

Global United Technology Services Co., Ltd.

Report No.: GTSE13120192402

TEST REPORT

Applicant: iDeaUSA Products Inc.

Address of Applicant: 2300 E. Curry St., Long Beach, CA 90805

Equipment Under Test (EUT)

Product Name: Tablet PC

CT7 Model No.:

Trade Mark: **iDeaUSA**

FCC ID: 2ABHNCT7

FCC CFR Title 47 Part 15 Subpart B:2012 **Applicable standards:**

Date of sample receipt: August 09, 2013

Date of Test: August 09-September 05, 2013

Date of report issue: December 11, 2013

PASS * Test Result:

Authorized Signature:

Robinson Lo **Laboratory Manager**

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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^{*} In the configuration tested, the EUT complied with the standards specified above.



2 Version

Version No.	Date	Description
00	December 11, 2013	Original

Prepared By:	hank. yan	Date:	December 11, 2013
	Project Engineer		
Check By:	Hams. Hu	Date:	December 11, 2013
	Reviewer		



3 Contents

			Page
1	COV	/ER PAGE	1
2	VER	RSION	2
3	CON	NTENTS	3
4	TES	T SUMMARY	4
5	GEN	NERAL INFORMATION	5
	5.1	CLIENT INFORMATION	5
	5.2	GENERAL DESCRIPTION OF EUT	
	5.3	TEST MODE	5
	5.4	TEST FACILITY	6
	5.5	TEST LOCATION	
	5.6	DESCRIPTION OF SUPPORT UNITS	
	5.7	DEVIATION FROM STANDARDS	
	5.8	ABNORMALITIES FROM STANDARD CONDITIONS	
	5.9	OTHER INFORMATION REQUESTED BY THE CUSTOMER	
6	TES	T INSTRUMENTS LIST	7
7	TES	T RESULTS AND MEASUREMENT DATA	8
	7.1	CONDUCTED EMISSIONS	8
	7.2	RADIATED EMISSION	11
8	TES	T SETUP PHOTO	17
9	EUT	CONSTRUCTIONAL DETAILS	18



4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part15.107	PASS
Radiated Emissions	Part15.109	PASS

PASS: The EUT complies with the essential requirements in the standard.



5 General Information

5.1 Client Information

Applicant:	iDeaUSA Products Inc.	
Address of Applicant:	2300 E. Curry St.,Long Beach, CA 90805	
Manufacturer:	SHENZHEN GIEC ELECTRONICS CO., LTD.	
Address of Manufacturer:	24/F, Building A Xinian Center, No. 6021 Shennan Road, Shenzhen, Guangdong, China	
Factory:	SHENZHEN GIEC ELECTRIC MANUFACTORY CO., LTD.	
Address of Factory:	No.1 Building, Factory, No.7 District, Dayang Development Areas, FuYong Street, Baoan, Shenzhen, Guangdong, China	

5.2 General Description of EUT

Product Name:	Tablet PC
Model No.:	CT7
Power supply:	Adapter:
	Model No.:HK15-HASF0502000
	Input: AC 100~240V 50/60Hz 0.3A
	Output: DC 5.0V 2.0A
	Or
	DC 3.7V Li-ion Battery

5.3 Test mode

Test mode:	Test mode:				
Playing mode	Keep the EUT in Playing mode				
Video Record mode	Keep the EUT in Video Recording mode				
PC mode	Keep the EUT in exchanging data mode.				
HDMI mode	Keep the EUT in video playing with HDMI output mode.				
Test voltage:					
AC 120V/60Hz					

Shenzhen, China 518102



5.4 Test Facility

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

• CNAS —Registration No.: CNAS L5775

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• FCC —Registration No.: 600491

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 600491, July 20, 2010.

• Industry Canada (IC)

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-2, June 26, 2013.

5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen,

China

Tel: 0755-27798480 Fax: 0755-27798960

5.6 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
HP	Printer	CB495A	05257893	DoC
Lenovo	PC Host	M6900	EA05257893	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC

5.7 Deviation from Standards

Biconical, log.per. antenna and horn antenna were used instead of dipole antenna. Semi-anechoic Chamber was used as alternation of open air test sites, and all test suites were performed with radiated method in it.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102



6 Test Instruments list

Radia	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	9.0(L)*6.0(W)* 6.0(H)	GTS250	Mar. 29 2013	Mar. 28 2014
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	ESU EMI Test Receiver	R&S	ESU26	GTS203	Jul. 06 2013	Jul. 05 2014
4	BiConiLog Antenna	SCHWARZBECK	VULB9163	GTS214	Mar. 09 2013	Mar. 08 2014
5	Double -ridged waveguide horn	SCHWARZBECK	9120D	GTS208	Mar. 09 2013	Mar. 08 2014
6	RF Amplifier	HP	8347A	GTS204	Jul. 06 2013	Jul. 05 2014
7	Preamplifier	HP	8349B	GTS206	Jul. 06 2013	Jul. 05 2014
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial cable	GTS	N/A	GTS210	Jul. 06 2013	Jul. 05 2014
10	Coaxial Cable	GTS	N/A	GTS211	Jul. 06 2013	Jul. 05 2014
11	Thermo meter	N/A	N/A	GTS256	Jul. 06 2013	Jul. 05 2014

Cond	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	7.0(L)x3.0(W)x3.0(H)	GTS264	Sep. 08 2011	Sep. 07 2013	
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 02 2013	Jul. 01 2014	
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 02 2013	Jul. 01 2014	
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jul. 02 2013	Jul. 01 2014	
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 02 2013	Jul. 01 2014	
6	Coaxial Cable	GTS	N/A	GTS227	Jul. 02 2013	Jul. 01 2014	
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	

Gen	General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory	Cal.Date	Cal.Due date	
	• •			No.	(mm-dd-yy)	(mm-dd-yy)	
1	Barometer	ChangChun	DYM3	GTS257	July 09 2013	July 08 2014	

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



7 Test Results and Measurement Data

7.1 Conducted Emissions

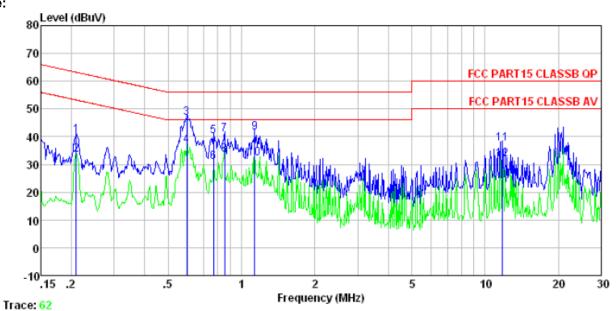
Test Requirement:	FCC Part15 B Section 15.107			
Test Method:	ANSI C63.4:2003			
Test Frequency Range:	150KHz to 30MHz			
Class / Severity:	Class B			
Receiver setup:	RBW=9KHz, VBW=30KHz, Sv	weep time=auto		
Limit:		Limit (c	lBuV)	
	Frequency range (MHz)	Quasi-peak	Average	
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	5-30	60	50	
Test setup:	* Decreases with the logarithn	<u> </u>		
	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:	 The E.U.T and simulators a line impedance stabilization 500hm/50uH coupling impedance. The peripheral devices are LISN that provides a 500hm termination. (Please refer to photographs). Both sides of A.C. line are interference. In order to find positions of equipment and according to ANSI C63.4: 2 	n network (L.I.S.N.). The dance for the measuring also connected to the m/50uH coupling imped to the block diagram of the checked for maximum different the maximum emission all of the interface calculated and the maximum emission all of the interface calculated and the maximum emission all all of the interface calculated and the maximum emission all of the interface calculated and the maximum emission and the maximum	nis provides a ng equipment. main power through a dance with 500hm the test setup and conducted on, the relative bles must be changed	
Test Instruments:	Refer to section 6 for details			
Test mode:	Pre-scan all modes in section 5.3, and found the PC mode which is the worst mode, so only the data of worst mode was show on the test report.			
Test results:	Pass			

Shenzhen, China 518102



Measurement Data

Line:



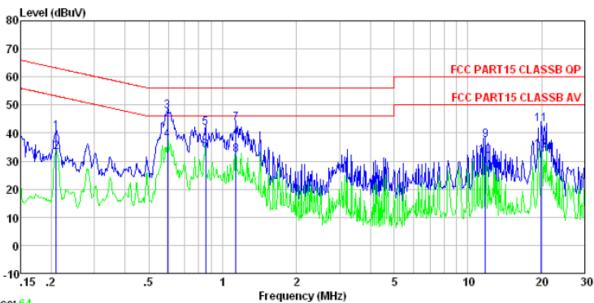
Condition : FCC PART15 CLASSB QP LISN-2013 LINE

Job No. : 1330RF Test mode : PC mode Test Engineer: ying

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBu₹	dBuV	dB	
1	0.209	40.25	0.13	0.13	40.51	63.23	-22.72	QP
2	0.209	33.35	0.13	0.13	33.61	53.23	-19.62	Average
3	0.595	46.50	0.13	0.12	46.75	56.00	-9.25	QP
4 5	0.595	36.47	0.13	0.12	36.72	46.00	-9.28	Average
5	0.767	39.97	0.14	0.13	40.24	56.00	-15.76	QP
6	0.767	30.47	0.14	0.13	30.74	46.00	-15.26	Average
7	0.853	40.58	0.14	0.13	40.85	56.00	-15.15	QP
8	0.853	33.24	0.14	0.13	33.51	46.00	-12.49	Average
9	1.135	41.16	0.13	0.13	41.42	56.00	-14.58	QP
10	1.135	31.78	0.13	0.13	32.04	46.00	-13.96	Average
11	11.807	37.06	0.36	0.20	37.62	60.00	-22.38	QP
12	11.807	31.28	0.36	0.20	31.84	50.00	-18.16	Average



Neutral:



Trace: 64

Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL

Job No. : 1330RF Test mode : PC mode Test Engineer: ying

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	dB	dB	dBuV	dBuV	dB	
1 2 3 4 5 6 7 8 9 10 11 12	0. 209 0. 209 0. 595 0. 595 0. 853 1. 135 1. 135 11. 807 11. 807 19. 950	40. 24 32. 86 47. 50 37. 45 41. 58 33. 69 43. 16 32. 03 37. 06 31. 48 42. 47 33. 23	0. 07 0. 07 0. 07 0. 07 0. 07 0. 07 0. 08 0. 08 0. 31 0. 31 0. 53 0. 53	0.13 0.13 0.12 0.12 0.13 0.13 0.13 0.20 0.20 0.22	40. 44 33. 06 47. 69 37. 64 41. 78 33. 89 43. 37 32. 24 37. 57 31. 99 43. 22 33. 98	53. 23 56. 00 46. 00 56. 00 46. 00 56. 00 60. 00 50. 00 60. 00	-8. 31 -8. 36 -14. 22 -12. 11 -12. 63 -13. 76 -22. 43 -18. 01 -16. 78	Average QP Average QP Average QP Average QP Average

Notes:

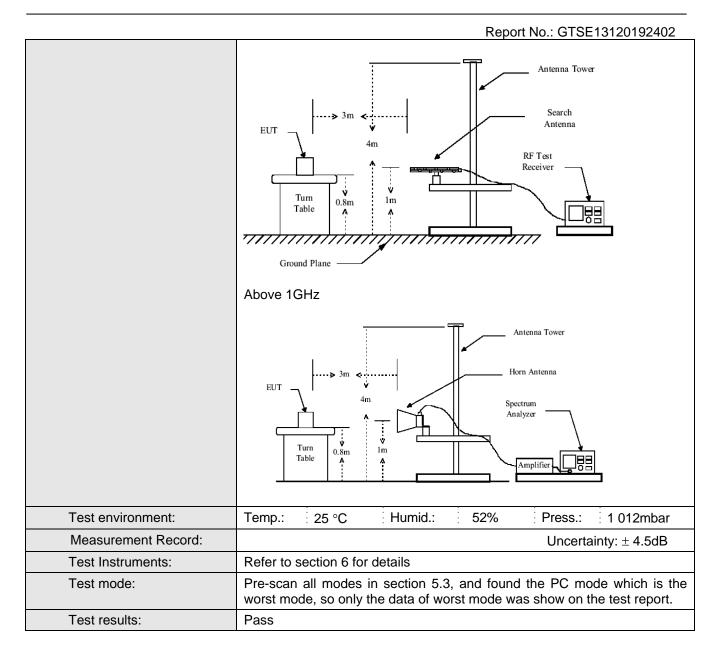
- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss
- 4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.



7.2 Radiated Emission

Test Requirement:	FCC Part15 B S	Section 15.10	9					
Test Method:	ANSI C63.4:2003							
Test Frequency Range:	30MHz to 6GHz							
Test site:	Measurement D	Distance: 3m	(Semi-Anecho	ic Chambe	r)			
Receiver setup:			` <u> </u>		·			
	Frequency 30MHz-	Detector Quasi-peal	RBW k 120kHz	VBW 300kHz	Remark Quasi-peak Value			
	1GHz	Quadi pou	1201112	0001112	Quadi pour varao			
	Above 1GHz	Peak Peak	1MHz 1MHz	3MHz 10Hz	Peak Value Average Value			
Limit:								
	Freque	ency	Limit (dBuV/	/m @3m)	Remark			
	30MHz-8	8MHz	40.0	0	Quasi-peak Value			
	88MHz-2 ⁻	16MHz	43.5	0	Quasi-peak Value			
	216MHz-9	60MHz	46.0	0	Quasi-peak Value			
	960MHz-	·1GHz	54.0	0	Quasi-peak Value			
	Above 1	IGH z	54.0	0	Average Value			
	Above	OFIZ	74.0	0	Peak Value			
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above a ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the 							
	_	d vertical pol			d strength. Both are set to make the			
	4. For each suspected emission, the EUT was arranged to its worst cas and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find maximum reading.							
	5. The test-rece Bandwidth w			ak Detect F	unction and Specified			
	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.							
Test setup:	Below 1GHz							





Note:

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

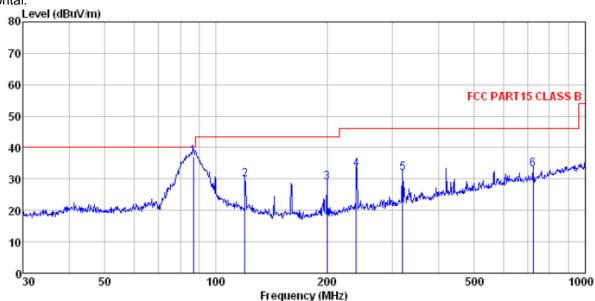
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor



Measurement Data

Below 1GHz

Horizontal:



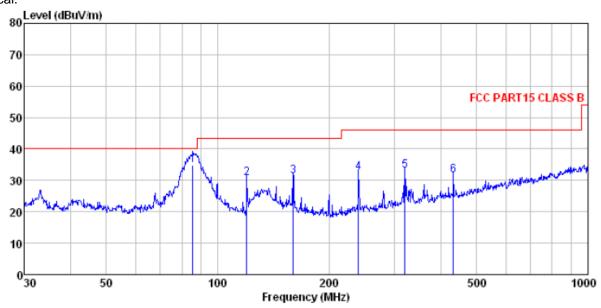
: 3m chamber : FCC PART15 CLASS B 3m VULB9163-2013M HORIZONTAL : 1330RF Site Condition

Job No. Test Mode : PC mode Test Engineer: Bing

est	Fuglueer:			Cable Preamp			T	^	
	Freq		Factor					Over Limit	Remark
	MHz	dBu₹	<u>d</u> B/m	dB	dB	dBuV/m	dBuV/m	<u>d</u> B	
1 2 3	86.807 119.856 199.986			1.36	31.73 31.86 32.14	29.91	43.50	-13.59	QP
4 5 6	239.987 319.937 721.726	49.11 46.09	14.09 15.33	2.07 2.47	32.16 32.11	33.11 31.78	46.00 46.00	-12.89 -14.22	QP QP



Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163-2013M VERTICAL : 1330RF Condition

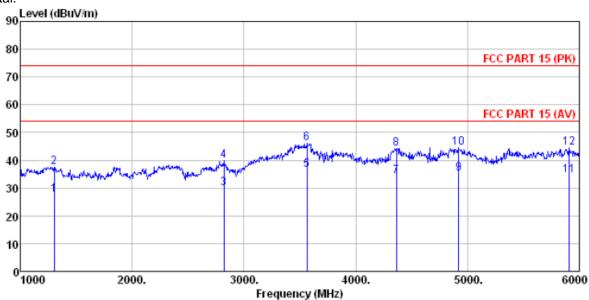
Job No. Test Mode Test Engir : PC mode

est	Euglueer:			Cable Preamp			Limit	Over	
	Freq		Factor						Remark
	MHz	dBu∜	<u>dB</u> /m	dB	dB	dBuV/m	dBuV/m	<u>dB</u>	
1	85.598	53.01	12.60	1.07	31.74	34.94	40.00	-5.06	QP
2	119.856	48.75	12.48	1.36	31.86	30.73	43.50	-12.77	QP
3	159.784	50.98	10.64	1.63	32.02	31.23	43.50	-12.27	QP
4	239.987	48.38	14.09	2.07	32.16	32.38	46.00	-13.62	QP
5	319.937	47.34	15.33	2.47	32.11	33.03	46.00	-12.97	QP
6	432.546	42.95	17.53	3.01	31.78	31.71	46.00	-14.29	QP



Above 1GHz

Horizontal:



Site

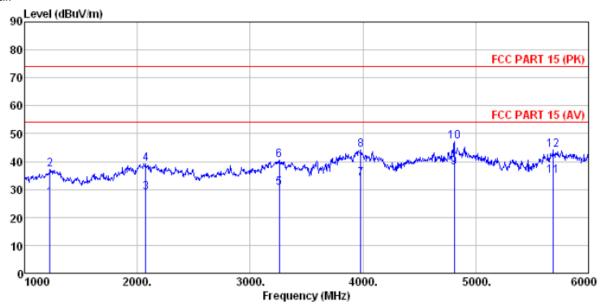
: 3m chamber : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) HORIZONTAL : 1330RF

Condition Job No. Test Mode : PC mode Test Engineer: Bing

	Freq		intenna Factor		Preamp Factor		Limit Line	Over Limit	Remark
	MHz	dBu∀	<u>dB</u> /m	dB		dBuV/m	dBuV/m	dB	
1	1305.000	30.71	25.64	4.55	33.27	27.63	54.00	-26.37	Average
2	1305.000	40.71	25.64	4.55	33.27	37.63	74.00	-36.37	Peak
3	2820.000	29.30	28.41	5.78	33.53	29.96	54.00	-24.04	Average
4	2820.000	39.03	28.41	5.78	33.53	39.69	74.00	-34.31	Peak
5	3565.000	32.99	29.10	7.09	32.67	36.51	54.00	-17.49	Average
6	3565.000	42.64	29.10	7.09	32.67	46.16	74.00	-27.84	Peak
7	4365.000	26.78	30.97	8.22	31.87	34.10	54.00	-19.90	Average
8	4365.000	36.97	30.97	8.22	31.87	44.29	74.00	-29.71	Peak
9	4920.000	26.68	31.89	8.69	32.15	35.11	54.00	-18.89	Average
10	4920.000	36.02	31.89	8.69	32.15	44.45	74.00	-29.55	Peak
11	5910.000	23.73	32.78	10.09	32.18	34.42	54.00	-19.58	Average
12	5910.000	33.81	32.78	10.09	32.18			-29.50	_



Vertical:



Site Condition

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) VERTICAL : 1330RF

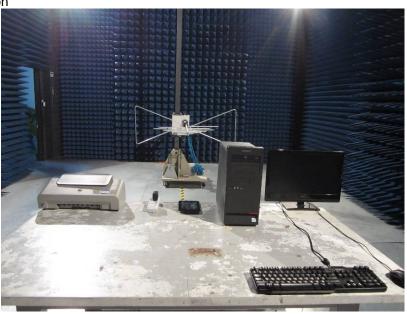
Job No. Test Mode : Test Engineer: : PC mode

1031	Freq	Read	intenna Factor		Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>d</u> B/m			dBuV/m	dBuV/m	<u>d</u> B	
1 2 3 4	1225.000 1225.000 2075.000 2075.000	30.22 40.36 31.51 41.94	25.45 25.45 26.71 26.71	4.49 4.49 5.05 5.05	33.13 33.13 34.38 34.38	27.03 37.17 28.89 39.32	74.00 54.00	-36.83	Average
5 6	3260.000 3260.000	28.67 38.44	28.49 28.49	6.49 6.49	33.02 33.02	30.63 40.40	54.00 74.00	-23.37 -33.60	Average Peak
7 8 9	3980.000 3980.000 4810.000	28.48 38.96 29.48	29.64 29.64 31.78	7.83 7.83 8.60	32.21 32.21 32.09	33.74 44.22 37.77	74.00	-29.78	Average Peak Average
10 11 12	4810.000 5685.000 5685.000	39.00 24.86 34.21	31.78 32.47 32.47	8.60 9.77 9.77	32.09 32.31 32.31	47.29 34.79 44.14	54.00	-26.71 -19.21 -29.86	Average



8 Test Setup Photo

Radiated Emission







Conducted Emission



9 EUT Constructional Details

Reference to the test report No. GTSE13120192401

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