

Report No.: FYCR220400008903

Page: 1 of 26

## TEST REPORT

**Application No.:** FYCR2204000089AT

Applicant: Armatura LLC

**Address of Applicant:** 190 Bluegrass Valley Parkway Alpharetta, GA 30005, USA

Manufacturer: Armatura LLC

190 Bluegrass Valley Parkway Alpharetta, GA 30005, USA Address of Manufacturer:

Factory: Armatura Tech Co., Ltd

1. 999/43 Moo 15 Bangsaothong, Samutprakarn 10570, Thailand Address of Factory:

2. 999/120-121 Moo15 Bangsaothong, Samutprakarn 10570, Thailand

**Equipment Under Test (EUT):** 

Trade Mark:

**EUT Name:** Smart Reader

EP10C Model No.:

**ARMATURA** 

FCC ID: 2A5UQ-EP10C

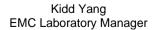
47 CFR Part 15, Subpart C 15.209 Standard(s):

Date of Receipt: 2022-03-07

2022-03-23 to 2022-04-24 **Date of Test:** 

2022-04-26 Date of Issue:

**Test Result:** Pass\*





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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



Report No.: FYCR220400008903

Page: 2 of 26

	Revision Record					
Version	Version Chapter Date Modifier					
01		2022-04-26		Original		

Authorized for issue by:		
	Tree Zhan	
	Tree Zhan/Project Engineer	
	WinkeyWang	
	Winkey Wang/Reviewer	



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Report No.: FYCR220400008903

Page: 3 of 26

## 2 Test Summary

Radio Spectrum Technical Requirement						
Item	Standard	Method	Requirement	Result		
Antenna Requirement	47 CFR Part 15, Subpart C 15.209	N/A	47 CFR Part 15, Subpart C 15.203	Pass		

Radio Spectrum Matter Part						
Item	Standard	Method	Requirement	Result		
20dB Bandwidth		ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215(c)	Pass		
Field Strength of the Fundamental Signal (15.209(c))	47 CFR Part 15,	ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.209(c)	Pass		
Radiated Emissions (9kHz-30MHz)	Subpart C 15.209	ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.209(c)	Pass		
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.209(c)	Pass		



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Report No.: FYCR220400008903

Page: 4 of 26

### 3 Contents

		Page
1	1 COVER PAGE	1
2	2 TEST SUMMARY	3
3	3 CONTENTS	4
4	4 GENERAL INFORMATION	5
	4.1 DETAILS OF E.U.T	
	4.1 DETAILS OF E.U.T.  4.2 DESCRIPTION OF SUPPORT UNITS	
	4.3 MEASUREMENT UNCERTAINTY	
	4.4 Test Location	
	4.5 Test Facility	
	4.6 DEVIATION FROM STANDARDS	
	4.7 ABNORMALITIES FROM STANDARD CONDITIONS	
5		
•		
6	6 RADIO SPECTRUM TECHNICAL REQUIREMENT	11
	6.1 ANTENNA REQUIREMENT	11
	6.1.1 Test Requirement:	
	6.1.2 Conclusion	11
7	7 RADIO SPECTRUM MATTER TEST RESULTS	12
	7.1 20dB Bandwidth	12
	7.1.1 E.U.T. Operation	12
	7.1.2 Test Setup Diagram	
	7.1.3 Measurement Procedure and Data	
	7.2 FIELD STRENGTH OF THE FUNDAMENTAL SIGNAL (15.209(C))	
	7.2.1 E.U.T. Operation	
	7.2.2 Test Setup Diagram	
	7.2.3 Measurement Procedure and Data	
	7.3 RADIATED EMISSIONS (9KHz-30MHz)	
	7.3.1 E.U.T. Operation	
	7.3.3 Measurement Procedure and Data	
	7.4 RADIATED EMISSIONS (30MHz-1GHz)	
	7.4.1 E.U.T. Operation	
	7.4.2 Test Setup Diagram	
	7.4.3 Measurement Procedure and Data	
8	8 PHOTOGRAPHS	26
	8.1 TEST SETUP	26
	8.2 EUT Constructional Details (EUT Photos)	
	,	



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Report No.: FYCR220400008903

Page: 5 of 26

### 4 General Information

### 4.1 Details of E.U.T.

Power supply:	DC 9-24V
Operation Frequency:	125KHz
Modulation Type:	ASK
Antenna Type:	Loop Antenna

### 4.2 Description of Support Units

The EUT has been tested as an independent unit.

### 4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
20dB Bandwidth	± 0.3%
Field Strength of the Fundamental Signa	± 0.3%
Radiated Emissions (30MHz-1GHz)	± 5.6 dB (30MHz-1GHz)
Radiated Emissions (9kHz-30MHz)	± 2.7 dB (9kHz-30MHz)



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Report No.: FYCR220400008903

Page: 6 of 26

### 4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc. Shenzhen branch.

Fuyong lab. Xinlong TechnoPark, Fengtang Road, Fuyong Subdistrict, Bao'an, Shenzhen, China

Tel: +86 755 8866 3988 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 4.5 Test Facility

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

### • A2LA (Certificate No. 6606.01)

Compliance Certification Services (Kunshan) Inc. Shenzhen branch is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6606.01.

### • FCC -Designation Number: CN1322

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized as an accredited testing laboratory.

Designation Number: CN1322. Test Firm Registration Number: 718073

### • Innovation, Science and Economic Development Canada

Compliance Certification Services (Kunshan) Inc. Shenzhen branch has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0129.

IC#: 28189.

### 4.6 Deviation from Standards

None

### 4.7 Abnormalities from Standard Conditions

None



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Report No.: FYCR220400008903

Page: 7 of 26

## 5 Equipment List

20dB Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2021/7/13	2022/7/12
MXA Signal Analyzer(10Hz- 26.5GHz)	Agilent	N9020A	SEM004-20	2021/7/13	2022/7/12
Signal Generator(9kHz- 40GHz)	Agilent	N5173B	SEM006-05	2021/7/13	2022/7/12
ESG Vector Signal Generator(250kHz- 6GHz)	Agilent	E4438C	SEM006-15	2021/7/13	2022/7/12
Power Sensor	Erika Fiedler	U2021XA	SEM009-15	2021/7/13	2022/7/12
Power Sensor	Erika Fiedler	U2021XA	SEM009-16	2021/7/13	2022/7/12
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	SEM010-08	2021/7/13	2022/7/12
Programmable DC Source	Chroma	62024P-80-60	SEM011-09	2021/7/13	2022/7/12
Attenuator(18GHz, 20dB, 2W)	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2021/7/13	2022/7/12

Emission Mask					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2022/7/12
Trilog-Broadband Antenna(25MHz-2GHz)	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24
Biconical Antenna(150MHz-1GHz)	Schwarzbeck	VUBA9117	SEM003-35	2021/12/26	2024/12/25
Loop Antenna(9kHz- 30MHz)	ETS-LINDGREN	6502	SEM003-36	2021/9/26	2024/9/25
MXE EMI receiver(20Hz- 8.4GHz)	Agilent	N9038A	SEM004-05	2021/7/13	2022/7/12
Pre-amplifier (0.1- 1.3GHz)	HP	8447D	SEM005-02	2021/7/13	2022/7/12
Broad-Band Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2021/7/11	2024/7/10
Broad-Band Horn Antenna (1-18GHz)	Schwarzbeck	BBHA 9120D	SEM003-32	2021/9/26	2024/9/25
Double-ridged waveguide horn (1- 18GHz)	ETS-LINDGREN	3117	SEM003-34	2021/9/25	2024/9/24



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Report No.: FYCR220400008903

Page: 8 of 26

Spectrum Analyzer(20Hz-43GHz)	Rohde & Schwarz	101288	SEM004-08	2021/7/13	2022/7/12
Low Noise Amplifier(100MHz- 18GHz)	CLAVIIO	BDLNA-0118- 352810	SEM005-05	2021/7/13	2022/7/12
Pre-amplifier(26GHz- 40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2021/7/13	2022/7/12
Pre-amplifier(18GHz- 26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2021/7/13	2022/7/12

Frequency tolerance					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2021/7/13	2022/7/12
MXA Signal Analyzer(10Hz- 26.5GHz)	Agilent	N9020A	SEM004-20	2021/7/13	2022/7/12
Signal Generator(9kHz- 40GHz)	Agilent	N5173B	SEM006-05	2021/7/13	2022/7/12
ESG Vector Signal Generator(250kHz- 6GHz)	Agilent	E4438C	SEM006-15	2021/7/13	2022/7/12
Power Sensor	Erika Fiedler	U2021XA	SEM009-15	2021/7/13	2022/7/12
Power Sensor	Erika Fiedler	U2021XA	SEM009-16	2021/7/13	2022/7/12
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	SEM010-08	2021/7/13	2022/7/12
Programmable DC Source	Chroma	62024P-80-60	SEM011-09	2021/7/13	2022/7/12
Attenuator(18GHz, 20dB, 2W)	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2021/7/13	2022/7/12

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2022/7/12
Trilog-Broadband Antenna(25MHz-2GHz)	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24
Biconical Antenna(150MHz-1GHz)	Schwarzbeck	VUBA9117	SEM003-35	2021/12/26	2024/12/25
Loop Antenna(9kHz- 30MHz)	ETS-LINDGREN	6502	SEM003-36	2021/9/26	2024/9/25
MXE EMI receiver(20Hz- 8.4GHz)	Agilent	N9038A	SEM004-05	2021/7/13	2022/7/12



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Report No.: FYCR220400008903

Page: 9 of 26

Pre-amplifier (0.1- 1.3GHz)	HP	8447D	SEM005-02	2021/7/13	2022/7/12
Broad-Band Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2021/7/11	2024/7/10
Broad-Band Horn Antenna (1-18GHz)	Schwarzbeck	BBHA 9120D	SEM003-32	2021/9/26	2024/9/25
Double-ridged waveguide horn (1- 18GHz)	ETS-LINDGREN	3117	SEM003-34	2021/9/25	2024/9/24
Spectrum Analyzer(20Hz-43GHz)	Rohde & Schwarz	101288	SEM004-08	2021/7/13	2022/7/12
Low Noise Amplifier(100MHz- 18GHz)	CLAVIIO	BDLNA-0118- 352810	SEM005-05	2021/7/13	2022/7/12
Pre-amplifier(26GHz- 40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2021/7/13	2022/7/12
Pre-amplifier(18GHz- 26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2021/7/13	2022/7/12

Radiated Emissions (9kHz-30MHz)									
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date				
3m Anechoic Chamber	CRT	N/A	SEM001-13	2021/7/13	2022/7/12				
Trilog-Broadband Antenna(25MHz-2GHz)	Schwarzbeck	VULB9168	SEM003-33	2021/9/25	2024/9/24				
Biconical Antenna(150MHz-1GHz)	Schwarzbeck	VUBA9117	SEM003-35	2021/12/26	2024/12/25				
Loop Antenna(9kHz- 30MHz)	ETS-LINDGREN	6502	SEM003-36	2021/9/26	2024/9/25				
MXE EMI receiver(20Hz- 8.4GHz)	Agilent	N9038A	SEM004-05	2021/7/13	2022/7/12				
Pre-amplifier (0.1- 1.3GHz)	HP	8447D	SEM005-02	2021/7/13	2022/7/12				
Broad-Band Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2021/7/11	2024/7/10				
Broad-Band Horn Antenna (1-18GHz)	Schwarzbeck	BBHA 9120D	SEM003-32	2021/9/26	2024/9/25				
Double-ridged waveguide horn (1- 18GHz)	ETS-LINDGREN	3117	SEM003-34	2021/9/25	2024/9/24				
Spectrum Analyzer(20Hz-43GHz)	Rohde & Schwarz	101288	SEM004-08	2021/7/13	2022/7/12				
Low Noise Amplifier(100MHz- 18GHz)	CLAVIIO	BDLNA-0118- 352810	SEM005-05	2021/7/13	2022/7/12				



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Report No.: FYCR220400008903

Page: 10 of 26

Pre-amplifier(26GHz- 40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2021/7/13	2022/7/12
Pre-amplifier(18GHz- 26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2021/7/13	2022/7/12

General used equipment								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
Humidity/ Temperature Indicator	Mingle	TH607	SEM002-22	2021-07-13	2022-07-12			
Humidity/ Temperature Indicator	Mingle	TH607	SEM002-23	2021-07-13	2022-07-12			
Barometer	DUMAI	DYM3	SEM002-24	2021-07-13	2022-07-12			



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Report No.: FYCR220400008903

Page: 11 of 26

### 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

### 6.1.2 Conclusion

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.

#### **EUT Antenna:**

The antenna is integrated on the main PCB and no consideration of replacement.

Antenna location: Refer to Internal photos





Report No.: FYCR220400008903

Page: 12 of 26

### 7 Radio Spectrum Matter Test Results

### 7.1 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215 Test Method: ANSI C63.10 (2013) Section 6.9

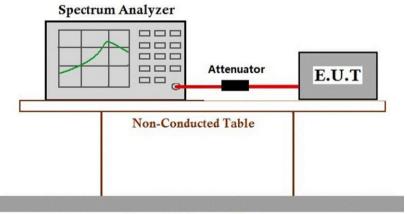
### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 54 % RH Atmospheric Pressure: 1005 mbar

Test mode 02: TX mode with modulation

### 7.1.2 Test Setup Diagram



Ground Reference Plane

### 7.1.3 Measurement Procedure and Data



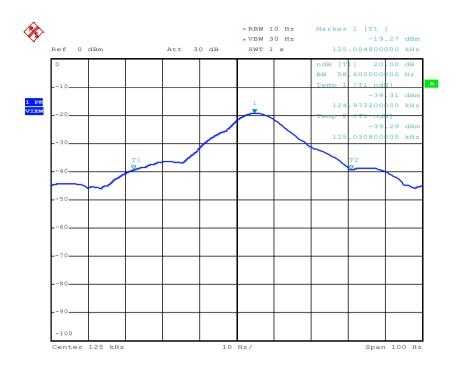
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Page: 13 of 26





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Report No.: FYCR220400008903

Page: 14 of 26

### 7.2 Field Strength of the Fundamental Signal (15.209(c))

Test Requirement 47 CFR Part 15, Subpart C 15.209(c)
Test Method: ANSI C63.10 (2013) Section 6.4

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

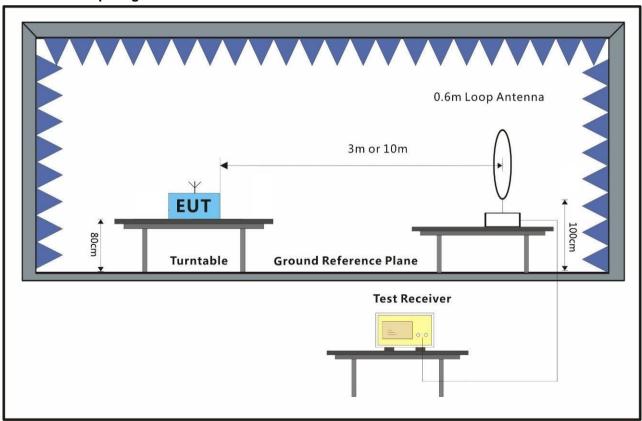
### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 54 % RH Atmospheric Pressure: 1010 mbar

Test mode 02: TX mode with modulation

### 7.2.2 Test Setup Diagram





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Report No.: FYCR220400008903

Page: 15 of 26

#### 7.2.3 Measurement Procedure and Data

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor





Report No.: FYCR220400008903

Page: 16 of 26

Frequency (MHz)	Cable loss (dB)	Preamp Factor	ANT Factor (dB)	Read Level @ 3m (dBuV)	Level @ 3m (dBuV/m)	Level @ 300m (dBuV/m)	Limit @ 300m (dBuV/m )	Margin (dB)
0.125	0.33	31.79	10.43	88.4	67.37	-12.63	25.67	-38.30

#### Below 30MHz

The test was performed at a 3m test site.

The level at 30m test distance is below:

The factor calculated by the following equation:

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left( \frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

where

 $FS_{limit}$  is the calculation of field strength at the limit distance, expressed in  $dB\mu V/m$ 

FS<sub>max</sub> is the measured field strength, expressed in dB $\mu$ V/m is the distance of the measurement point from the EUT d<sub>limit</sub> is the reference distance or the distance of the  $\lambda$ 2 $\pi$  point



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Report No.: FYCR220400008903

Page: 17 of 26

### 7.3 Radiated Emissions (9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209(c)
Test Method: ANSI C63.10 (2013) Section 6.4

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

If field strength is measured at only a single point, then that point shall be at the radial from the EUT that produces the maximum emission at the frequency being measured, as described in 5.4. If that point is closer to the EUT than  $\lambda/2\pi$  and the limit distance is greater than  $\lambda/2\pi$ , the measurement shall be extrapolated to the limit distance by conservatively presuming that the field strength decreases at a 40 dB/decade of distance rate to the  $\lambda/2\pi$  distance, and at a 20 dB/decade of distance rate beyond  $\lambda/2\pi$ . This shall be accomplished using Equation (2):

$$FS_{(10m)} = FS_{(30/300m)} + 40log\{d_{(near field)}/d_{(10m)}\} + 20log\{d_{(30/300m)}/d_{(near field)}\}$$
 (2)

If the single point measured is at a distance greater than  $\lambda/2\pi$ , then extrapolation to the limit distance shall be calculated using Equation (3):

$$FS_{(10m)} = FS_{(30/300m)} + 20log\{d_{(30/300m)}/d_{(10m)}\}$$
(3)

If both the single point and the limit distance are equal to or closer to the EUT than  $\lambda/2\pi$ , then extrapolation to the limit distance shall be calculated using Equation (4):

$$FS_{(10m)} = FS_{(30/300m)} + 40log\{d_{(30/300m)}/d_{(10m)}\}$$
(4)

Remark:

 $d_{near field} = 47.77 / f_{MHz}$ 

where f<sub>MHz</sub> is the frequency of the emission being measured in MHz.



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Report No.: FYCR220400008903

Page: 18 of 26

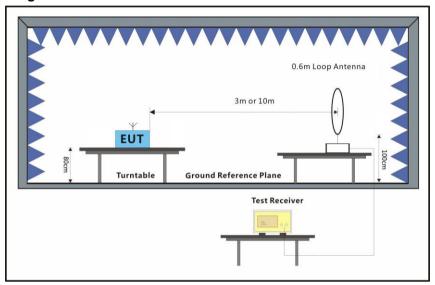
### 7.3.1 E.U.T. Operation

**Operating Environment:** 

Temperature: 25 °C Humidity: 55 % RH Atmospheric Pressure: 1005 mbar

Test mode 02: TX mode with modulation

### 7.3.2 Test Setup Diagram



### 7.3.3 Measurement Procedure and Data

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was shown in the report.



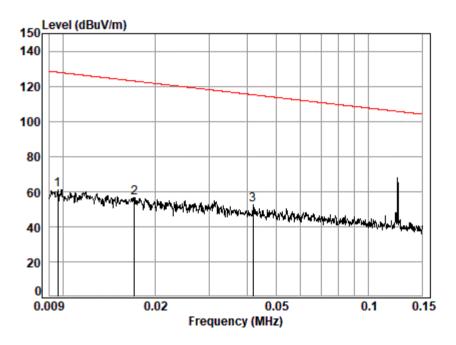
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Report No.: FYCR220400008903

Page: 19 of 26

9k-150k



Condition: 3m

Job No. : 00089AT

Test Mode: 02

1

: 125KHZ

Ant Preamp Read Limit 0ver Loss Factor Factor Line Limit Remark Level Level MHz dB dB/m dB dBuV dBuV/m dBuV/m dB 0.0096 0.29 18.56 31.23 73.62 61.24 127.98 -66.74 Average 0.30 14.69 31.65 73.25 56.59 122.95 -66.36 Average 0.0171 3 P 0.31 11.29 31.72 72.84 52.72 115.15 -62.43 Average 0.0419



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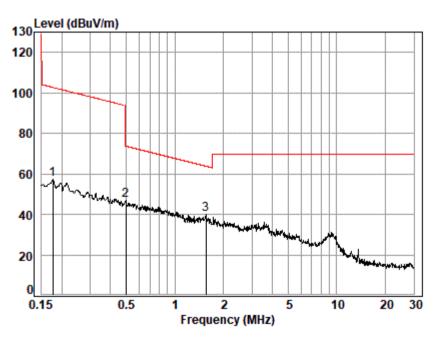
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Page: 20 of 26

150k-30M



Condition: 3m Job No. : 00089AT

Test Mode: 02

: 125KHZ

	Fred			Preamp Factor					
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 a	0.1758	0.32	10.39	31.78	78.30	57.23	102.70	-45.47	Average
2									_
3 P	1.5518	0.35	10.29	31.76	60.99	39.87	63.79	-23.92	OP



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Report No.: FYCR220400008903

Page: 21 of 26

Frequency (MHz)	Level @ 3m (dBuV/m)	Limit @ 300m (dBuV/m)	Limit @ 30m (dBuV/m )	Factor (dB)	Level @ 300m (dBuV/m)	Level @ 30m (dBuV/m)	Margin (dB)
0.0096	61.24	47.99	-	80.00	-18.76	-	-66.75
0.0171	56.59	42.95	-	80.00	-23.41	-	-66.36
0.0419	52.72	35.15	-	80.00	-27.28	-	-62.43
0.1758	57.2300	22.70	-	80.00	-22.77	-	-45.47
0.4967	46.7200		33.68	40.00	-	6.72	-26.96
1.5520	39.8700		23.79	40.00	-	-0.13	-23.92

### Remark:

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

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

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left( \frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

### where

 $FS_{\text{limit}}$  is the calculation of field strength at the limit distance, expressed in dB $\mu$ V/m

FS<sub>max</sub> is the measured field strength, expressed in dBμV/m  $d_{\text{measure}}$  is the distance of the measurement point from the EUT  $d_{\text{limit}}$  is the reference distance or the distance of the  $\lambda/2\pi$  point



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Report No.: FYCR220400008903

Page: 22 of 26

### 7.4 Radiated Emissions (30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209(c)
Test Method: ANSI C63.10 (2013) Section 6.5

Measurement Distance: 3m

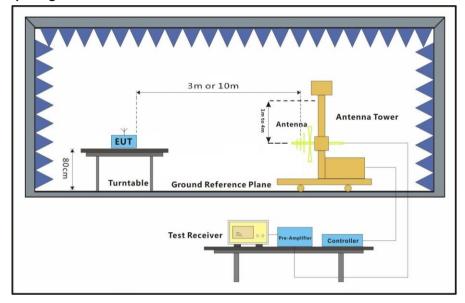
### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 54 % RH Atmospheric Pressure: 1005 mbar

Test mode 02: TX mode with modulation

### 7.4.2 Test Setup Diagram





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Report No.: FYCR220400008903

Page: 23 of 26

#### 7.4.3 Measurement Procedure and Data

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



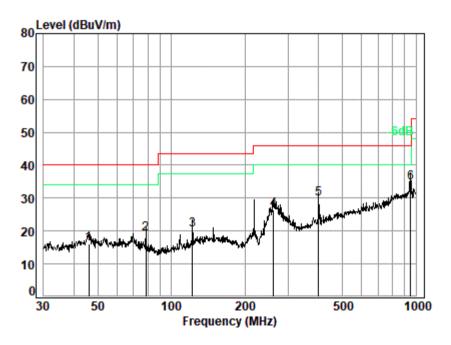
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Report No.: FYCR220400008903

Page: 24 of 26



Site : chamber

Condition: 3m HORIZONTAL

Job No : 00089AT

Mode : 02

		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	46.0164	0.21	17.27	25.87	24.65	16.26	40.00	-23.74	QP	
2	78.6888	0.42	14.49	25.82	30.03	19.12	40.00	-20.88	QP	
3	121.9755	0.93	15.89	25.67	29.38	20.53	43.50	-22.97	QP	
4	261.0583	0.87	16.81	25.19	34.12	26.61	46.00	-19.39	QP	
5	400.4319	1.71	20.70	25.81	33.12	29.72	46.00	-16.28	QP	
6 P	952 0937	2 09	29 27	26 29	29 63	34 70	46 99	-11 30	OP	



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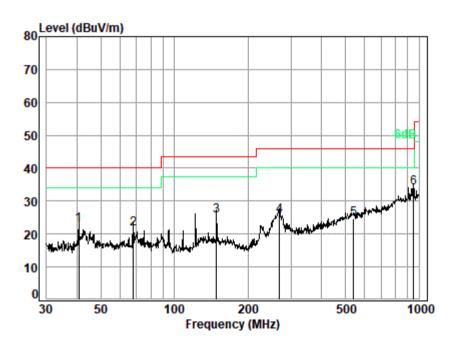
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Report No.: FYCR220400008903

Page: 25 of 26



Site : chamber

Condition: 3m VERTICAL

Job No : 00089AT

Mode : 02

		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	40.7016	0.20	16.88	25.88	31.73	22.93	40.00	-17.07	QP	
2	67.9129	0.27	16.37	25.83	30.78	21.59	40.00	-18.41	QP	
3	148.9625	0.85	17.43	25.55	32.70	25.43	43.50	-18.07	QP	
4	268.4853	0.89	17.19	25.17	32.68	25.59	46.00	-20.41	QP	
5	539.4775	1.72	23.69	26.54	25.72	24.59	46.00	-21.41	QP	
6 P	952 0937	2 09	29 27	26 29	29 09	34 16	46 99	-11 84	OP	



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Report No.: FYCR220400008903

Page: 26 of 26

## 8 Photographs

### 8.1 Test Setup

Please refer to setup photos.

### 8.2 EUT Constructional Details (EUT Photos)

Please Refer to external and internal photos for details.

- End of the Report -



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