



TEST REPORT

Report Reference No:	TRE1506003502	R/C85930			
FCC ID:	2AAP6M8018				
Applicant's name:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD				
Address	Science &Technology Industrial Park of Privately Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen, PR CHINA				
Manufacturer	SHENZHEN ZOWEE TECHN	OLOGY CO.,LTD			
Address	Science & Technology Industri Owned Enterprises, Pingshan CHINA	al Park of Privately , Xili, Nanshan District, Shenzhen, PR			
Test item description:	Internet Tablet				
Trade Mark	TMAX ,APEX,DOPO,NOBIS,E	DAGE,NUVISION			
Model/Type reference:	M8025				
Listed Model(s)	DPW8A-BT,DPW8B-BT,DPW TM800A550L,TM8A560L,NB8	8D-BT,DPW8C-BT,TM800A540L, 005C,NB8006C,NB8007A			
Standard:	FCC CFR Title 47 Part 15 Su	bpart C Section 15.247			
Date of receipt of test sample	Jan 11, 2015				
Date of testing	Jan 12, 2015- Jun 12, 2015				
Date of issue	Jun 12, 2015				
Result	PASS				
Compiled by (position+printedname+signature):	File administrators Any Yang	Any Yong			
Supervised by					
(position+printedname+signature):	Project Engineer Lion Cai	from Car			
Approved by		11 mar			
(position+printed name+signature):	RF Manager Hans Hu				
Testing Laboratory Name: :	Shenzhen Huatongwei International Inspection Co., Ltd				
Address	Bldg3, Hongfa Hi-tech Industri China	al Park, Genyu Road, Shenzhen,			

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Contents

<u>1.</u>	TEST STANDARDS ANDTEST DESCRIPTION	3
1.1. 1.2.	Test Standards Test Description	3 3
<u>2.</u>	SUMMARY	4
2.1. 2.2. 2.3. 2.4. 2.5.	Client Information Product Description Operation state EUT configuration Modifications	4 4 5 5 5 5
<u>3.</u>	TEST ENVIRONMENT	6
3.1. 3.2. 3.3. 3.4. 3.5.	Address of the test laboratory Test Facility Environmental conditions Statement of the measurement uncertainty Equipments Used during the Test	6 6 7 7 8
<u>4.</u>	TEST CONDITIONS AND RESULTS	9
4.1. 4.2.	Antenna requirement Spurious Emission (radiated)	9 10
<u>5.</u>	TEST SETUP PHOTOS OF THE EUT	16
<u>6.</u>	EXTERNAL AND INTERNAL PHOTOS OF THE EUT	16

1. TEST STANDARDS ANDTEST DESCRIPTION

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

ANSI C63.10-2009: American National Standard for Testing Unlicensed Wireless Devicese

1.2. Test Description

ReportSection	Test Item	Section in CFR 47	Result
4.1	Antenna Requirement	15.203/15.247 (c)	Pass
4.10/4.11	Radiated Emission	15.247(d)/15.209	Pass

Remark: The measurement uncertainty is not included in the test result.

2. SUMMARY

2.1. Client Information

Applicant:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD
Address:	Science & Technology Industrial Park of Privately
	Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen, PR CHINA
Manufacturer:	SHENZHEN ZOWEE TECHNOLOGY CO.,LTD
Address:	Science & Technology Industrial Park of Privately
	Owned Enterprises, Pingshan, Xili, Nanshan District, Shenzhen, PR CHINA

2.2. Product Description

Name of EUT	Internet Tablet
Trade Mark:	TMAX,APEX,DOPO,NOBIS,DAGE,NUVISION
Model No.:	M8025
Listed Model(s):	DPW8A-BT,DPW8B-BT,DPW8D-BT,DPW8C-BT,TM800A540L, TM800A550L,TM8A560L,NB8005C,NB8006C,NB8007A
Power supply:	DC 3.7V From internal battery
Adapter information:	Mode: JK050200-S04USA
	Input:AC 100-240V 50/60Hz 0.5A
	Output:DC 5.0V 2000mA
Bluetooth	
Version:	Supported BT4.0+EDR
Modulation:	GFSK, π/4DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	Internal Antenna

Report Version:

This copy was issued base on TRE1501004402(Issued data:2015-01-21)

Only the data of test item Spurious Emission (radiated) was updated. Others data was same as original report. Some new models were added in the new report.

2.3. Operation state

Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channel which were tested. the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the above gray bottom.

Channel	Frequency (MHz)			
0	2402			
1	2403			
:	÷			
39	2441			
÷	÷			
77	2479			
78	2480			

<u>Test mode</u>

For RF test items:

the engineering test program was provided and enabled to make EUT continuous transmit/receive.

For AC power line conducted emissions:

the EUT was set to connect with the Bluetooth under large package sizes transmission.

2.4. EUT configuration

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

- supplied by the manufacturer
- \bigcirc supplied by the lab

0	Power Cable	Length (m) :	/
		Shield :	1
		Detachable :	1
0	Multimeter	Manufacturer :	/
		Model No. :	1

2.5. Modifications

No modifications were implemented to meet testing criteria.

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Laboratory:Shenzhen Huatongwei International Inspection Co., Ltd. (Gongming) Address: Bldg3, Hongfa Hi-tech Industrial Park, Genyu Road, Shenzhen, China Phone: 86-755-26748019 Fax: 86-755-26748089

3.2. Test Facility

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

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: Mar. 01, 2012. Valid time is until February 28, 2015.

A2LA-Lab Cert. No. 2243.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until Sept 30, 2015.

FCC-Registration No.: 662850

Shenzhen Huatongwei International Inspection 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. Registration 662850, Renewal date Jul. 01, 2012, valid time is until Jun. 01, 2015.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection Co., Ltd. (Gongming 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. Registration 317478, Renewal date July 18, 2014, valid time is until July. 18, 2017.

IC-Registration No.: 5377A

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Dec. 31, 2013, valid time is until Dec. 31, 2016.

IC-Registration No.: 5377B

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. (Gongming EMC Laboratory) has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B on September 3, 2014, valid time is until September 3, 2017.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

VCCI

The 3m Semi-anechoic chamber (12.2m×7.95m×6.7m) of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.:R-2484. Date of Registration: Dec. 20, 2012. Valid time is until Dec. 29, 2015.

Radiated disturbance above 1GHz measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-292. Date of Registration: Dec. 24, 2013. Valid time is until Dec. 23, 2016.

Main Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-2726. Date of Registration: Dec. 20, 2012. Valid time is until Dec. 19, 2015.

Telecommunication Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-1837. Date of Registration: May 07, 2013. Valid time is until May 06, 2016.

DNV

Shenzhen Huatongwei International Inspection Co., Ltd. has been found to comply with the requirements of DNV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Directives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025 (2005), in accordance with the requirements of the DNV Laboratory Quality Manual towards subcontractors. Valid time is until Aug. 24, 2016.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
lative Humidity:	30~60 %
Air Pressure:	950~1050mba

3.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 1"and TR-100028-02 "Electromagnetic compatibility Radio spectrum Matters (ERM);Uncertainties in the measurement characteristics;Part 2" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	MeasurementUncertainty	Notes
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	1.60 dB	(1)
Radiated spurious emission 9KHz-40 GHz	2.20 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth		(1)

 This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

Radia	Radiated Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal	
1	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2014/11/01	
2	EMI TEST RECEIVER	Rohde&Schwarz	ESI 26	100009	2014/11/01	
3	EMI TEST Software	Audix	E3	N/A	N/A	
4	TURNTABLE	ETS	2088	2149	N/A	
5	ANTENNA MAST	ETS	2075	2346	N/A	
6	EMI TEST Software	Rohde&Schwarz	ESK1	N/A	N/A	
7	HORNANTENNA	ShwarzBeck	9120D	1011	2014/11/01	
8	Amplifer	Sonoma	310N	E009-13	2014/11/01	
9	JS amplifer	Rohde&Schwarz	JS4-00101800- 28-5A	F201504	2014/11/01	
10	High pass filter	Compliance Direction systems	BSU-6	34202	2014/11/01	
11	HORNANTENNA	ShwarzBeck	9120D	1012	2014/11/01	
12	Amplifer	Compliance Direction systems	PAP1-4060	120	2014/11/01	
13	Loop Antenna	Rohde&Schwarz	HFH2-Z2	100020	2014/11/01	
14	TURNTABLE	MATURO	TT2.0		N/A	
15	ANTENNA MAST	MATURO	TAM-4.0-P		N/A	
16	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2014/11/01	
17	ULTRA-BROADBAND ANTENNA	Rohde&Schwarz	HL562	100015	2014/11/01	

3.5. Equipments Used during the Test

The Cal.Interval was one year

4. TEST CONDITIONS AND RESULTS

4.1. Antenna requirement

<u>Requirement</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

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 anantenna 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.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result:

The antenna is integral antenna, the best case gain of the antenna is1.16dBi



4.2. Spurious Emission (radiated)

<u>LIMIT</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
	54.00	Average
Above IGH2	74.00	Peak

TEST CONFIGURATION

Below 30MHz



♦ 30MHz~1000MHz



Above 1GHz



TEST PROCEDURE

- 1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
- 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
- 3. 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.
- 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 rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
- 5. Use the following spectrum analyzer settings
 - a) Span shall wide enough to fully capture the emission being measured;
 - b) Below 1GHz, RBW=120KHz, VBW=300KHz, Sweep=auto, Detector function=peak, Trace=max hold; If the emission level of the EUT measured by the peak detectoris 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, theemission measurement will be repeated using the quasi-peak detector and reported.
 - c) Above 1GHz, RBW=1MHz, VBW=3MHz for Peak value RBW=1MHz, VBW=10Hz for Average value.

TEST RESULTS

Noted:

Have pre-scan all modulation mode, found the GFSK modulation which it was worst case, so only the worst case's data on the test report.

Measurement data:

■ 9kHz ~ 30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

■ 30MHz ~ 1GHz



MEASUREMENT RESULT: "GMR0610603_red"

6/10/2015 11:	:02AM							
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
95.960000	28.20	-15.0	43.5	15.3	QP	300.0	162.00	HORIZONTAL
170.650000	37.00	-16.5	43.5	6.5	QP	100.0	175.00	HORIZONTAL
178.410000	35.50	-16.0	43.5	8.0	Q₽	100.0	196.00	HORIZONTAL
209.450000	29.50	-14.0	43.5	14.0	QP	100.0	112.00	HORIZONTAL
361.740000	32.50	-11.8	46.0	13.5	QP	100.0	175.00	HORIZONTAL
958.290000	33.90	3.8	46.0	12.1	QP	300.0	225.00	HORIZONTAL



MEASUREMENT RESULT: "GMR0610604 red"

6/10/2015 11:04AM Frequency Level Transd Limit Margin Det. Height Azimuth Polarization MHz dBµV/m dB dBµV/m dB сm deg 52.310000 29.70 -14.4 134.00 40.0 10.3 QP 100.0 VERTICAL 60.070000 26.50 -14.9 40.0 13.5 Q₽ 100.0 360.00 VERTICAL 94.990000 100.0 36.90 -15.2 43.5 6.6 QP 267.00 VERTICAL 149.310000 41.40 -17.9 43.5 2.1 QP 100.0 114.00 VERTICAL 9.1 178.410000 34.40 -16.0 43.5 Q₽ 100.0 226.00 VERTICAL 953.440000 34.20 3.7 46.0 11.8 QP 100.0 352.00 VERTICAL

CH00 for GFSK										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value	
4804.00	4804.00	38.44	31.28	5.66	35.29	40.09	74.00	Vertical		
7206.00	7206.00	34.38	36.22	6.87	35.15	42.32	74.00	Vertical		
9608.00	9608.00	36.29	37.85	8.80	35.55	47.39	74.00	Vertical		
12010.00	12010.00) *						Vertical	Deels	
4804.00	4804.00	38.67	31.28	5.66	35.29	40.32	74.00	Horizontal	Реак	
7206.00	7206.00	35.14	36.22	6.87	35.15	43.08	74.00	Horizontal		
9608.00	9608.00	36.95	37.85	8.80	35.55	48.05	74.00	Horizontal		
12010.00	*							Horizontal		
4804.00	32.73	31.28	5.66	35.29	34.38	54.00	-19.62	Vertical		
7206.00	28.65	36.22	6.87	35.15	36.59	54.00	-17.41	Vertical		
9608.00	27.24	37.85	8.80	35.55	38.34	54.00	-15.66	Vertical		
12010.00	*							Vertical	Average	
4804.00	32.78	31.28	5.66	35.29	34.43	54.00	-19.57	Horizontal	Average	
7206.00	28.04	36.22	6.87	35.15	35.98	54.00	-18.02	Horizontal		
9608.00	27.84	37.85	8.80	35.55	38.94	54.00	-15.06	Horizontal		
12010.00	*							Horizontal		
CH30 for CESK										
				CH39) for GESK					
	Read	Antenna	Cable	CH39 Preamp) for GFSK		Margin			
Frequency	Read Level	Antenna Factor	Cable Loss	CH39 Preamp Factor) for GFSK Level	Limit Line	Margin Limit	Polarization	Test	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	CH39 Preamp Factor (dB)	9 for GFSK Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value	
Frequency (MHz) 4882.00	Read Level (dBuV) 39.32	Antenna Factor (dB/m) 30.88	Cable Loss (dB) 5.70	CH39 Preamp Factor (dB) 35.27	9 for GFSK Level (dBuV/m) 40.63	Limit Line (dBuV/m) 74.00	Margin Limit (dB) -33.37	Polarization Vertical	Test value	
Frequency (MHz) 4882.00 7323.00	Read Level (dBuV) 39.32 36.22	Antenna Factor (dB/m) 30.88 35.82	Cable Loss (dB) 5.70 6.91	CH39 Preamp Factor (dB) 35.27 35.13	9 for GFSK Level (dBuV/m) 40.63 43.82	Limit Line (dBuV/m) 74.00 74.00	Margin Limit (dB) -33.37 -30.18	Polarization Vertical Vertical	Test value	
Frequency (MHz) 4882.00 7323.00 9764.00	Read Level (dBuV) 39.32 36.22 36.49	Antenna Factor (dB/m) 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25	Limit Line (dBuV/m) 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75	Polarization Vertical Vertical Vertical	Test value	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00	Read Level (dBuV) 39.32 36.22 36.49 *	Antenna Factor (dB/m) 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25	Limit Line (dBuV/m) 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75	Polarization Vertical Vertical Vertical Vertical	Test value	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88	Cable Loss (dB) 5.70 6.91 8.84 5.70	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62	Polarization Vertical Vertical Vertical Vertical Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 30.88	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.27 35.13	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 43.94 47.05	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 *	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 43.94 47.05	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 5.70	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 74.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 30.88 35.82	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 5.70 6.91	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 74.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95 -19.64 -19.64	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24 27.76	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13 35.27 35.13	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84 38.52	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 54.00 54.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95 -19.64 -16.16 -15.48	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical Vertical	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24 27.76 *	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84 38.52	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 54.00 54.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95 -19.64 -15.48	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical Vertical Vertical	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24 27.76 * 34.45	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84 5.70 5.70	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84 38.52 35.76	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 54.00 54.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95 -19.64 -16.16 -15.48 -15.48	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical Vertical Vertical Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24 27.76 * 34.45 28.49	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13 35.53 35.27 35.13	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84 38.52 35.76 36.09	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 54.00 54.00 54.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -32.62 -30.06 -26.95 -26.95 -19.64 -16.16 -15.48 -15.48 -17.91	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical Vertical Vertical Horizontal Horizontal	Test value Peak	
Frequency (MHz) 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00 12205.00 4882.00 7323.00 9764.00	Read Level (dBuV) 39.32 36.22 36.49 * 40.07 36.34 36.29 * 33.05 30.24 27.76 * 33.05 30.24 27.76 * 33.445 28.49 28.18	Antenna Factor (dB/m) 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45 30.88 35.82 37.45	Cable Loss (dB) 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84 5.70 6.91 8.84	CH39 Preamp Factor (dB) 35.27 35.13 35.53 35.27 35.13 35.53 35.53 35.53 35.27 35.13 35.53	9 for GFSK Level (dBuV/m) 40.63 43.82 47.25 41.38 43.94 47.05 34.36 37.84 38.52 35.76 36.09 38.94	Limit Line (dBuV/m) 74.00 74.00 74.00 74.00 74.00 74.00 54.00 54.00 54.00 54.00 54.00	Margin Limit (dB) -33.37 -30.18 -26.75 -32.62 -30.06 -26.95 -26.95 -19.64 -15.48 -15.48 -15.48 -15.48	Polarization Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal Vertical Vertical Vertical Vertical Horizontal Horizontal Horizontal	Test value Peak	

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

2. "*", means this data is the too weak instrument of signal is unable to test.

3. The emission levels of other frequencies are very lower than the limit and not show in test report.

CH78 for GFSK										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value	
4960.00	38.87	30.98	5.73	35.32	40.26	74.00	-33.74	Vertical	Peak	
7440.00	35.26	35.92	6.94	35.18	42.94	74.00	-31.06	Vertical		
9920.00	36.54	37.55	8.87	35.58	47.38	74.00	-26.62	Vertical		
12400.00	*							Vertical		
4960.00	39.59	30.98	5.73	35.32	40.98	74.00	-33.02	Horizontal		
7440.00	36.16	35.92	6.94	35.18	43.84	74.00	-30.16	Horizontal		
9920.00	36.85	37.55	8.87	35.58	47.69	74.00	-26.31	Horizontal		
12400.00	*							Horizontal		
4960.00	32.82	30.98	5.73	35.32	34.21	54.00	-19.79	Vertical	Average	
7440.00	29.01	35.92	6.94	35.18	36.69	54.00	-17.31	Vertical		
9920.00	27.00	37.55	8.87	35.58	37.84	54.00	-16.16	Vertical		
12400.00	*							Vertical		
4960.00	32.93	30.98	5.73	35.32	34.32	54.00	-19.68	Horizontal		
7440.00	29.30	35.92	6.94	35.18	36.98	54.00	-17.02	Horizontal		
9920.00	27.50	37.55	8.87	35.58	38.34	54.00	-15.66	Horizontal		
12400.00	*							Horizontal		

Remark:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

2. "*", means this data is the too weak instrument of signal is unable to test.

3. The emission levels of other frequencies are very lower than the limit and not show in test report.

5. <u>Test Setup Photos of the EUT</u>

Radiated Emission



6. External and Internal Photos of the EUT

Reference to Test Report TRE1506003501

.....End of Report.....