

FCC Test Report

Report No.: AGC00408230802FR06A

FCC ID : 2A3DR-AGMH6

APPLICATION PURPOSE : Class II Permissive Change

PRODUCT DESIGNATION: 4G Smart Phone

BRAND NAME : AGM

MODEL NAME : AGM_H_MAX

APPLICANT : AGM MOBILE LIMITED

DATE OF ISSUE : Sep. 13, 2024

STANDARD(S): FCC Part 22 Subpart H
FCC Part 24 Subpart E

REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd.



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Sep. 13, 2024	Valid	Initial Release

Note: The original test report AGC00408230802FR06 (dated Aug. 22, 2023 and tested from Aug.11, 2023 to Aug. 22, 2023) was modified on Sep. 13, 2024, including the following changes and additions:

- Changed model name.
- Changed software version.
- Changed manufacturer, manufacturer address, factory and factory address.
- Changed rated voltage of battery and model name and manufacturer.
- Changed the circuit components of the headphones (added geomagnetic function).
- Changed the appearance, size, and thickness of the product.
- Changed the appearance and gain of the antenna.

Other electrical components and motherboard circuits are exactly the same.

Based on the above changes, RF power, RADIATED EMISSION has were subjected to re-evaluation testing.



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1. General Information

AGM MOBILE LIMITED
FLAT/RM 2253 22/F HOI TAI FACTORY ESTATE TSING YEUNG CIRCUIT TUEN MUN NT HONG KONG,CHINA
GUANGDONG AIJIEMO ELECTRONIC INDUSTRY CO., LTD
AGM TECHNOLOGY PARK,NO.187 LIANFA ROAD,TONGQIAO TOWN,ZHONGKAI HIGH-TECH DISTRICT,HUIZHOU CITY,P.R.CHINA
GUANGDONG AIJIEMO ELECTRONIC INDUSTRY CO., LTD
AGM TECHNOLOGY PARK,NO.187 LIANFA ROAD,TONGQIAO TOWN,ZHONGKAI HIGH-TECH DISTRICT,HUIZHOU CITY,P.R.CHINA
4G Smart Phone
AGM
AGM_H_MAX
Aug. 14, 2024
Aug. 14, 2024~Sep. 13, 2024
No any deviation from the test method
Normal
Pass
AGCER-FCC-GSM&WCDMA-V1

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

Prepared By	Bibo Zhang	
	Bibo Zhang (Project Engineer)	Sep. 13, 2024
Reviewed By	Calin Lin	
	Calvin Liu (Reviewer)	Sep. 13, 2024
Approved By	Max Zhang	
	Max Zhang (Authorized Officer)	Sep. 13, 2024



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2. Product Information

2.1 Product Technical Description

Support Networks	GSM, GPRS, EDGE, WCDMA, HSDPA, HSUPA					
Hardware Version	S681_V1					
Software Version	Android 14					
	⊠GPRS 850	⊠PCS1900	⊠UMTS FDD Band II			
Command Francisco Daniel	☐UMTS FDD Band IV	⊠UMTS FDD Band V	(Non-U.S. Bands)			
Support Frequency Band	⊠GSM 900	⊠DCS 1800	☐UMTS FDD Band I			
	⊠UMTS FDD Band VIII	(Non-U.S. Bands)				
	824.2MHz-848.8MHz (GS	SM/GPRS/EDGE 850)				
	1850.2MHz-1909.8MHz (GSM/GPRS/EDGE 1900)				
Frequency Range	1852.4MHz-1907.6MHz (WCDMA Band II)				
	1712.4MHz-1752.6MHz (WCDMA Band IV)				
	826.4MHz-846.6 MHz (W	CDMA Band V)				
Type of Madulation	GMSK/8PSK Modulation For GSM/GPRS/EDGE					
Type of Modulation	BPSK/QPSK Modulation For WCDMA/HSDPA/HSUPA					
	GSM/GPRS 850: 244KGXW					
	EDGE 850: 252KG7W					
Emission Designator	GSM/GPRS 1900:	248KGXW				
Emission Boolghator	EDGE 1900:	244KG7W				
	WCDMA Band II:	4M17F9W				
	WCDMA Band V:	4M17F9W				
Antenna Designation	PIFA Antenna					
Antenna Gain	GSM850:-3.01dBi	PCS1900:-1.83dBi				
7 intornia Gain	WCDMA850:-3.01dBi	WCDMA1900:-1.83dBi				
Power Supply	DC 3.85V by Built-in Li-ion Battery					
Dual Card	DC 3.85V 10000mAh					
Extreme Vol. Limits	DC3.27V to 4.40V (Normal: DC 3.85V)					
Extreme Temp. Tolerance	-30 °C to +50 °C					
Temperature Range -20 °C to +50 °C						



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2.2 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: **2A3DR-AGMH6**, filing to comply with Part 2, Part 22/24 of the Federal Communication Commission rules.

2.3 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title				
1	47 CFR FCC Part 2	Frequency allocations and radio treaty matters, general rules and regulations.				
2	47 CFR FCC Part 22	Public Mobile Services.				
3	47 CFR FCC Part 24	Personal Communications Services.				
4	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters				
4	ANSI C63.26-2015	Used in Licensed Radio Services				
5	ANSI/TIA-603-E-2016	Land Mobile FM or PM Communications Equipment Measurement and				
5	ANSI/11A-003-E-2010	Performance Standards				
6	KDB 971168	D01 v03r01 Measurement Guidance For Certification Of Licensed Digital				
6		Transmitters.				

2.4 Device Capabilities

850/1900 GSM/GPRS/EGPRS,850/1900 WCDMA/HSPA, Multi-Band LTE,802.11 b/g/n for WLAN,802.11 a/n/ac for UNII, Bluetooth (1X,EDR,LE),GPS, NFC.

For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration.

The emissions below 1GHz and above 18GHz were tested with the highest transmitting power channel and the worst case configuration.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

This device supports dual-SIM communication, and only the data corresponding to the worst card slot (SIM Card 1) is reflected in the report.

2.5 Special Accessories

The battery was supplied by the applicant were used as accessories and being tested with EUT intended for FCC grant together.

2.6 Equipment Modifications

Not available for this EUT intended for grant.



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2.7 Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz

G = Phase Modulation

X = Cases not otherwise covered

W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand



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3. Test Environment

3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories).

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



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3.3 Environmental Conditions

Normal Conditions	Extreme Conditions
15~35 ℃	-20℃~50℃
20 % to 75 %.	20 % to 75 %.
86-106kPa	86-106kPa
DC 3.85V	DC3.27V or 4.4V
	15~35℃ 20 % to 75 %. 86-106kPa

Note: The Extreme Temperature and Extreme Voltages declared by the manufacturer.

3.4 Measurement Uncertainty

Test	Measurement Uncertainty	
Transmitter power conducted	±0.57 dB	
Transmitter power Radiated	±2.20 dB	
Conducted spurious emission 9kHz-40 GHz	±2.20 dB	
Occupied Bandwidth	±0.01ppm	
Radiated Emission 30~1000MHz	±4.10dB	
Radiated Emission Above 1GHz	±4.32dB	
Conducted Disturbance:0.15~30MHz	±3.20dB	
Radio Frequency	± 6.5 x 10-8	
RF Power, Conducted	± 0.9 dB	

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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3.5 List of Test Equipment

• F	Radiated Spurious Emission						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
\boxtimes	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2024-02-01	2025-01-31
\boxtimes	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2026-05-27
\boxtimes	AGC-ER-E032	Universal Radio Communication Tester	R&S	CMW500	120909	2024-05-28	2025-05-27
	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04
\boxtimes	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-06-03	2025-06-02
\boxtimes	AGC-EM-E005	Wideband Antenna	SCHWARZBECK	VULB9168	VULB9168-494	2023-01-05	2025-01-04
\boxtimes	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30
\boxtimes	AGC-EM-E102	Broadband Ridged Horn Antenna	ETS	3117	00154520	2023-06-03	2025-06-02
\boxtimes	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23
\boxtimes	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23
	AGC-EM-E021	Pre-amplifier	MITEQ	AM-4A-000115	1465421	2024-05-28	2026-05-27
\boxtimes	AGC-ER-E037	Signal Generator	Agilent	N5182A	MY50140530	2024-05-23	2025-05-22
\boxtimes	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08
	AGC-EM-A090	High Pass Filter 1 (2500-18000MHz)	N/A	N/A	N/A	2024-05-23	2025-05-22
	AGC-EM-A091	High Pass Filter 2 (1200-18000MHz)	N/A	N/A	N/A	2024-05-23	2025-05-22
\boxtimes	AGC-EM-A113	Band Stop Filter (825-850MHz)	MICRO-TRONICS	BRC50717	N/A	2024-05-23	2025-05-22
	AGC-EM-A114	Band Stop Filter (880-915MHz)	MICRO-TRONICS	BRC50718	N/A	2024-05-23	2025-05-22
\boxtimes	AGC-EM-A115	Band Stop Filter (1710-1785MHz)	MICRO-TRONICS	BRC50719	N/A	2024-05-23	2025-05-22
\boxtimes	AGC-EM-A116	Band Stop Filter (1850-1950MHz)	MICRO-TRONICS	BRC50720	N/A	2024-05-23	2025-05-22
	AGC-EM-A117	Band Stop Filter (1920-1980MHz)	MICRO-TRONICS	BRC50721	N/A	2024-05-23	2025-05-22



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• [RF Conducted Test System						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
	AGC-ER-E087	Spectrum Analyzer	KEYSIGHT	N9020B	MY56101792	2024-05-23	2025-05-22
\boxtimes	AGC-ER-E032	Universal Radio Communication Tester	R&S	CMW500	120909	2024-05-28	2025-05-27
\boxtimes	AGC-ER-E032	Universal Radio Communication Tester	R&S	CMU200	113939	2024-05-24	2025-05-23
\boxtimes	AGC-ER-E075	Small Environmental Tester	SH-242	ESPEC	93008290	2024-07-24	2026-07-23
\boxtimes		Universal Switch Control Unit	Tonscend	JS	N/A	N/A	N/A
\boxtimes		RF Connection Cable	N/A	1#	N/A	Each time	N/A
\boxtimes		RF Connection Cable	N/A	2#	N/A	Each time	N/A

Test Software								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information			
	AGC-ER-S006	GSM Test System	Tonscend	JS1120-4	2.1.6.0			
	AGC-ER-S007	WCDMA Test System	Tonscend	JS1120-3	2.1.5.10			
	AGC-EM-S011	RSE Test System	Tonscend	TS ⁺ Ver2.1(JS36-RSE)	4.0.0.0			



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4. System Test Configuration

4.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of EUT System

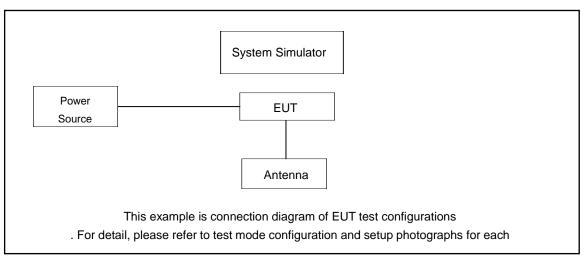


Table 2-1 Equipment Used in EUT System

4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement:

- ☐ Test Accessories Come From The Laboratory

Item	Equipment	Equipment Model No. ID or Specification		Remark
1	Adapter	U312E0A050200	Input: AC 100-240V 50/60Hz, 0.35A Output: DC 5.0V 2A	AE
2	Battery	AGM_H6	DC 3.85V 4930mAh	AE
3	USB Cable	N/A	N/A	AE



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5. Summary of Test Results

5.1 Test Condition: Radiated Test

Item	Test Description FCC Rules		Result
1	Effective Radiated Power	§22.913(a)(5)	Pass
2	Equivalent Isotropic Radiated Power	§24.232(c), §27.50(d)(4)	Pass



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6. Description of Test Modes

		RF Channel				
Bands	Tx/Rx Frequency	Low(L)	Middle(M)	High(H)		
GSM/GPRS/	TX	Channel 128	Channel 190	Channel 251		
EDGE 850	(824 MHz ~ 849 MHz)	824.2 MHz	836.6 MHz	848.8 MHz		
	TX	Channel 4132	Channel 4182	Channel 4233		
WCDMA band V	(824 MHz ~ 849 MHz)	826.4 MHz	836.4 MHz	846.6 MHz		

Bands	Tx/Rx Frequency	RF Channel				
Barido	TATEA Troquonoy	Low(L)	Middle(M)	High(H)		
GSM/GPRS/	TX	Channel 512	Channel 661	Channel 810		
EDGE1900	(1850 MHz-1910 MHz)	1850.2 MHz	1880.0 MHz	1909.8 MHz		
	TX	Channel 9262	Channel 9400	Channel 9538		
WCDMA Band II	(1850 MHz-1910 MHz)	1852.4 MHz	1880.0 MHz	1907.6 MHz		

Pre-scan all bandwidth and RB, find worse case mode are chosen to the report, the worse mode applicability and tested channel detail as below:

Band	Radiated	Conducted		
	GSM (GMSK, 1Tx-slot) Link	GSM (GMSK,1Tx-slot) Link		
GSM/GPRS/	GPRS (GMSK, 1Tx-slot) Link	GPRS (GMSK, 1Tx-slot) Link		
EDGE 850/1900	EDGE (8PSK, 1Tx-slot) Link	EDGE (8PSK, 1Tx-slot) Link		
WCDMA Band II//V	RMC 12.2kbps Link	RMC 12.2kbps Link		



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According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1aA: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)	
For all combinations of ,DPDCH,DPCCH	0≤ CM≤3.5	MAX(CM-1,0)	
HS-DPDCH,E-DPDCH and E-DPCCH	US CIVISS.5		

Note: CM=1 for β_c/β_d =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done. However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensate for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.



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7. Radiated Output Power

7.1 Provisions Applicable

The radiation test is carried out in a semi-anechoic chamber.

According to the test, put the device under test on a non-conductive platform 3 meters away from the receiving antenna (ANSI/TIA-603-E-2016 Article 2.2.17).

The following rules are for the maximum radiated power limit requirements of the product:

Mode	Nominal Peak Power		
GSM 850	< 7 Watts max. ERP (38.45dBm)		
PCS 1900	< 2 Watts max. EIRP (33dBm)		
WCDMA Band II	< 2 Watts max. EIRP (33dBm)		
WCDMA Band V	< 7 Watts max. ERP (38.45dBm)		

7.2 Measurement Procedure

- 1. Radiated power measurements are performed using the signal analyzer's "channel power"
- 2. measurement capability for signals with continuous operation.
- 3. RBW = 1 5% of the expected OBW, not to exceed 1MHz
- 4. VBW \geq 3 x RBW
- 5. Span = 1.5 times the OBW
- 6. No. of sweep points > 2 x span / RBW
- 7. Detector = RMS
- 8. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
- 9. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
- 10. Trace mode = trace averaging (RMS) over 100 sweeps
- 11. The trace was allowed to stabilize.



Radiation Construction Method:

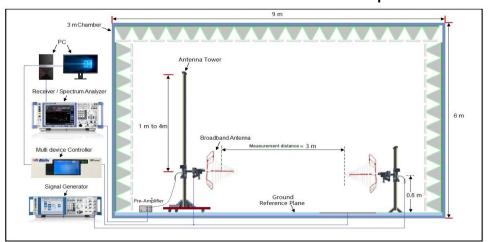
- 1. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission.
- 2. A half wave dipole is then substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
- 3. The power is calculated by the following formula:

$$Pd(dBm) = Pg(dBm) - cable loss (dB) + antenna gain (dB)$$

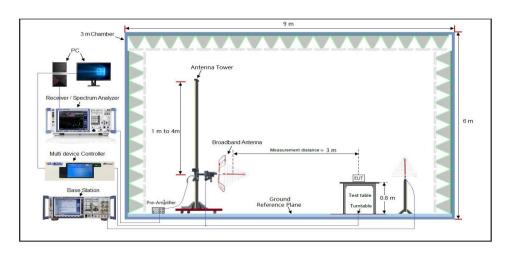
- 4. Where: Pd is the dipole equivalent power and Pg is the generator output power into the substitution antenna.
- 5. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration
- The EUT was tested in three orthogonal planes (X, Y, Z) and in all possible test configurations and positioning.
- 7. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

7.3 Measurement Setup

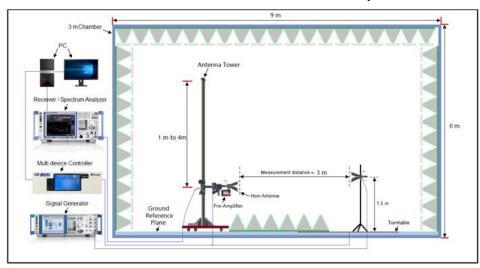
Radiated Power 30MHz to 1GHz Test setup

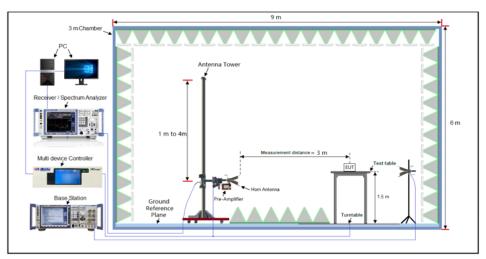






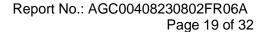
Radiated Power Above 1GHz Test setup





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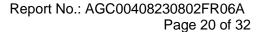
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/





7.4 Measurement Result

	Ch.	/ Freq.	Substitute	Ant. Gain			Limit	EF	RP
Mode	channel	Freq. (MHz)	Level (dBm)	(dBi)	C.L	Pol.	W	W	dBm
	128	824.2	28.46	5.90	1.21	Н		2.065	33.15
GSM850	190	836.6	28.17	5.90	1.22	Н		1.928	32.85
	251	848.8	28.42	5.90	1.25	Н		2.028	33.07
	128	824.2	27.21	5.90	1.21	Н		1.549	31.90
GPRS	190	836.6	27.16	5.90	1.22	Н		1.528	31.84
	251	848.8	27.23	5.90	1.25	Н		1.542	31.88
	128	824.2	21.83	5.90	1.21	Н	_	0.449	26.52
EDGE	190	836.6	22.17	5.90	1.22	Н		0.484	26.85
	251	848.8	22.13	5.90	1.25	Н	. 7.00	0.476	26.78
	4132	826.4	16.00	5.90	1.21	Н	< 7.00	0.117	20.69
WCDMA850	4183	836.6	16.13	5.90	1.25	Н		0.120	20.78
	4233	846.6	16.03	5.90	1.24	Н		0.117	20.69
	4132	826.4	14.78	5.90	1.21	Н		0.089	19.47
HSDPA	4183	836.6	14.90	5.90	1.25	Н		0.090	19.55
	4233	846.6	15.01	5.90	1.24	Н		0.093	19.67
	4132	826.4	13.05	5.90	1.21	Н		0.059	17.74
HSUPA	4183	836.6	12.89	5.90	1.25	Н		0.057	17.54
	4233	846.6	13.34	5.90	1.24	Н		0.063	18.00





	O.b.	/ ====	Cb -4:44-				l ivanit		
	Cn.,	/ Freq.	Substitute	Ant. Gain			Limit	EII	RP
Mode	channel	,	Level	(dBi)	C.L	Pol.	W	W	dBm
			(dBm)	` ,					
	512	1850.2	23.37	8.6	2.11	Н		0.968	29.86
PCS1900	661	1880.0	23.29	8.6	2.15	Н		0.942	29.74
	810	1909.8	23.36	8.6	2.15	Н		0.957	29.81
	512	1850.2	22.03	8.6	2.11	Н		0.711	28.52
GPRS	661	1880.0	22.46	8.6	2.15	Н		0.778	28.91
	810	1909.8	22.29	8.6	2.15	Н		0.748	28.74
	512	1850.2	18.22	8.6	2.11	Н		0.296	24.71
EDGE	661	1880.0	18.21	8.6	2.15	Н		0.292	24.66
	810	1909.8	18.30	8.6	2.15	Н	. 2 00	0.299	24.75
WCDMA	9262	1852.4	14.39	8.6	2.11	Н	< 2.00	0.122	20.88
1900	9400	1880.0	14.46	8.6	2.15	Н		0.123	20.91
1900	9538	1907.6	14.41	8.6	2.15	Н		0.122	20.86
	9262	1852.4	13.73	8.6	2.11	Н		0.105	20.22
HSDPA	9400	1880.0	13.67	8.6	2.15	Н		0.103	20.12
	9538	1907.6	13.71	8.6	2.15	Н		0.104	20.16
	9262	1852.4	11.18	8.6	2.11	Н		0.058	17.63
HSUPA	9400	1880.0	11.67	8.6	2.15	Н		0.065	18.12
	9538	1907.6	11.54	8.6	2.15	Н		0.063	17.99



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8. Radiated Spurious Emission

8.1. Provisions Applicable

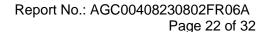
(A) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm.

At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

(B) For specific criteria, please refer to the description in section 9.2 of the report for corresponding evaluation.

8.2. Measurement Procedure

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the



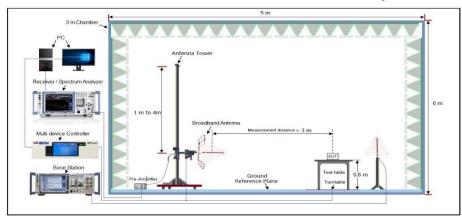


- pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.
- 11. For spurious emissions above 1GHz, a horn antenna is substituted in place of the EUT.
- 12. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
- 13. The spurious emissions is calculated by the following formula;
 - ♦ Result(dBm) = Pg(dBm) +Factor(dB)
 - → Factor(dB) = Ant Gain(dB)-Cable Loss(dB) + Power Splitter(dB) (Above 1GHz)
 - → Factor(dB) = Ant Gain(dB)-Cable Loss(dB) (Below 1GHz)
- 14. Where: P_{dis} the generator output power into the substitution antenna.
- 15. If the Fundamental frequency is below 1GHz, RF output power has been converted to EIRP.

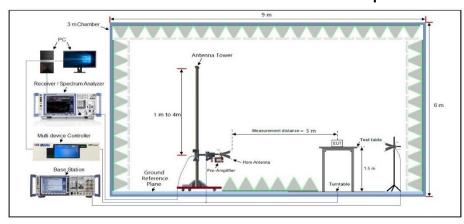


8.3. Measurement Setup

Radiated Emissions 30MHz to 1GHz Test setup



Radiated Emissions Above 1GHz Test setup



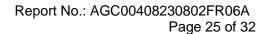


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8.4 Measurement Result

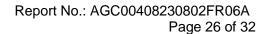
The measurement Below 1GHz data as follows:

	GSM 850									
	<u> </u>				<u> </u>	Γ	T			
	Frequency	SA	Correction	EIRP	Limit	Margin				
No.	, ,	Reading	factor	Result		J	Ant. Pol.			
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)				
	GSM_ Lowest Channel									
1	134.21	-66.09	15.52	-50.57	-13.00	-37.57	Horizontal			
2	244.251	-62.53	16.75	-45.78	-13.00	-32.78	Horizontal			
3	632.008	-58.96	19.35	-39.61	-13.00	-26.61	Horizontal			
4	50.36	-64.77	10.44	-54.33	-13.00	-41.33	Vertical			
5	345.00	-61.02	17.75	-43.27	-13.00	-30.27	Vertical			
6	612.57	-59.42	18.66	-40.76	-13.00	-27.76	Vertical			
	GSM_ Middle Channel									
1	30.412	-63.25	9.78	-53.47	-13.00	-40.47	Horizontal			
2	163.555	-62.94	13.75	-49.19	-13.00	-36.19	Horizontal			
3	289.637	-60.33	16.75	-43.58	-13.00	-30.58	Horizontal			
4	48.019	-63.46	10.23	-53.23	-13.00	-40.23	Vertical			
5	426.361	-62.11	17.75	-44.36	-13.00	-31.36	Vertical			
6	505.250	-58.59	18.02	-40.57	-13.00	-27.57	Vertical			
			GSM_ Hi	ghest Channel						
1	170.263	-63.02	13.75	-49.27	-13.00	-36.27	Horizontal			
2	250.589	-61.89	16.75	-45.14	-13.00	-32.14	Horizontal			
3	689.512	-58.31	19.01	-39.30	-13.00	-26.30	Horizontal			
4	53.190	-61.42	10.23	-51.19	-13.00	-38.19	Vertical			
5	432.563	-60.19	17.75	-42.44	-13.00	-29.44	Vertical			
6	623.594	-57.83	18.02	-39.81	-13.00	-26.81	Vertical			



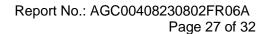


			PC	CS 1900							
		SA	Correction	EIRP	Limait	Manain					
No.	Frequency	Reading	factor	Result	Limit	Margin	Ant. Pol.				
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)					
	GSM_ Lowest Channel										
1	132.059	-65.78	15.52	-50.26	-13.00	-37.26	Horizontal				
2	240.063	-61.28	16.75	-44.53	-13.00	-31.53	Horizontal				
3	754.125	-57.94	19.35	-38.59	-13.00	-25.59	Horizontal				
4	49.362	-63.49	10.44	-53.05	-13.00	-40.05	Vertical				
5	417.117	-59.56	17.75	-41.81	-13.00	-28.81	Vertical				
6	555.208	-57.57	18.66	-38.91	-13.00	-25.91	Vertical				
	GSM_ Middle Channel										
1	31.42	-62.53	9.78	-52.75	-13.00	-39.75	Horizontal				
2	180.362	-63.23	13.75	-49.48	-13.00	-36.48	Horizontal				
3	325.528	-62.03	16.75	-45.28	-13.00	-32.28	Horizontal				
4	51.612	-63.67	10.23	-53.44	-13.00	-40.44	Vertical				
5	363.748	-62.36	17.75	-44.61	-13.00	-31.61	Vertical				
6	596.639	-59.29	18.02	-41.27	-13.00	-28.27	Vertical				
			GSM_ Hi	ghest Channel							
1	171.251	-63.19	13.75	-49.44	-13.00	-36.44	Horizontal				
2	236.263	-61.60	16.75	-44.85	-13.00	-31.85	Horizontal				
3	557.485	-57.56	19.01	-38.55	-13.00	-25.55	Horizontal				
4	38.639	-62.98	10.23	-52.75	-13.00	-39.75	Vertical				
5	423.778	-60.85	17.75	-43.10	-13.00	-30.1	Vertical				
6	508.219	-57.20	18.02	-39.18	-13.00	-26.18	Vertical				



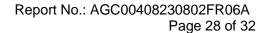


			WCD	MA Band II						
	Гиодиологи	SA	Correction	EIRP	Lincit	Morgin				
No.	Frequency	Reading	factor	Result	Limit	Margin	Ant. Pol.			
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)				
			RMC 12.2kbp	s_ Lowest Cha	ınnel					
1	163.581	-65.76	15.52	-50.24	-13.00	-37.24	Horizontal			
2	245.358	-62.74	16.75	-45.99	-13.00	-32.99	Horizontal			
3	780.159	-59.25	19.35	-39.90	-13.00	-26.90	Horizontal			
4	46.636	-65.37	10.44	-54.93	-13.00	-41.93	Vertical			
5	433.225	-60.90	17.75	-43.15	-13.00	-30.15	Vertical			
6	502.439	-59.35	18.66	-40.69	-13.00	-27.69	Vertical			
	RMC 12.2kbps_ Middle Channel									
1	35.258	-62.83	9.78	-53.05	-13.00	-40.05	Horizontal			
2	159.719	-64.43	13.75	-50.68	-13.00	-37.68	Horizontal			
3	240.536	-60.98	16.75	-44.23	-13.00	-31.23	Horizontal			
4	43.789	-64.01	10.23	-53.78	-13.00	-40.78	Vertical			
5	433.236	-63.44	17.75	-45.69	-13.00	-32.69	Vertical			
6	498.449	-58.86	18.02	-40.84	-13.00	-27.84	Vertical			
			RMC 12.2kbps	s_ Highest Cha	annel					
1	109.263	-63.89	13.75	-50.14	-13.00	-37.14	Horizontal			
2	270.089	-62.93	16.75	-46.18	-13.00	-33.18	Horizontal			
3	689.446	-59.36	19.01	-40.35	-13.00	-27.35	Horizontal			
4	50.213	-63.77	10.23	-53.54	-13.00	-40.54	Vertical			
5	271.128	-62.10	17.75	-44.35	-13.00	-31.35	Vertical			
6	362.636	-59.23	18.02	-41.21	-13.00	-28.21	Vertical			





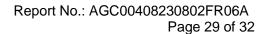
			WCD	MA Band V						
		SA	Correction	EIRP	Linait	Manain				
No.	Frequency	Reading	factor	Result	Limit	Margin	Ant. Pol.			
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)				
	RMC 12.2kbps_ Lowest Channel									
1	160.61	-65.72	15.52	-50.20	-13.00	-37.20	Horizontal			
2	274.362	-60.00	16.75	-43.25	-13.00	-30.25	Horizontal			
3	788.960	-62.46	19.35	-43.11	-13.00	-30.11	Horizontal			
4	53.012	-68.80	10.44	-58.36	-13.00	-45.36	Vertical			
5	489.563	-62.98	17.75	-45.23	-13.00	-32.23	Vertical			
6	740.129	-60.65	18.66	-41.99	-13.00	-28.99	Vertical			
	RMC 12.2kbps_ Middle Channel									
1	45.012	-61.40	9.78	-51.62	-13.00	-38.62	Horizontal			
2	174.236	-62.97	13.75	-49.22	-13.00	-36.22	Horizontal			
3	236.895	-60.94	16.75	-44.19	-13.00	-31.19	Horizontal			
4	58.641	-53.19	10.23	-42.96	-13.00	-29.96	Vertical			
5	425.128	-59.23	17.75	-41.48	-13.00	-28.48	Vertical			
6	636.031	-62.29	18.02	-44.27	-13.00	-31.27	Vertical			
			RMC 12.2kbps	s_ Highest Cha	annel					
1	79.051	-64.89	13.75	-51.14	-13.00	-38.14	Horizontal			
2	125.236	-63.75	16.75	-47.00	-13.00	-34.00	Horizontal			
3	559.125	-62.16	19.01	-43.15	-13.00	-30.15	Horizontal			
4	81.894	-62.66	10.23	-52.43	-13.00	-39.43	Vertical			
5	462.226	-62.80	17.75	-45.05	-13.00	-32.05	Vertical			
6	701.364	-62.10	18.02	-44.08	-13.00	-31.08	Vertical			





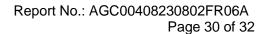
The measurement Above 1GHz data as follows:

GSM 850										
No.	Frequency	SA	Correction	EIRP	Limit	Margin				
		Reading	factor	Result			Ant. Pol.			
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)				
	GSM_ Lowest Channel									
1	1648.400	-86.62	23.50	-63.12	-13.00	-50.12	Horizontal			
2	2472.600	-88.80	29.47	-59.33	-13.00	-46.33	Horizontal			
3	1648.400	-87.91	23.72	-64.19	-13.00	-51.19	Vertical			
4	2472.600	-89.99	29.47	-60.52	-13.00	-47.52	Vertical			
GSM_ Middle Channel										
1	1673.200	-88.67	23.50	-65.17	-13.00	-52.17	Horizontal			
2	2509.800	-91.72	29.47	-62.25	-13.00	-49.25	Horizontal			
3	1673.200	-87.51	23.72	-63.79	-13.00	-50.79	Vertical			
4	2509.800	-94.83	29.47	-65.36	-13.00	-52.36	Vertical			
GSM_ Highest Channel										
1	1697.600	-91.50	23.50	-68.00	-13.00	-55.00	Horizontal			
2	2546.400	-96.74	29.47	-67.27	-13.00	-54.27	Horizontal			
3	1697.600	-89.11	23.72	-65.39	-13.00	-52.39	Vertical			
4	2546.400	-93.48	29.47	-64.01	-13.00	-51.01	Vertical			





PCS 1900									
		SA	Correction	EIRP					
No.	Frequency	Reading	factor	Result	Limit	Margin	Ant. Pol.		
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)			
	GSM_ Lowest Channel								
1	3700.400	-92.36	32.11	-60.25	-13.00	-47.25	Horizontal		
2	5550.600	-92.32	34.13	-58.19	-13.00	-45.19	Horizontal		
3	3700.400	-91.45	32.11	-59.34	-13.00	-46.34	Vertical		
4	5550.600	-92.87	34.13	-58.74	-13.00	-45.74	Vertical		
	GSM_ Middle Channel								
1	3760.000	-84.23	32.11	-52.12	-13.00	-39.12	Horizontal		
2	5640.000	-89.71	34.13	-55.58	-13.00	-42.58	Horizontal		
3	3760.000	-87.47	32.11	-55.36	-13.00	-42.36	Vertical		
4	5640.000	-88.87	34.13	-54.74	-13.00	-41.74	Vertical		
GSM_ Highest Channel									
1	3819.600	-88.55	32.11	-56.44	-13.00	-43.44	Horizontal		
2	5729.400	-89.65	34.13	-55.52	-13.00	-42.52	Horizontal		
3	3819.600	-91.5	32.11	-59.39	-13.00	-46.39	Vertical		
4	5729.400	-89.70	34.13	-55.57	-13.00	-42.57	Vertical		





WCDMA Band II									
No.	Frequency	SA	Correction	EIRP	Limit	Margin	Ant. Pol.		
		Reading	factor	Result					
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)			
	RMC 12.2kbps_ Lowest Channel								
1	3704.800	-80.37	31.09	-49.28	-13.00	-36.28	Horizontal		
2	5557.200	-87.88	34.14	-53.74	-13.00	-40.74	Horizontal		
3	3704.800	-81.35	33.13	-48.22	-13.00	-35.22	Vertical		
4	5557.200	-86.78	32.66	-54.12	-13.00	-41.12	Vertical		
	RMC 12.2kbps_ Middle Channel								
1	3760.000	-80.87	31.09	-49.78	-13.00	-36.78	Horizontal		
2	5640.000	-89.48	34.14	-55.34	-13.00	-42.34	Horizontal		
3	3760.000	-82.39	33.13	-49.26	-13.00	-36.26	Vertical		
4	5640.000	-86.93	32.66	-54.27	-13.00	-41.27	Vertical		
RMC 12.2kbps_ Highest Channel									
1	3815.200	-84.21	31.09	-53.12	-13.00	-40.12	Horizontal		
2	5722.800	-86.72	34.14	-52.58	-13.00	-39.58	Horizontal		
3	3815.200	-83.76	33.13	-50.63	-13.00	-37.63	Vertical		
4	5722.800	-83.66	32.66	-51.00	-13.00	-38.00	Vertical		



WCDMA Band V									
No.	Frequency	SA	Correction	EIRP	Limit	Margin	Ant. Pol.		
		Reading	factor	Result					
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)			
	RMC 12.2kbps_ Lowest Channel								
1	1652.800	-82.97	23.12	-59.85	-13.00	-46.85	Horizontal		
2	2479.200	-84.63	28.47	-56.16	-13.00	-43.16	Horizontal		
3	1652.800	-84.22	23.12	-61.10	-13.00	-48.10	Vertical		
4	2479.200	-83.13	28.47	-54.66	-13.00	-41.66	Vertical		
RMC 12.2kbps_ Middle Channel									
1	1672.800	-82.29	23.12	-59.17	-13.00	-46.17	Horizontal		
2	2509.200	-86.54	28.47	-58.07	-13.00	-45.07	Horizontal		
3	1672.800	-84.13	23.12	-61.01	-13.00	-48.01	Vertical		
4	2509.200	-83.83	28.47	-55.36	-13.00	-42.36	Vertical		
RMC 12.2kbps_ Highest Channel									
1	1693.200	-81.26	23.12	-58.14	-13.00	-45.14	Horizontal		
2	2539.800	-83.83	28.47	-55.36	-13.00	-42.36	Horizontal		
3	1693.200	-80.00	23.12	-56.88	-13.00	-43.88	Vertical		
4	2539.800	-81.64	28.47	-53.17	-13.00	-40.17	Vertical		

Note:

- Correct Factor = Antenna Factor + Cable Loss Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
- 2. Result = Reading + Correct Factor.
- 3. Margin = Result Limit
- 4. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test. Subsequently, only the worst case emissions are reported.



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Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC00408230802AP02A

Appendix II: Photographs of EUT

Refer to the Report No.: AGC00408230802AP04A

----End of Report----



Conditions of Issuance of Test Reports

- 1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
- 2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
- 9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.