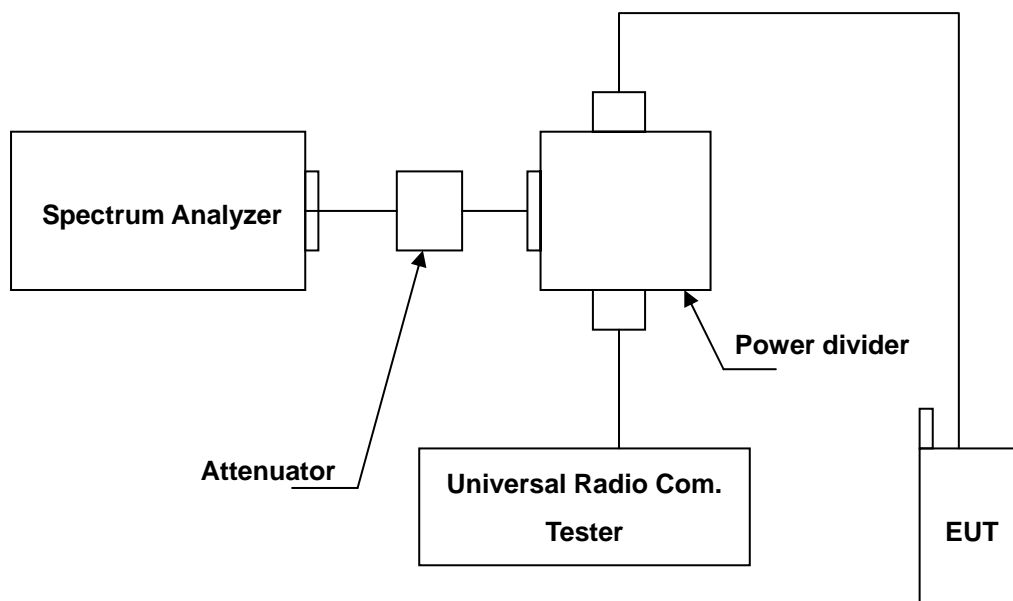
4.2. Test Instruments

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

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

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

4.3. Setup



4.4. Test Procedure

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

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

4.5. Uncertainty

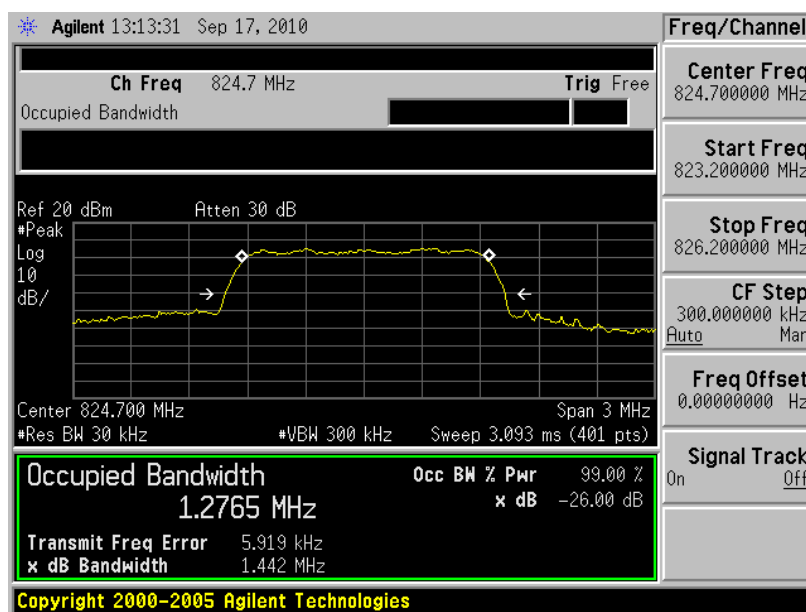
The measurement uncertainty is defined as $\pm 10\text{Hz}$

4.6. Test Result

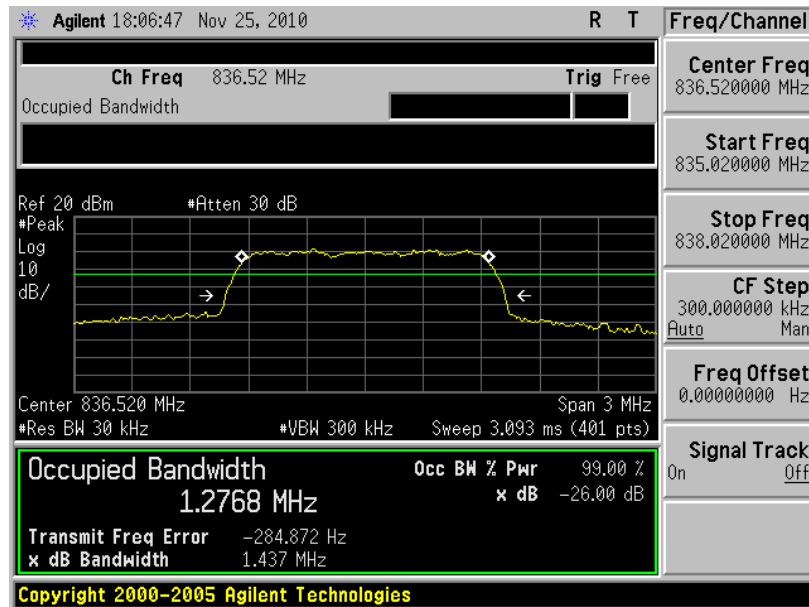
99% Occupied Bandwidth

Model Number	SCT-UM300		
Test Item	Occupied Bandwidth		
Test Mode	Mode 7		
Date of Test	09/17/2010	Test Site	TE02
Channel No.	Frequency (MHz)	99% Bandwidth (MHz)	Note
1013	824.70	1.2765	RBW:30KHz , VBW:300KHz
384	836.52	1.2768	RBW:30KHz , VBW:300KHz
777	848.30	1.2798	RBW:30KHz , VBW:300KHz

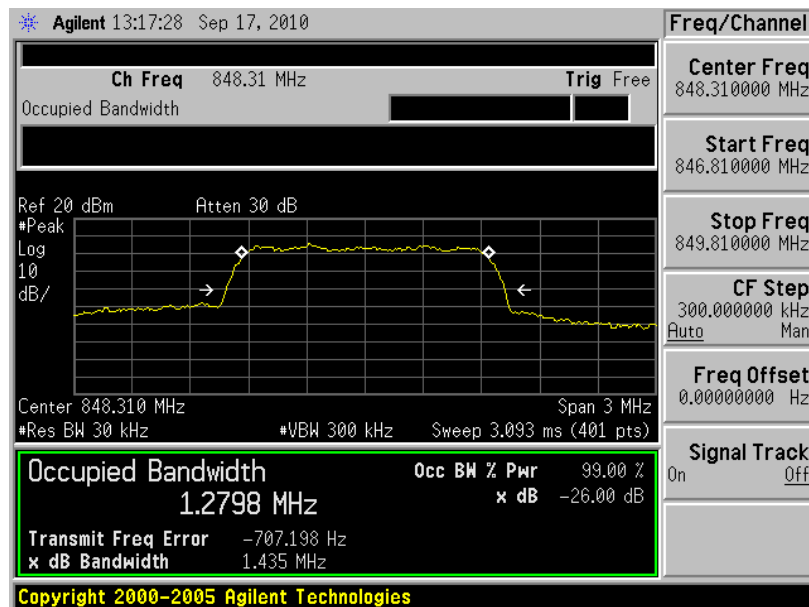
Channel 1013



Channel 384

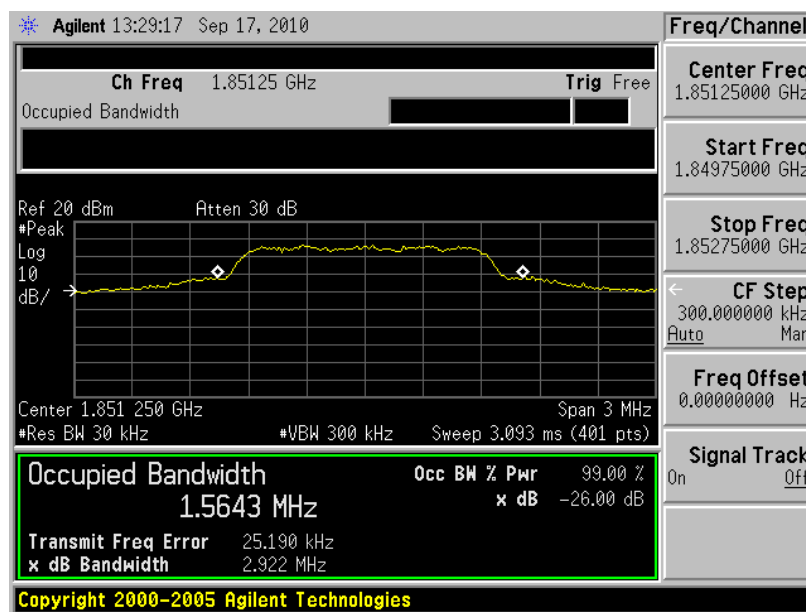


Channel 777

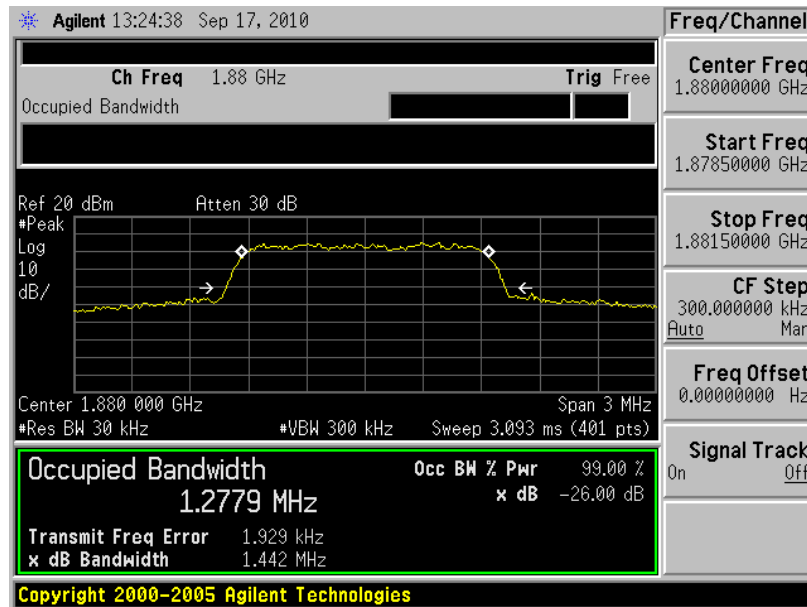


Model Number	SCT-UM300		
Test Item	Occupied Bandwidth		
Test Mode	Mode 8		
Date of Test	09/17/2010	Test Site	TE02
Channel No.	Frequency (MHz)	99% Bandwidth (MHz)	Note
25	1851.25	1.5643	RBW:30KHz , VBW:300KHz
600	1880.00	1.2779	RBW:30KHz , VBW:300KHz
1175	1908.75	1.2900	RBW:30KHz , VBW:300KHz

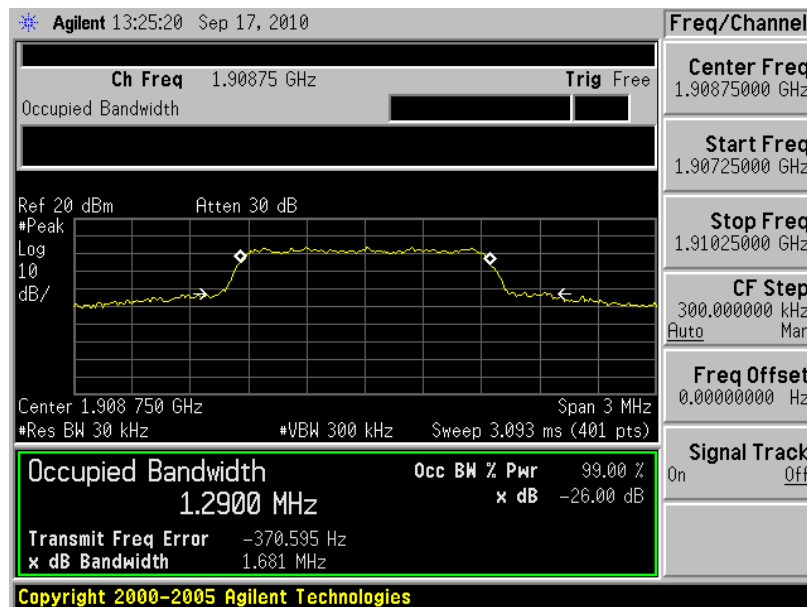
Channel 25



Channel 600



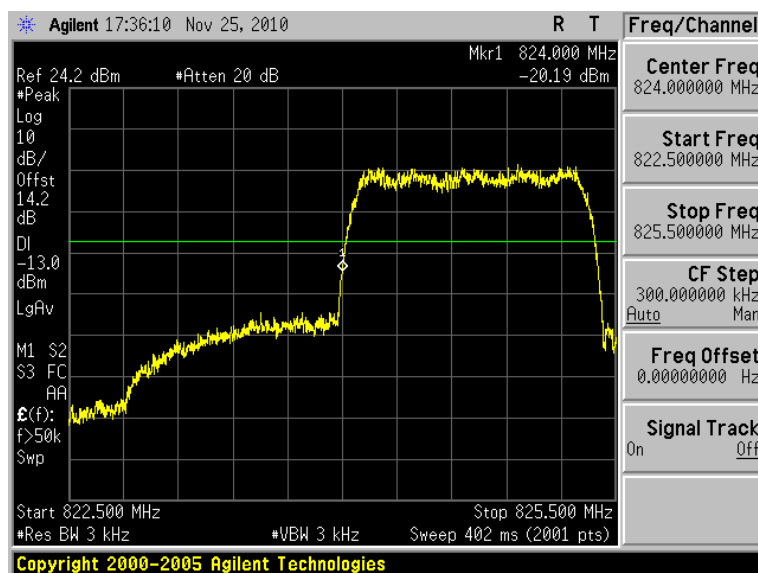
Channel 1175



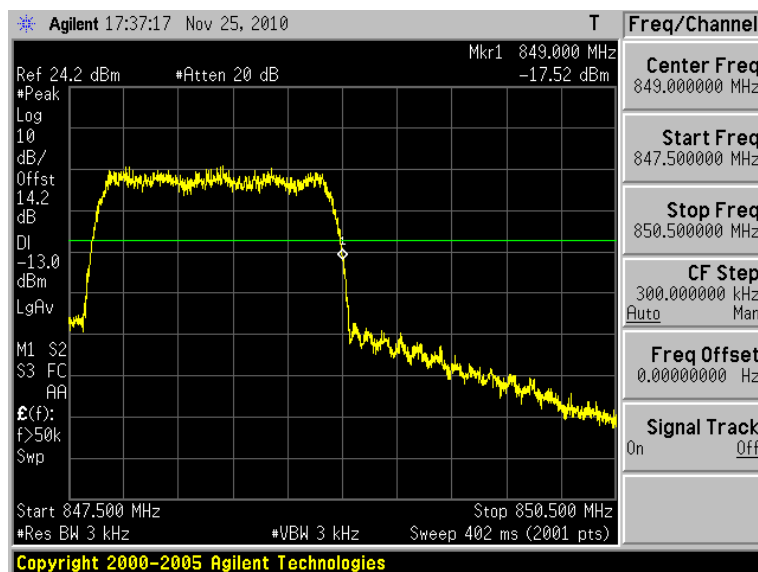
Band Edge

Model Number	SCT-UM300				
Test Item	Band Edge				
Test Mode	Mode 7				
Date of Test	11/25/2010		Test Site	TE02	
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	1013	824.70	-20.19	-13	Pass
Higher	777	848.30	-17.52	-13	Pass

Lower Band

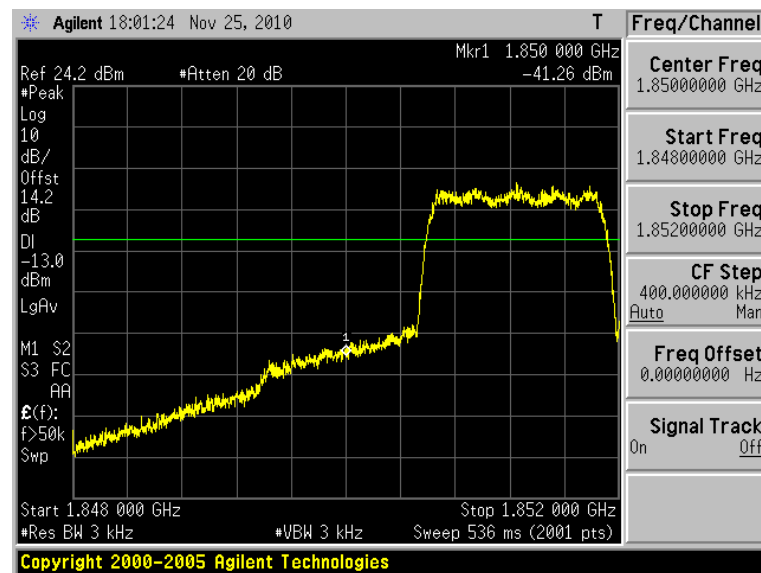


Higher Band

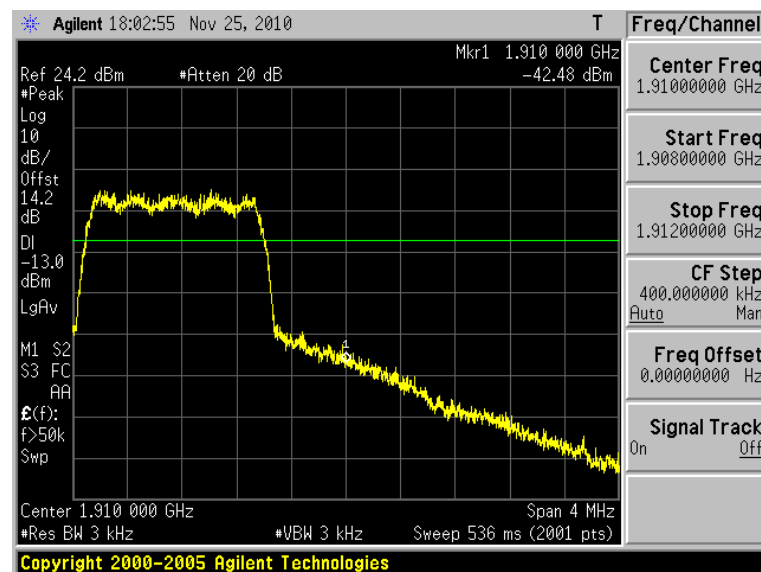


Model Number	SCT-UM300				
Test Item	Band Edge				
Test Mode	Mode 8				
Date of Test	11/25/2010		Test Site	TE02	
Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	25	1851.25	-41.26	-13	Pass
Higher	1175	1908.75	-42.48	-13	Pass

Lower Band



Higher Band



5 Conducted Spurious Emission Test

5.1. Limit

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

5.2. Test Instruments

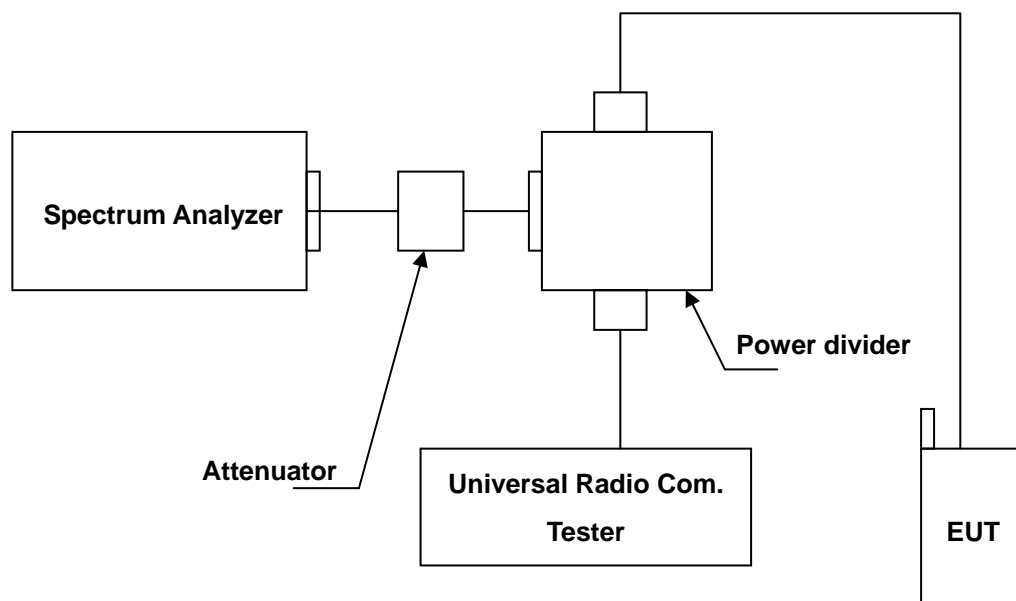
Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power divider	Agilent	87302C	3239A00760	N.C.R.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

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

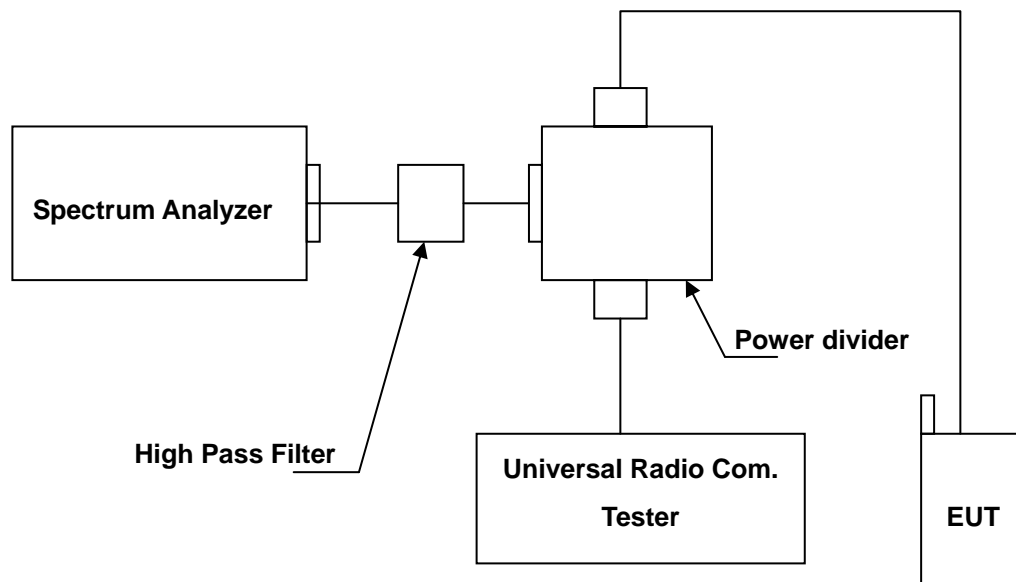
NOTE: N.C.R. = No Calibration Request.

5.3. Setup

Below 2.8GHz



Above 2.8GHz



5.4. Test Procedure

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

5.5. Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

5.6. Test Result

Model Number	SCT-UM300		
Test Item	Conducted Spurious Emission		
Mode	Mode 7 / Mode 8		
Date of Test	11/25/2010	Test Site	TE02

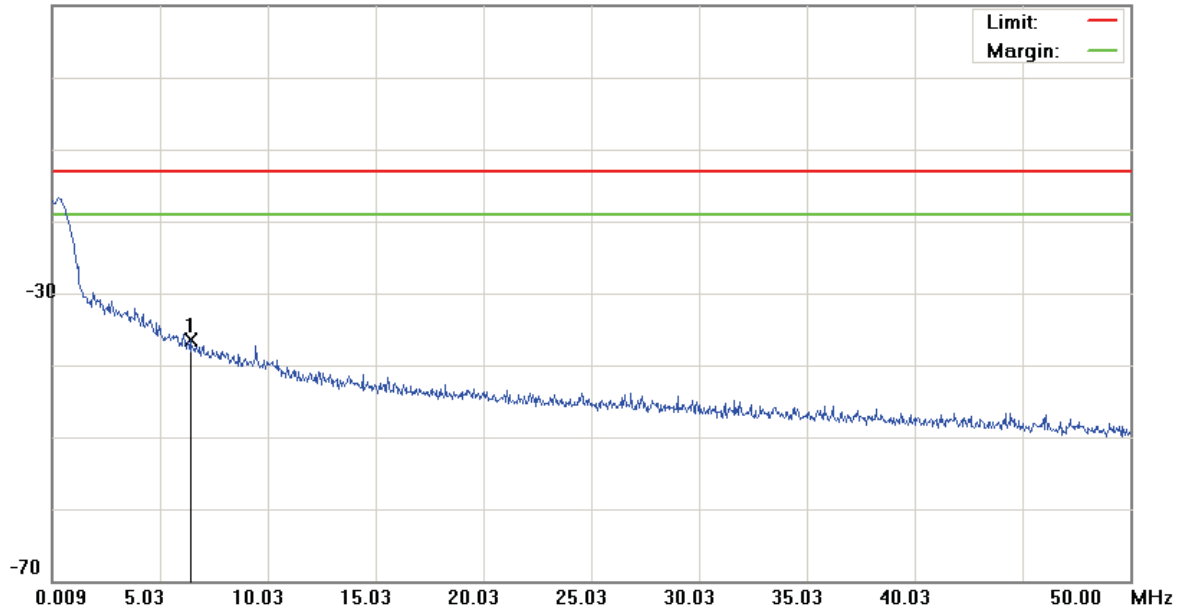
File:SCT-UM300(CH1013)

Data :#1

Date: 2010/11/25

Time: 下午 07:00:51

10.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH1013

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	6.4327	-63.07	26.60	-36.47	-13.00	-23.47	peak		

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

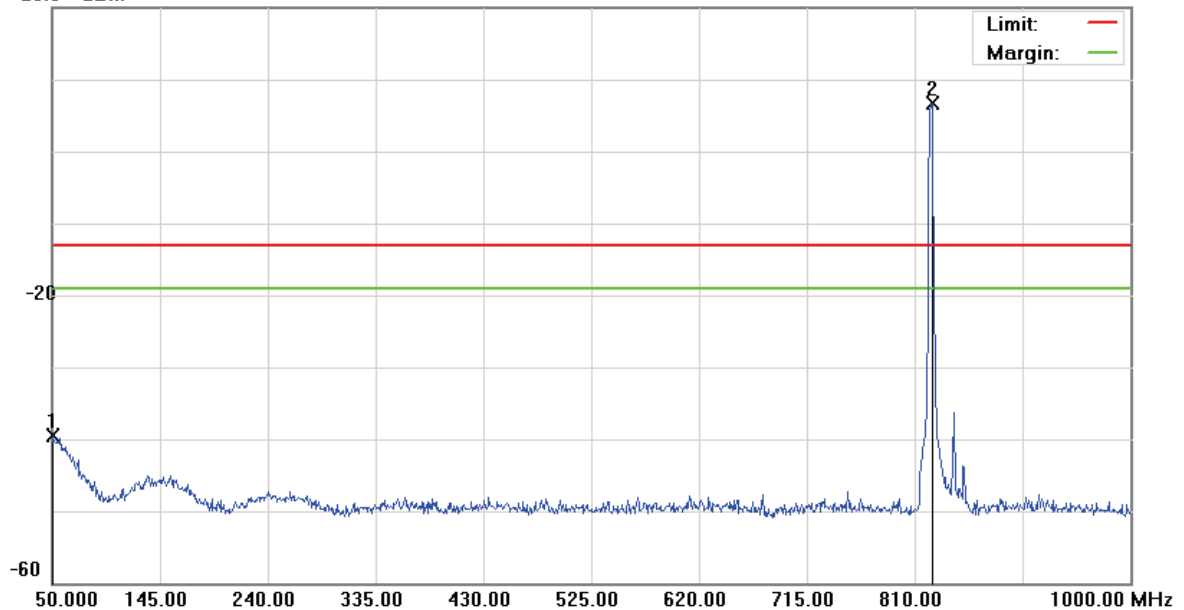
File:SCT-UM300(CH1013)

Data :#2

Date: 2010/11/25

Time: 下午 07:01:15

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH1013

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		50.0000	-54.16	14.69	-39.47	-13.00	-26.47	peak		
2	*	825.2000	2.90	3.84	6.74	-13.00	19.74	peak		TX

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

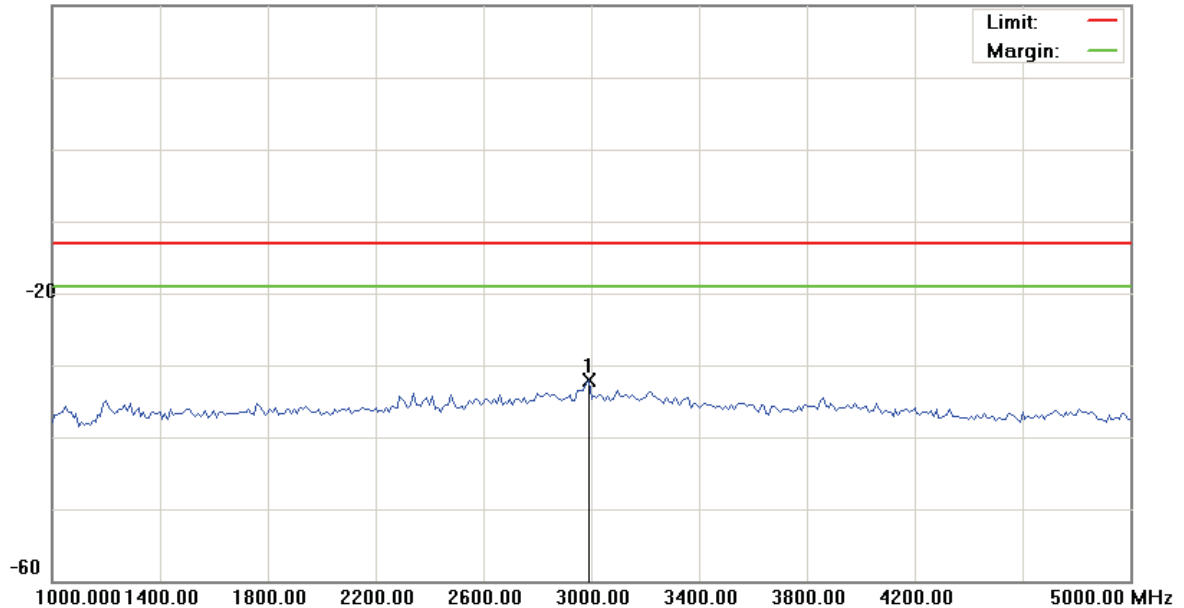
File:SCT-UM300(CH1013)

Data :#3

Date: 2010/11/25

Time: 下午 07:15:05

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH1013

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	*	2990.000	-36.55	4.53	-32.02	-13.00	-19.02	peak		

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

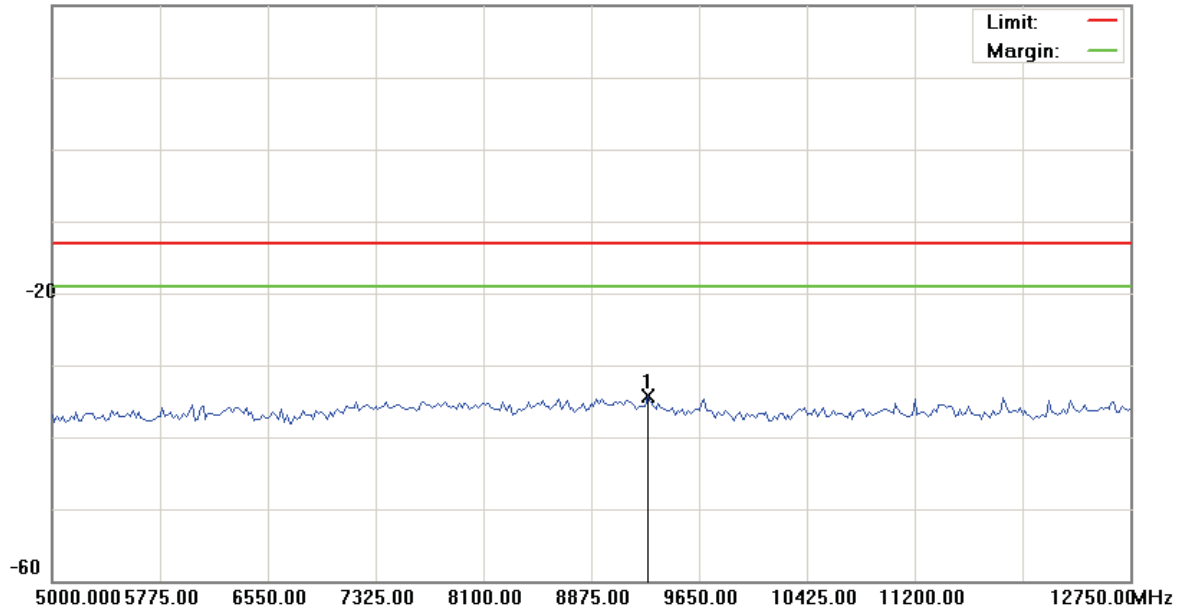
File:SCT-UM300(CH1013)

Data :#4

Date: 2010/11/25

Time: 下午 07:15:27

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH1013

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	*	9281.875	-39.56	5.33	-34.23	-13.00	-21.23	peak		

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

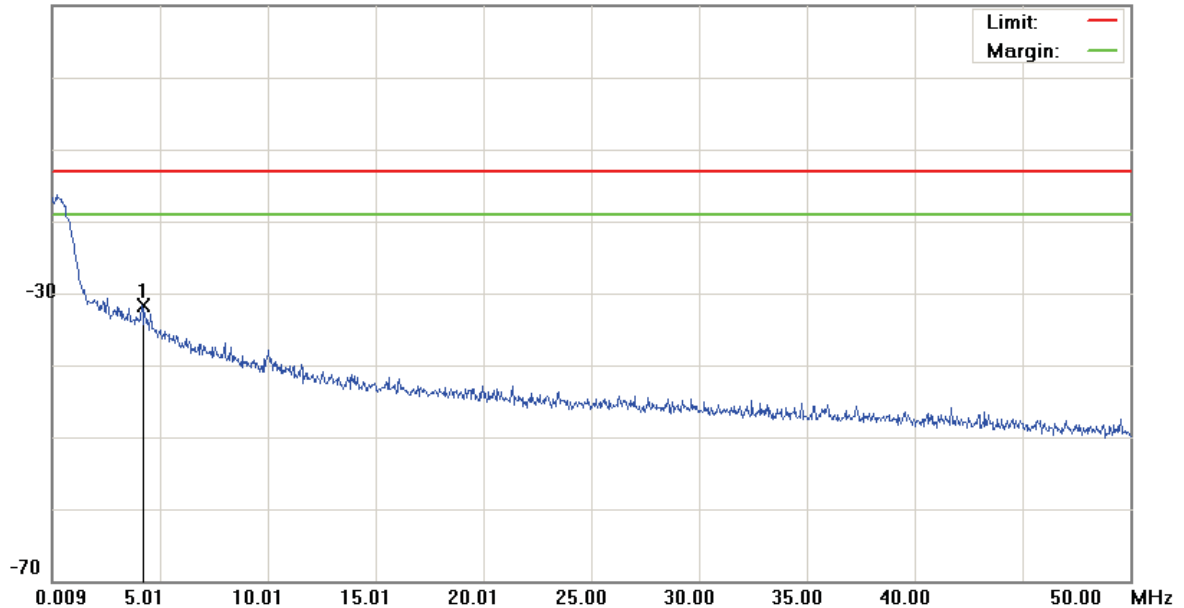
File:SCT-UM300(CH384)

Data :#1

Date: 2010/11/25

Time: 下午 07:02:44

10.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH384

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	4.1832	-61.18	29.39	-31.79	-13.00	-18.79	peak		

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

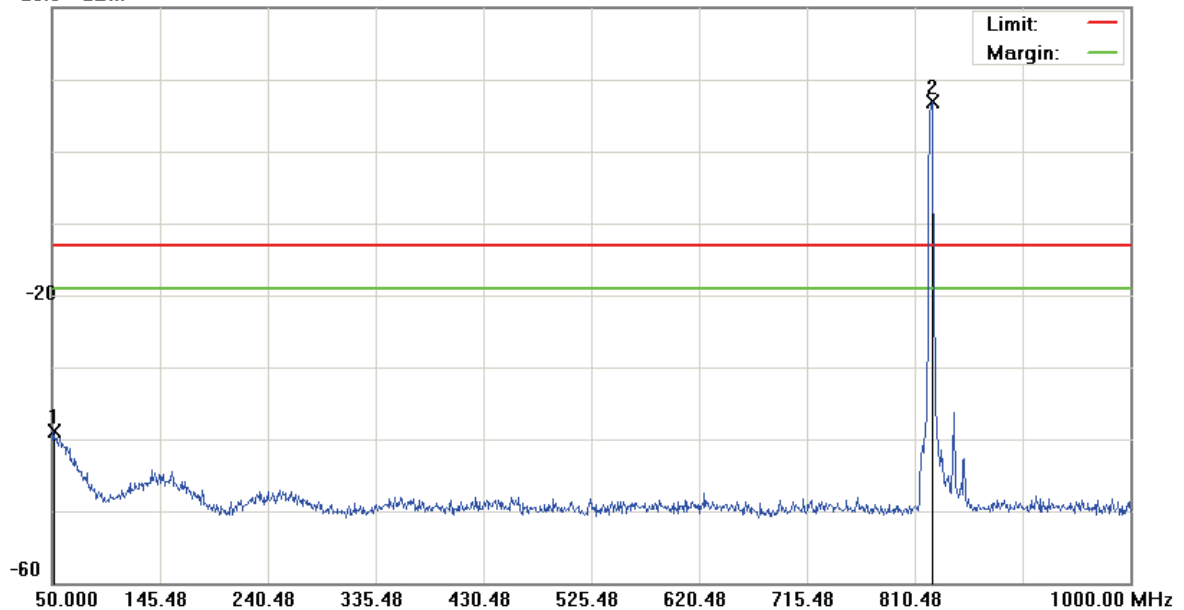
File:SCT-UM300(CH384)

Data :#2

Date: 2010/11/25

Time: 下午 07:03:08

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH384

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		51.4250	-53.38	14.44	-38.94	-13.00	-25.94	peak		
2	*	825.2000	2.99	3.84	6.83	-13.00	19.83	peak		TX

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

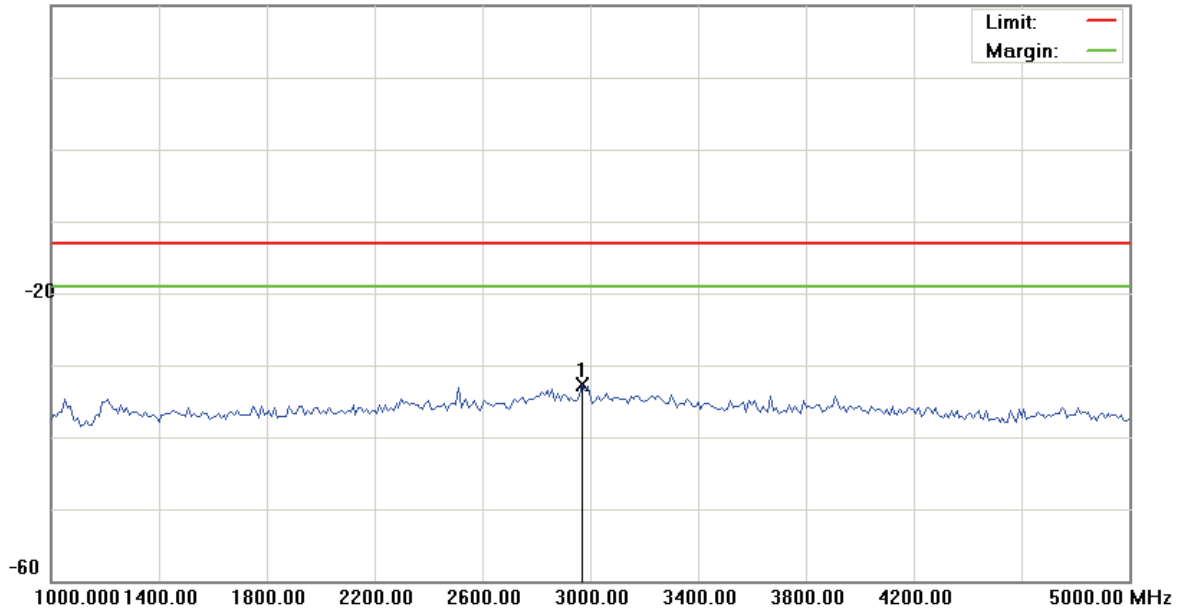
File:SCT-UM300(CH384)

Data :#3

Date: 2010/11/25

Time: 下午 07:16:09

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH384

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	*	2970.000	-37.24	4.56	-32.68	-13.00	-19.68	peak		

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

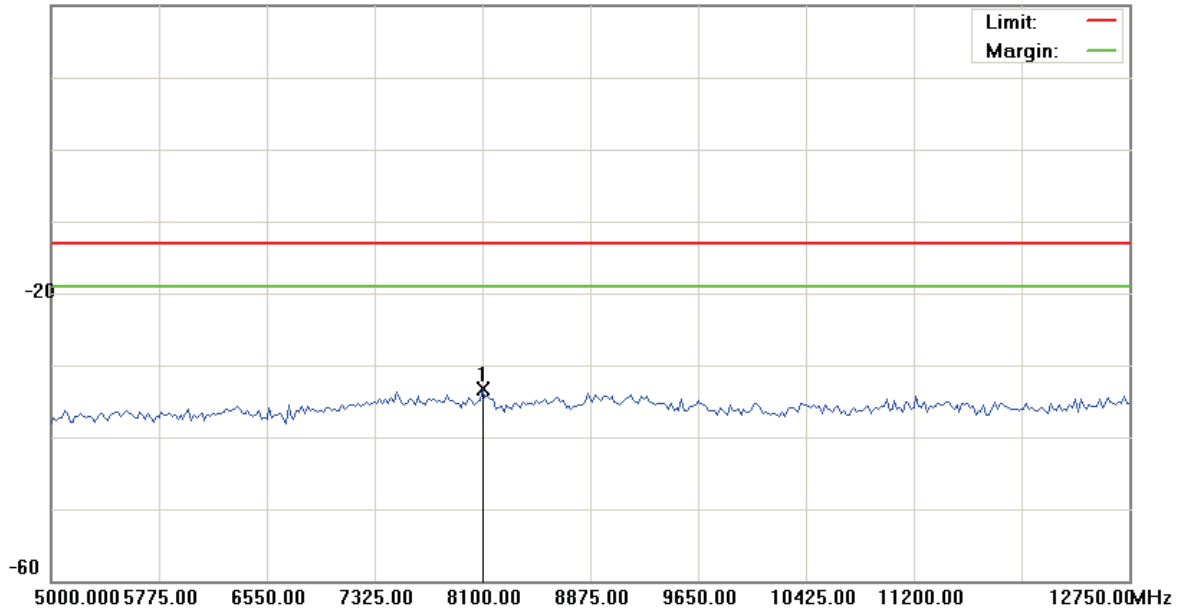
File:SCT-UM300(CH384)

Data :#4

Date: 2010/11/25

Time: 下午 07:16:31

20.0 dBm



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA CELLULAR		
Note: CH384		

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	*	8100.000	-39.10	5.71	-33.39	-13.00	-20.39	peak		

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

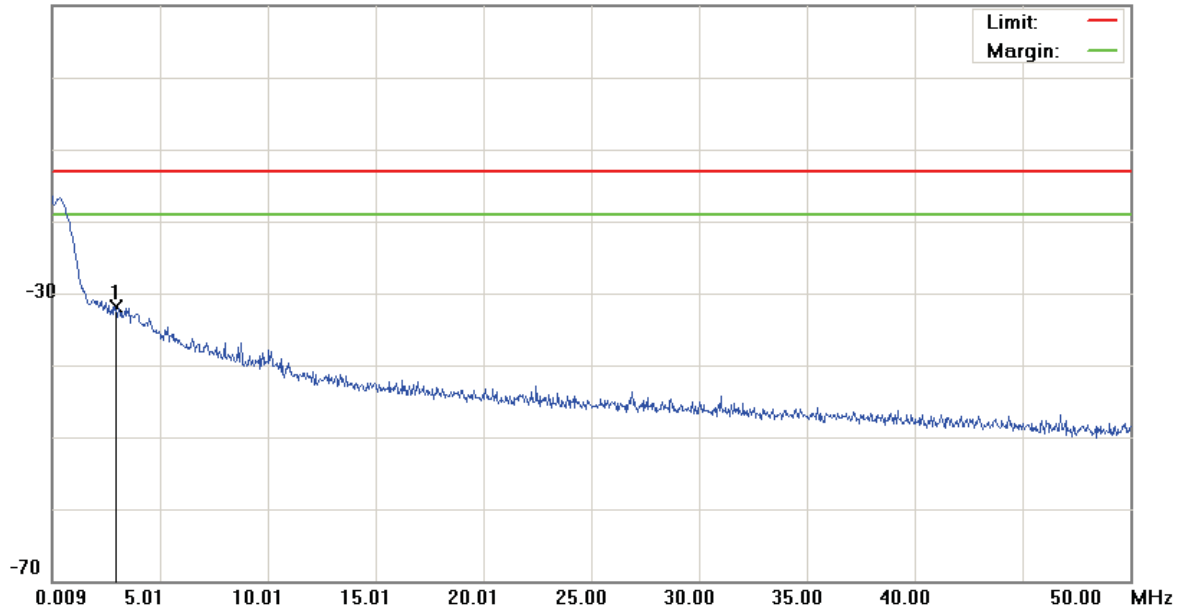
File:SCT-UM300(CH777)

Data :#1

Date: 2010/11/25

Time: 下午 07:06:28

10.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH777

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2.9334	-62.62	30.67	-31.95	-13.00	-18.95	peak		

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

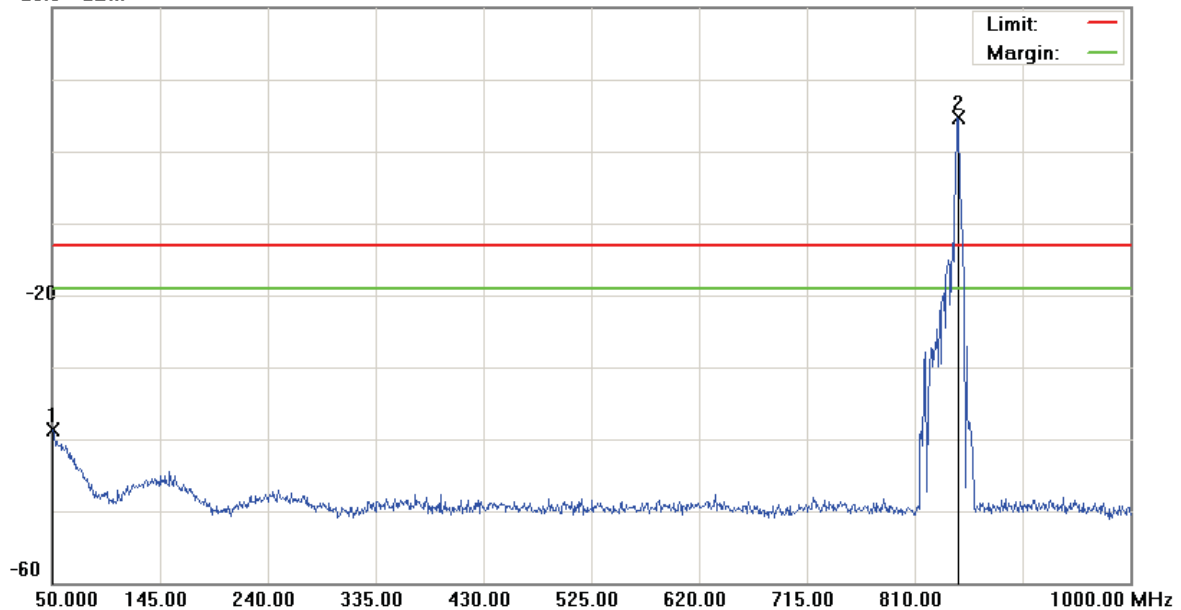
File:SCT-UM300(CH777)

Data :#2

Date: 2010/11/25

Time: 下午 07:06:52

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH777

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		50.0000	-53.38	14.69	-38.69	-13.00	-25.69	peak		
2	*	847.5250	0.73	3.98	4.71	-13.00	17.71	peak		TX

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

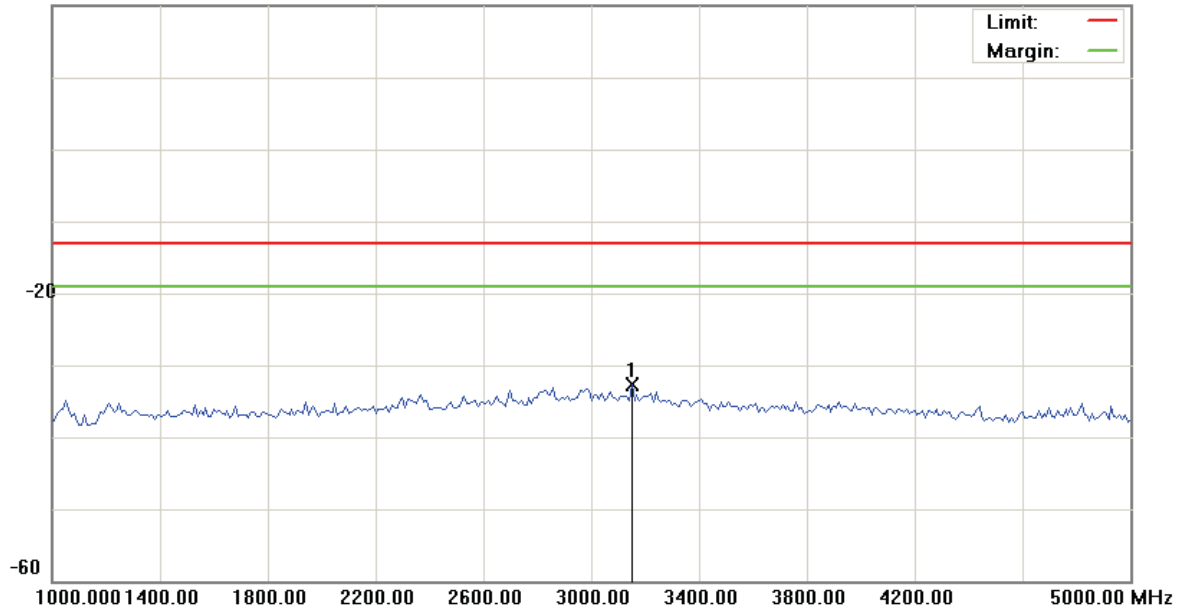
File:SCT-UM300(CH777)

Data :#3

Date: 2010/11/25

Time: 下午 07:17:33

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA CELLULAR

Note: CH777

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	*	3150.000	-37.33	4.56	-32.77	-13.00	-19.77	peak		

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

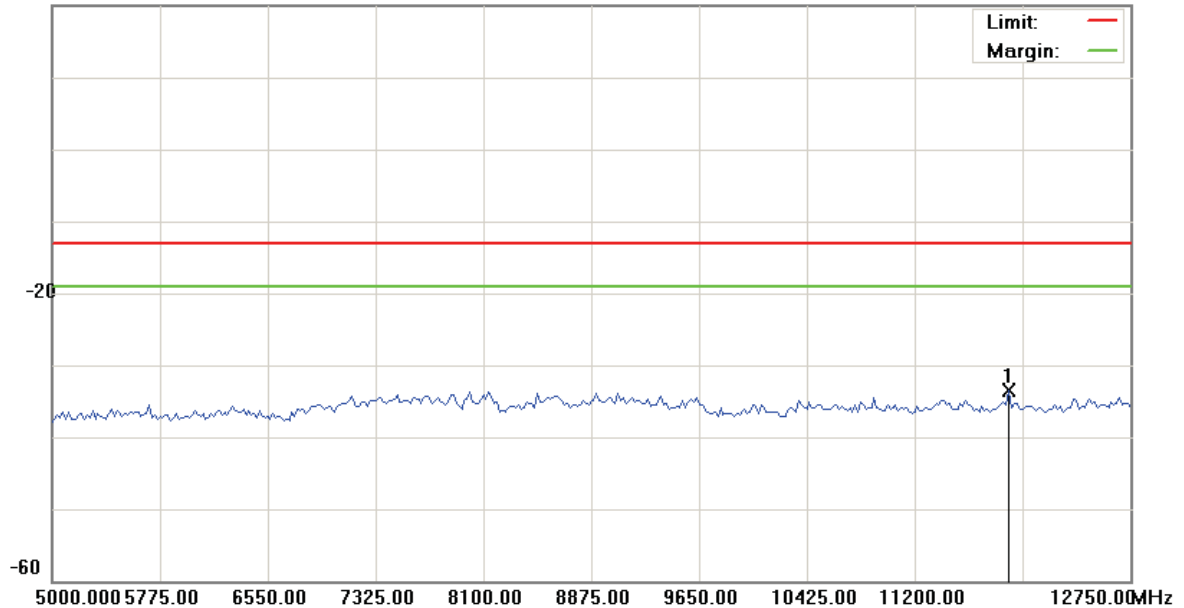
File:SCT-UM300(CH777)

Data :#4

Date: 2010/11/25

Time: 下午 07:17:54

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

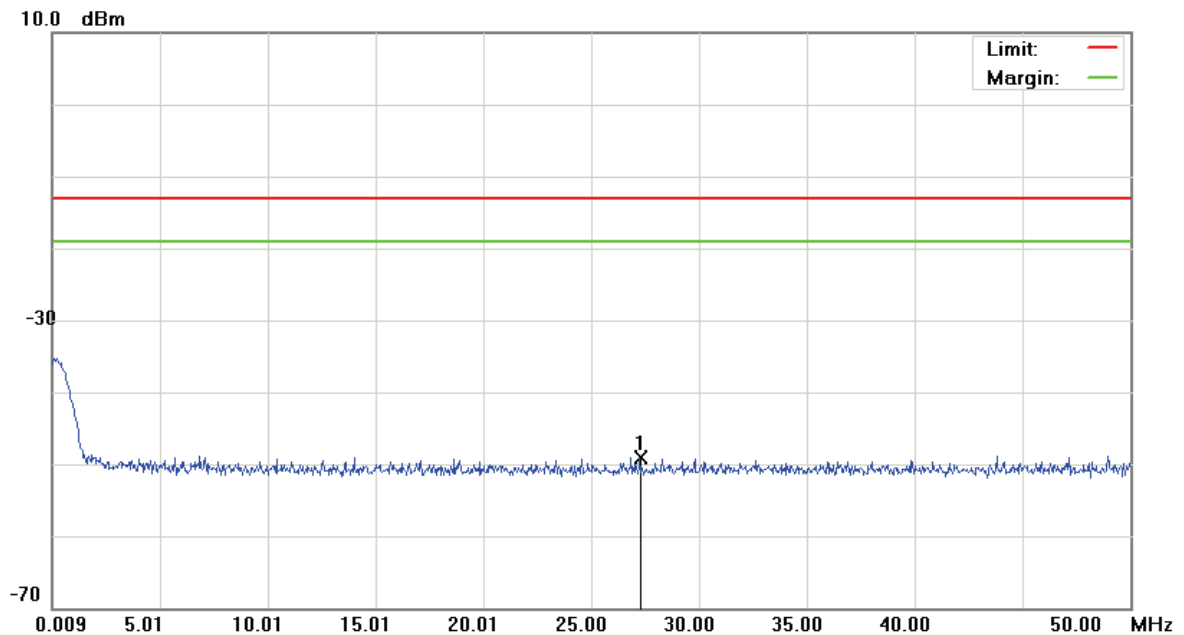
Mode: CDMA CELLULAR

Note: CH777

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	*	11878.125	-38.89	5.47	-33.42	-13.00	-20.42	peak		

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

File:SCT-UM300(CH25) Data :#1 Date: 2010/11/25 Time: 下午 06:09:42

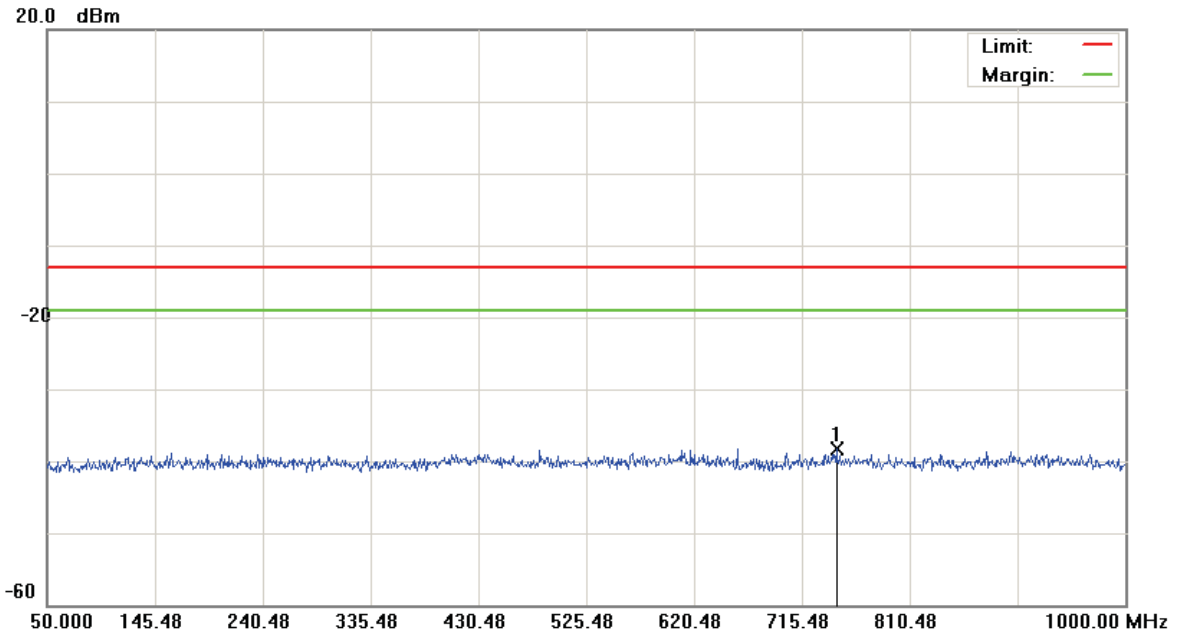


Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH25		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	27.2791	-62.47	13.28	-49.19	-13.00	-36.19	peak		

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

File: SCT-UM300(CH25) Data :#2 Date: 2010/11/25 Time: 下午 06:10:06



Site: : RF Conducted	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH25		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	745.8750	-51.49	13.15	-38.34	-13.00	-25.34	peak		

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

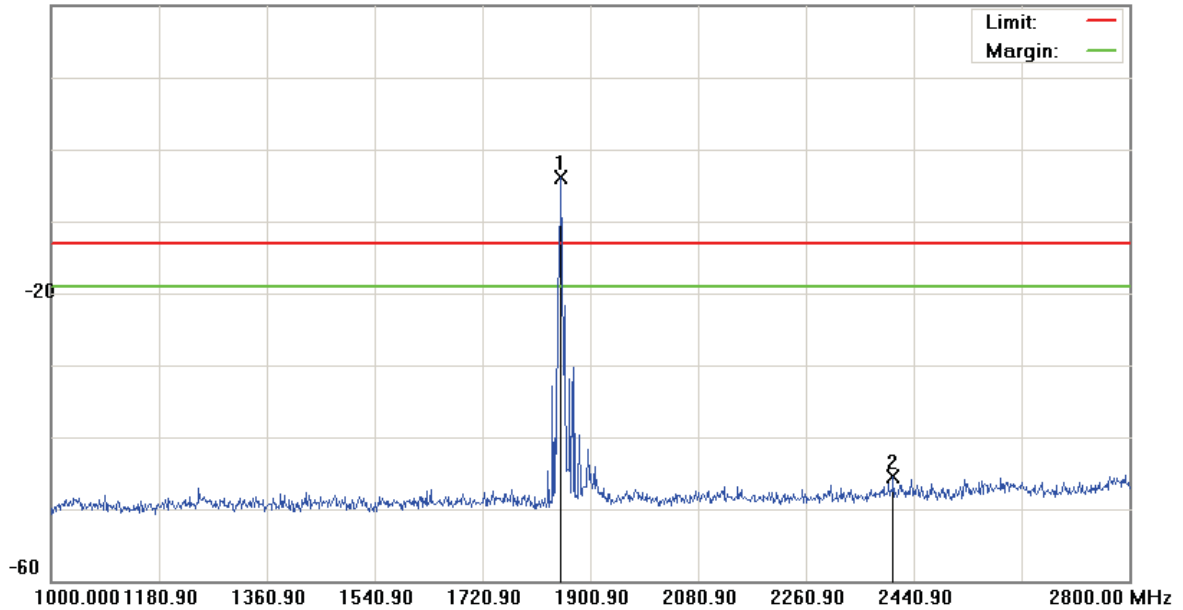
File:SCT-UM300(CH25)

Data :#3

Date: 2010/11/25

Time: 下午 06:45:19

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH25

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	*	1851.400	-8.14	4.26	-3.88	-13.00	9.12	peak		TX
2		2405.800	-50.75	5.18	-45.57	-13.00	-32.57	peak		

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

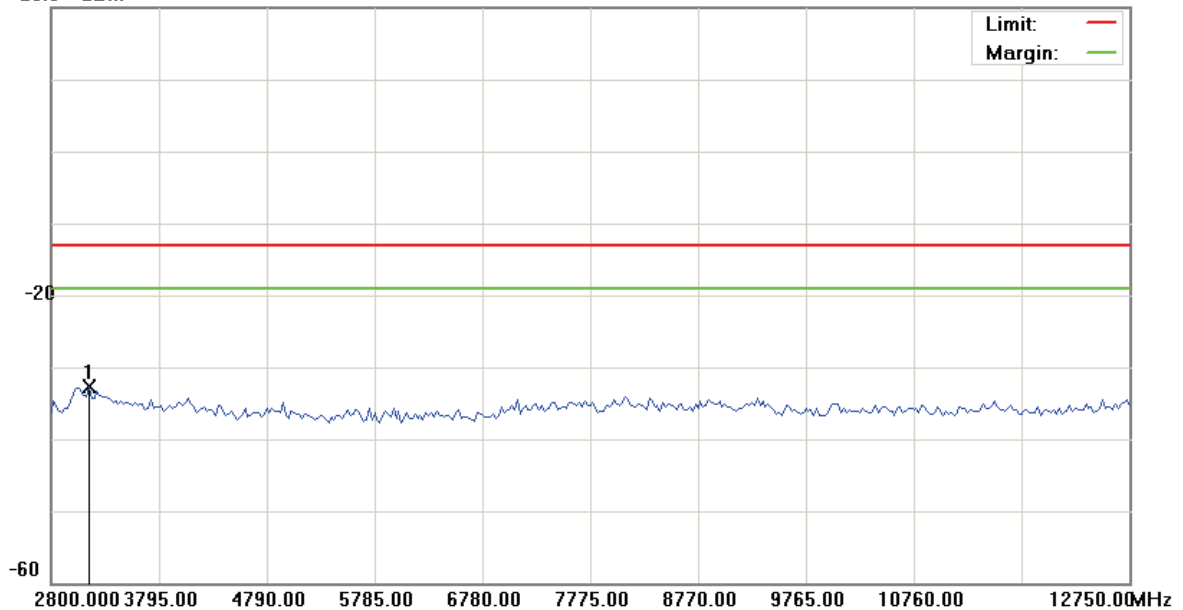
File:SCT-UM300(CH25)

Data :#4

Date: 2010/11/25

Time: 下午 07:19:47

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

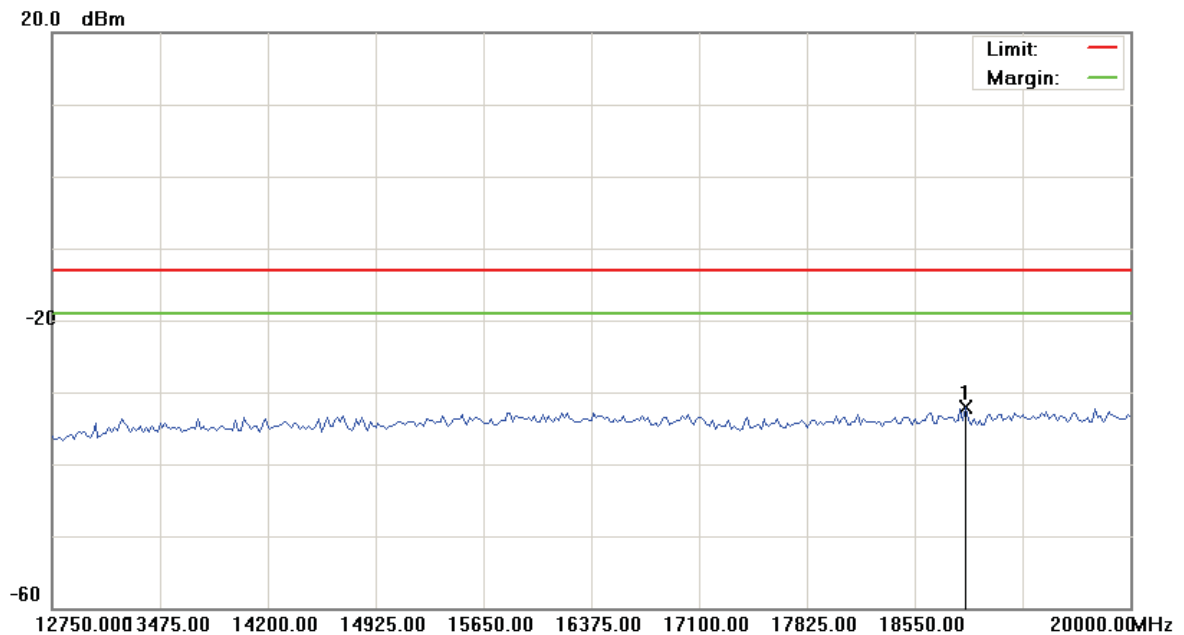
Mode: CDMA PCS

Note: CH25

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	*	3148.250	-38.01	5.27	-32.74	-13.00	-19.74	peak		

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

File:SCT-UM300(CH25) Data :#5 Date: 2010/11/25 Time: 下午 07:20:09

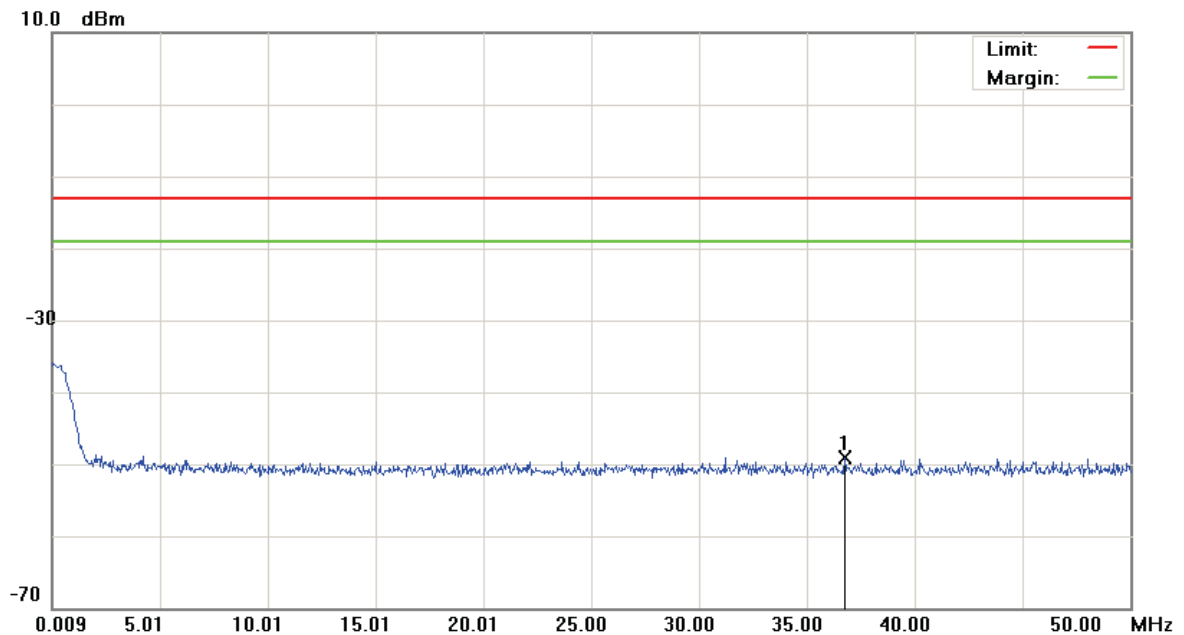


Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH25		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	18894.375	-39.26	7.12	-32.14	-13.00	-19.14	peak		

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

File:SCT-UM300(CH600) Data :#1 Date: 2010/11/25 Time: 下午 06:29:41



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH600		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	36.7524	-62.44	13.31	-49.13	-13.00	-36.13	peak		

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

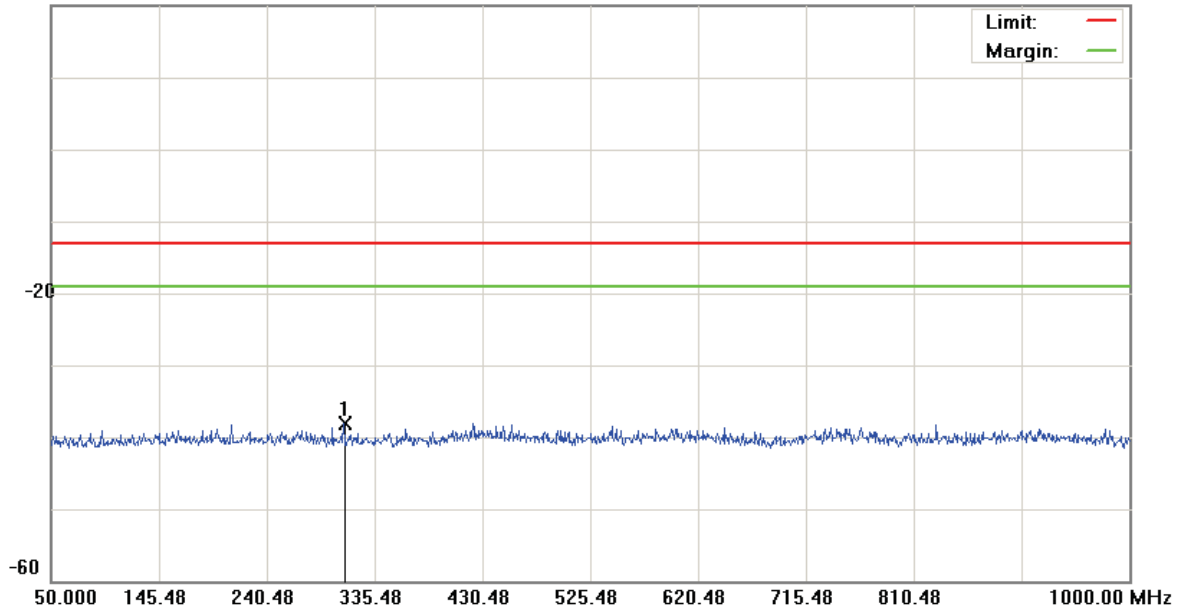
File:SCT-UM300(CH600)

Data :#2

Date: 2010/11/25

Time: 下午 06:30:05

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH600

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree
1	*	307.9250	-51.32	13.23	-38.09	-13.00	-25.09	peak		Comment

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

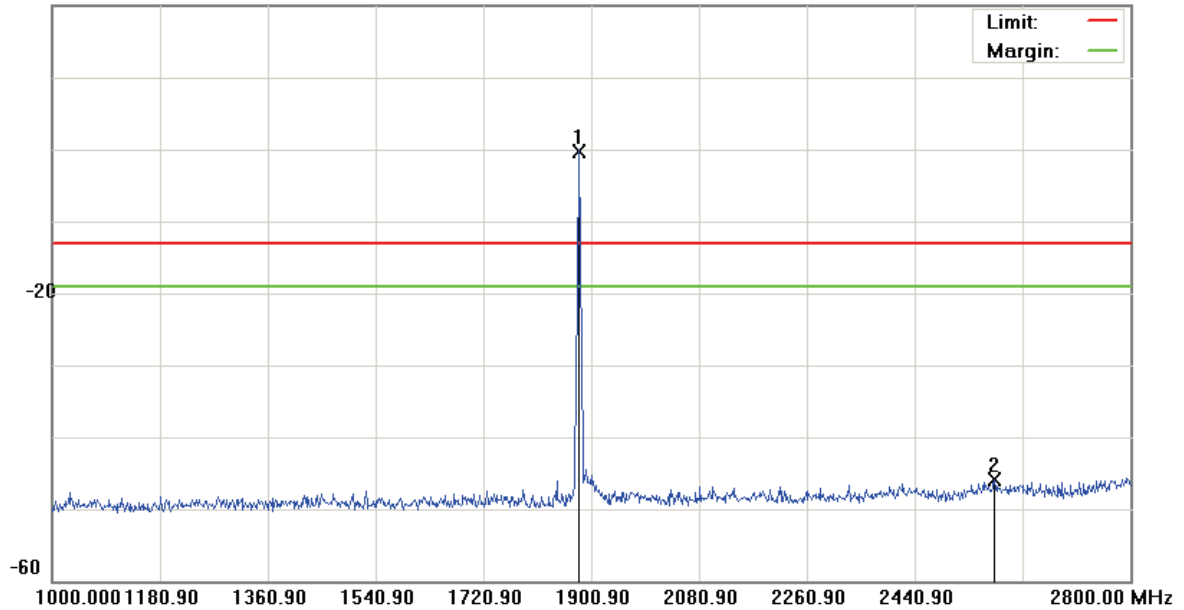
File:SCT-UM300(CH600)

Data :#3

Date: 2010/11/25

Time: 下午 06:43:41

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH600

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	*	1880.200	-4.85	4.65	-0.20	-13.00	12.80	peak		TX
2		2573.200	-51.19	5.34	-45.85	-13.00	-32.85	peak		

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

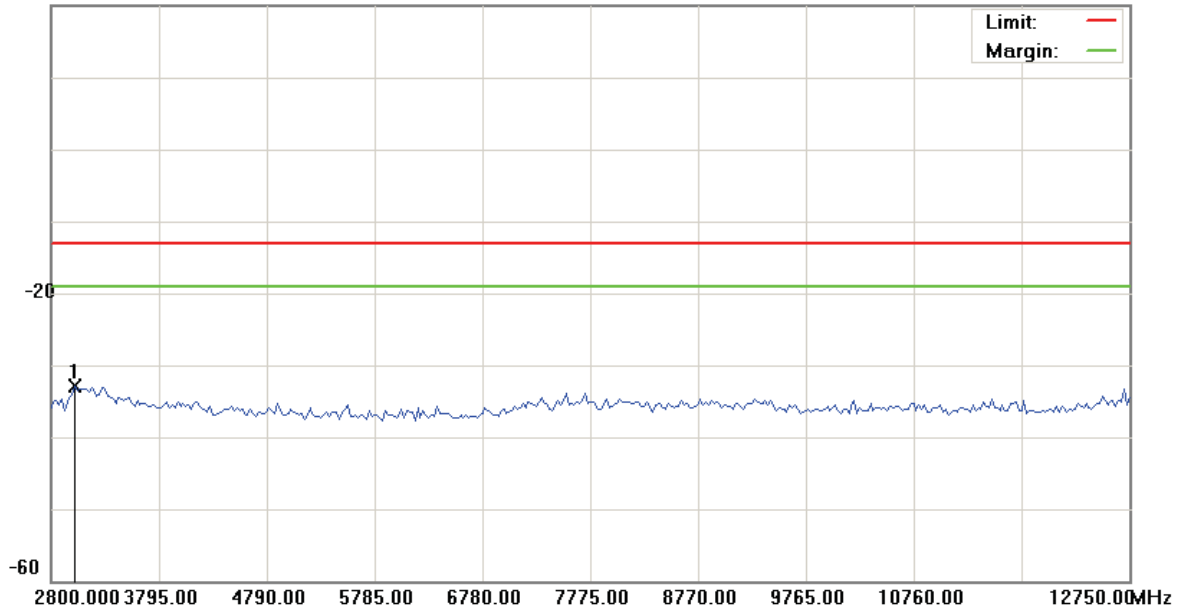
File:SCT-UM300(CH600)

Data :#4

Date: 2010/11/25

Time: 下午 07:20:54

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

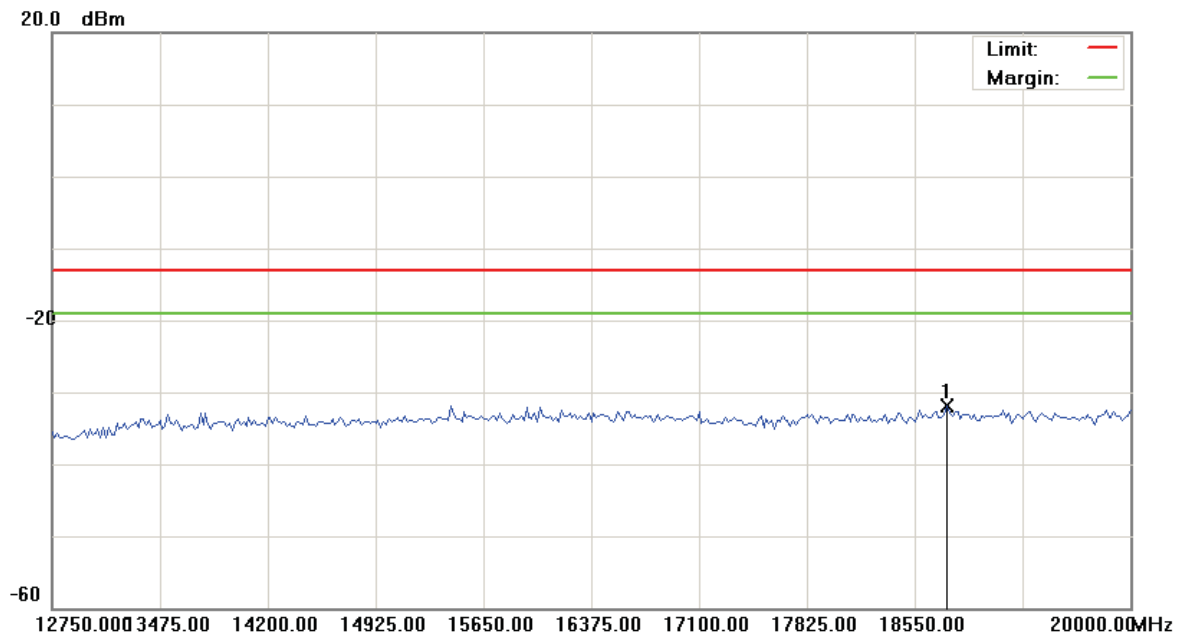
Mode: CDMA PCS

Note: CH600

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	-38.38	5.48	-32.90	-13.00	-19.90	peak		

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

File:SCT-UM300(CH600) Data :#5 Date: 2010/11/25 Time: 下午 07:21:16



Site: : RF Conducted	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH600		

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	*	18767.500	-38.96	7.09	-31.87	-13.00	-18.87	peak		

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

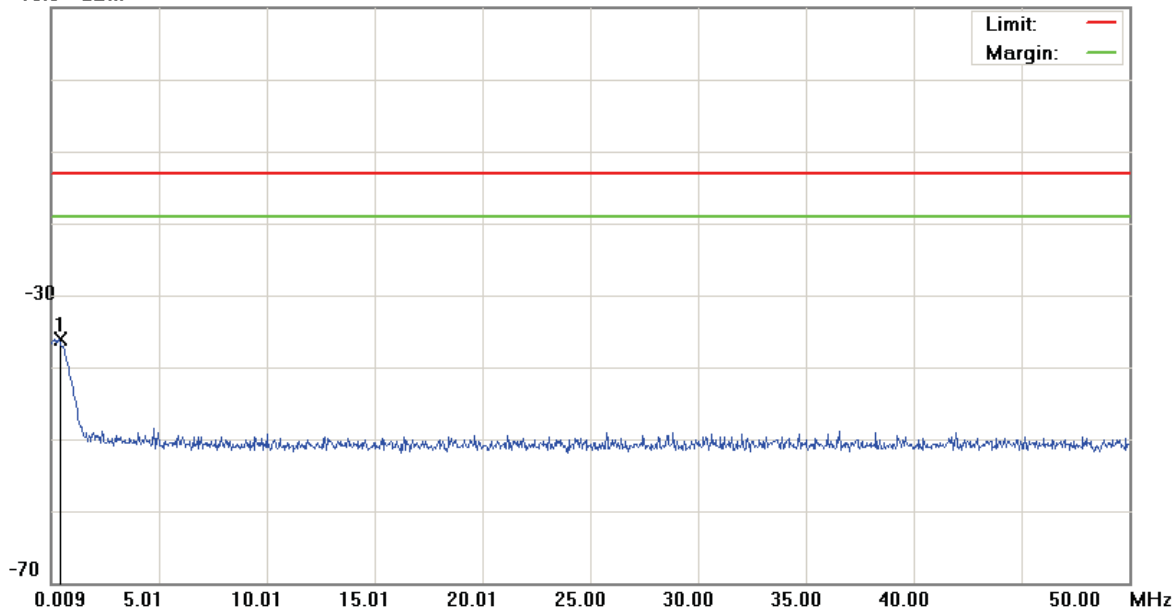
File:SCT-UM300(CH1175)

Data :#1

Date: 2010/11/25

Time: 下午 06:32:17

10.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH1175

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree
1	*	0.3590	-48.89	12.73	-36.16	-13.00	-23.16	peak		Comment

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

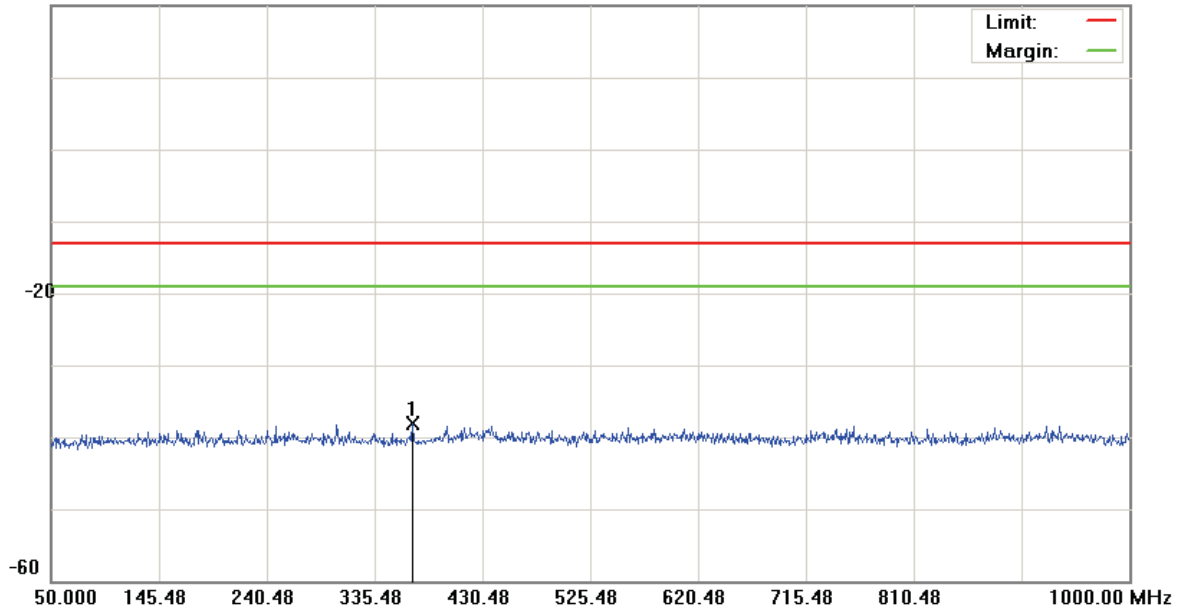
File:SCT-UM300(CH1175)

Data :#2

Date: 2010/11/25

Time: 下午 06:32:41

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH1175

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	*	368.2500	-51.37	13.18	-38.19	-13.00	-25.19	peak		

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

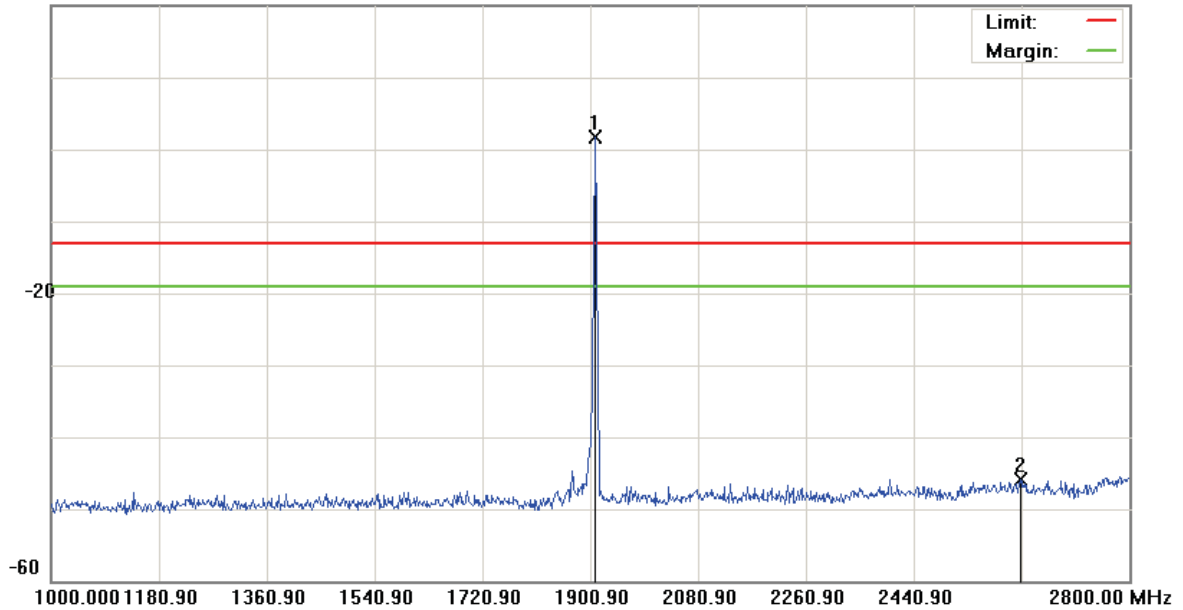
File:SCT-UM300(CH1175)

Data :#3

Date: 2010/11/25

Time: 下午 06:42:16

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH1175

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	-4.03	5.80	1.77	-13.00	14.77	peak		TX
2		2618.200	-51.43	5.44	-45.99	-13.00	-32.99	peak		

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

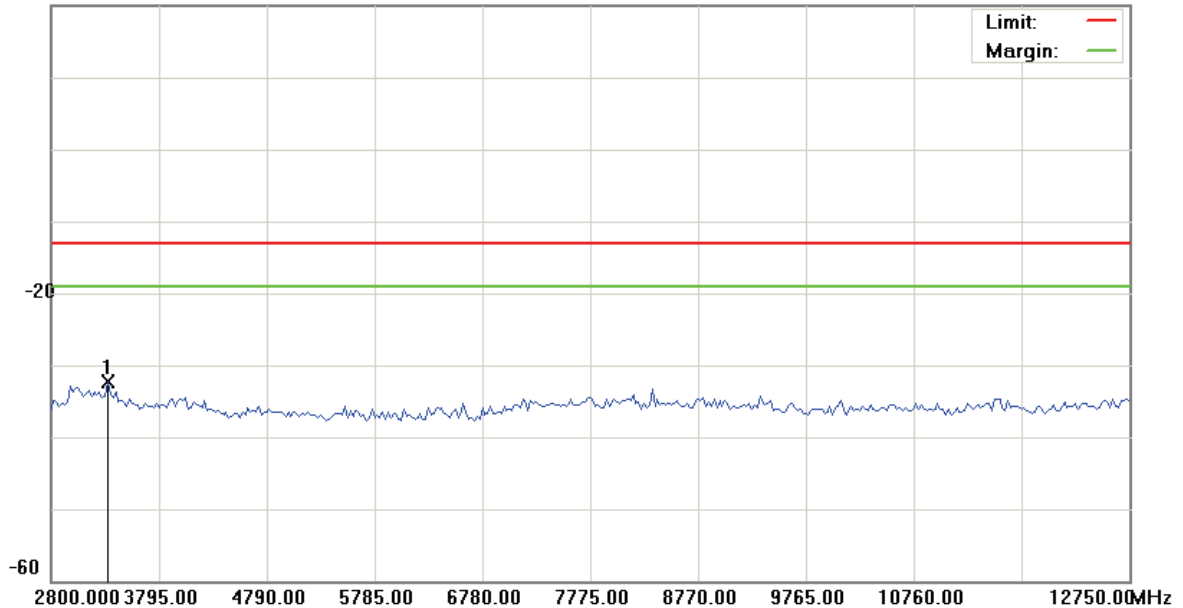
File:SCT-UM300(CH1175)

Data :#4

Date: 2010/11/25

Time: 下午 07:21:55

20.0 dBm



Site: : RF Conducted

Polarization: *Conducted po*

Temperature: 26 °C

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

Power: AC 120V/60Hz

Humidity: 55 %

EUT: USB Broadband Modem

Distance:

RBW: 1000 KHz VBW: 1000 KHz

M/N: SCT-UM300

Mode: CDMA PCS

Note: CH1175

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	*	3322.375	-37.40	5.16	-32.24	-13.00	-19.24	peak		

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

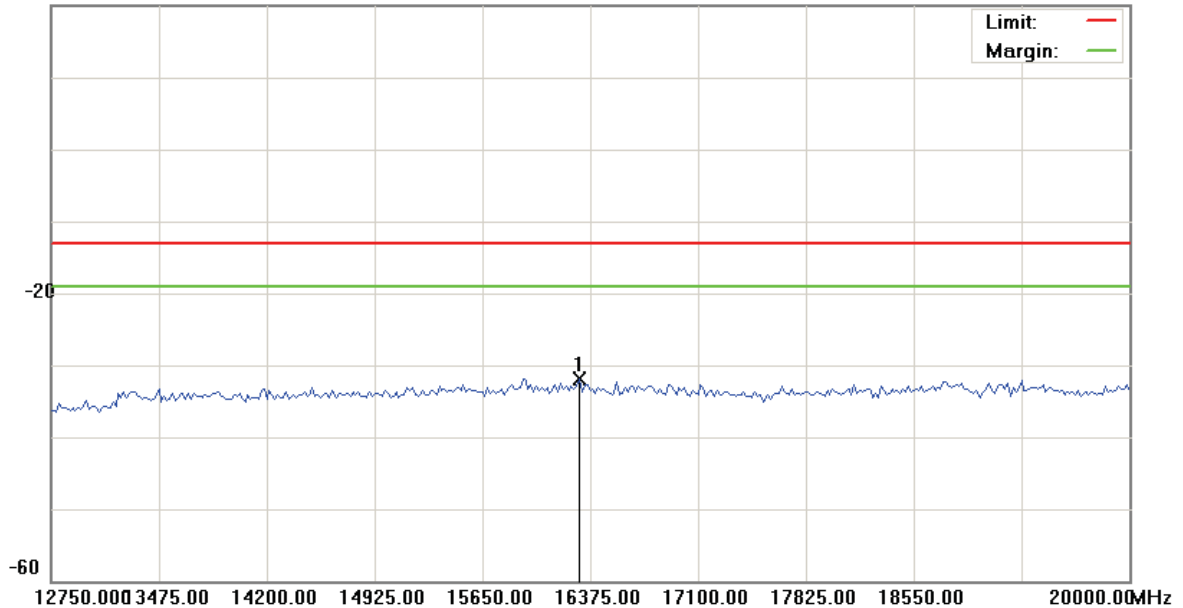
File:SCT-UM300(CH1175)

Data :#5

Date: 2010/11/25

Time: 下午 07:22:17

20.0 dBm



Site: : RF Conducted	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: USB Broadband Modem	Distance:	RBW: 1000 KHz VBW: 1000 KHz
M/N: SCT-UM300		
Mode: CDMA PCS		
Note: CH1175		

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	*	16302.500	-38.24	6.38	-31.86	-13.00	-18.86	peak		

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

6 Field Strength of Spurious Radiation Test

6.1. Limit

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

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

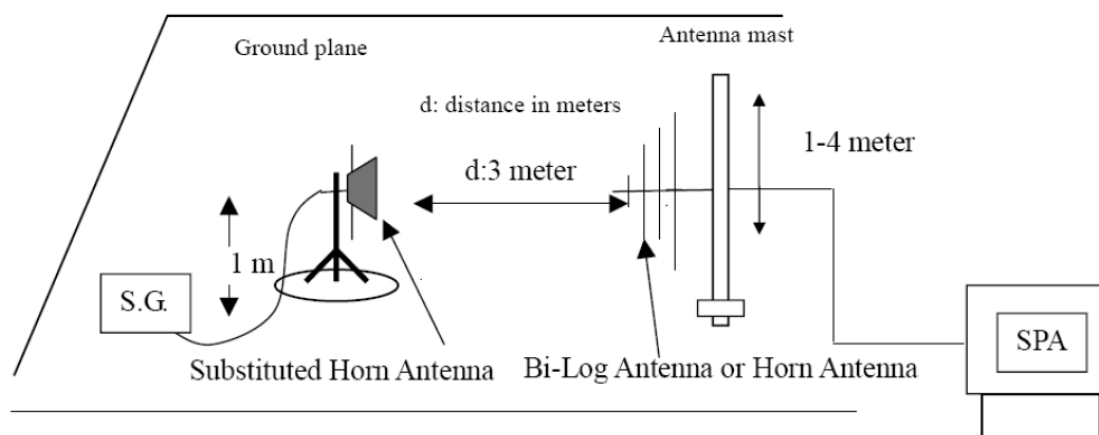
6.2. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/07/2009	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	02/24/2010	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/24/2010	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/24/2010	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	08/02/2010	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/29/2010	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/29/2010	(1)
Test Site	ATL	TE01	888001	07/30/2010	(1)

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

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

6.3. Setup



6.4. Test Procedure

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

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

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

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

The settings of the receiver were as follows:

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

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in **lie-down position (X axis)** and the worst case was recorded.

6.5. Uncertainty

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

6.6. Test Result

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 7	Date:	08/23/2010
Frequency:	824.70 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-64.67	7.28	-57.39	-13.00	-44.39	peak	H
2	399.5700	-55.89	2.67	-53.22	-13.00	-40.22	peak	H
3	501.4200	-70.24	10.58	-59.66	-13.00	-46.66	peak	H
4	799.2100	-64.34	6.03	-58.31	-13.00	-45.31	peak	H
5	869.0500	-42.98	13.81	-29.17	-13.00	-16.17	peak	H
6	992.2400	-66.27	12.43	-53.84	-13.00	-40.84	peak	H
7	1203.000	-55.22	11.14	-44.08	-13.00	-31.08	peak	H
8	1434.000	-58.49	10.53	-47.96	-13.00	-34.96	peak	H
9	1602.000	-52.65	10.38	-42.27	-13.00	-29.27	peak	H
10	1649.040	-55.52	10.38	-45.14	-13.00	-32.14	peak	H
11	2204.000	-60.76	11.08	-49.68	-13.00	-36.68	peak	H
12	2473.560	-45.41	11.91	-33.50	-13.00	-20.50	peak	H
1	60.0700	-59.14	-7.57	-66.71	-13.00	-53.71	peak	V
2	192.9600	-62.54	-0.63	-63.17	-13.00	-50.17	peak	V
3	299.6600	-62.18	4.97	-57.21	-13.00	-44.21	peak	V
4	397.6300	-53.85	-0.09	-53.94	-13.00	-40.94	peak	V
5	717.7300	-61.87	8.75	-53.12	-13.00	-40.12	peak	V
6	870.0200	-59.71	8.12	-51.59	-13.00	-38.59	peak	V
7	1196.000	-52.68	3.68	-49.00	-13.00	-36.00	peak	V
8	1595.000	-50.85	6.28	-44.57	-13.00	-31.57	peak	V
9	1649.040	-57.05	6.70	-50.35	-13.00	-37.35	peak	V
10	2473.560	-45.71	11.99	-33.72	-13.00	-20.72	peak	V
11	2848.000	-61.93	14.97	-46.96	-13.00	-33.96	peak	V
12	3296.000	-62.97	18.05	-44.92	-13.00	-31.92	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 7	Date:	08/23/2010
Frequency:	836.52 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-64.17	7.28	-56.89	-13.00	-43.89	peak	H
2	230.7900	-61.01	-5.50	-66.51	-13.00	-53.51	peak	H
3	398.6000	-55.47	2.53	-52.94	-13.00	-39.94	peak	H
4	499.4800	-69.71	10.79	-58.92	-13.00	-45.92	peak	H
5	799.2100	-63.70	6.03	-57.67	-13.00	-44.67	peak	H
6	881.6600	-46.28	14.96	-31.32	-13.00	-18.32	peak	H
7	1189.000	-57.09	11.18	-45.91	-13.00	-32.91	peak	H
8	1273.000	-59.93	10.96	-48.97	-13.00	-35.97	peak	H
9	1602.000	-50.63	10.38	-40.25	-13.00	-27.25	peak	H
10	1674.000	-57.66	10.39	-47.27	-13.00	-34.27	peak	H
11	2204.000	-60.81	11.08	-49.73	-13.00	-36.73	peak	H
12	2511.000	-59.27	12.03	-47.24	-13.00	-34.24	peak	H
1	80.4400	-55.69	-8.74	-64.43	-13.00	-51.43	peak	V
2	192.9600	-61.26	-0.63	-61.89	-13.00	-48.89	peak	V
3	283.1700	-63.97	6.23	-57.74	-13.00	-44.74	peak	V
4	398.6000	-56.48	-0.15	-56.63	-13.00	-43.63	peak	V
5	716.7600	-66.24	8.73	-57.51	-13.00	-44.51	peak	V
6	881.6600	-52.79	8.35	-44.44	-13.00	-31.44	peak	V
7	1196.000	-52.92	3.68	-49.24	-13.00	-36.24	peak	V
8	1602.000	-51.38	6.34	-45.04	-13.00	-32.04	peak	V
9	1674.000	-60.49	6.90	-53.59	-13.00	-40.59	peak	V
10	2071.000	-55.86	9.80	-46.06	-13.00	-33.06	peak	V
11	2211.000	-55.88	10.56	-45.32	-13.00	-32.32	peak	V
12	2511.000	-50.76	12.22	-38.54	-13.00	-25.54	peak	V
13	2841.000	-61.06	14.92	-46.14	-13.00	-33.14	peak	V
14	4185.000	-65.96	21.15	-44.81	-13.00	-31.81	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 7	Date:	08/23/2010
Frequency:	848.31 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-64.38	7.28	-57.10	-13.00	-44.10	peak	H
2	103.7200	-66.98	-0.93	-67.91	-13.00	-54.91	peak	H
3	399.5700	-56.20	2.67	-53.53	-13.00	-40.53	peak	H
4	490.7500	-70.20	11.19	-59.01	-13.00	-46.01	peak	H
5	825.4000	-55.66	8.78	-46.88	-13.00	-33.88	peak	H
6	894.2700	-44.31	16.28	-28.03	-13.00	-15.03	peak	H
7	1196.000	-54.68	11.17	-43.51	-13.00	-30.51	peak	H
8	1595.000	-52.42	10.38	-42.04	-13.00	-29.04	peak	H
9	1697.400	-55.68	10.39	-45.29	-13.00	-32.29	peak	H
10	2204.000	-59.40	11.08	-48.32	-13.00	-35.32	peak	H
11	2546.100	-58.02	12.15	-45.87	-13.00	-32.87	peak	H
12	3338.000	-65.77	14.79	-50.98	-13.00	-37.98	peak	H
1	60.0700	-59.15	-7.57	-66.72	-13.00	-53.72	peak	V
2	189.0800	-61.45	-0.65	-62.10	-13.00	-49.10	peak	V
3	398.6000	-55.92	-0.15	-56.07	-13.00	-43.07	peak	V
4	764.2900	-65.10	8.75	-56.35	-13.00	-43.35	peak	V
5	799.2100	-62.73	7.42	-55.31	-13.00	-42.31	peak	V
6	893.3000	-49.02	8.58	-40.44	-13.00	-27.44	peak	V
7	1196.000	-48.41	3.68	-44.73	-13.00	-31.73	peak	V
8	1697.400	-56.65	7.08	-49.57	-13.00	-36.57	peak	V
9	2071.000	-56.22	9.80	-46.42	-13.00	-33.42	peak	V
10	2211.000	-58.19	10.56	-47.63	-13.00	-34.63	peak	V
11	2546.100	-56.27	12.50	-43.77	-13.00	-30.77	peak	V
12	2848.000	-61.78	14.97	-46.81	-13.00	-33.81	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 8	Date:	08/23/2010
Frequency:	1851.25 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-64.62	7.28	-57.34	-13.00	-44.34	peak	H
2	230.7900	-60.29	-5.50	-65.79	-13.00	-52.79	peak	H
3	399.5700	-55.27	2.67	-52.60	-13.00	-39.60	peak	H
4	501.4200	-69.09	10.58	-58.51	-13.00	-45.51	peak	H
5	715.7900	-64.32	2.58	-61.74	-13.00	-48.74	peak	H
6	799.2100	-64.15	6.03	-58.12	-13.00	-45.12	peak	H
7	3702.500	-67.93	15.76	-52.17	-13.00	-39.17	peak	H
8	5553.750	-72.47	21.83	-50.64	-13.00	-37.64	peak	H
1	79.4700	-56.14	-8.87	-65.01	-13.00	-52.01	peak	V
2	189.0800	-61.04	-0.65	-61.69	-13.00	-48.69	peak	V
3	398.6000	-55.06	-0.15	-55.21	-13.00	-42.21	peak	V
4	673.1100	-66.95	8.74	-58.21	-13.00	-45.21	peak	V
5	716.7600	-64.71	8.73	-55.98	-13.00	-42.98	peak	V
6	799.2100	-64.14	7.41	-56.73	-13.00	-43.73	peak	V
7	2848.000	-61.78	14.97	-46.81	-13.00	-33.81	peak	V
8	3702.500	-69.08	19.83	-49.25	-13.00	-36.25	peak	V
9	5553.750	-71.23	23.40	-47.83	-13.00	-34.83	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 8	Date:	08/23/2010
Frequency:	1880.00 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-64.56	7.28	-57.28	-13.00	-44.28	peak	H
2	398.6000	-54.33	2.53	-51.80	-13.00	-38.80	peak	H
3	496.5700	-70.14	10.92	-59.22	-13.00	-46.22	peak	H
4	716.7600	-62.34	2.60	-59.74	-13.00	-46.74	peak	H
5	834.1300	-66.90	9.98	-56.92	-13.00	-43.92	peak	H
6	992.2400	-67.93	12.43	-55.50	-13.00	-42.50	peak	H
7	3760.000	-69.09	15.89	-53.20	-13.00	-40.20	peak	H
8	5640.000	-70.81	22.04	-48.77	-13.00	-35.77	peak	H
1	191.0200	-63.50	-0.59	-64.09	-13.00	-51.09	peak	V
2	300.6300	-58.12	-0.36	-58.48	-13.00	-45.48	peak	V
3	398.6000	-56.27	-0.15	-56.42	-13.00	-43.42	peak	V
4	630.4300	-68.67	4.22	-64.45	-13.00	-51.45	peak	V
5	799.2100	-65.53	7.41	-58.12	-13.00	-45.12	peak	V
6	991.2700	-72.28	10.91	-61.37	-13.00	-48.37	peak	V
7	2841.000	-63.83	14.92	-48.91	-13.00	-35.91	peak	V
8	3760.000	-68.92	19.98	-48.94	-13.00	-35.94	peak	V
9	5640.000	-71.98	23.26	-48.72	-13.00	-35.72	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model:	SCT-UM300	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 8	Date:	08/23/2010
Frequency:	1908.75 MHz	Test By:	Gary Wu

No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
1	55.2200	-65.36	7.28	-58.08	-13.00	-45.08	peak	H
2	399.5700	-56.26	2.67	-53.59	-13.00	-40.59	peak	H
3	501.4200	-69.61	10.58	-59.03	-13.00	-46.03	peak	H
4	548.9500	-67.47	5.69	-61.78	-13.00	-48.78	peak	H
5	799.2100	-65.17	6.03	-59.14	-13.00	-46.14	peak	H
6	860.3200	-71.00	13.04	-57.96	-13.00	-44.96	peak	H
7	3817.500	-70.27	16.02	-54.25	-13.00	-41.25	peak	H
8	5726.250	-71.84	22.26	-49.58	-13.00	-36.58	peak	H
1	191.0200	-61.67	-0.59	-62.26	-13.00	-49.26	peak	V
2	398.6000	-53.20	-0.15	-53.35	-13.00	-40.35	peak	V
3	494.6300	-50.37	0.63	-49.74	-13.00	-36.74	peak	V
4	716.7600	-64.78	8.73	-56.05	-13.00	-43.05	peak	V
5	761.3800	-64.01	8.87	-55.14	-13.00	-42.14	peak	V
6	799.2100	-64.58	7.41	-57.17	-13.00	-44.17	peak	V
7	2841.000	-62.91	14.92	-47.99	-13.00	-34.99	peak	V
8	3817.500	-69.34	20.12	-49.22	-13.00	-36.22	peak	V
9	5726.250	-72.42	23.11	-49.31	-13.00	-36.31	peak	V

7 Frequency Stability (Temperature Variation) Test

7.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

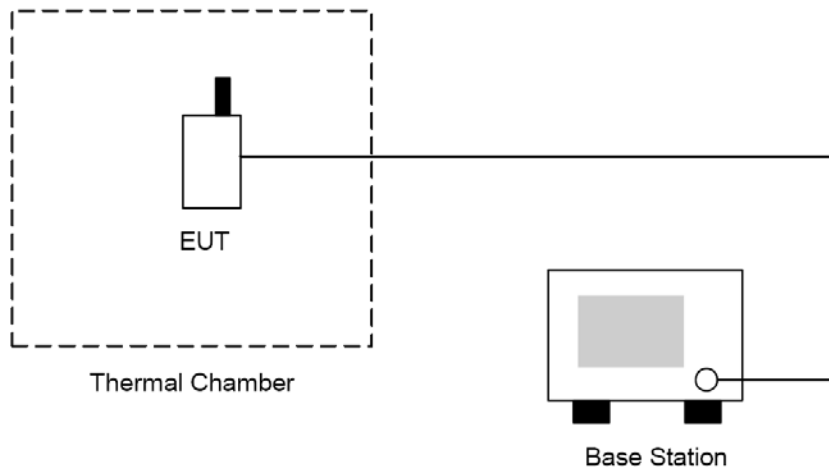
7.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/26/2009	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

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

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

7.3. Setup



7.4. Test Procedure

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

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

7.5. Uncertainty

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

7.6. Test Result

Model Number	SCT-UM300			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 7			
Date of Test	08/30/2010		Test Site	TE02
Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	22.76	0.027	±2.5	Pass
-20	24.38	0.029	±2.5	Pass
-10	31.57	0.038	±2.5	Pass
0	23.36	0.028	±2.5	Pass
10	32.19	0.038	±2.5	Pass
20	31.32	0.037	±2.5	Pass
30	34.21	0.041	±2.5	Pass
40	20.56	0.025	±2.5	Pass
50	26.98	0.032	±2.5	Pass

Model Number	SCT-UM300			
Test Item	Frequency Stability (Temperature Variation)			
Test Mode	Mode 8			
Date of Test	08/30/2010		Test Site	TE02
Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	37.51	0.020	±2.5	Pass
-20	38.62	0.021	±2.5	Pass
-10	31.67	0.017	±2.5	Pass
0	35.48	0.019	±2.5	Pass
10	30.15	0.016	±2.5	Pass
20	40.03	0.021	±2.5	Pass
30	38.38	0.020	±2.5	Pass
40	35.41	0.019	±2.5	Pass
50	33.39	0.018	±2.5	Pass

8 Frequency Stability (Voltage Variation) Test

8.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

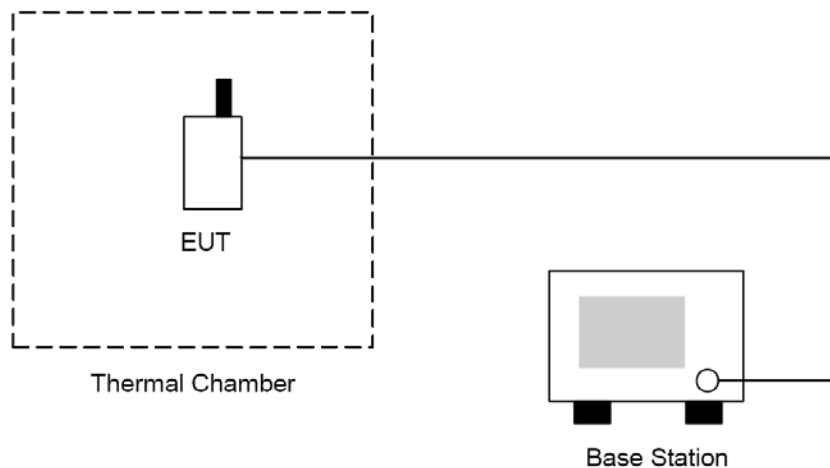
8.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/26/2009	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

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

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

8.3. Setup



8.4. Test Procedure

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

8.5. Uncertainty

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

8.6. Test Result

Model Number	SCT-UM300				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 7				
Date of Test	08/30/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	132.00	25.78	0.031	± 2.5	Pass
Normal	120.00	28.69	0.034	± 2.5	Pass
Battery cut-off point	108.00	29.61	0.035	± 2.5	Pass

Model Number	SCT-UM300				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 8				
Date of Test	08/30/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	132.00	34.72	0.018	± 2.5	Pass
Normal	120.00	33.68	0.018	± 2.5	Pass
Battery cut-off point	108.00	30.49	0.016	± 2.5	Pass