

# Global United Technology Services Co., Ltd.

Report No.: GTS202008000140F05

# **TEST REPORT**

Applicant: **GSM GLOBE.COM INC** 

8212 NW 30 TERRACE, DORAL, Florida 33122, United States **Address of Applicant:** 

Z-TECH COMMUNICATION(SZ)CO LTD Manufacturer/Factory:

7/F BLK D BAO'AN ZHI'GU YIN'TIAN RD. NO.4 XI'XIANG ST' Address of

**BAO'AN SZ CN** Manufacturer/Factory:

**Equipment Under Test (EUT)** 

**Product Name: MOBILE PHONES** 

Model No.: F11

Trade Mark: **GOL** 

FCC ID: 2AEJAF11

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart B

August 18, 2020 Date of sample receipt:

Date of Test: August 18-28, 2020

Date of report issued: August 28, 2020

Test Result: PASS \*

Authorized Signature:

**Robinson Lo Laboratory Manager** 

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



## 2 Version

Version No.	Date	Description
00	August 28, 2020	Original

Tiger. Chan	Date:	August 28, 2020
Project Engineer		
Povingende	Date:	August 28, 2020
	Project Engineer	Project Engineer



## 3 Contents

1	COV	/ER PAGE	1
2	VEF	RSION	2
3	COI	NTENTS	3
4	TES	ST SUMMARY	4
5	GEN	NERAL INFORMATION	5
	5.1 5.2 5.3 5.4 5.5 5.6 5.7	GENERAL DESCRIPTION OF EUT TEST MODE AND TEST VOLTAGE DESCRIPTION OF SUPPORT UNITS DEVIATION FROM STANDARDS ABNORMALITIES FROM STANDARD CONDITIONS TEST FACILITY TEST LOCATION	
6	TES	ST INSTRUMENTS LIST	7
7	TES	ST RESULTS AND MEASUREMENT DATA	9
	7.1 7.2	RADIATED EMISSION	15
8	TES	ST SETUP PHOTO	18
9	EUT	T CONSTRUCTIONAL DETAILS	18



## 4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission	FCC Part15.107	ANSI C63.4	Class B	PASS
Radiated Emissions #	FCC Part15.109	ANSI C63.4	Class B	PASS

#### Remarks:

- 1. Pass: The EUT complies with the essential requirements in the standard.
- 2. # Refer to FCC Part 15.33 (b)(1) conditional testing procedure:

The highest frequency generated or used in the EUT	Test frequency range of Radiated emission
<108MHz	30MHz ~ 1GHz
108MHz ~ 500MHz	30MHz ~ 2GHz
500MHz ~ 1GHz	30MHz ~ 5GHz
>1GHz	30MHz ~ 5th harmonic of the highest frequency or 40 GHz, whichever is lower.

Note: the EUT Internal clock frequency above 108MHz.

#### **Measurement Uncertainty**

Test Item	Frequency Range Measurement Uncertainty		Notes			
Radiated Emission	30MHz-200MHz	3.8039dB	(1)			
Radiated Emission	200MHz-1GHz	3.9679dB	(1)			
Radiated Emission	1GHz-18GHz	4.29dB	(1)			
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)			
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.						



## **5** General Information

## 5.1 General Description of EUT

Product Name:	MOBILE PHONES
Model No.:	F11
Serial No.:	JY200721000036
Hardware Version:	Y891_MB_V2
Software Version:	GOL_F11_V03
Test sample(s) ID:	GTS202008000140-2
Sample(s) Status:	Normal sample
Power Supply:	Adaptor
	Model: F10
	Input: AC 100-240V, 50/60Hz, 0.15A
	Output: DC 5.0V, 1Amp
	Or
	Battery: DC 3.8V, 3000mAh

## 5.2 Test mode and Test voltage

Test mode:			
PC mode Keep the EUT in exchanging data mode.			
REC mode	Keep the EUT in REC mode.		
Video play mode	Keep the EUT in Video play mode.		
Test voltage			
AC 120V and DC 3.8V			



#### 5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
Lenovo	Notebook PC	E40-80	N/A
Apple	PC	A1278	C1MN99ERDTY3

#### 5.4 Deviation from Standards

None.

#### 5.5 Abnormalities from Standard Conditions

None.

#### 5.6 Test Facility

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

#### • FCC —Registration No.: 381383

Global United Technology Services Co., Ltd., Shenzhen 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 files. Registration 381383.

#### • IC —Registration No.: 9079A

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A.

#### • NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

#### 5.7 Test Location

The test was performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480 Fax: 0755-27798960

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



## 6 Test Instruments list

Radi	Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025	
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A	
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 25 2020	June. 24 2021	
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 25 2020	June. 24 2021	
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 25 2020	June. 24 2021	
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 25 2020	June. 24 2021	
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	
8	Coaxial Cable	GTS	N/A	GTS213	June. 25 2020	June. 24 2021	
9	Coaxial Cable	GTS	N/A	GTS211	June. 25 2020	June. 24 2021	
10	Coaxial cable	GTS	N/A	GTS210	June. 25 2020	June. 24 2021	
11	Coaxial Cable	GTS	N/A	GTS212	June. 25 2020	June. 24 2021	
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 25 2020	June. 24 2021	
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 25 2020	June. 24 2021	
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 25 2020	June. 24 2021	
15	Band filter	Amindeon	82346	GTS219	June. 25 2020	June. 24 2021	
16	Power Meter	Anritsu	ML2495A	GTS540	June. 25 2020	June. 24 2021	
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 25 2020	June. 24 2021	
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 25 2020	June. 24 2021	
19	Splitter	Agilent	11636B	GTS237	June. 25 2020	June. 24 2021	
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 25 2020	June. 24 2021	
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 19 2019	Oct. 18 2020	
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 19 2019	Oct. 18 2020	
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 19 2019	Oct. 18 2020	
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 25 2020	June. 24 2021	



Con	Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022	
2	<b>EMI Test Receiver</b>	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021	
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 25 2020	June. 24 2021	
4	ENV216 2-L-V- NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 25 2020	June. 24 2021	
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A	
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	
7	Thermo meter	KTJ	TA328	GTS233	June. 25 2020	June. 24 2021	
8	Absorbing clamp	Elektronik- Feinmechanik	MDS21	GTS229	June. 25 2020	June. 24 2021	
9	ISN	SCHWARZBECK	NTFM 8158	GTD565	June. 25 2020	June. 24 2021	

Gene	General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 25 2020	June. 24 2021	
2	Barometer	ChangChun	DYM3	GTS255	June. 25 2020	June. 24 2021	



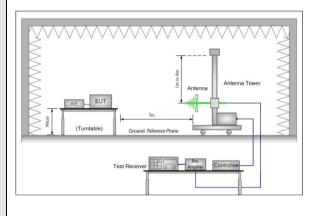
#### 7 **Test Results and Measurement Data**

### 7.1 Radiated Emission

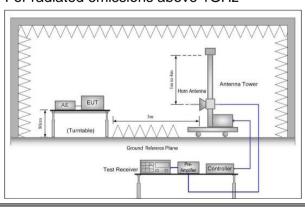
Test Requirement:	FCC Part15 B Section 15.109						
Test Method:	ANSI C63.4:20	ANSI C63.4:2014					
Test Frequency Range:	30MHz to 6000MHz						
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)						
Receiver setup:	Frequency	Detector		RBW	VBW	Remark	
·	30MHz- Quasi-peak 1GHz  Above 1GHz  Peak Peak		k	120kHz 300kHz		Quasi-peak Value	
				1MHz	3MHz	Peak Value	
				1MHz	10Hz	Average Value	
Limit:	Frequency 30MHz-88MHz 88MHz-216MHz 216MHz-960MHz 960MHz-1GHz Above 1GHz		Limit (dBuV/m @3m)			Remark	
			40.00			Quasi-peak Value	
			43.50 46.00			Quasi-peak Value	
						Quasi-peak Value	
			54.00		0	Quasi-peak Value	
				54.0	0	Average Value	
	Above	GIIZ		74.0	0	Peak Value	

Test setup:

#### For radiated emissions from 30MHz to1GHz



#### For radiated emissions above 1GHz



Global United Technology Services Co., Ltd.
No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



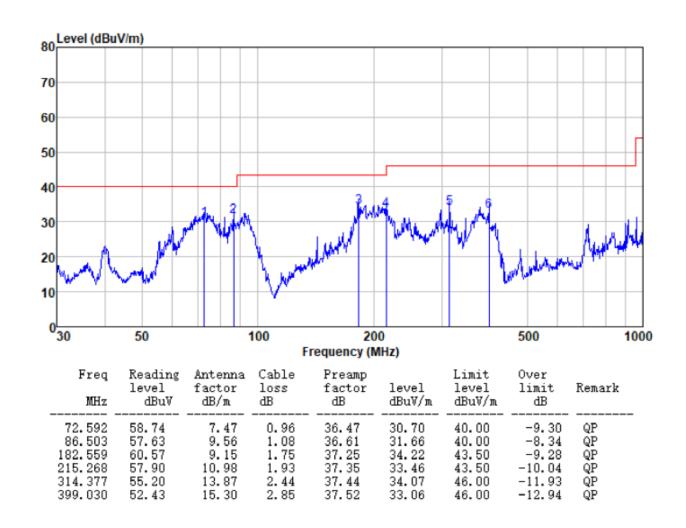
	Report No.: GTS202008000140F05						
Test Procedure:	<ol> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> </ol>						
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.						
	<ul> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li> </ul>						
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar						
Test Instruments:	Refer to section 6 for details						
Test mode:	Refer to section 5.2 for details, only show the worst case.						
Test results:	Pass						



#### **Measurement Data**

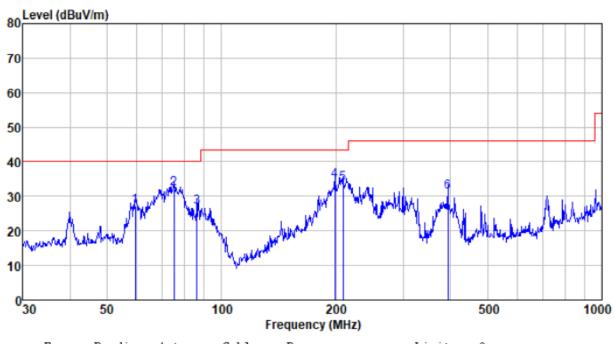
#### **Below 1GHz**

		Test mode:	PC mode	Antenna Polarity:	Horizontal
--	--	------------	---------	-------------------	------------





Totalia Totalia		Test mode:	PC mode	Antenna Polarity:	Vertical
-----------------	--	------------	---------	-------------------	----------



Freq	Reading level dBuV		Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark	
59.441 74.919 86.200 198.588 208.580 393.472	51.25 60.23 53.04 59.86 58.46 50.90	11.38 7.45 9.43 10.31 10.73 15.22	0.86 0.98 1.08 1.83 1.89 2.82	36.31 36.50 36.60 37.32 37.34 37.51	27.18 32.16 26.95 34.68 33.74 31.43	40.00 40.00 40.00 43.50 43.50 46.00	-12.82 -7.84 -13.05 -8.82 -9.76 -14.57	QP QP QP QP QP	



#### **Above 1GHz**

4815.000

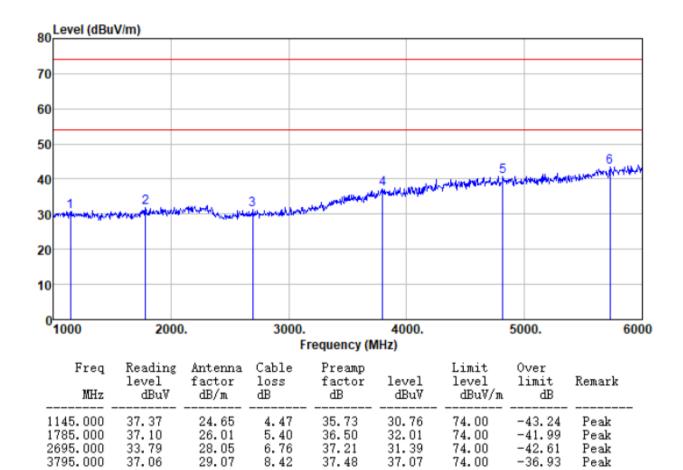
5725.000

37.59

38.08

Report No.: GTS202008000140F05

Test mode: PC mode Antenna Polarity: Horizontal	
---	--



37.58

36.78

40.75

43.51

74.00

74.00

31.37

32.14

9.37

10.07

-33.25

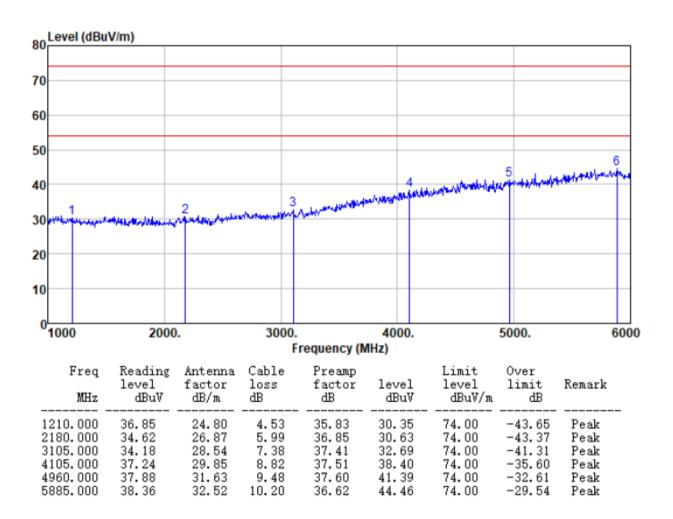
-30.49

Peak

Peak



Totalia Totalia		Test mode:	PC mode	Antenna Polarity:	Vertical
-----------------	--	------------	---------	-------------------	----------



#### Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor



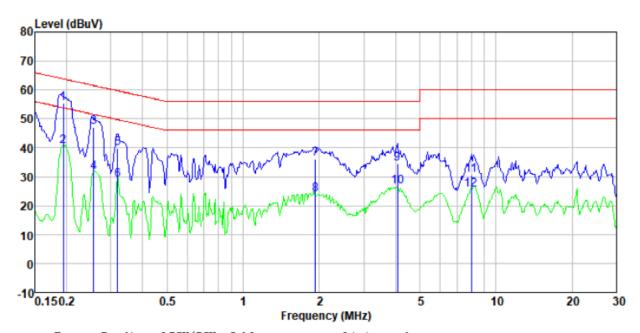
## 7.2 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107
Test Method:	ANSI C63.4:2014
Test Frequency Range:	150kHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	Limit (dBµV)
	Frequency range (MHz)  Quasi-peak  Average
	0.15-0.5 66 to 56* 56 to 46*
	0.5-5     56     46       0.5-30     60     50
Test setup:	
	Reference Plane  LISN 40cm 80cm Filter AC power  Equipment Test table/Insulation plane  Remark E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m
Test procedure	<ol> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs).</li> <li>Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.</li> </ol>
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.2 for details, only show the worst case.
Test results:	Pass



#### **Measurement Data**

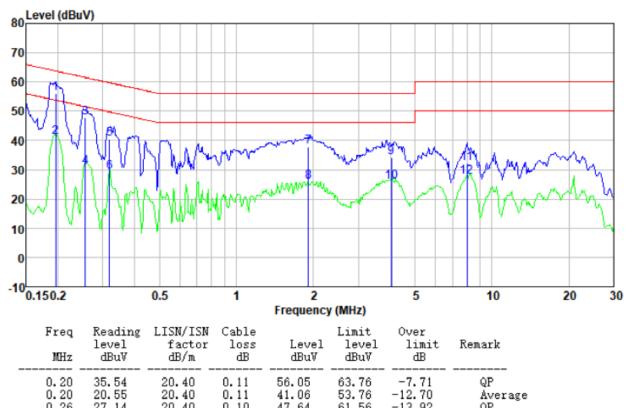
Test mode: PC mode Ph	Polarity: Line
-----------------------	----------------



Freq Reading LISN/ISN Cable Limi	it Over
level factor loss Level lev	vel limit Remark
MHz dBuV dB/m dB dBuV dBu	uV dB
0. 19     34. 97     20. 40     0. 11     55. 48     63. 8       0. 19     19. 81     20. 40     0. 11     40. 32     53. 8       0. 26     26. 76     20. 40     0. 10     47. 26     61. 8       0. 26     10. 94     20. 40     0. 10     31. 44     51. 8       0. 32     19. 33     20. 39     0. 10     39. 82     59. 10       0. 32     8. 50     20. 39     0. 10     28. 99     49. 7       1. 93     15. 92     20. 20     0. 17     36. 29     56. 0       1. 93     3. 39     20. 20     0. 17     23. 76     46. 0       4. 07     14. 05     20. 20     0. 18     34. 43     56. 0       4. 07     6. 30     20. 20     0. 18     26. 68     46. 0       7. 98     10. 25     20. 20     0. 19     30. 64     60. 0       7. 98     5. 13     20. 20     0. 19     25. 52     50. 0	84 -13.52 Average 56 -14.30 QP 56 -20.12 Average 75 -19.93 QP 75 -20.76 Average 00 -19.71 QP 00 -22.24 Average 00 -21.57 QP 00 -19.32 Average 00 -29.36 QP



Test mode: PC mode Phase Polarity: Neutral
--



MHz	dBuV	dB/m	dB	dBuV	dBuV	dB	Nemark
0.20 0.20 0.26 0.26 0.32 0.32 1.92 1.92 4.05 4.05 7.98	35. 54 20. 55 27. 14 10. 48 19. 91 8. 83 17. 50 5. 62 13. 85 5. 64 11. 69 7. 04	20. 40 20. 40 20. 40 20. 39 20. 39 20. 20 20. 20 20. 20 20. 20 20. 20 20. 20	0.11 0.11 0.10 0.10 0.10 0.10 0.17 0.17	56. 05 41. 06 47. 64 30. 98 40. 40 29. 32 37. 87 25. 99 34. 23 26. 02 32. 08 27. 43	63. 76 53. 76 61. 56 51. 56 59. 75 49. 75 56. 00 46. 00 56. 00 46. 00 50. 00	-7. 71 -12. 70 -13. 92 -20. 58 -19. 35 -20. 43 -18. 13 -20. 01 -21. 77 -19. 98 -27. 92 -22. 57	QP Average
							-

### Notes:

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



## 8 Test Setup Photo

Reference to the appendix I for details.

## 9 EUT Constructional Details

Reference to the appendix II for details.

-----End-----