

FCC CFR47 CERTIFICATION

PART 24E

TEST REPORT

FOR

MOBILE PHONE

MODEL: AGM1100

FCC ID: RB2AGM1100

REPORT NUMBER: 03U2057-2

ISSUE DATE: JULY 8, 2003

Prepared for ACCETIO, INC.
9565 WAPLES ST., SUITE 250 SAN DIEGO, CA 92121, USA

Prepared by

COMPLIANCE CERTIFICATION SERVICES 561F MONTEREY ROAD, ROUTE 2 MORGAN HILL, CA 95037, USA

> TEL: (408) 463-0885 FAX: (408) 463-0888

TABLE OF CONTENT

1. T	EST RESULT CERTIFICATION	3
2. E	UT DESCRIPTION	4
	EST METHODOLOGY	
4. T	EST FACILITY	4
5. A	CCREDITATION AND LISTING	4
6. M	IEASURING INSTRUMENT CALIBRATION	4
7. T	EST SETUP, PROCEDURE AND RESULT	5
7.1.		
7.2.	SECTION 2.1047: MODULATION CHARACTERISTICS	11
7.3.	SECTION 2.1049: OCCUPIED BANDWIDTH	11
7.4.	SECTION 2.1051: SPURIOUS EMISSION AT ANTENNA TERMINAL	16
7.5.	SECTION 2.1053: FIELD STRENGTH OF SPURIOUS RADIATION	26
7.6.	SECTION 2.1055: FREQUENCY STABILITY	30
8. A	PENDIX	33
8.1.	EXTERNAL & INTERNAL PHOTOS	
8.2.	SCHEMATICS	
8.3.	BLOCK DIAGRAM	33
8.4.	USER MANUAL	33

1. TEST RESULT CERTIFICATION

COMPANY NAME: ACCETIO, INC.

> 9565 WAPLES ST., SUITE 250 SAN DIEGO, CA 92121, USA

EUT DESCRIPTION: MOBILE PONE

MODEM NAME: AGM1100

DATE TESTED: JULY 8, 2003

TYPE OF EQUIPMENT	INTENTIONAL RADIATOR
EQUIPMENT TYPE	LICENSED TX MODULE IN MOBILE APPLICATION
MEASUREMENT PROCEDURE	ANSI 63.4 / 2001, TIA/EIA 603
PROCEDURE	CERTIFICATION
FCC RULE	CFR 47 PART 24 Subpart E

Compliance Certification Services, Inc. tested the above equipment for compliance with the requirement set forth in CFR 47, PART 24 Subpart E-Broadband PCS. The equipment in the configuration described in this report, shows the measured emission levels emanating from the equipment do not exceed the specified limit.

Note: This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document.

Released For CCS By: Tested By:

WILLIAM ZHUANG

William Zhung

THU CHAN EMC ENGINEER EMC SUPERVISOR

COMPLIANCE CERTIFICATION SERVICES COMPLIANCE CERTIFICATION SERVICES

2. EUT DESCRIPTION

The Mobile Phone has an output power 29.9dBm (PCS, EIRP). It has a -1dBi of antenna gain which is designed for the bands transmitting of frequency range 1850 ~ 1990MHz.

DATE: JULY 8, 2003 FCC ID: RB2AGM1100

3. TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures documented on chapter 13 of ANSI C63.4 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057.

4. TEST FACILITY

The open area test sites and conducted measurement facilities used to collect the radiated data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5. ACCREDITATION AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code: 200065-0 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government. In addition, the test facilities are listed with Federal Communications Commission (reference no: 31040/SIT (1300B3) and 31040/SIT (1300F2))

6. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

7. TEST SETUP, PROCEDURE AND RESULT

7.1. SECTION 2.1046: RF POWER OUTPUT

INSTRUMENTS LIST

EQUIPMENT	MANUFACTURE	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Modulation Analyzer	HP	8901b	3438A05272	6/23/04
PSA Analyzer	Agilent	E446A	US42070220	1/13/04
Audio Signal Generator	HP	3325A	2652A24749	5/8/04
Universal Radio				
Communication	R & S	CMU200	838114 / 032	11/14/03
Tester				
40dB Attenuator	Amplifier Research	DC7144A	305089	N/A
DC Power Supply	Kenwood	PA36-3A	7060074	N/A
Bilog Antenna	A.R.A.	LPB 2520/A	1185	3/6/04
Tune Dipole	ETS	DB-4	1629	5/14/04
Tx Horn Antenna	EMCO	3115	6739	2/4/2004
Rx Horn Antenna	EMCO	3115	6717	2/4/2004
Amplifier	MITEQ	NSP2600-SP	924342	4/25/2004
HPF	MICROLAB	FH-2400H	N/A	N/A

MEASUREMENT PROCEDURE

- 1). On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
- 2). The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the frequency of the transmitter.
- 3). The output of the test antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- 4). The transmitter shall be switched on, if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 5). The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 6). The transmitter shall than be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

Page 5 of 33

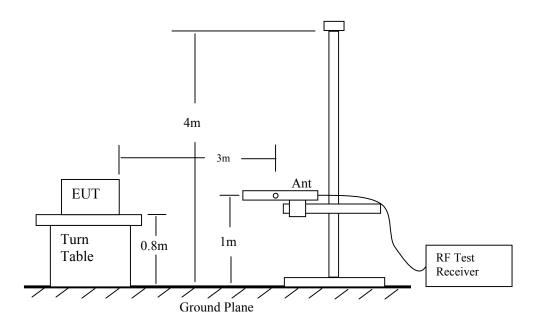
DOCUMENT NO: CCSUP4031A TEL: (408) 463-0885 FAX: (408) 463-0888

DATE: JULY 8, 2003

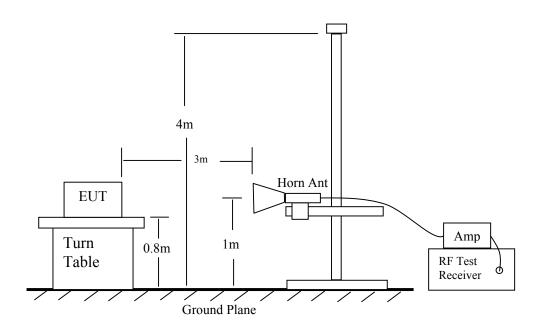
FCC ID: RB2AGM1100

REPORT NO:03U2057-2 EUT: MOBILE PHONE

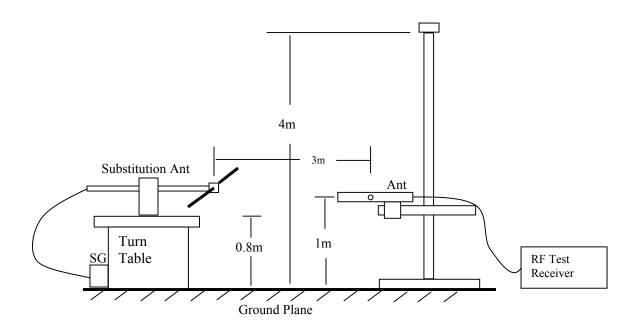
- DATE: JULY 8, 2003 FCC ID: RB2AGM1100
- 7). The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 8). The maximum signal level detected by the measuring receiver shall be noted.
- 9). The transmitter shall be replaced by a tuned dipole (substitution antenna).
- 10). The substitution antenna shall be oriented for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- 11). The substitution antenna shall be connected to a calibrated signal generator.
- 12). If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- 13). The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- 14). The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- 15). The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- 16). The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.
- 17). The measure of the effective radiated power is the larger of the two levels recorded, at the input to the substitution antenna, corrected for the gain of the substitution antenna if necessary.

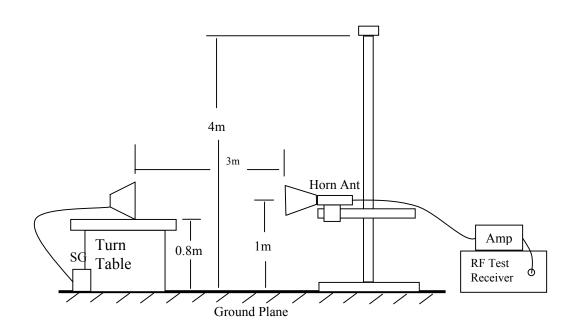


Radiated Emission Measurement 30 to 1000 MHz



Radiated Emission Above 1000 MHz





Radiated Emission – Substitution Method Set-up

Page 8 of 33

Radiated Emissions



X-Position

MEASUREMENT RESULT:

Output Power (EIRP):

f GHz	SA reading (dBm)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
1.850	100.3	23.1	1.3	7.7	5.5	29.4	33.0	-3.6	H, X position, Ant-1
1.851	90.1	14.2	1.3	7.7	5.5	20.5	33.0	-12.5	V, X position, Ant-1
1.880	100.7	23.5	1.4	7.7	5.6	29.9	33.0	-3.2	H, X position, Ant-1
1.880	89.5	13.7	1.4	7.7	5.6	20.0	33.0	-13.0	V, X position, Ant-1
1.909	98.6	21.4	1.4	7.8	5.6	27.8	33.0	-5.2	H, X position, Ant-1
1.909	88.7	12.9	1.4	7.8	5.6	19.3	33.0	-13.8	V, X position, Ant-1

7.2. SECTION 2.1047: MODULATION CHARACTERISTICS

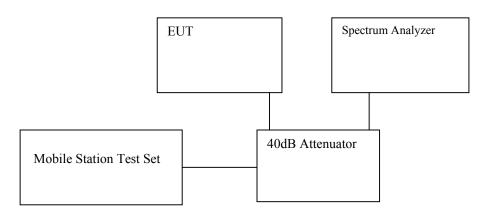
Not applicable.

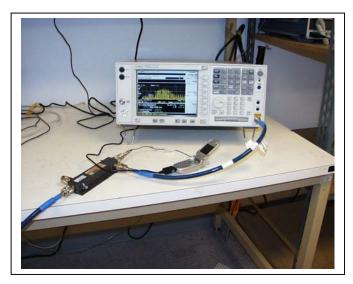
7.3. SECTION 2.1049: OCCUPIED BANDWIDTH

TEST PROCEDURE

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RES BW was set to about 1% of emission BW, -26 dBc display line was placed on the screen, the occupied BW is the delta frequency between the two points where the display line intersects the signal trace. 26dB BW was measured for low, middle and high channels on both RF input and output ports of the EUT.

TEST SETUP



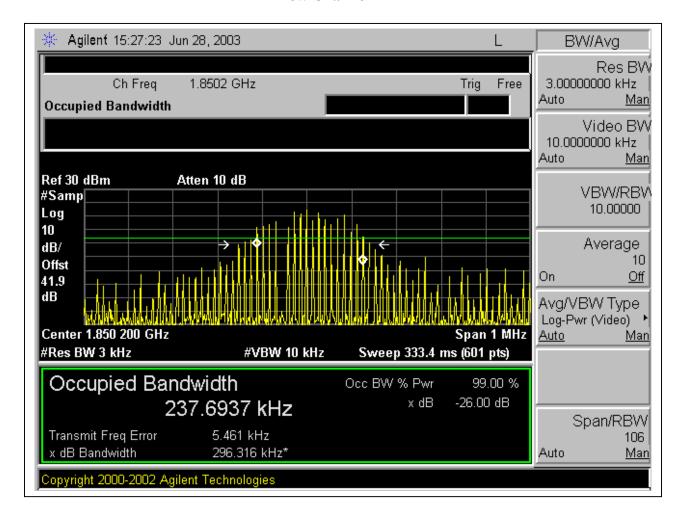


Page 11 of 33

RESULT

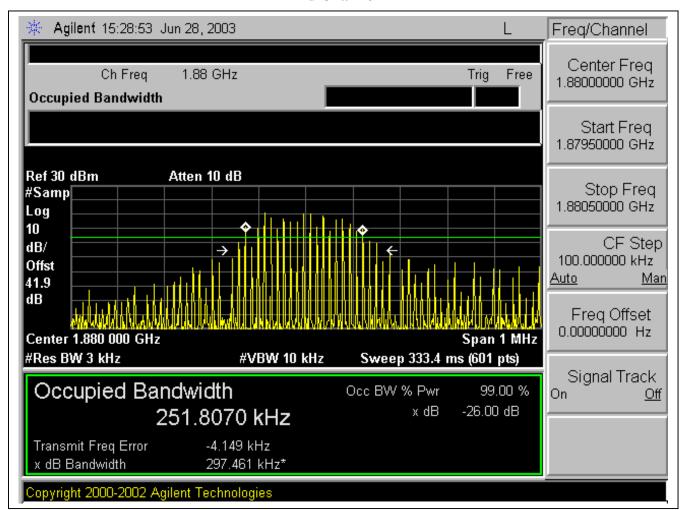
Channel	Frequency	-26dBc BW
	(MHz)	(KHz)
Low	1850.2	296.316
Middle	1880.0	297.461
High	1909.8	297.562

Low Channel



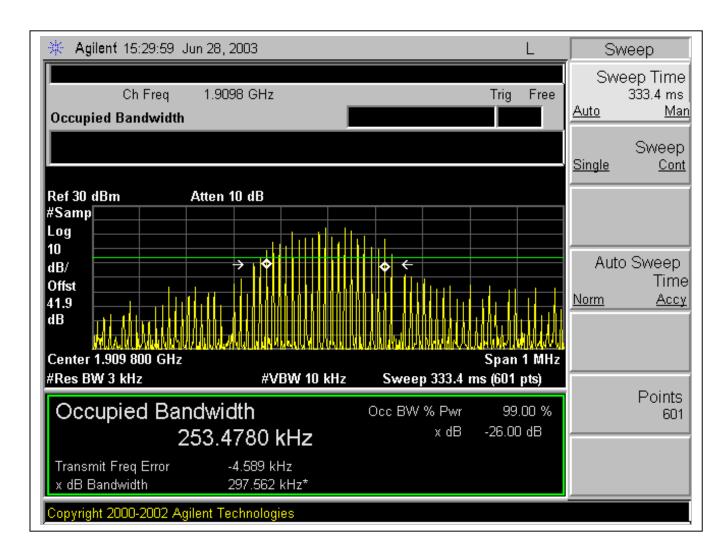
Page 13 of 33

Mid Channel



Page 14 of 33

High Channel



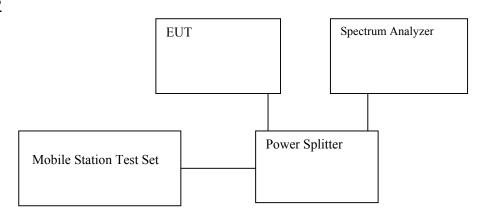
Page 15 of 33

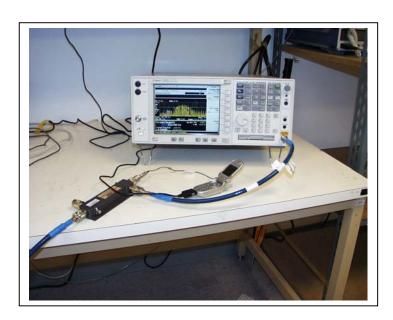
7.4. SECTION 2.1051: SPURIOUS EMISSION AT ANTENNA TERMINAL

INSTRUMENTS LIST

EQUIPMENT	MANUFACTURE	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Modulation Analyzer	HP	8901B	3438A05272	6/23/04
PSA Analyzer	Agilent	E446A	US42070220	1/13/04
Audio Signal Generator	НР	3325A	2652A24749	5/8/04
Universal Radio Communication Tester	R & S	CMU200	838114 / 032	11/14/03
40dB Attenuator	Amplifier Research	DC7144A	305089	N/A
Power Splitter	Agilent	11667B	53331	N/A

TEST SETUP





Page 16 of 33

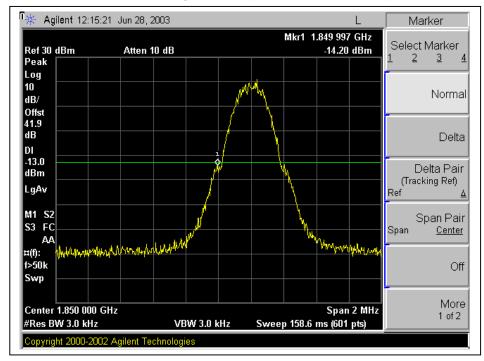
TEST PROCEDURE

- 1) EUT's RF output connector (made solely for the purpose of the test) is connected to the spectrum analyzer, and set as close as possible to the bottom of the block edge and one set as close as possible to the top of the block edge. Set the RES BW to 1% of the emission bandwidth to show compliance with the –13dBm limit, in the 1 MHz bands immediately outside and adjacent to the top and bottom edges of the frequency block.
- 2) For the Out-of-Band measurements a 1 MHz RES BW was used to scan from 15 MHz to 10xfo of the fundamental carrier for all frequency block. A display line was placed at -13dBm to show compliance for spurious, and harmonics.

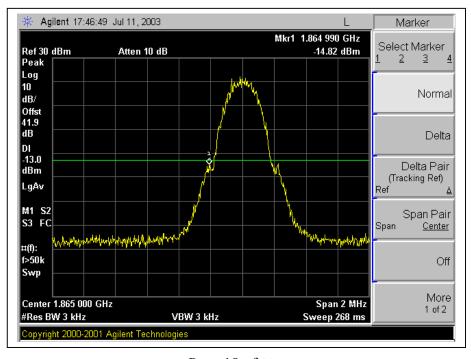
MEASUREMENT RESULT:

PCS Modulation: Low / Mid / High, Band Edge, Out-Of-Band Emissions

Low Band Edge- Ch 512 (Block A Low Channel)



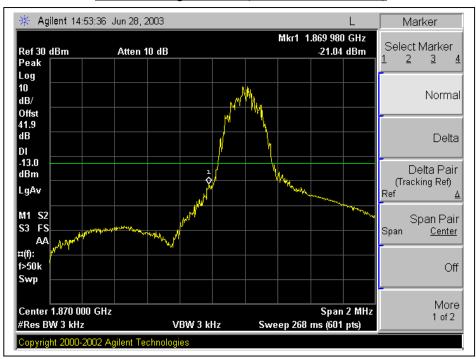
Low Band Edge- Ch 587 (Block D Low Channel)



Page 18 of 33

DOCUMENT NO: CCSUP4031A TEL: (408) 463-0885 FAX: (408) 463-0888

Low Band Edge- Ch 612 (Block B Low Channel)



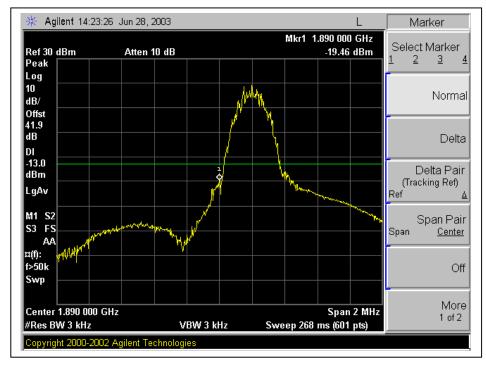
Low Band Edge- Ch 687 (Block E Low Channel)



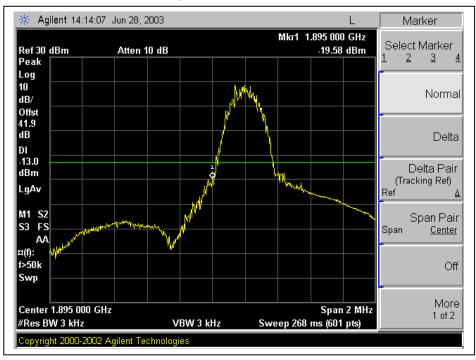
Page 19 of 33

DOCUMENT NO: CCSUP4031A
TEL: (408) 463-0885 FAX: (408) 463-0888

Low Band Edge- Ch 712 (Block F Low Channel)



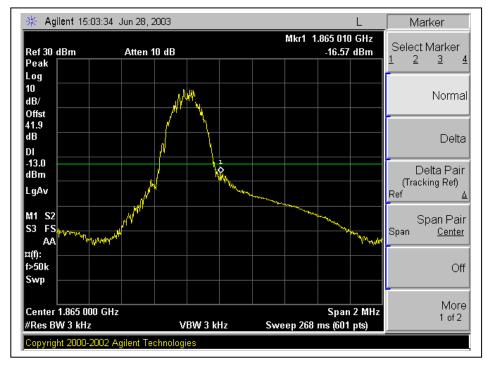
Low Band Edge- Ch 737 (Block C Low Channel)



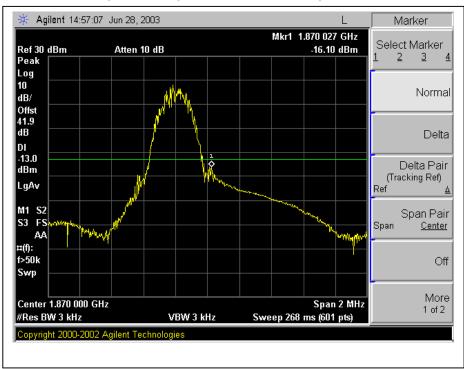
Page 20 of 33

DOCUMENT NO: CCSUP4031A
TEL: (408) 463-0885 FAX: (408) 463-0888

High Band Edge- Ch 585-1865MHz (Block A High Channel)

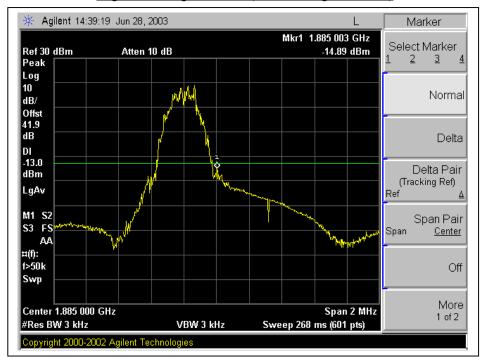


High Band Edge- Ch 610 (Block D High Channel)

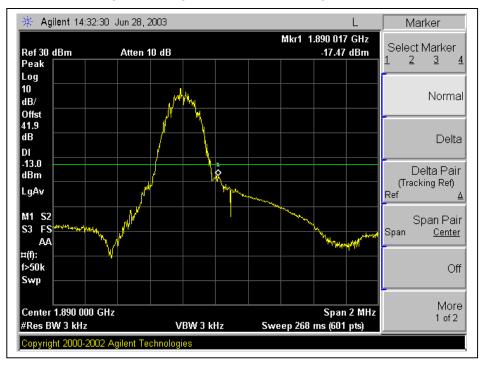


Page 21 of 33

High Band Edge- Ch 685 (Block B High Channel)



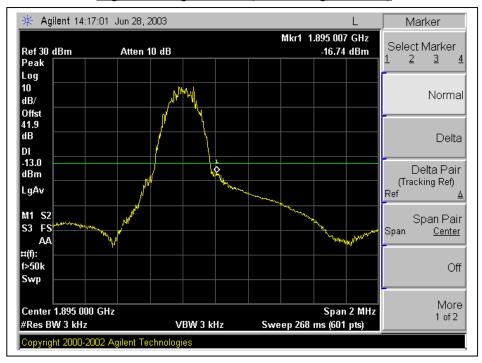
High Band Edge- Ch 710 (Block E High Channel)



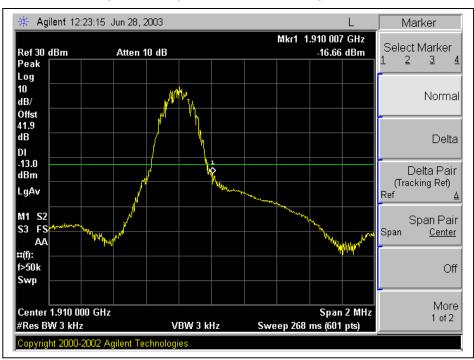
Page 22 of 33

DOCUMENT NO: CCSUP4031A TEL: (408) 463-0885 FAX: (408) 463-0888

High Band Edge- Ch 735 (Block F High Channel)



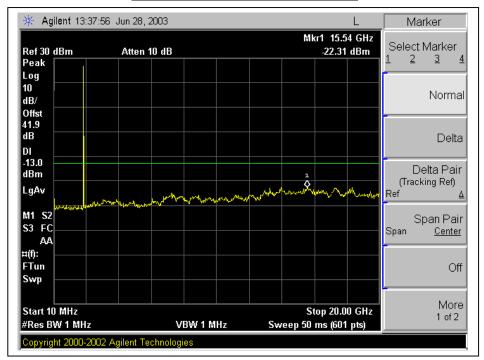
High Band Edge- Ch 810 (Block C High Channel)



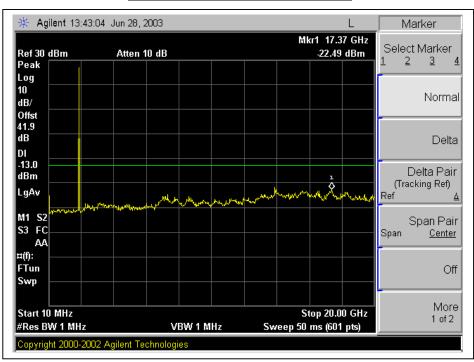
Page 23 of 33

DOCUMENT NO: CCSUP4031A TEL: (408) 463-0885 FAX: (408) 463-0888

Out-Of-Band Emissions-Low Channel

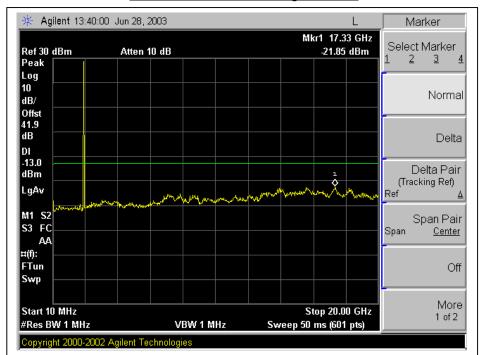


Out-Of-Band Emissions-Mid Channel



Page 24 of 33

Out-Of-Band Emissions-High Channel



7.5. SECTION 2.1053: FIELD STRENGTH OF SPURIOUS RADIATION

INSTRUMENTS LIST

EQUIPMENT	MANUFACTURE	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Modulation Analyzer	HP	8901b	3438A05272	6/23/04
PSA Analyzer	Agilent	E446A	US42070220	1/13/04
10dB Attenuator	Agilent	8493C	59028	N/A
Universal Radio				
Communication	R & S	CMU200	838114 / 032	11/14/03
Tester				
Bilog Antenna	A.R.A.	LPB 2520/A	1185	3/6/04
Tune Dipole	ETS	DB-4	1629	5/14/04
Tx Horn Antenna	EMCO	3115	6739	2/4/2004
Rx Horn Antenna	EMCO	3115	6717	2/4/2004
Amplifier	MITEQ	NSP2600-SP	924342	4/25/2004
HPF	MICROLAB	FH-2400H	N/A	N/A

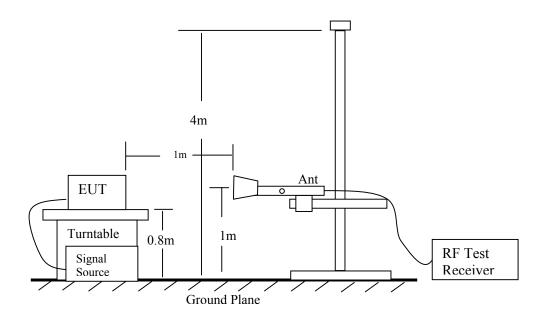
Detector Function Setting of Test Receiver

Frequency Range (MHz)	Detector Function	Resolution Bandwidth	Video Bandwidth
Above 1000	Peak Average	∑ 1 MHz ☐ 1 MHz	∑ 1 MHz □ 10 Hz

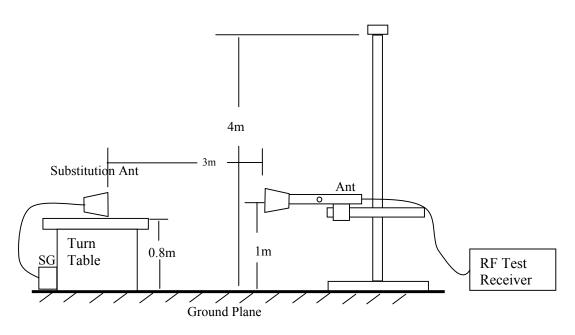
TEST SETUP



Page 26 of 33



Radiated Emission Measurement



Radiated Emission – Substitution Method set-up

Page 27 of 33

TEST PROCEDURE

1). On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.

DATE: JULY 8, 2003

FCC ID: RB2AGM1100

- 2). The test antenna shall be oriented initially for vertical polarization located 1m from the EUT to correspond to the frequency of the transmitter.
- 3). The output of the test antenna shall be connected to the measuring receiver and either a peak or average detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- 4). The transmitter shall be switched on, if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 5). The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 6). The transmitter shall than be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- 7). The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 8). The maximum signal level detected by the measuring receiver shall be noted.
- 9). The transmitter shall be replaced by a substitution antenna.
- 10). The substitution antenna shall be oriented for vertical polarization.
- 11). The substitution antenna shall be connected to a calibrated signal generator.
- 12). If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- 13). The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- 14). The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- 15). The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- 16). The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.
- 17). The measure of the effective radiated power is the larger of the two levels recorded, at the input to the substitution antenna, corrected for the gain of the substitution antenna if necessary.

MEASUREMENT RESULT

No non-compliance noted, as shown below

Harmonics & Spurious Emissions: Low, Mid, & High Channels:

f GHz	SA reading (dBm)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
	(/	(ubm)	(ав)	(ubi)	(ава)	(ubiii)	(ubiii)	(ub)	
Low Char		27.2	2.2	0.5	7.2	20.0	12.0	16.0	n
3.700	72.3	-37.2	2.2	9.5	7.3	-29.9	-13.0	-16.9	Н
5.550	63.9	-44.6	2.8	11.3	9.1	-36.1	-13.0	-23.1	Н
7.400	71.7	-34.3	3.2	11.5	9.3	-26.0	-13.0	-13.0	Н
9.250	63.0	-38.1	3.7	11.4	9.2	-30.4	-13.0	-17.4	H
11.100	59.0	-40.5	3.9	12.8	10.7	-31.6	-13.0	-18.6	H
12.950	59.4	-41.0	3.7	12.3	10.2	-32.4	-13.0	-19.4	H
14.800	57.8	-41.5	4.6	12.7	10.5	-33.5	-13.0	-20.5	Н
16.650	58.6	-42.8	4.5	14.1	12.0	-33.2	-13.0	-20.2	H, Noise Floor
3.700	67.9	-41.4	2.2	9.5	7.3	-34.1	-13.0	-21.1	V
5.550	68.0	-40.8	2.8	11.3	9.1	-32.3	-13.0	-19.3	V
7.400	72.1	-34.2	3.2	11.5	9.3	-26.0	-13.0	-13.0	V
9.250	65.3	-37.3	3.7	11.4	9.2	-29.6	-13.0	-16.6	V
11.100	57.0	-42.3	3.9	12.8	10.7	-33.4	-13.0	-20.4	V
12.950	59.7	-42.3	3.7	12.3	10.2	-33.6	-13.0	-20.6	V
14.800	63.3	-36.5	4.6	12.7	10.5	-28.4	-13.0	-15.4	V
16.650	65.3	-36.5	4.5	14.1	12.0	-26.9	-13.0	-13.9	V, Noise Floor
Mid Chan	inel:								
3.760	86.0	-21.1	2.2	9.5	7.4	-13.8	-13.0	-0.8	H
5.640	70.9	-35.4	2.9	11.3	9.2	-26.9	-13.0	-13.9	Н
7.520	71.8	-31.2	3.3	11.4	9.3	-23.0	-13.0	-10.0	Н
9.400	66.6	-31.9	3.7	11.6	9.5	-24.0	-13.0	-11.0	Н
11.280	63.5	-34.3	3.9	12.8	10.6	-25.4	-13.0	-12.4	Н
13.160	58.0	-40.4	3.9	12.2	10.1	-32.1	-13.0	-19.1	Н
15.040	59.4	-37.6	4.7	13.1	10.9	-29.2	-13.0	-16.2	Н
16.920	54.8	-42.9	4.3	13.4	11.3	-33.8	-13.0	-20.8	H, Noise Floor
3.760	77.5	-31.6	2.2	9.5	7.4	-24.3	-13.0	-11.3	V
5.640	73.1	-35.6	2.9	11.3	9.2	-27.1	-13.0	-14.1	V
7.520	70.9	-35.1	3.3	11.4	9.3	-26.9	-13.0	-13.9	V
9.400	65.3	-36.8	3.7	11.6	9.5	-28.9	-13.0	-15.9	V
11.280	61.5	-38.1	3.9	12.8	10.6	-29.2	-13.0	-16.2	V
13.160	60.5	-41.6	3.9	12.2	10.1	-33.3	-13.0	-20.3	V
15.040	62.5	-36.7	4.7	13.1	10.9	-28.3	-13.0	-15.3	V
16.920	57.0	-43.4	4.3	13.4	11.3	-34.2	-13.0	-21.2	V, Noise Floor
High Cha		-43.4	4.0	13.4	11.5	-54.2	-13.0	-21,2	v, Noise Ploof
3.820	85.5	-21.4	2.2	9.5	7.4	-14.1	-13.0	-1.1	Н
5.730	70.5	-35.8	2.9	11.4	9.2	-14.1	-13.0	-14.3	Н
7.640	70.0	-32.6	3.3	11.4	9.2	-24.5	-13.0	-14.5	Н
9.550	68.0	-30.1	3.8	11.4	9.3	-24.5	-13.0	-11.5 -9.0	H H
11.460	59.0	-39.2	3.9	12.7	10.6	-30.4	-13.0	-17.4	Н
13.370	58.3	-40.3	4.1	12.7	9.9	-30.4	-13.0	-17.4	H H
15.280	61.9	-40.5 -36.5	4.1	13.7	11.6	-32.3	-13.0	-19.3	H H
15.280	51.8	-36.5 -44.2	4.8	12.5	10.4	-27.5	-13.0	-14.5	H, Noise Floor
3.820	82.6	-44.2 -26.4	2.2	9.5	7.4	-35.9	-13.0	-6.1	H, Noise Floor V
					9.2				V
5.730	75.0	-33.8	2.9	11.4		-25.2	-13.0	-12.2	
7.640	73.8	-31.9	3.3	11.4	9.3	-23.8	-13.0	-10.8	V
9.550	70.4	-31.2	3.8	11.8	9.7	-23.2	-13.0	-10.2	V
11.460	61.8	-38.1	3.9	12.7	10.6	-29.3	-13.0	-16.3	V
13.370	60.9	-41.4	4.1	12.1	9.9	-33.4	-13.0	-20.4	V
15.280	66.6	-34.1	4.8	13.7	11.6	-25.1	-13.0	-12.1	V
17.190	55.1	-42.9	4.1	12.5	10.4	-34.5	-13.0	-21.5	V, Noise Floor

7.6. SECTION 2.1055: FREQUENCY STABILITY

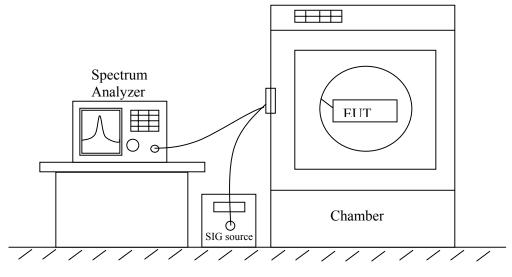
INSTRUMENTS LIST

EQUIPMENT	MANUFACTURE	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Modulation Analyzer	HP	8901b	3438A05272	6/23/04
PSA Analyzer	Agilent	E446A	US42070220	1/13/04
Audio Signal Generator	HP	3325A	2652A24749	5/8/04
Environmental Chamber	Thermotron	SE 600-10-10	2980	4/23/04
Universal Radio Communication Tester	R & S	CMU200	838114 / 032	11/14/03
40dB Attenuator	Amplifier Research	DC7144A	305089	N/A
DC Power Supply	Kenwood	PA36-3A	7060074	N/A

Detector Function Setting of Test Receiver

Frequency Range (MHz)	Detector Function	Resolution Bandwidth	Video Bandwidth
Above 1000	Peak	300 Hz	300 Hz

TEST SETUP



Frequency Stability Setup



TEST PROCEDURE

• Frequency stability versus environmental temperature

- 1). Setup the configuration per figure 6 for frequencies measurement inside the environmental chamber. Set the temperature of the chamber to 25°C. Set SA Resolution Bandwidth low enough to obtain the desired frequency resolution and measure the EUT 25°C operating frequency as reference frequency.
- 2). Turn EUT off and set Chamber temperature to -30°C.
- 3). Allow sufficient time (approximately 20 to 30 minus after chamber reach the assigned temperature) for EUT to stabilize. Turn on EUT and measure the EUT operating frequency. Turn off EUT after the measurement.
- 4). Repeat step 3 with a 10°C increased per stage until the highest temperature of +50°C reached, record all measured frequencies on each temperature step.

• Frequency stability versus AC input voltage

- 1). Setup the configuration per figure 6 and set chamber temperature to 25°C. Use a variable AC power supply to power the EUT and set AC output voltage to EUT nominal input AC voltage. Set SA Resolution Bandwidth low enough to obtain the desired frequency resolution and measure the EUT 25°C operating frequency as reference frequency.
- 2). Slowly reduce the EUT input voltage to specified extreme voltage variation ($\pm 15\%$) and record the maximum frequency change.

MEASUREMENT RESULT

No non-compliance noted, as shown below.

Reference Frequency: PCS Mid Channel 1880.00003MHz @ 25°C Limit: to stay ± 2.5 ppm = 4700.000 Hz						
Power Supply	Environment	Frequency Devi	iation Measureed w	ith Time Elapse		
(Vdc)	Temperature ('C)	(MHz)	Delta (ppm)	Limit (ppm)		
3.70	50	1880.00010	-0.046	± 2.5		
3.70	40	1880.00010	-0.045	± 2.5		
3.70	30	1880.00010	-0.046	± 2.5		
3.70	25	1880.00002	0	± 2.5		
3.70	20	1880.00011	-0.047	± 2.5		
3.70	10	1880.00010	-0.041	± 2.5		
3.70	0	1880.00010	-0.045	± 2.5		
3.70	-10	1880.00008	-0.030	± 2.5		
3.70	-20	1879.99999	0.016	± 2.5		
3.70	-30	1880.00009	-0.038	± 2.5		
3.35 (end point)	25	1879.99972	0.159	± 2.5		
4.2	25	1880.00010	-0.045	± 2.5		

8. APENDIX

- 8.1. EXTERNAL & INTERNAL PHOTOS
- 8.2. SCHEMATICS
- 8.3. BLOCK DIAGRAM
- 8.4. USER MANUAL

END OF REPORT

Page 33 of 33