

Global United Technology Services Co., Ltd.

Report No: GTSE14040058901

FCC REPORT

Applicant: Shenzhen Tesuda model technology Co., LTD

Address of Applicant: Minrui Industrial Park, Jiuwei Community, Xixiang sub-district,

Bao'an District, Shenzhen City, Guangdong, China

Equipment Under Test (EUT)

Product Name: 2.4GHz Transmitter

Model No.: T-3918A, T-3919A, T-3920A, T-3920B, T-3920C, T-3921A,

T-3922A, T-3923A, T-3924A

FCC ID: Z252014998

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2010

Date of sample receipt: April 01, 2014

Date of Test: April 01-08, 2014

Date of report issued: April 08, 2014

Test Result: PASS *

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

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

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of GTS International Electrical Approvals or testing done by GTS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by GTS International Electrical Approvals in writing.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



2 Version

Version No.	Date	Description
00	April 08, 2014	Original

Prepared By:	hank. yan	Date:	April 08, 2014		
	Project Engineer				
Check By:	Hams. Hu	Date:	April 08, 2014		
	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 5.2 5.3 5.4 5.5 5.6 5.7	CLIENT INFORMATION	
6	TES	T RESULTS AND MEASUREMENT DATA	8
	6.1 6.2 6.2. 6.2.2	2 Spurious emissions	9 11 12
	6.3	o	



4 Test Summary

Test Item	Section in CFR 47	Result	
Antenna requirement	15.203	Pass	
AC Power Line Conducted Emission	15.207	N/A	
Field strength of the fundamental signal	15.249 (a)	Pass	
Spurious emissions	15.249 (a) (d)/15.209	Pass	
Band edge	15.249 (d)/15.205	Pass	
20dB Occupied Bandwidth	15.215 (c)	Pass	

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

N/A: not applicable.

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



5 General Information

5.1 Client Information

Applicant:	Shenzhen Tesuda model technology Co., LTD		
Address of Applicant:	Minrui Industrial Park, Jiuwei Community, Xixiang sub-district, Bao'an District, Shenzhen City, Guangdong, China		
Manufacturer:	Shenzhen Tesuda model technology Co., LTD		
Address of Manufacturer:	Minrui Industrial Park, Jiuwei Community, Xixiang sub-district, Bao'an District, Shenzhen City, Guangdong, China		
Factory:	Shenzhen Tesuda model technology Co., LTD		
Address of factory :	Minrui Industrial Park, Jiuwei Community, Xixiang sub-district, Bao'an District, Shenzhen City, Guangdong, China		

5.2 General Description of E.U.T

Product Name:	2.4GHz Transmitter
Model No.:	T-3918A, T-3919A, T-3920A, T-3920B, T-3920C, T-3921A, T-3922A, T-3923A,
	T-3924A
Operation Frequency:	2402MHz, 2411MHz, 2433MHz, 2460MHz, 2465MHz, 2475MHz
Test Frequency:	Low Channel: 2402MHz, Middle channel: 2433MHz, High channel: 2475MHz
Modulation technology:	GFSK
Antenna Type:	Integral
Antenna gain:	1dBi
Power supply:	DC 12.0V(8*1.5V ("AA" Size battery))
Remark:	Only the model No. T-3918A was tested.
	T-3918A, T-3919A, T-3920A, T-3920B, T-3920C, T-3921A, T-3922A, T-
	3923A, T-3924A are identical in the same PCB layout, interior structure
	and electrical circuits. The only difference is the model name for commercial purpose.

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

Project No.: GTSE140400589RF

Page 5 of 18



5.3 Test mode

Transmitting mode	Keep the EUT in transmitting mode with new battery.
-------------------	---

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	Х	Y	Z
Field Strength(dBuV/m)	100.85	97.48	93.95

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup":

X axis (see the test setup photo)

5.4 Description of Support Units

None.

5.5 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 fuly 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) —Registration No.: 9079A-2

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 RegistrationNo.: 9079A-2.

5.6 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

5.7 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

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

Page 6 of 18



5.8 Test Instruments list

Rad	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	Mar. 29 2013	Mar. 28 2015			
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	Jul. 02 2013	Jul. 01 2014			
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 24 2014	Feb. 23 2015			
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Mar. 09 2014	Mar. 08 2015			
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 29 2014	Mar. 28 2015			
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			
8	Coaxial Cable	GTS	N/A	GTS213	Mar. 30 2014	Mar. 29 2015			
9	Coaxial Cable	GTS	N/A	GTS211	Mar. 30 2014	Mar. 29 2015			
10	Coaxial cable	GTS	N/A	GTS210	Mar. 30 2014	Mar. 29 2015			
11	Coaxial Cable	GTS	N/A	GTS212	Mar. 30 2014	Mar. 29 2015			
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 02 2013	Jul. 01 2014			
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 02 2013	Jul. 01 2014			
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Jun. 28 2013	Jun. 27 2014			
15	Band filter	Amindeon	82346	GTS219	Mar. 30 2014	Mar. 29 2015			
16	Constant temperature and humidity box Oregon Scientific		BA-888	GTS248	May 09 2013	May 08 2014			
17	D.C. Power Supply	Instek	PS-3030	GTS232	May 09 2013	May 08 2014			
18	8 Universal radio Rohde & So		CMU200	GTS235	May 09 2013	May 08 2014			
19	Splitter	Agilent	11636B	GTS237	May 09 2013	May 08 2014			

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



6 Test results and Measurement Data

6.1 Antenna requirement:

Standard requirement: FCC Part15 C Section 15.203 /249

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

E.U.T Antenna:

The antenna is Integral antenna, the best case gain of the antenna is 1dBi



RF Antenna

Global United Technology Services Co., Ltd. 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China 518102

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



6.2 Radiated Emission Method

0.2 Radiated Ellission in	1					
Test Requirement:	FCC Part15 C Section 15.209					
Test Method:	ANSI C63.4:2003					
Test Frequency Range:	30MHz to 25GHz					
Test site:	Measurement Distance: 3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Remark	
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value	
	Above 1CUz	Peak	1MHz	3MHz	Peak Value	
	Above 1GHz	Peak	1MHz	10Hz	Average Value	
Limit:	Freque	ency	Limit (dBuV/	/m @3m)	Remark	
(Field strength of the	2400MHz-24	183 5MHz	94.0		Average Value	
fundamental signal)	2400WH12 24	100.01VII 12	114.0	00	Peak Value	
Limit:	Freque		Limit (dBuV/		Remark	
(Spurious Emissions)	30MHz-8		40.0		Quasi-peak Value	
	88MHz-2		43.5		Quasi-peak Value	
	216MHz-9		46.0		Quasi-peak Value	
	960MHz-	· IGHZ	54.00 54.00		Quasi-peak Value Average Value	
	Above 1	GHz	74.00		Peak Value	
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.					
Test setup:	Below 1GHz					
	Tum Table Ground Plane Above 1GHz	4m 4m 0.8m 1m		Sear Ante		

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



	Nepolt No. 913L 14040030301
	Antenna Tower Horn Antenna Turn Table A A A A A A A A A A A A A A A A A A
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above the 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 ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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 Instruments:	Refer to section 5.8 for details
Test mode:	Transmitting mode
Test results:	Pass



Measurement data:

6.2.1 Field Strength of The Fundamental Signal

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	94.18	28.29	5.37	30.33	97.51	114.00	-16.49	Horizontal
2402.00	97.52	28.29	5.37	30.33	100.85	114.00	-13.15	Vertical
2433.00	93.89	28.07	5.41	30.21	97.16	114.00	-16.84	Horizontal
2433.00	97.26	28.07	5.41	30.21	100.53	114.00	-13.47	Vertical
2475.00	92.31	27.83	5.44	30.14	95.44	114.00	-18.56	Horizontal
2475.00	96.98	27.83	5.44	30.14	100.11	114.00	-13.89	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	71.69	28.29	5.37	30.33	75.02	94.00	-18.98	Horizontal
2402.00	74.37	28.29	5.37	30.33	77.70	94.00	-16.30	Vertical
2433.00	69.78	28.07	5.41	30.21	73.05	94.00	-20.95	Horizontal
2433.00	73.66	28.07	5.41	30.21	76.93	94.00	-17.07	Vertical
2475.00	70.27	27.83	5.44	30.14	73.40	94.00	-20.60	Horizontal
2475.00	74.38	27.83	5.44	30.14	77.51	94.00	-16.49	Vertical

NOTE:

For fundamental frequency, RBW =3MHz, VBW=10MHz Peak detector for PK value; and RBW =3MHz, VBW=10MHz AV detector for AV value.

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



Project No.: GTSE140400589RF

6.2.2 Spurious emissions

■ Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
38.08	42.10	15.11	0.64	32.06	25.79	40.00	-14.21	Vertical
68.15	44.23	11.34	0.93	31.89	24.61	40.00	-15.39	Vertical
96.10	38.65	14.90	1.16	31.75	22.96	43.50	-20.54	Vertical
159.78	54.25	10.64	1.63	32.02	34.50	43.50	-9.00	Vertical
201.39	42.03	12.60	1.85	32.14	24.34	43.50	-19.16	Vertical
878.32	37.70	22.87	4.77	31.21	34.13	46.00	-11.87	Vertical
40.99	36.67	15.57	0.67	32.05	20.86	40.00	-19.14	Horizontal
104.54	36.73	14.73	1.23	31.78	20.91	43.50	-22.59	Horizontal
159.78	40.12	10.64	1.63	32.02	20.37	43.50	-23.13	Horizontal
284.98	37.48	14.75	2.29	32.17	22.35	46.00	-23.65	Horizontal
432.55	37.42	17.53	3.01	31.78	26.18	46.00	-19.82	Horizontal
968.93	36.77	23.55	5.11	31.22	34.21	54.00	-19.79	Horizontal



Above 1GHz

Test channel: Lowest channel	
------------------------------	--

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	50.44	31.78	8.60	24.17	66.65	74.00	-7.35	Horizontal
7206.00	40.68	36.15	11.65	26.39	62.09	74.00	-11.91	Horizontal
9608.00	32.33	38.01	14.14	25.45	59.03	74.00	-14.97	Horizontal
12010.00	*					74.00		Horizontal
14412.00	*					74.00		Horizontal
4804.00	52.16	31.78	8.60	24.17	68.37	74.00	-5.63	Vertical
7206.00	42.67	36.15	11.65	26.39	64.08	74.00	-9.92	Vertical
9608.00	35.45	38.01	14.14	25.45	62.15	74.00	-11.85	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	26.93	32.11	4.44	24.03	39.45	54.00	-14.55	Horizontal
7206.00	20.30	36.48	6.04	26.32	36.50	54.00	-17.50	Horizontal
9608.00	17.06	38.34	7.64	25.31	37.73	54.00	-16.27	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		Horizontal
4804.00	31.33	32.14	4.44	24.03	43.88	54.00	-10.12	Vertical
7206.00	25.37	36.51	6.04	26.32	41.60	54.00	-12.40	Vertical
9608.00	19.35	38.37	7.64	25.31	40.05	54.00	-13.95	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960 Page 13 of 18



Test channel:	Middle channel
---------------	----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4866.00	49.82	32.19	4.49	23.96	62.54	74.00	-11.46	Horizontal
7299.00	43.38	36.74	6.12	26.64	59.60	74.00	-14.40	Horizontal
9732.00	34.17	38.68	7.72	25.22	55.35	74.00	-18.65	Horizontal
12165.00	*					74.00		Horizontal
14598.00	*					74.00		Horizontal
4866.00	54.29	32.22	4.49	23.96	67.04	74.00	-6.96	Vertical
7299.00	47.42	36.77	6.12	26.64	63.67	74.00	-10.33	Vertical
9732.00	38.84	38.71	7.72	25.22	60.05	74.00	-13.95	Vertical
12165.00	*					74.00		Vertical
14598.00	*					74.00		Vertical

Average value:

Average value	<u>. </u>							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4866.00	24.17	32.19	4.49	23.96	36.89	54.00	-17.11	Horizontal
7299.00	22.21	36.74	6.12	26.64	38.43	54.00	-15.57	Horizontal
9732.00	16.29	38.68	7.72	25.22	37.47	54.00	-16.53	Horizontal
12165.00	*					54.00		Horizontal
14598.00	*					54.00		Horizontal
4866.00	28.87	32.22	4.49	23.96	41.62	54.00	-12.38	Vertical
7299.00	23.93	36.77	6.12	26.64	40.18	54.00	-13.82	Vertical
9732.00	18.78	38.71	7.72	25.22	39.99	54.00	-14.01	Vertical
12165.00	*					54.00		Vertical
14598.00	*					54.00		Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960 Page 14 of 18



Test channel:	Highest channel
---------------	-----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4950.00	47.82	32.24	4.54	23.89	60.71	74.00	-13.29	Horizontal
7425.00	40.65	36.89	6.19	26.89	56.84	74.00	-17.16	Horizontal
9900.00	32.65	39.38	7.85	25.07	54.81	74.00	-19.19	Horizontal
12375.00	*					74.00		Horizontal
14850.00	*					74.00		Horizontal
4950.00	52.83	32.27	4.54	23.89	65.75	74.00	-8.25	Vertical
7425.00	46.84	36.92	6.19	26.89	63.06	74.00	-10.94	Vertical
9900.00	34.74	39.41	7.85	25.07	56.93	74.00	-17.07	Vertical
12375.00	*					74.00		Vertical
14850.00	*					74.00		Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4950.00	24.05	32.24	4.54	23.89	36.94	54.00	-17.06	Horizontal
7425.00	18.10	36.89	6.19	26.89	34.29	54.00	-19.71	Horizontal
9900.00	16.09	39.38	7.85	25.07	38.25	54.00	-15.75	Horizontal
12375.00	*					54.00		Horizontal
14850.00	*					54.00		Horizontal
4950.00	28.96	32.27	4.54	23.89	41.88	54.00	-12.12	Vertical
7425.00	23.49	36.92	6.19	26.89	39.71	54.00	-14.29	Vertical
9900.00	18.38	39.41	7.85	25.07	40.57	54.00	-13.43	Vertical
12375.00	*					54.00		Vertical
14850.00	*					54.00		Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960 Page 15 of 18



6.2.3 Bandedge emissions

Test channel:	Lowest channel
---------------	----------------

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	52.08	27.59	5.38	30.18	54.87	74.00	-19.13	Horizontal
2400.00	59.52	27.58	5.39	30.18	62.31	74.00	-11.69	Horizontal
2390.00	57.50	27.59	5.38	30.18	60.29	74.00	-13.71	Vertical
2400.00	64.26	27.58	5.39	30.18	67.05	74.00	-6.95	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	27.03	27.83	5.38	30.18	30.06	54.00	-23.94	Horizontal
2400.00	35.14	27.89	5.39	30.18	38.24	54.00	-15.76	Horizontal
2390.00	33.14	27.59	5.38	30.18	35.93	54.00	-18.07	Vertical
2400.00	38.59	27.58	5.39	30.18	41.38	54.00	-12.62	Vertical

Test channel:	Highest channel
---------------	-----------------

Peak value:

i dan taladi								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	52.54	27.53	5.47	29.93	55.61	74.00	-18.39	Horizontal
2500.00	42.37	27.55	5.49	29.93	45.48	74.00	-28.52	Horizontal
2483.50	57.71	27.53	5.47	29.93	60.78	74.00	-13.22	Vertical
2500.00	47.55	27.55	5.49	29.93	50.66	74.00	-23.34	Vertical

Average value:

Average value.								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	33.76	27.53	5.47	29.93	36.83	54.00	-17.17	Horizontal
2500.00	30.54	27.55	5.49	29.93	33.65	54.00	-20.35	Horizontal
2483.50	36.53	27.53	5.47	29.93	39.60	54.00	-14.40	Vertical
2500.00	33.50	27.55	5.49	29.93	36.61	54.00	-17.39	Vertical

Remark:

Global United Technology Services Co., Ltd. 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China 518102

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

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



6.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215			
Test Method:	ANSI C63.4:2003			
Limit:	Operation Frequency range 2400MHz~2483.5MHz			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Transmitting mode			
Test results:	Pass			

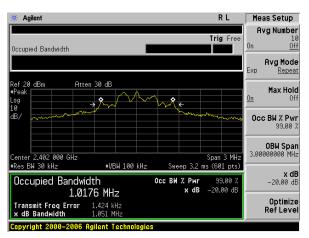
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	1.051	Pass
Middle	1.050	Pass
Highest	1.051	Pass

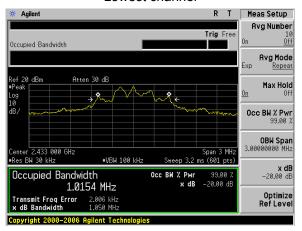
Test plot as follows:

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960 Page 17 of 18

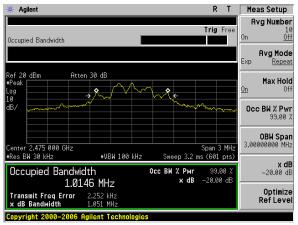




Lowest channel



Middle channel



Highest channel

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