# **FCC Test Report**

Report No.: AGC06P110801F1

FCC ID : UOSAM85

**PRODUCT** 

**DESIGNATION** : Mobile

**BRAND NAME** : AMGOO

MODEL NAME : AM85

**CLIENT** : AMGOO TELECOM CO.,LTD

**DATE OF ISSUE** : Aug. 30, 2011

**STANDARD(S)** : FCC Part 15 Rules

# Attestation of Global Compliance Co., Ltd.

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#### 1. VERIFICATION OF COMPLIANCE

	AMCOO TELECOM COLLED
	AMGOO TELECOM CO.,LTD
Applicant:	6/F, Block 3, Tongjian Building, Middle Shennan Rd,
	Futian District, Shenzhen, China
	AMGOO TELECOM CO.,LTD
Manufacturer:	6/F, Block 3, Tongjian Building, Middle Shennan Rd,
	Futian District, Shenzhen, China
Product Designation:	Mobile
Brand name:	AMGOO
Model Name:	AM85
FCC ID:	UOSAM85
Measurement Procedure:	ANSI C63.4: 2003
File Number:	AGC06P110801F1
Date of test:	Aug. 23, 2011 to Aug. 29, 2011
Deviation:	None
Condition of Test Sample:	Normal

The above equipment was tested by Attestation Of Global Compliance Co., Ltd. for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, the measurement procedure according to ANSI C63.4:2003. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Tested By:

Curoky Chen Aug. 30, 2011

Review By:

Forrest Lei Aug. 30, 2011

Approved By:

Solger Zhang Aug. 30, 2011

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#### 2. PRODUCT INFORMATION

Housing Type: Plastic and metal

**EUT Rating Voltage:** DC 3.7V by battery

Adapter Input AC100~240V,50/60Hz

Adapter Output DC5V,500mA

I/O Port Information (⊠Applicable ☐Not Applicable)

I/O Port of EUT									
I/O Port Type Q'TY Cable Tested with									
USB port	1	0.8 m, unshielded	1						
earphone	1	1m, unshielded	N/A						
AC port	1	N/A	1						

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#### 3. TEST FACILITY

**Facility** Attestation of Global Compliance Co., Ltd.

Location: 1F, No.2 Building, Huafeng No.1 Technical, Industrial Park, Sanwei, Xixiang,

Baoan District, Shenzhen, China

Description: The test site is constructed and calibrated to meet the FCC requirements in

documents ANSI C63.4:2003.

Site Filing: The FCC Registration Number is 259865

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4 requirements that meet

industry regulatory agency and accreditation agency requirement.

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#### 4. SUPPORT EQUIPMENT LIST

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
PC	IBM	X41	N/A	N/A	1.5m unshielded

<sup>\*\*</sup>Note: All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

#### 5. SYSTEM DESCRIPTION

#### **EUT** test procedure:

- 1. Connect EUT and peripheral devices.
- 2. Power on the EUT, EUT begins to work.
- 3. Make sure the EUT operates normally during the test.

#### **Test Mode**

- 1. USB connection for date transferring with PC
- 2. Charging by adapter.

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# **6 SUMMARY OF TEST RESULTS**

FCC Rules	Description Of Test	Result
§15.107	Conduction Emission	Compliant
§15.109	Radiated Emission	Compliant

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#### 7. FCC LINE CONDUCTED EMISSION TEST

#### 7.1. TEST EQUIPMENT OF LINE CONDUCTED EMISSION TEST

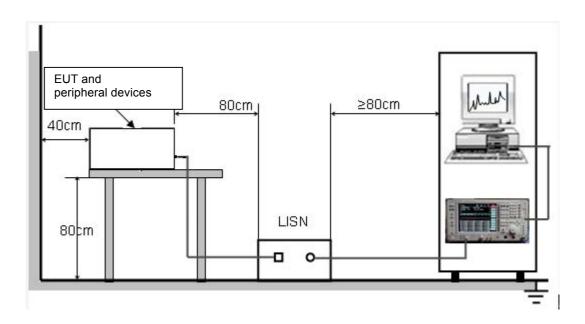
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
EMI Test Receiver	H.P.	8546A	N/A	06/27/2011	06/26/2012
LISN	EMCO	3825/2	N/A	06/27/2011	06/26/2012

#### 7.2 .LIMITS OF LINE CONDUCTED EMISSION TEST

_	Maximum RF	Line Voltage
Frequency	Q.P.( dBuV)	Average( dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

<sup>\*\*</sup>Note: 1. The lower limit shall apply at the transition frequency.

#### 7.3. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



<sup>2.</sup> The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

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#### 7.4. procedure of line conducted emission test

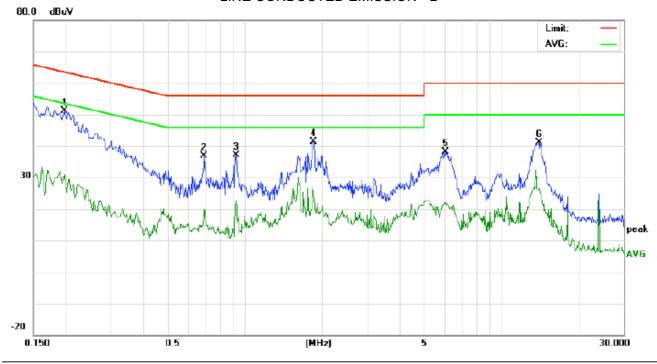
- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4) The EUT received DC 5V power by PC which received 120V/60Hz power from socket under the turntable through a LISN.
- 5) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 7) During the above scans, the emissions were maximized by cable manipulation.
- 8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
- 9) Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

The test data of the worst case condition(s) was reported on the Summary Data page.

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#### 7.5 TEST RESULT OF LINE CONDUCTED EMISSION TEST

#### LINE CONDUCTED EMISSION - L



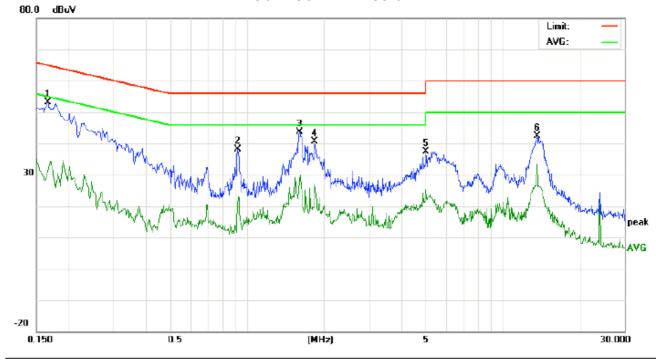
Site: Conduction Phase: L1 Temperature: 26
Limit: EN55022 Class B Conduction(QP) Power: Humidity: 60 %

EUT: Mobilie M/N: AM85 Mode: USB Note:

No.	Freq.		nding_L (dBuV)		Correct Factor		asuren (dBuV)		ı	nit uV)	Mai (d	rgin IB)	P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1980	40.81		20.72	10.21	51.02		30.93	63.69	53.69	-12.67	-22.76	Р	
2	0.6938	26.44		9.56	10.35	36.79		19.91	56.00	46.00	-19.21	-26.09	Р	
3	0.9260	43.11		19.92	10.40	53.51		30.32	56.00	46.00	-2.49	-15.68	Р	
4	1.8540	31.01		15.04	10.27	41.28		25.31	56.00	46.00	-14.72	-20.69	Р	
5	6.0579	27.97		11.38	10.28	38.25		21.66	60.00	50.00	-21.75	-28.34	Р	
6	13.9977	30.94		16.50	10.12	41.06		26.62	60.00	50.00	-18.94	-23.38	Р	

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#### LINE CONDUCTED EMISSION - N



Site: Conduction Phase: N Temperature: 26
Limit: EN55022 Class B Conduction(QP) Power: Humidity: 60 %

EUT: Mobilie M/N: AM85 Mode: USB Note:

No.	Freq.		ding_L (dBuV)		Correct Factor		asuren (dBuV)			nit uV)	Mar (d	gin IB)	P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1660	43.04		20.97	10.18	53.22		31.15	65.15	55.15	-11.93	-24.00	Р	
2	0.9220	27.82		9.94	10.40	38.22		20.34	56.00	46.00	-17.78	-25.66	Р	
3	1.6100	33.23		17.94	10.34	43.57		28.28	56.00	46.00	-12.43	-17.72	Р	
4	1.8460	30.24		16.90	10.27	40.51		27.17	56.00	46.00	-15.49	-18.83	Р	
5	5.0057	27.16		14.87	10.24	37.40		25.11	60.00	50.00	-22.60	-24.89	Р	
6	13.6617	32.29		23.18	10.13	42.42		33.31	60.00	50.00	-17.58	-16.69	Р	

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#### 8. FCC RADIATED EMISSION TEST

#### **8.1. TEST EQUIPMENT OF RADIATED EMISSION**

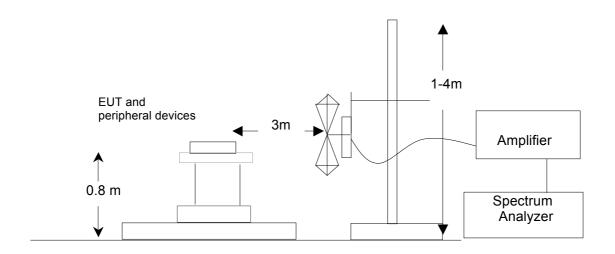
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	06/27/2011	06/26/2012
ANTENNA	A.H.	SAS-521-4	128	06/27/2011	06/26/2012
HORN ANTENNA	EM	EM-AH-10180	N/A	06/27/2011	06/26/2012
AMPLIFIER	EM	EM30180	0607030	06/27/2011	06/26/2012
POSITIONING				00/07/00/	00/00/00/0
CONTROLLER	MF	MF-7802	MF780208147	06/27/2011	06/26/2012

#### **8.2. LIMITS OF RADIATED EMISSION TEST**

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/ Q.P.)
(1911 12)	(111)	(ubuv/iii/ Q.F.)
30~88	3	40.0
88~216	3	43.5
216~960	3	46.0
Above 960	3	54.0

<sup>\*\*</sup>Note: The lower limit shall apply at the transition frequency.

## 8.3 BLOCK DIAGRAM OF RADIATED EMISSION TEST



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#### **8.4 PROCEDURE OF RADIATED EMISSION TEST**

1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2) Support equipment, if needed, was placed as per ANSI C63.4.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4) The EUT received DC 5V by PC which received 120V/60Hz power from socket under the turntable through a LISN.
- 5) The antenna was placed at 3 meter away from the EUT as stated in FCC Part 15. The antenna connected to the Analyzer via a cable and at times a pre-amplifier would be used.
- 6) The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- 7) The test mode(s) were scanned during the test.
- 8) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and Q.P./Peak reading is presented.

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#### 8.5 TEST RESULT OF RADIATED EMISSION TEST

#### Radiated Emission Test -Horizontal -3m



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: CISPR22 ClassB 3M Radiation Power: Humidity: 60 %

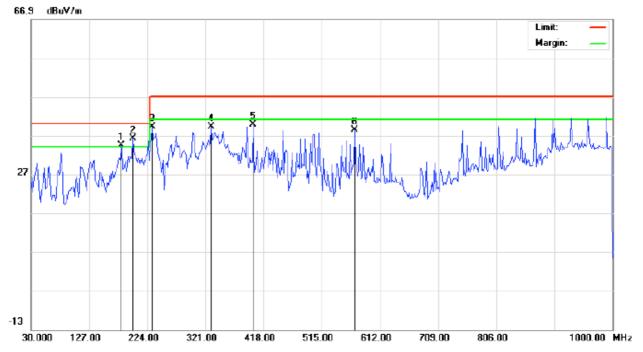
EUT: Mobile Distance: 3m

M/N: AM85 Mode: USB Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		97.9000	20.24	13.24	33.48	40.00	-6.52	peak			
2	ļ	123.7667	21.96	12.13	34.09	40.00	-5.91	peak			
3	İ	199.7500	21.96	12.23	34.19	40.00	-5.81	peak			
4	*	224.0000	21.51	14.88	36.39	40.00	-3.61	QP			
5		303.2167	22.40	17.21	39.61	47.00	-7.39	peak			
6		335.5500	19.98	18.83	38.81	47.00	-8.19	peak			

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#### Radiated Emission Test - Vertical - 3m



Site: site #1 Polarization: Vertical Temperature: 26 Limit: CISPR22 ClassB 3M Radiation Power: Humidity: 60 %

EUT: Mobile Distance: 3m

M/N: AM85 Ν Ν

Mode:	USB
Note:	

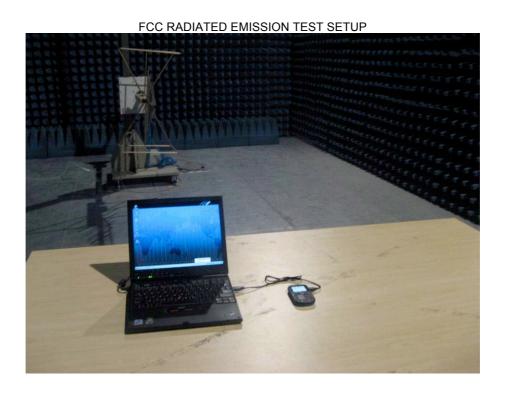
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1	į	180.3499	16.29	18.05	34.34	40.00	-5.66	peak			
2	*	199.7500	24.03	12.23	36.26	40.00	-3.74	QP			
3		232.0833	23.42	15.86	39.28	47.00	-7.72	peak			
4		330.6999	20.52	18.67	39.19	47.00	-7.81	peak			
5		400.2167	18.88	20.84	39.72	47.00	-7.28	peak			
6		569.9666	14.07	24.33	38.40	47.00	-8.60	peak			

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# **APPENDIX 1** PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP





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### **APPENDIX 2 PHOTOGRAPHS OF EUT**





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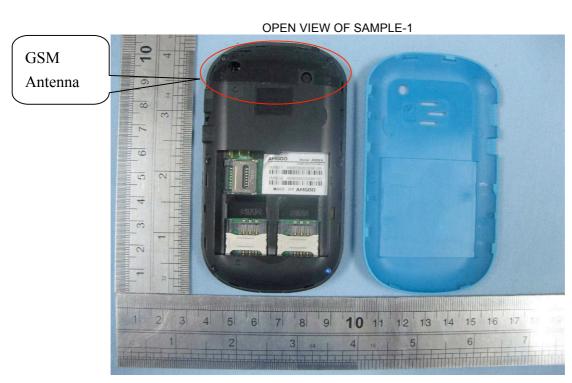


BACK VEIW OF SAMPLE



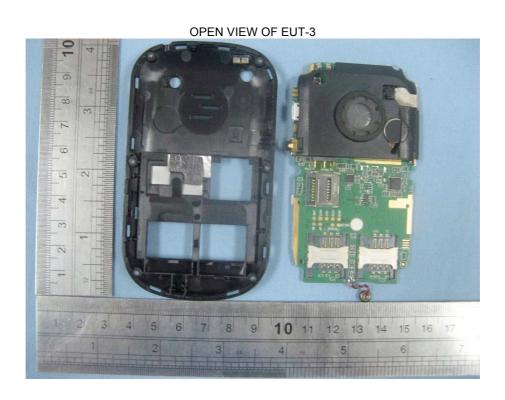
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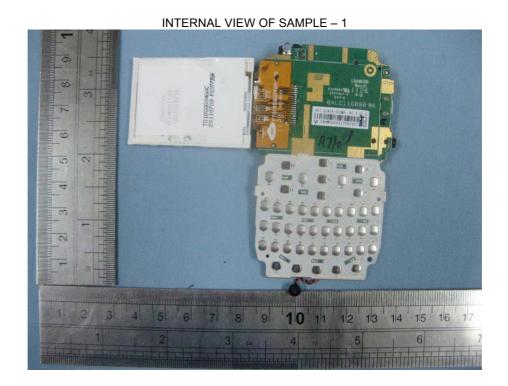


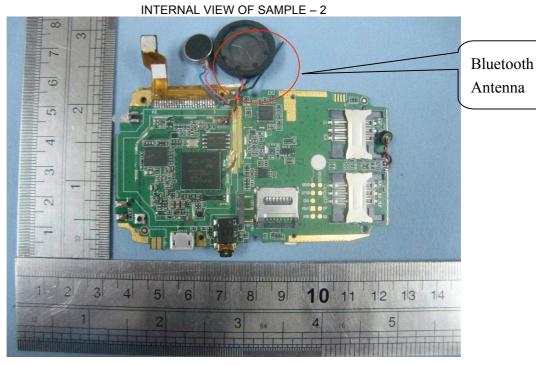
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