



FCC ID: 2APPZ-I30

This report concerns (check one): Original Grant Class I Change Class II Change

: 1804C008

: i30 : i20s

: IP DoorPhone

Project No. Equipment Test Model Series Model Applicant Address

Date of Test

Issued Date

Tested by

Date of Receipt : Apr. 02, 2018 : Apr. 08, 2018 ~ Sep. 30, 2018 : Sep. 30, 2018 : BTL Inc.

: Fanvil Technology Co., LTD.

: 4F,Block A,Bldg#1,GaoXinQi Hi-TechPark

Phase-II,67th District,Bao'An,Shenzhen,China

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> TESTING NVLAP LAB CODE 200788-0





#### Declaration

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#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.





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## **REPORT ISSUED HISTORY**

Issue No.	Description	Issued Date
BTL-FCCP-1-1804C008	Original Issue.	Jun. 27, 2018
MDG1809033	Changed applicant information and added the conducted test data.	Sep. 30, 2018





### **1 CERTIFICATION**

Equipment : Brand Name : Test Model :	IP DoorPhone Fanvil i30
Series Model :	i20s
Applicant :	Fanvil Technology Co., LTD.
Manufacturer :	Fanvil Technology Co., LTD.
Address :	4F,Block A,Bldg#1,GaoXinQi Hi-TechPark Phase-II,67th District,Bao'An,
	Shenzhen,China
Factory :	Fanvil Technology Co., LTD.
Address :	4F,Block A,Bldg#1,GaoXinQi Hi-TechPark Phase-II,67th District,Bao'An,
	Shenzhen,China
Date of Test :	Apr. 09, 2018 ~ Apr. 30, 2018
Test Sample :	Engineering Sample No. D180402821
Standard(s) :	FCC Part 15, Subpart C (15.225)
	ANSI C63.10-2013

The above equipment has been tested and found in compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1804C008) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP according to the ISO-17025 quality assessment standard and technical standard(s).





## **2 SUMMARY OF TEST RESULTS**

Test procedures according to the technical standards:

Standard Section	Test Item	Result
15.207	Conducted emission	PASS
15.35 / 15.205 / 15.209 / 15.225	Radiated emission	PASS
15.225(e)	Frequency Stability	PASS
15.203	Antenna Requirement	PASS





#### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China. BTL's test firm number for FCC: 854385 BTL's designation number for FCC: CN5020

#### 2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Measurement Uncertainty for a Level of Confidence of 95 %, U=2xUc(y).

The BTL measurement uncertainty as below table:

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 kHz ~ 30 MHz	2.32

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
		9KHz~30MHz	V	3.79
		9KHz~30MHz	Н	3.57
		30MHz ~ 200MHz	V	3.82
	DG-CB03 CISPR	30MHz ~ 200MHz	Н	3.78
		200MHz ~ 1,000MHz	V	4.10
DG-CB03		200MHz ~ 1,000MHz	Н	4.06
		1GHz~18GHz	V	3.12
		1GHz~18GHz	Н	3.68
		18GHz~40GHz	V	4.15
		18GHz~40GHz	Н	4.14

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.





### **3 GENERAL INFORMATION**

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	IP DoorPhone	
Brand Name	Fanvil	
Test Model	i30	
Series Model	i20s	
Model Difference	The difference between i30 and i20s is that i30 has access to the camera module and i20s has no camera module.	
Draduat Deparintian	Operation Frequency	13.56 MHz
Product Description	Antenna Designation	LOOP Antenna
Power Source	#1 supplied from Lead-acid battery(support unit) #2 Supplied from PoE	
Power Rating	#1 DC 12V #2 DC 48V	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.





#### 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	13.56MHz Transmit
	Conducted emission test
Final Test Mode	Description
Mode 1	13.56MHz Transmit
	Radiated emission test
Final Test Mode	Description
Mode 1	13.56MHz Transmit

Frequency Stability test		
Final Test Mode	Description	
Mode 1	13.56MHz Transmit	

Antenna Requirement test		
Final Test Mode Description		
Mode 1	13.56MHz Transmit	





#### 3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



#### 3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
А	PoE Switch	Fanvil	DGS-1008P/Dlink	N/A	N/A
В	Adapter	Leader	NU60-F4B0125-I1NN	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1m	RJ45 Cable
2	NO	NO	1.5m	DC Cable
3	NO	NO	1.8m	AC Cable





## **4 CONDUCTED EMISSION**

#### 4.1 LIMITS

FREQUENCY	(dB	(dBuV)				
(MHz)	Quasi-peak	Average				
0.15 - 0.5	66 - 56 *	56 - 46 *				
0.50 - 5.0	56.00	46.00				
5.0 - 30.0	60.00	50.00				

#### NOTE:

- 1. The tighter limit applies at the band edges.
- 2. The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use) Margin Level = Measurement Value – Limit Value

#### 4.2 TEST PROCEDURES

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos. **NOTE:** 

- a. Reading in which marked as Peak, QP or AVG means measurements by using are Quasi-Peak or Average Mode with Detector BW=9 kHz (6 dB Bandwidth).
- b. All readings are Peak Mode value unless otherwise stated QP or AVG in column of Note. If the Peak or QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only Peak or QP Mode was measured, but AVG Mode didn't perform.





#### 4.3 TEST SETUP LAYOUT



#### 4.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.5 EUT OPERATING CONDITIONS

The EUT used during radiated and/or conducted emission measurement was designed to exercise in a manner similar to a typical use.

#### 4.6 EUT TEST CONDITIONS

Temperature: 27°C Relative Humidity: 39% Test Voltage: AC 120V 60Hz

#### 4.7 TEST RESULTS

Please refer to the Appendix A.

Remark:

- (2) Measuring frequency range from 150KHz to 30MHz.





## **5 RADIATED EMISSION**

#### 5.1 LIMITS

FCC Part 15.209										
Frequency	Field Streng Limitation	lth	Field Strength Limitation at 3m Measurement Dist							
(IVI⊓∠)	(uV/m)	Dist	(uV/m)	(dBuV/m)						
0.009 - 0.490	2400 / F(KHz)	300m	10000 * 2400/F(KHz)	20log 2400/F(KHz) + 80						
0.490 - 1.705	24000 / F(KHz)	30m	100 * 24000/F(KHz)	20log 24000/F(KHz) + 40						
1.705 – 30.00	30	30m	100* 30	20log 30 + 40						
30.0 - 88.0	30.0 - 88.0 100		100	20log 100						
88.0 - 216.0	88.0 - 216.0 150		150	20log 150						
216.0 - 960.0	200	3m	200	20log 200						
Above 960.0	500	3m	500 20log 500							
		FCC Pa	art 15.225(a)/(b)/(c)							
Frequency	Field Streng Limitation	Jth	Field Strength Limitation at 3m Measureme							
(MHZ)	(uV/m)	Dist	(uV/m)	(dBuV/m)						
13.553 – 13.567	15,848	30 m	15,848*100	124						
13.567 – 13.710	334	30 m	334*100	90.5						
13. <u>110 – 13.</u> 410 13.710 – 14.010	106	30 m	106*100	80.5						

NOTE:

(1) The tighter limit shall apply at the boundary between two frequency range.

(2) Limitation expressed in dBuV/m is calculated by 20log Emission Level (uV/m).

(3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of  $L_{d1} = L_{d2} * (d_2/d_1)^2$ .

Example:

F.S Limit at 30m distance is 30uV/m , then F.S Limitation at 3m distance is adjusted as  $L_{d1}$  =  $L_1$  = 30uV/m  $^*$  (10) $^2$  = 100  $^*$  30 uV/m

(4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use) Margin Level = Measurement Value – Limit Value



### 5.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### NOTE: (FCC PART 15.209)

- a. Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode with Detector BW=120 kHz.
- b. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.

#### NOTE: (FCC PART 15.225)

- a. Spectrum Setting:
  9 KHz 150 KHz, RBW= 200Hz, VBW=200Hz, Sweep time = 200 ms.
  150 K Hz 30 MHz, RBW= 10 KHz, VBW=10 KHz, Sweep time = 200 ms.
  30 MHz 1000 MHz, RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.
- b. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- c. The Log-Bicon Antenna will use to test frequency range from 30MHz to 1000MHz and the Loop Antenna will use to test frequency below 30MHz.





#### 5.3 DEVIATION FROM TEST STANDARD

#### No deviation

#### 5.4 TEST SETUP



The EUT tested system was configured as the statements of **4.5** unless otherwise a special operating condition is specified in the follows during the testing.





#### 5.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 60% Test Voltage: DC 12V

#### 5.7 TEST RESULTS (BELOW 30MHZ) - FCC PART 15.209

Please refer to the Appendix B.

#### 5.8 TEST RESULTS - (30-1000MHZ) - FCC PART 15.209

Please refer to the Appendix C.

#### 5.9 TEST RESULTS- FCC PART 15.225

Please refer to the Appendix D.





## **6 FREQUENCY STABILITY**

#### 6.1 LIMITS

#### FCC Part 15.225(e)

The frequency tolerance of the carrier signal shall be maintained within +/-0.01% of the operating frequency over a temperature variation of - 20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

For battery operated equipment, the equipment tests shall be performed using a new battery.

#### 6.2 TEST PROCEDURE

- a. The equipment under test was connected to an external AC power supply and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature chamber.
   After the temperature stabilized for approximately 20 minutes, the frequency of the output signal was recorded from the counter.
- b. At room temperature (25±5°C), an external variable AC power supply was connected to the EUT. The frequency of the transmitter was measured for 115%, 100% and 85% of the nominal operating input voltage.

#### 6.3 DEVIATION FROM TEST STANDARD

No deviation

#### 6.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.5** unless otherwise a special operating condition is specified in the follows during the testing.

#### 6.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 58% Test Voltage: DC 12V

## 6.6 TEST RESULTS

Please refer to the Appendix E.

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## 7 MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement										
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until						
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019						
2	LISN	EMCO	3816/2	52765	Mar. 11, 2019						
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 11, 2019						
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 11, 2019						
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A						
6	Cable	N/A	RG223	12m	Mar. 23, 2019						

	Radiated Emission Measurement - 9kHz TO 30 MHz										
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until						
1	Loop Antenna	EM	EM-6876-1	230	Feb. 07, 2019						
2	Cable	N/A	RG 213/U	C-102	Jun. 01, 2019						
3	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019						
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A						

	Radiated Emission Measurement – 30 MHz TO 1000 MHz										
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until						
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 11, 2019						
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019						
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019						
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 25, 2019						
5	Controller	СТ	SC100	N/A	N/A						
6	Controller	MF	MF-7802	MF780208416	N/A						
7	Measurement Software Farad		EZ-EMC Ver.NB-03A1-01	N/A	N/A						

	Frequency Stability Measurement											
ltem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until							
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019							
2	Const Temp. & Hu midity Chamber	Bell	BTH-50C	20170306001	Mar. 11, 2019							

Remark: "N/A" denotes no model name, serial no. or calibration specified. All calibration period of equipment list is one year.





## 8 EUT TEST PHOTO

**Conducted Measurement Photos** 





















## **APPENDIX A - CONDUCTED EMISSION**



2

3

4

5

6

\*

0.1590

0.1950

0.3345

2.4405

13.5600

40.64

35.35

31.57

23.17

35.66

9.82

9.82

9.81

10.02

10.68

50.46

45.17

41.38

33.19

46.34

65.52

63.82

59.34

56.00

60.00

-15.06

-18.65

-17.96

-22.81

-13.66

peak

peak

peak

peak

peak



Test Mode: TX Mode Line 80.0 dBuV 70 60 疑 50 ş 40 5 X www.uniternal. 30 W 20 10 0.0 0.150 0.5 (MHz) 30.000 5 Reading Correct Measure-Limit Margin No. Mk. Freq. Level Factor ment dBuV dB dBuV dBuV dB MHz Detector Comment 0.1500 40.64 9.82 50.46 66.00 -15.54 1 peak











# **APPENDIX B - RADIATED EMISSION (9KHZ-30MHZ)**





Test Mode: 13.56MHz Transmit Ant 0° 160.0 dBuV/m 150 140 130 120 110 100 90 80 UT WWWTUPATTITATIA 70 60 50 40 a home and the 30 20 10 0.0 0.009 (MHz) 0.150 Reading Correct Measure-

No. Mk.	Freq.	Level	Factor	ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0163	34.13	20.10	54.23	123.36	-69.13	AVG	
2	0.0326	27.73	19.24	46.97	117.34	-70.37	AVG	
3	0.0533	21.60	18.65	40.25	113.07	-72.82	AVG	



2

\* 3

2.2132

3.4906

23.37

18.58

15.45

15.09

38.82

33.67



Test Mode: 13.56MHz Transmit Ant 0° 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 60 50 MA an many <mark>∕Ż</mark>৸ × 40 x Minudian population 30 20 10 0.0 0.150 0.5 (MHz) 5 30.000 Reading Correct Measure-Limit Margin No. Mk. Freq. Level Factor ment MHz dBuV/m dB dBuV/m dBuV/m dB Detector Comment 1 0.3234 26.18 16.60 42.78 97.41 -54.63 AVG

-30.72

-35.87

69.54

69.54

QP

QP





Test Mode: 13.56MHz Transmit Ant 90° 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 Hattanphonouter war or to the war & Marin Multiplication of the second o 60 ndahan nang-galan dari karakat unah X 50 40 withink 30 20 10 0.0 0.150 0.009 (MHz) Reading Correct Measure-Mk Limit NIZ \_ Margin

NO. MK.	Freq.	Level	Factor	ment	LIIIII	wargin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0156	34.98	20.19	55.17	123.74	-68.57	AVG	
2 *	0.0256	32.13	19.45	51.58	119.44	-67.86	AVG	
3	0.0575	21.32	18.58	39.90	112.41	-72.51	AVG	





Test Mode: 13.56MHz Transmit Ant 90° 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 60 50 Martin - March 2 X 40 ₩ × × he was and the state of the second state of th 30 20 10 0.0 0.150 0.5 (MHz) 5 30.000 Reading Level Correct Measure-Limit No. Mk. Frea Factor Margin ment

INC. IVIN.	rieq.	Level	Factor	ment	Linit	margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.3116	21.47	16.61	38.08	97.73	-59.65	AVG	
2 *	2.1552	19.63	15.46	35.09	69.54	-34.45	QP	
3	3.8603	18.20	14.99	33.19	69.54	-36.35	QP	





# APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)





Test Mode: 13.56MHz Transmit Vertical dBuV/m 80.0 70 60 50 40 Š 30 X X 5 X X ź 20 10 0.0 30.000 127.00 224.00 418.00 515.00 612.00 806.00 1000.00 MHz 321.00 709.00 M

No.	Mk	. Freq.	Level	Factor	measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		82.3800	41.79	-19.41	22.38	40.00	-17.62	peak	
2		125.0600	41.82	-14.67	27.15	43.50	-16.35	peak	
3		164.8300	38.34	-11.60	26.74	43.50	-16.76	peak	
4		269.5900	35.00	-13.31	21.69	46.00	-24.31	peak	
5		327.7900	35.11	-11.51	23.60	46.00	-22.40	peak	
6	*	500.4500	41.76	-9.20	32.56	46.00	-13.44	peak	





Test Mode: 13.56MHz Transmit Horizontal 80.0 dBuV/m 70 60 50 40 × 2 X 3 X ŝ 5 X 30 X 20 10 0.0 515.00 1000.00 MHz 30.000 127.00 224.00 321.00 418.00 612.00 709.00 806.00 Reading Correct Measure-Limit No. Mk. Margin Freq. ment Level Factor MHz dBuV dB dBuV/m dBuV/m dB Detector Comment 125.0600 -14.67 1 41.60 26.93 43.50 -16.57 peak 2 164.8300 44.41 -11.60 32.81 43.50 -10.69 peak 250.1900 48.36 -15.02 46.00 -12.66 3 33.34 peak 329.7300 48.35 -9.19 4 -11.54 36.81 46.00 \* peak 5 399.5700 39.21 -10.10 29.11 46.00 -16.89 peak

496.5700

6

39.22

30.07

-9.15

46.00

-15.93

peak





# **APPENDIX D - RADIATED EMISSION (FCC PART 15.225)**





Test Mode: 13.56MHz Transmit Vertical 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 60 Herenthick that matched hard hard hard ł 50 2 40 30 20 10 0.0 0.150 0.5 (MHz) 5 30.000 Reading Correct Measure-Limit Margin No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m dB dBuV/m Detector Comment 13.5600 38.36 14.66 53.02 124.00 -70.98 1 peak 2 \* 27.1200 21.30 19.48 40.78 69.50 -28.72 peak





Test Mode: 13.56MHz Transmit Horizontal 160.0 dBuV/m 150 140 130 120 110 100 90 80 70 60 1 X Much 50 Marthurner M. Au 3 40 30 20 10 0.0 30.000 0.150 0.5 (MHz) 5 Reading Correct Measure-No. Mk. Freq. Limit Margin Level Factor ment MHz dBuV dB dBuV/m dBuV/m dB Detector Comment 13.5600 37.81 14.66 52.47 124.00 -71.53 1 peak 2 \* 27.1200 21.25 19.48 40.73 69.50 -28.77 peak





## **APPENDIX E - FREQUENCY STABILITY MEASUREMENT**





Test Mode:	le: 13.56MHz Transmit					
	Fre	equency Stab	ility Versus Envi	ronmental Tempera	ture	
T	Femperature	Voltage	Frequency	Frequency Error	Limit	

	l emperature	Voltage	Frequency	Frequency Error	Limit	Result	
	(°C)	(AC)	(MHz)	(kHz)	(kHz)		
	25	120V	13.56	-	-	-	
0 min	50	120V	13.561	1	+/- 1.356	PASS	
	-20	120V	13.5605	0.5	+/- 1.356	PASS	
2 min	50	120V	13.5607	0.7	+/- 1.356	PASS	
	-20	120V	13.5501	0.1	+/- 1.356	PASS	
5 min	50	120V	13.5606	0.6	+/- 1.356	PASS	
	-20	120V	13.5598	-0.2	+/- 1.356	PASS	
10 min	50	120V	13.5604	0.4	+/- 1.356	PASS	
	-20	120V	13.5598	-0.2	+/- 1.356	PASS	

Fuequency Stability Versus Input Voltage								
Temperature	Voltage		Frequency	Frequency Error	Limit	Result		
(°C)	(AC)		(MHz)	(kHz)	(kHz)			
25	V-nom	120	13.56	-	-	-		
25	V-min	108	13.5608	0.8	+/- 1.356	PASS		
25	V-max	138	13.5604	0.4	+/- 1.356	PASS		