Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.225

Report Reference No......:	**GTS20210721003-1-2**
FCC ID..... **:**	**2ART3-K518PRO**
Compiled by (position+printed name+signature)..:	File administrators Jimmy Wang
Supervised by (position+printed name+signature)..:	Test Engineer Aaron Tan
Approved by (position+printed name+signature)..:	Manager Jason Hu
Date of issue.....:	Aug. 05, 2021

Representative Laboratory Name .:	**Shenzhen Global Test Service Co.,Ltd.**
Address.....**:**	No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong, China
Applicant's name.....:	**Shenzhen Lonsdor Technology Co., Ltd.**
Address .....:	No.201-202, Block B3, Zhimei park, Fuhai Industrial Zone, Fuhai Ave, Fuyong St., Bao'an, Shenzhen 518000
Test specification .....**:**	
Standard .....:	**FCC Part 15.225**
TRF Originator.....:	Shenzhen Global Test Service Co.,Ltd.
Master TRF.....:	Dated 2014-12

Test item description .....:	K518 PRO Key Programmer
Trade Mark .....:	Lonsdor®
Manufacturer .....:	Shenzhen Lonsdor Technology Co., Ltd.
Model/Type reference.....:	K518PRO
Listed Models .....:	N/A
Modulation Type .....:	ASK
Operation Frequency.....:	13.56MHz
Hardware Version .....:	K518 PROV5.2
Software Version .....:	V1.0
Rating .....:	12.0V⎓2.0A
Result.....:	**PASS**

T E S T R E P O R T

Test Report No. :	**GTS20210721003-1-2**	Aug. 05, 2021 Date of issue

Equipment under Test	:	K518 PRO Key Programmer
Model /Type	:	K518PRO
Listed Models	:	N/A
Applicant	:	**Shenzhen Lonsdor Technology Co., Ltd.**
Address	:	No.201-202, Block B3, Zhimei park, Fuhai Industrial Zone, Fuhai Ave, Fuyong St., Bao'an, Shenzhen 518000
Manufacturer	:	**Shenzhen Lonsdor Technology Co., Ltd.**
Address	:	No.201-202, Block B3, Zhimei park, Fuhai Industrial Zone, Fuhai Ave, Fuyong St., Bao'an, Shenzhen 518000

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.225: Operation within the band 13.110–14.010 MHz.
ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	July 22, 2021
Testing commenced on	:	July 23, 2021
Testing concluded on	:	Aug. 05, 2021

2.2 Product Description

Product Name:	K518 PRO Key Programmer
Model/Type reference:	K518 PRO
Power supply:	DC 3.80V from battery
Adapter information:	Model:JHD-AP024U-120200BA-A Input:100-240V~ 50/60Hz 0.55A Output:12.0V⎓2.0A 24.0W
13.56MHz RFID	
Operation frequency:	13.56MHz
Modulation :	ASK
No. of Channel :	1
Antenna type:	Loop Antenna

2.3 Test Sample

The application provides 2 samples to meet requirement.

Sample Number	Description
GTS20210721003-1-1#	Engineer sample – continuous transmit
GTS20210721003-1-2#	Normal sample – Intermittent transmit

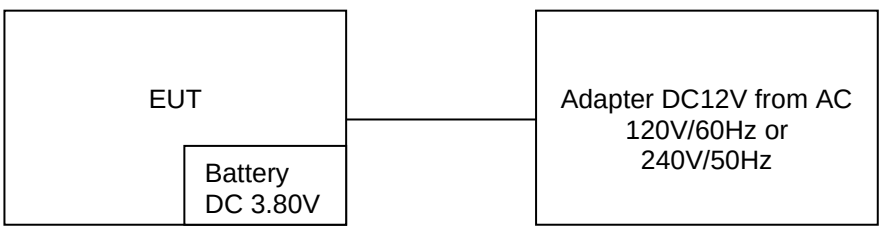
2.4 Equipment Under Test

Power supply system utilised

Power supply voltage	:	○	230V / 50 Hz	○	120V / 60Hz
		○	12 V DC	○	24 V DC
		●	Other (specified in blank below)		

DC 3.8V from battery

2.5 Block Diagram of Test Setup



2.6 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/

2.7 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for the EUT filing to comply with Section 15.225 of the FCC Part 15, Subpart C Rules.

2.8 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.
No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

3.2 Test Facility

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

FCC-Registration No.: 165725 Designation Number: CN1234

Shenzhen Global Test Service 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.

A2LA-Lab Cert. No.: 4758.01

Shenzhen Global Test Service 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.

CNAS-Lab Code: L8169

Shenzhen Global Test Service 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: Dec. 11, 2015. Valid time is until Dec. 10, 2024.

3.3 Environmental conditions

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

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4 Test Description

FCC PART 15 .225		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 2.1049	20dB Bandwidth	PASS
FCC Part 15.225(a) (b) (c)	In-band Emissions	PASS
FCC Part 15.225(d)/15.207	Out-of-band Emissions	PASS
FCC Part 15.225(e)	Frequency Stability Tolerance	PASS

3.5 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 CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Global Test Service 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 GTS laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.6 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	3560.6550.08	2020/09/19	2021/09/18
LISN	R&S	ESH2-Z5	893606/008	2020/09/19	2021/09/18
EMI Test Receiver	R&S	ESPI3	101841-cd	2020/09/19	2021/09/18
EMI Test Receiver	R&S	ESCI7	101102	2020/09/19	2021/09/18
Spectrum Analyzer	Agilent	N9020A	MY48010425	2020/09/19	2021/09/18
Spectrum Analyzer	R&S	FSV40	100019	2020/09/19	2021/09/18
Vector Signal generator	Agilent	N5181A	MY49060502	2020/09/19	2021/09/18
Signal generator	Agilent	E4421B	3610AO1069	2020/09/19	2021/09/18
Climate Chamber	ESPEC	EL-10KA	A20120523	2020/09/19	2021/09/18
Controller	EM Electronics	Controller EM 1000	N/A	N/A	N/A
Horn Antenna	Schwarzbeck	BBHA 9120D	01622	2020/09/19	2021/09/18
Active Loop Antenna	Beijing Da Ze Technology Co.,Ltd.	ZN30900C	15006	2020/10/11	2021/10/10
Bilog Antenna	Schwarzbeck	VULB9163	000976	2021/05/25	2022/05/24
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2020/09/19	2021/09/18
Amplifier	Schwarzbeck	BBV 9743	#202	2020/09/19	2021/09/18

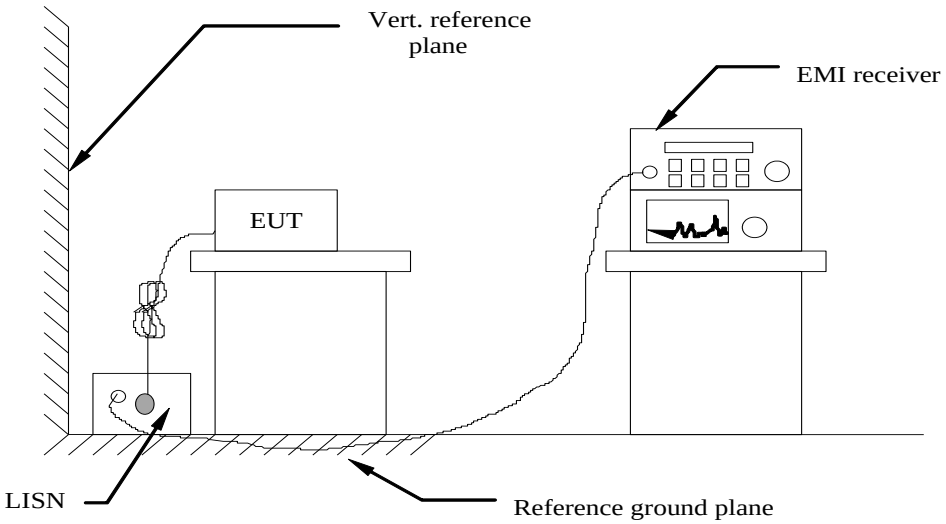
Amplifier	Schwarzbeck	BBV9179	9719-025	2020/09/19	2021/09/18
Amplifier	EMCI	EMC051845B	980355	2020/09/19	2021/09/18
Temperature/Humidity Meter	Gangxing	CTH-608	02	2020/09/19	2021/09/18
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	KL142031	2020/09/19	2021/09/18
High-Pass Filter	K&L	41H10-1375/U12750-O/O	KL142032	2020/09/19	2021/09/18
RF Cable(below 1GHz)	HUBER+SUHNER	RG214	RE01	2020/09/19	2021/09/18
RF Cable(above 1GHz)	HUBER+SUHNER	RG214	RE02	2020/09/19	2021/09/18
Data acquisition card	Agilent	WX06610-A531A	TW53323507	2020/09/19	2021/09/18
Power Sensor	Agilent	WX06610-A021XA	MY5365004	2020/09/19	2021/09/18
Test Control Unit	Tonscend	JS0806-1	178060067	2021/06/18	2022/06/17
Automated filter bank	Tonscend	JS0806-F	19F8060177	2021/06/18	2022/06/17
EMI Test Software	Tonscend	JS1120-1	Ver 2.6.8.0518	/	/
EMI Test Software	Tonscend	JS1120-3	Ver 2.5.77.0418	/	/
EMI Test Software	Tonscend	JS32-CE	Ver 2.5	/	/
EMI Test Software	Tonscend	JS32-RE	Ver 2.5.1.8	/	/

Note: The Cal.Interval was one year.

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013.
2 Support equipment, if needed, was placed as per ANSI C63.10-2013
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
4 The EUT received DC 12V power from adapter, the adapter received AC120V/60Hz and AC 240V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5 All support equipments received AC power from a second LISN, if any.
6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT.The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following：

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

TEST RESULTS

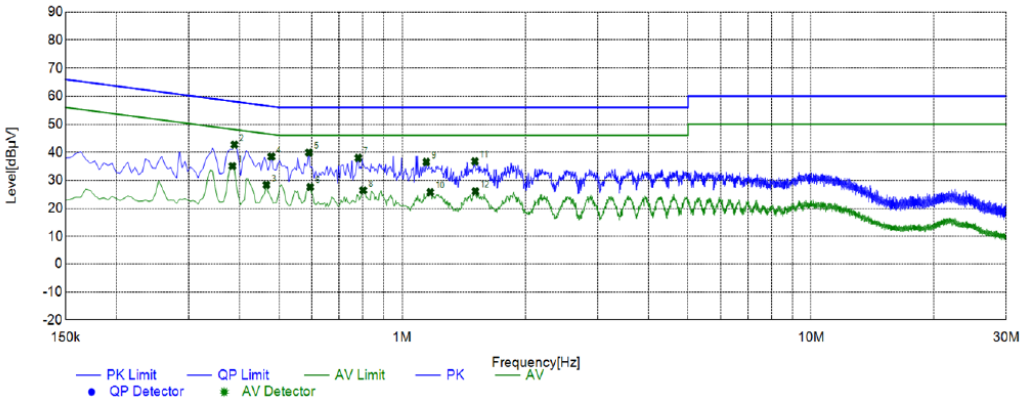
Remark:

1. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:.

Temperature	22.8℃	Humidity	56%
Test Engineer	Moon Tan	Test mode	TX

Power supply:	DC 12V from Adapter AC 120V/60Hz	Polarization	L

Test Graph



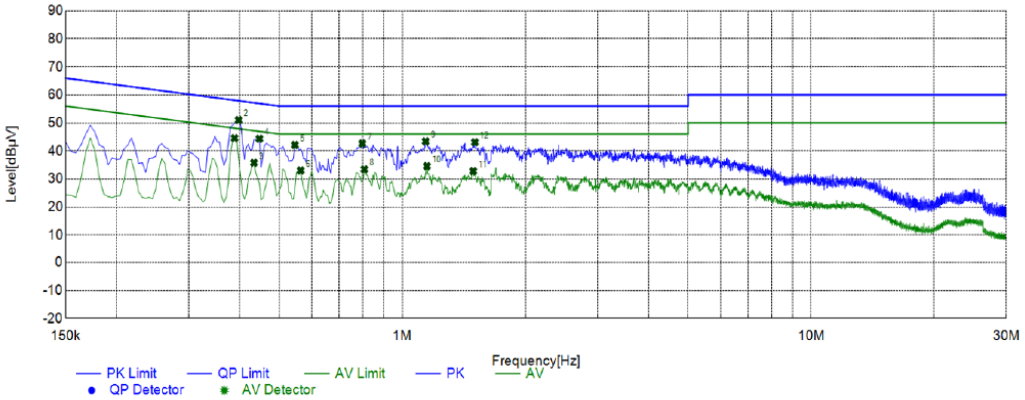
Suspected List									
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	Result [dBµV]	Limit [dBµV]	Margin [dB]	Detector	Line	Remark
1	0.3840	25.10	10.02	35.12	48.19	13.07	AV	L1	PASS
2	0.3885	32.66	10.02	42.68	58.10	15.42	PK	L1	PASS
3	0.4650	18.32	10.05	28.37	46.60	18.23	AV	L1	PASS
4	0.4785	28.40	10.05	38.45	56.37	17.92	PK	L1	PASS
5	0.5910	29.85	10.06	39.91	56.00	16.09	PK	L1	PASS
6	0.5955	17.57	10.06	27.63	46.00	18.37	AV	L1	PASS
7	0.7800	27.93	10.07	38.00	56.00	18.00	PK	L1	PASS
8	0.8025	16.40	10.07	26.47	46.00	19.53	AV	L1	PASS
9	1.1445	26.50	10.08	36.58	56.00	19.42	PK	L1	PASS
10	1.1715	15.69	10.09	25.78	46.00	20.22	AV	L1	PASS
11	1.5045	26.70	10.11	36.81	56.00	19.19	PK	L1	PASS
12	1.5090	15.97	10.11	26.08	46.00	19.92	AV	L1	PASS

Note:1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

Power supply:	DC 12V from Adapter AC 120V/60Hz	Polarization	N

Test Graph



Suspected List									
NO.	Frequency [MHz]	Reading [dBµV]	Factor [dB]	Result [dBµV]	Limit [dBµV]	Margin [dB]	Detector	Line	Remark
1	0.3885	34.53	10.02	44.55	48.10	3.55	AV	N	PASS
2	0.3975	40.98	10.03	51.01	57.91	6.90	PK	N	PASS
3	0.4335	25.76	10.04	35.80	47.19	11.39	AV	N	PASS
4	0.4470	34.30	10.04	44.34	56.93	12.59	PK	N	PASS
5	0.5460	32.04	10.06	42.10	56.00	13.90	PK	N	PASS
6	0.5640	23.00	10.06	33.06	46.00	12.94	AV	N	PASS
7	0.7980	32.53	10.07	42.60	56.00	13.40	PK	N	PASS
8	0.8070	23.39	10.07	33.46	46.00	12.54	AV	N	PASS
9	1.1400	33.30	10.08	43.38	56.00	12.62	PK	N	PASS
10	1.1490	24.51	10.08	34.59	46.00	11.41	AV	N	PASS
11	1.4910	22.71	10.11	32.82	46.00	13.18	AV	N	PASS
12	1.5045	32.95	10.11	43.06	56.00	12.94	PK	N	PASS

Note:1. Result (dBµV) = Reading (dBµV) + Factor (dB).

2. Factor (dB) = Cable loss (dB) + LISN Factor (dB).

4.2 Radiated Emission

LIMIT

a The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.

b Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

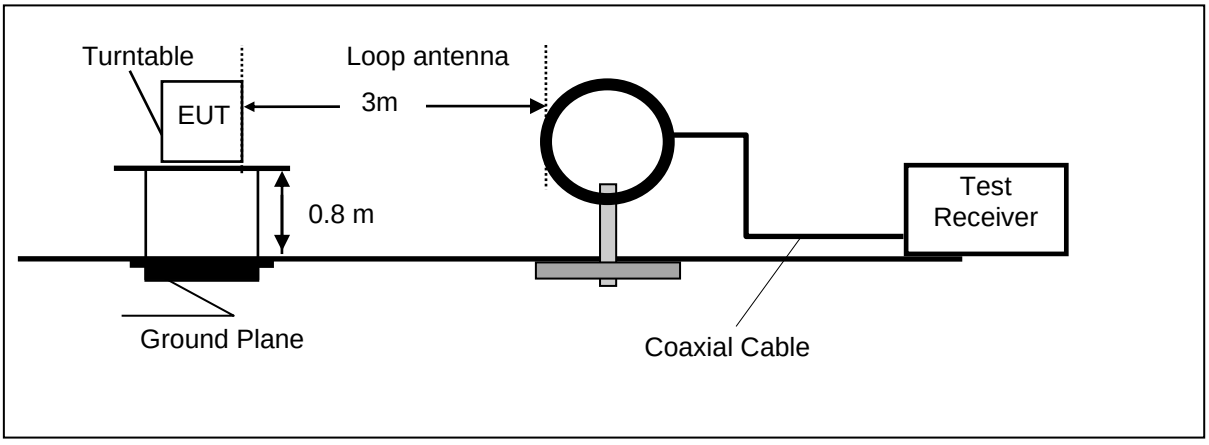
c Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

d The field strength of any emissions appearing outside of the 13.110– 14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

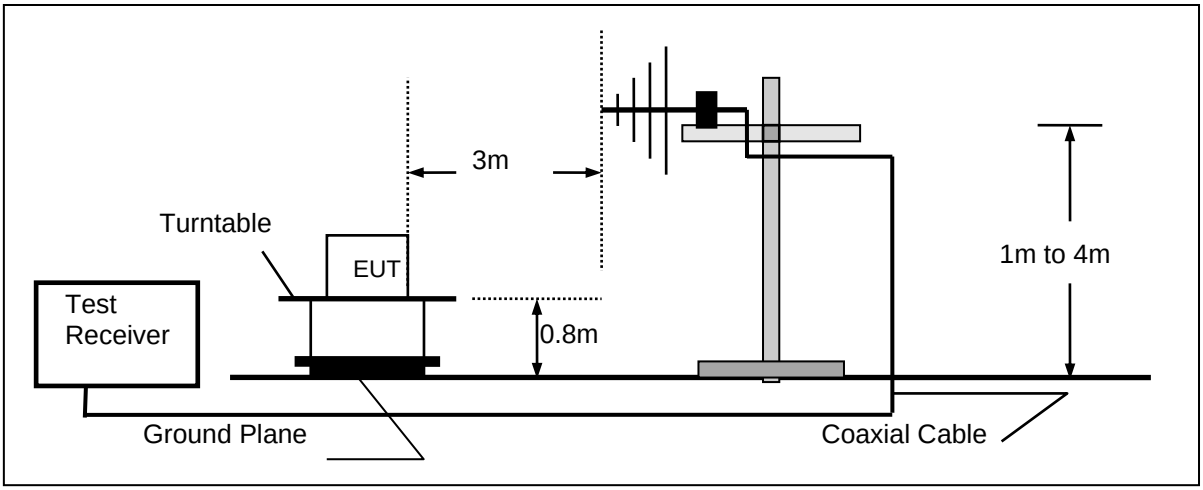
Frequency (MHz)	Distance (Meters)	Radiated (dBuV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-13.110	3	69.54	30
13.110-13.410	3	80.50	106
13410-13.553	3	90.47	334
13.553-13.567	3	124.00	15848
13.567-13.710	3	90.47	334
13.710-14.010	3	80.50	106
14.010-30.0	3	69.54	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. Radiated emission test frequency band from 9KHz to 1GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Transd=AF +CL-AG

Test Results

Temperature	22.8℃	Humidity	56%
Test Engineer	Moon Tan	Test mode	TX

4.2.1 In-band Emissions

Frequency(MHz):			13.56			Polarity:		HORIZONTAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)	Detector	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Correction Factor (dB/m)
1	13.15	50.88	PK	80.50	29.62	46.18	5.26	-0.56	4.70
2	13.55	72.54	PK	90.47	17.93	67.75	5.36	-0.57	4.79
3	13.56	85.65	PK	124.00	38.35	80.77	5.45	-0.57	4.88
4	13.57	72.63	PK	90.47	17.84	67.49	5.49	-0.35	5.14
5	13.75	51.77	PK	80.50	28.73	46.44	5.63	-0.30	5.33

Frequency(MHz):			13.56			Polarity:		VERTICAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)	Detector	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Correction Factor (dB/m)
1	13.15	51.22	PK	80.50	29.28	46.52	5.26	-0.56	4.70
2	13.55	73.15	PK	90.47	17.32	68.36	5.36	-0.57	4.79
3	13.56	86.54	PK	124.00	37.46	81.66	5.45	-0.57	4.88
4	13.57	72.89	PK	90.47	17.58	67.75	5.49	-0.35	5.14
5	13.75	52.05	PK	80.50	28.45	46.72	5.63	-0.30	5.33

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)
3. Margin value = Limit value- Emission level.
4. The other emission levels were very low against the limit.

4.2.2 Out-of-band Emissions

Frequency(MHz):			13.56			Polarity:		HORIZONTAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)	Detector	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Correction Factor (dB/m)
1	27.12	37.89	PK	69.54	31.65	30.39	7.25	0.25	7.50
2	40.68	30.54	PK	40.00	9.46	21.73	8.25	0.56	8.81
3	54.24	28.74	PK	40.00	11.26	19.70	8.3	0.74	9.04
4	67.80	24.63	PK	40.00	15.37	15.10	8.55	0.98	9.53

Frequency(MHz):			13.56			Polarity:		VERTICAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)	Detector	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Correction Factor (dB/m)
1	27.12	38.78	PK	69.54	30.76	31.28	7.25	0.25	7.50
2	40.68	31.96	PK	40.00	8.04	23.15	8.25	0.56	8.81
3	54.24	29.52	PK	40.00	10.48	20.48	8.3	0.74	9.04
4	67.80	25.22	PK	40.00	14.78	15.69	8.55	0.98	9.53

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)
3. Margin value = Limit value- Emission level.
4. The other emission levels were very low against the limit.

4.3 20dB Bandwidth

Limit

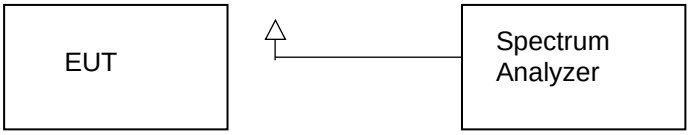
No limit for 20dB bandwidth.

Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via a receive antenna placed near the EUT while the EUT is operating in transmission mode.

The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

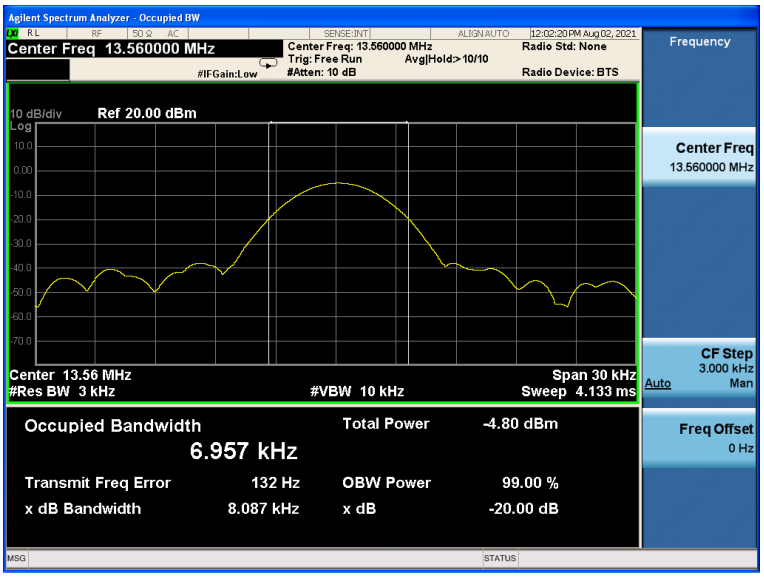
Test Configuration



Test Results

Temperature	22.8℃	Humidity	56%
Test Engineer	Moon Tan	Test mode	TX

Modulation	Frequency(MHz)	20dB bandwidth (KHz)	Result
ASK	13.56MHz	8.087	Pass

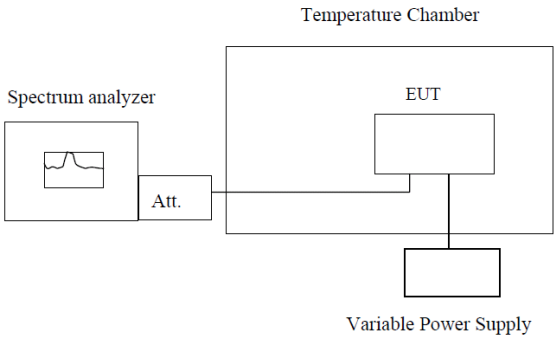


4.4 Frequency Stability

LIMIT

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.

TEST CONFIGURATION



Note : Measurement setup for testing on Antenna connector

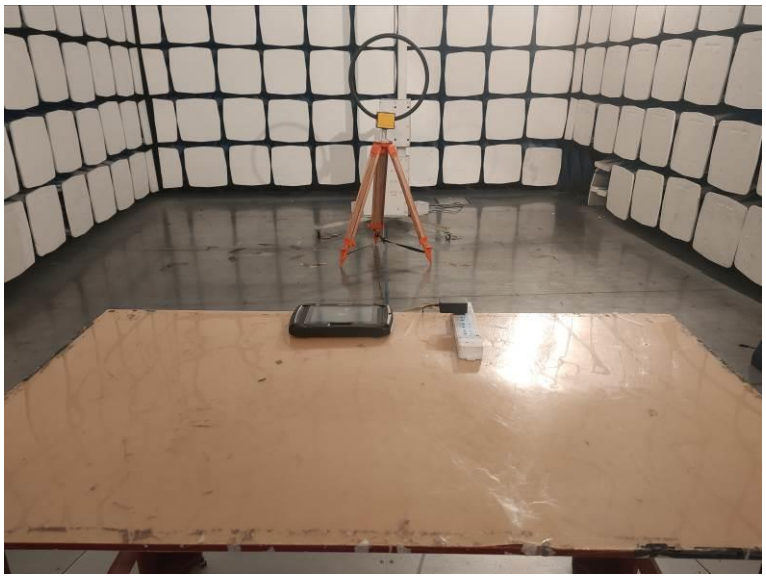
TEST PROCEDURE

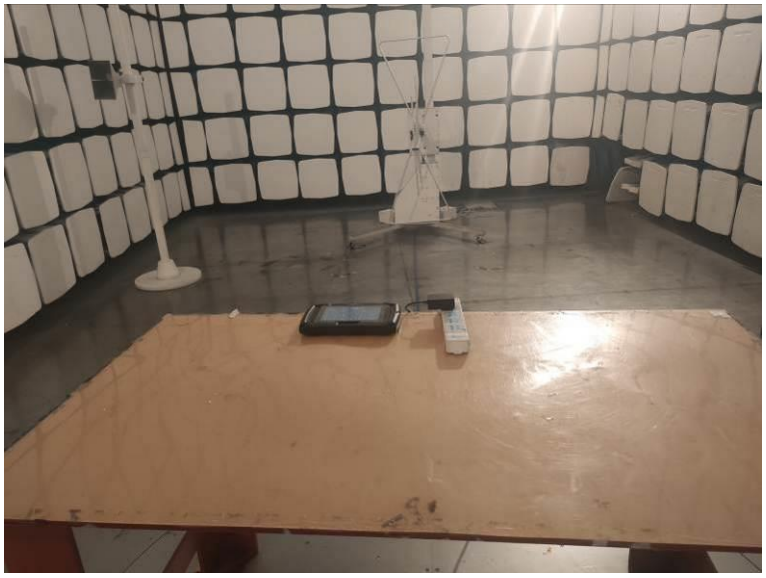
1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
3. The EUT was placed inside the temperature chamber.
4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency.
5. Turn EUT off and set the chamber temperature to –20℃. After the temperature stabilized for approximately 30 minutes recorded the frequency.
6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.
7. Reduce the input voltage to specified extreme voltage variation (+/- 15%) or endpoint, record the maximum frequency change.

TEST RESULTS

Reference Frequency: 13.56MHz				
Voltage (V)	Temperature (℃)	Frequency (Hz)	Frequency Deviation(Hz)	Deviation (%)
3.80	+20(Ref)	13.560089	89	0.000656%
	-20	13.560147	147	0.001084%
	-10	13.560125	125	0.000922%
	0	13.560105	105	0.000774%
	+10	13.560185	185	0.001364%
	+20	13.560085	85	0.000627%
	+25	13.560185	185	0.001364%
	+30	13.560129	129	0.000951%
	+40	13.56018	180	0.001327%
	+50	13.560076	76	0.000560%
4.37	+20	13.560131	131	0.000966%
3.23	+20	13.560156	156	0.001150%

5 Test Setup Photos of the EUT





6 Photos of the EUT

Reference to the test report No. GTS20210721003-1-1

********** End of Report **********