

TEST REPORT

100, Jangjateo-ro, Hobeop-myeon, Icheon-si, Gyeonggi-do, 17396, Korea Tel: 031-637-8898 / Fax: 0505-116-8895

1. Client Name: Star Systems International Limited Unit 7, 8/F, Vanta Industrial Centre. 21-23 Tai Lin Pai Road, • Address.....: Kwai Chung, NT, Hong Kong 2. Use of Report FCC Approval 3. Sample Description Product Name : CARINA RFID Reader • Model Name : CARINA 4. Date of Receipt.....: 2024-11-01 5. Date of Test:: 2024-11-15 ~ 2024-11-29 6. Test Method FCC Part 15 Subpart C 15.247 7. Test Results Refer to the test results * The results shown in this test report are the results of testing the samples provided. * This test report is prepared according to the requirements of ISO / IEC 17025. Tested by **Technical Manager** Affirmation Sign (Sign) Jong-Myoung, Shin 🗸 Kyung-Taek, Lee Dec 03, 2024 EMC Labs Co., Ltd.

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<u>Version</u>

TEST REPORT NO.	DATE	DESCRIPTION
KR0140-RF2412-001	Dec 03, 2024	Initial Issue

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1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant Information

Applicant	Star Systems International Limited		
Applicant Address	Unit 7, 8/F, Vanta Industrial Centre. 21-23 Tai Lin Pai Road, Kwai Chung, NT, Hong Kong		
Contact Person	Ava Tang		
Telephone No.	00852-36919925		
Fax No.	00852-36919925		
E-mail	atang@star-int.net		

1.2. Manufacturer Information

Manufacturer IDRO Co.,Ltd	
Manufacturer Address	11, Jiphyeondong-ro, Sejong-si, Republic of Korea

1.3 Test Laboratory Information

Laboratory	EMC Labs Co., Ltd.
Laboratory Address	100, Jangjateo-ro, Hobeop-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Contact Person	Jong-Myoung, Shin
Telephone No.	+82-31-637-8895
Fax No.	+82-505-116-8895
FCC Designation No.	KR0140
FCC Registration No.	580000
IC Site Registration No.	28751



2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	CARINA RFID Reader
Model Name	CARINA
FCC ID	2AA7K-CARINA08000
Rated Voltage	DC 12.0 V

2.2 Additional Information

Operating Frequency	902.75 MHz ~ 927.25 MHz
Number of channel	50
Modulation Type	A1D
Antenna Type & Gain	Patch Antenna (with Max. gain: 5.84 dBi)
Firmware Version	1.0
Hardware Version	1.0
Test software	E710Tester_2023_09_15

2.3 Test Frequency

Test mode	Test Frequency (MHz)		
	Low Frequency	Middle Frequency	High Frequency
RFID (900 MHz FHSS)	902.75	914.75	927.25

2.4 Used Test Software Setting Value

Test Mode	Setting Item	
Test Mode	Power	
RFID (900 MHz FHSS)	300	

2.5 Mode of operation during the test

- The EUT continuous transmission mode during the test with set at Low Channel, Middle Channel, and High Channel. To get a maximum radiated emission levels from the EUT, the EUT was moved throughout the XY, YZ, XZ planes.

2.6 Modifications of EUT

- None



3. Test Summary

Applied	FCC Rule	IC Rule	Test Items	Test Condition	Result
\square	15.203	_	Antenna Requirement		С
	15.247(a)	_	20 dB Bandwidth		NT ^{Note2}
	_	RSS GEN (6.7)	Occupied Bandwidth (99%)		NT ^{Note2}
	15.247(a)	RSS-247 (5.1)	Number of Hopping Frequencies	Canduated	NT ^{Note2}
	15.247(a)	RSS-247 (5.1)	Time of Occupancy (Dwell Time)	Conducted	NT ^{Note2}
	15.247(a)	RSS-247 (5.1)	Carrier Frequencies Separation		NT ^{Note2}
	15.247(b)	RSS-247 (5.4)	Peak Output Power		NT ^{Note2}
	15.247(d)	RSS-247 (5.5)	Conducted Spurious Emission		NT ^{Note2}
	15.247(d) 15.205 & 15.209	RSS-247 (5.5) RSS-GEN (8.9 & 8.10)	Radiated Spurious Emission	Radiated	С
\square	15.207	RSS-GEN (8.8)	Conducted Emissions	AC Line Conducted	С

Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable

Note 2: This test item was tested on the certified RF Module.

[Certified RF Module Information]

- FCC ID: XVY-IDRO900ME-M (Test Report No.: NW2112-F005-1)

The sample was tested according to the following specification: ANSI C63.10:2013. Compliance was determined by specification limits of the applicable standard according to customer requirements.



4. Used equipment on test

Description	Manufacturer	Model Name	Serial Name	Next Cal.
TEMP & HUMID CHAMBER	JFM	JFMA-001	20200929-01	2025.11.06
CONTROLLER	AMWON TECHNOLOGY	TEMI2500	S7800VK191 0707	2025.11.06
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	MY45304057	2025.11.07
MXG ANALOG SIGNAL GENERATOR	AGILENT	N5183A	MY50141890	2025.11.07
SYSTEM DC POWER SUPPLY	AGILENT	6674A	MY53000118	2025.11.07
VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	SMBV100A	257524	2025.11.07
DIRECTIONAL COUPLER	AGILENT	773D	2839A01855	2025.11.07
ATTENUATOR	AGILENT	8493C	73193	2025.11.07
TERMINATION	HEWLETT PACKARD	909D	07492	2025.11.07
POWER DIVIDER	HEWLETT PACKARD	11636A	06916	2025.11.07
DIGITAL MULTIMETER	HUMANTECHSTORE	15B+	50561541WS	2025.11.07
ATTENUATOR	ACE RF COMM	ATT SMA 20W 20dB 8GHz	A-0820.SM20.2	2025.04.04
DC POWER SUPPLY	AGILENT	E3634A	MY40012120	2025.02.22
USB Peak Power Sensor	Anritsu	MA24408A	12321	2025.11.08
High Pass Filter	WT Microwave INC.	WT-A3314-HS	WT22111804-1	2025.11.07
High Pass Filter	WT Microwave INC.	WT-A1935-HS	WT22111804-2	2024.12.08
SPECTRUM ANALYZER	ROHDE & SCHWARZ	FSU26	200444	2025.02.22
ATTENUATOR	Mini-Circuits	BW-K3-2W44+	2318-1	2025.06.28
ATTENUATOR	Mini-Circuits	BW-K3-2W44+	2318-2	2025.06.28
Balanced Temperature and Humidity Control System	ESPEC CORP.	SH-241	92004650	2025.06.13
ACTIVE LOOP ANTENNA	TESEQ	HLA 6121	55685	2024.12.22
Biconilog ANT	Schwarzbeck	VULB 9160	3260	2026.04.01
Biconilog ANT	Schwarzbeck	VULB9168	902	2026.08.28
Horn ANT	Schwarzbeck	BBHA9120D	974	2024.11.30
Horn ANT	Schwarzbeck	BBHA9120D	1497	2025.01.04
Amplifier	TESTEK	TK-PA18H	200104-L	2025.03.14
Horn ANT	Schwarzbeck	BBHA9170	01188	2025.03.19
Horn ANT	Schwarzbeck	BBHA9170	01189	2025.03.19
AMPLIFIER	TESTEK	TK-PA1840H	220105-L	2025.03.14
EMI TEST RECEIVER	ROHDE & SCHWARZ	ESW44	101952	2025.03.14
Test Receiver	ROHDE & SCHWARZ	ESR7	101616	2025.06.27
LISN	ROHDE & SCHWARZ	ENV216	100409	2025.01.04
PULSE LIMITER	lignex1	EPL-30	NONE	2025.01.04
RF Cable	OSI MICROWAVE	PLH16D	EMC-C-009	2025.07.26
RF Cable	OSI MICROWAVE	PLH16D	RF-K-001	2025.07.26

* RF cables are managed by self-inspection per one year.

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5. Antenna Requirement

According to §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 an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. 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.

According to §15.247(b)(4) e conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.1 Result

Complies

(The transmitter has a Patch Antenna. The directional peak gain of the antenna is 5.84 dBi.)



6. TX Radiated Spurious Emission and Conducted Spurious Emission

6.1 Test Setup

Refer to the APPENDIX I.

6.2 Limit

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in section §15.209(a) is not required. In addition, radiated emission which in the restricted band, as define in section §15.205(a), must also comply the radiated emission limits specified in section §15.209(a) (see section §15.205(c))

According to § 15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional

	iela strength levels specifica in	the following table
Frequency (MHz)	Limit (uV/m)	Measurement Distance (meter)
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1705	24000/F (kHz)	30
1705 ~ 30.0	30	30
30 ~ 88	100 **	3
88 ~ 216	150 **	3
216 ~ 960	200 **	3
Above 960	500	3

radiator shall not exceed the field strength levels specified in the following table

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 - 72 MHz, 76 - 88 MHz, 174 - 216 MHz or 470 - 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

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The nequency bands in			
MHz	MHz	MHz	GHz
0.009 ~ 0.110	16.42 ~ 16.423	399.90 ~ 410	4.5 ~ 5.15
0.495 ~ 0.505	16.69475 ~ 16.69525	608 ~ 614	5.35 ~ 5.46
2.1735 ~ 2.1905	16.80425 ~ 16.80475	960 ~ 1240	7.25 ~ 7.75
4.125 ~ 4.128	25.5 ~ 25.67	1300 ~ 1427	8.025 ~ 8.5
4.17725 ~ 4.17775	37.5 ~ 38.	1435 ~ 1626.5	9.0 ~ 9.2
4.20725 ~ 4.20775	25 73 ~ 74.6	1645.5 ~ 1646.5	9.3 ~ 9.5
4.17725 ~ 4.17775	74.8 ~ 75.2	1660 ~ 1710	10.6 ~ 12.7
6.215 ~ 6.218	108 ~ 121.94	1718.8 ~ 1722.2	13.25 ~ 13.4
6.26775 ~ 6.26825	149.9 ~ 150.05	2200 ~ 2300	14.47 ~ 14.5
6.31175 ~ 6.31225	156.52475 ~ 156.52525	2310 ~ 2390	15.35 ~ 16.2
8.291 ~ 8.294	156.7 ~ 156.9	2483.5 ~ 2500	17.7 ~ 21.4
8.362 ~ 8.366	162.0125 ~ 167.17	2690 ~ 2900	22.01 ~ 23.12
8.37625 ~ 8.38675	3345.8 ~ 3358	3260 ~ 3267	23.6 ~ 24.0
8.41425 ~ 8.41475	3600 ~ 4400	3332 ~ 3339	31.2 ~ 31.8
12.51975 ~ 12.52025	3345.8 ~ 3358	240 ~ 285	36.43 ~ 36.5
12.57675 ~ 12.57725	3600 ~ 4400	322 ~ 335.4	Above 38.6
13.36 ~ 13.41			

According to § 15.205(a) and (b), only spurious emissions are permitted in any of The frequency bands listed below:

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.



6.3 Test Procedure for Radiated Spurious Emission

- 1. The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m. The table was rotated 360 degrees to determine the position of the highest radiation.
- During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 3.75 meter away from the interference-receiving antenna.
- 3. For measurements above 1 GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1 GHz, the absorbers are removed.
- 4. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then The antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading. (The EUT was pre-tested with three axes (X, Y, Z) and the final test was performed at the worst case.)
- 6. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 7. If the emission level of the EUT in peak mode was 10 dB 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 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



Measurement Instrument Setting

- Frequency Range: Below 1 GHz RBW = 100 or 120 kHz, VBW = 3 x RBW, Detector = Peak or Quasi Peak
- Frequency Range: Above 1 GHz
 Peak Measurement
 RBW = 1 MHz, VBW = 3 MHz, Detector = Peak, Sweep time = Auto, Trace mode = Max Hold until the trace stabilizes

Average Measurement RBW = 1MHz, VBW ≥ 1/T, Detector = Peak, Sweep Time = Auto, Trace Mode = Max Hold until the trace stabilizes

6.4 Test Procedure for Conducted Spurious Emission

- 1. The transmitter output was connected to the spectrum analyzer.
- The reference level of the fundamental frequency was measured with the spectrumanalyzer using RBW = 100 kHz, VBW = 300 kHz.
- The conducted spurious emission was tested each ranges were set as below. Frequency range: 30 MHz ~ 26.5 GHz RBW = 100 kHz, VBW = 300 kHz, Sweep Time = Auto, Detector = Peak, Trace = Max Hold

LIMIT LINE = 20 dB below of the reference level of above measurement procedure Step 2. (RBW = 100 kHz, VBW = 300 kHz)



6.5 Test Result

9 kHz ~ 10 GHz Data

• Low frequency

Fraguanay	Rea	ding			0.005	Lin	nits	Re	sult	Ма	rgin
Frequency	(dBu	V/m)	Pol.	T.F (dB)	DCCF (dB)	(dBu	V/m)	(dBu	V/m)	(d	B)
(MHz)	AV ,	/ Peak		(00)	(00)	AV /	Peak	AV /	Peak	AV /	Peak
1 536.48	64.15	65.09	Η	-13.56	N/A	54.0	74.0	50.6	51.5	3.4	22.5
1 505.60	64.13	66.64	Η	-13.56	N/A	54.0	74.0	50.6	53.1	3.4	20.9
2 708.22	58.59	61.63	V	-9.46	N/A	54.0	74.0	49.1	52.2	4.9	21.8
3 611.15	50.95	54.71	Н	-6.35	N/A	54.0	74.0	44.6	48.4	9.4	25.6

Middle frequency

[regular av	Rea	ding				Lin	nits	Re	sult	Mai	rgin
Frequency	(dBu	V/m)	Pol.	T.F (dB)	DCCF (dB)	(dBu	V/m)	(dBu	V/m)	(d	В)
(MHz)	AV ,	/ Peak		(00)	(00)	AV /	Peak	AV /	Peak	AV /	Peak
1 536.55	63.17	64.18	Н	-13.56	N/A	54.0	74.0	49.6	50.6	4.4	23.4
1 829.44	59.94	63.05	Н	-13.12	N/A	54.0	74.0	46.8	49.9	7.2	24.1
2 744.30	57.78	60.89	V	-9.44	N/A	54.0	74.0	48.3	51.5	5.7	22.6
3 659.05	53.26	57.08	Н	-6.28	N/A	54.0	74.0	47.0	50.8	7.0	23.2

• High frequency

Frequency	Rea	ding			0005	Lin	nits	Re	sult	Ма	rgin
riequency	(dBu	V/m)	Pol.	T.F (dB)	DCCF (dB)	(dBu	V/m)	(dBu	V/m)	(d	B)
(MHz)	AV ,	/ Peak		(00)	(00)	AV /	Peak	AV /	Peak	AV /	Peak
1 536.55	63.84	64.90	Н	-13.56	N/A	54.0	74.0	50.3	51.3	3.7	22.7
1 854.50	62.48	67.00	Н	-12.88	N/A	54.0	74.0	49.6	54.1	4.4	19.9
2 781.76	58.30	62.38	Н	-9.34	N/A	54.0	74.0	49.0	53.0	5.0	21.0
3 709.11	51.61	55.73	Н	-6.20	N/A	54.0	74.0	45.4	49.5	8.6	24.5

Note 1: The radiated emissions were inverstigated 9 kHz to 10 GHz. And no other spurious and harmonic emissions were found above listed frequencies.

Note 2: DCCF(Duty Cycle Correction Factor)

Note 3: Sample Calculation.

Margin = Limit - Result / Peak Result = Peak Reading + TF / Average Result = Average Reading + TF

TF = Ant factor + Cable Loss + Filter Loss - Amp Gain + Distance Factor

Distance Factor = 20log(applied distance/required distance) = 20log(3.75m/3m) = 1.94



6.6 Test Plot for Radiated Spurious Emission

• RFID _ Low frequency

							S	purious	- Peak
MultiView #	Chastrum	X	Spectrum 2	X Spectr	um 3 🛛 🕱	,			
Ref Level 107.0	0 dBµV		RBW 1 MHz						
Att Input	15 dB SWT 1 AC PS	1.01 ms ⊜ On	RBW 1 MHz VBW 3 MHz Mod Notch Off	e Auto Sweep			Fre	equency 1.53	365000 GHz
1 Frequency Swo	eep							M1[1]	 1Pk Max 65.09 dBμV
100 dBµV								1.	53648002 GHz
90 dBµV									
90 dbpv									
80 dBµV									
70 dBµV				М					
60 dBµV									
50 dBµV			and a strand water and the			Mark Mark		manum	
40 dBµV	Vierny Vierny Vierne	alon and an	Ada an			- 1944	M WWWWWWWW	and the second	an ward war
30 dBµV									
20 dBµV									
20 0000									
10 dBµV									
CF 1.5365 GHz			1001 pts	6	1	.0 MHz/		5	pan 10.0 MHz
							Spur	ious – /	Average
						٦			
Ref Level 107.0	0 dBuV	= BBW	Spectrum 2 1 MHz	X Spectr	um 3 🛛 🛛	ζ			∇
Att Input	15 dB SWT 1 AC PS	1 s ⊕ VBW On Note	10 Hz Mode Aut h Off	o Sweep			Fre	equency 1.53	365000 GHz
1 Frequency Swe	eep							M1[1]	 1Pk Max 64.15 dBμV
100 dBµV								1.	53648002 GHz
90 dBµV									
80 dBµV									
70 dBµV				м	L				
60 dBµV				-					
50 dBµV									
40 dBµV									
30 dBµV									
20 dBµV									
20 00p7									
10 dBµV CF 1.5365 GHz			1001 pts			.0 MHz/			pan 10.0 MHz

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					S	purious	s – Peak
MultiView 🕀 Spectrum	Spectrum 2	X Spectr	um 3 🛛 🕱	1			▽
Ref Level 107.00 dBμV Att 15 dB SW	● RBW 1 MHz T 1.01 ms ● VBW 3 MHz Mod	le Auto Sweep		_	Fn	equency 1.8	055000 GHz
Input 1 AC PS 1 Frequency Sweep	On Notch Off					M1[1]	 1Pk Max 66.64 dBμV
100 dBµV							80559990 GHz
90 dBµV							
80 dBµV							
70 dBµV			M1				
			×				
60 dBµV							
50 dBµV				No.			
MWWWWWWWWWWWWWWWWW	19th M. Augurn Margar Margar			and the	monteries	muliquianul	one-men-Anner
+0 00p+							
30 dBµV							
20 dBµV							
10 dBµV CF 1.8055 GHz	1001 pt	s	1	.0 MHz/			Span 10.0 MHz
					Sour	ious –	Average
					opui		
MultiView :: Spectrum RefLevel 107.00 dBµV	Spectrum 2 • RBW 1 MHz	X Spectr	um 3 🛛 🛛 🛛				▽
Att 15 dB SW Input 1 AC PS	Tis⊜VBW 10Hz ModeA∟ On Notch Off	ito Sweep			Fn	equency 1.8	055000 GHz
I Frequency Sweep						M1[1]	● 1Pk Max 64.13 dBµV 80544006 GHz
100 dBµV						1	30344006 GHZ
90 dBµV							
80 dBuV							
00 0014							
70 dBµV		MI					
60 dBµV			~				
50 dBµV							
40 dBµV							
30 dвµv							
ř –							
20 dBµV							
10 dBµV		1					

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					S	purious	s – Peak
MultiView # Spectrum	X Spectrum 2	X Spectr	um 3 🛛 🕱]			∇
Ref Level 107.00 dBµV Att 15 dB SWT Input 1 AC PS	● RBW 1 MHz 1.01 ms ● VBW 3 MHz Mod On Notch Off	le Auto Sweep		_	Fn	equency 2.70)82500 GHz
1 Frequency Sweep						M1[1]	1Pk Max 61.63 dBµV
100 dBµV						2.	70822003 GHz
90 dBµV							
80 dBµV							
70 dBµV							
		l N	L				
60 dBµV							
50 dBpv-	R. A. L. L. Harrison and Market	r	\	the marker		www.	and a second second
40 dBµV	Banuli-Manuali Internation				Christen and and	adorena ana a	Cunter Manager
30 dBµV							
20 dBµV							
10 dBµV CF 2.70825 GHz	1001 pt:	S	1	.0 MHz/		5	pan 10.0 MHz
					Spur	ious – /	Average
MultiView # Spectrum	Spectrum 2	X Spectr	um 3 🕅	1 I			▽
Ref Level 107.00 dBuV	● RBW 1 MHz 1 s ● VBW 10 Hz Mode Au On Notch Off			1	Fr	equency 2.70	82500 GHz
Input 1 AC PS 1 Frequency Sweep	UN NOLCH UN					M1[1]	● 1Pk Max 58.59 dBµV
100 dBµV						2.	70823002 GHz
90 dBµV							
80 dBµV							
70 dBµV							
60 dBµV							
50 dBµV							
40 dBµV							
30 dBµV	=						
20 dBµV							
10 dBµV							

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							S	purious	s – Peak
MultiView	Spectrum	xs	pectrum 2	X Spectr	um 3 🛛 🛛	3			▽
Ref Level 107 Att	15 dB SWT	● R 1.01 ms ● V	BWF 1 MHz BWF 3 MHz Moo	le Auto Sweep		-4	Fre	equency 3.61	110000 GHz
Input 1 Frequency S	1 AC PS weep	On N	otch Off					M1[1]	•1Pk Мах 54.71 dBµV
100 dBµV									61114985 GHz
90 dBµV									
30 00p1									
80 dBµV									
70 dBµV									
60 dBµV									
00 0000					M1				
50 dBµV					- North				
40 dBµV	enterterente	nuhananah	War mallene			Mar mar Mi	montherpute	er later an and an	swalthness
30 dBµV									
30 0007									
20 dBµV									
10 dBµV									
CF 3.611 GHz			1001 pt	S	1	.0 MHz/			pan 10.0 MHz
							Spur	ious – /	Average
MultiView	Spectrum	xs	pectrum 2	X Spectr	um 3 🛛 🛛	3			▽
RefLevel 107 Att	15 dB SWT	● RBW 1 s ● VBW	10 Hz Mode Au	ito Sweep			Fre	equency 3.61	10000 GHz
Input 1 Frequency S		On Notch						M1[1]	 1Pk Max 50.95 dBμV
100 dBµV									61096004 GHz
90 dBµV									
80 dBµV									
70 dBµV									
60 dBµV									
				м					
50 dBµV									
40 dBµV				/					
30 dBµV									
20 dBµV									
10 dBµV									
CF 3.611 GHz			1001 pt	S	1	.0 MHz/		5	Span 10.0 MHz

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• RFID _ Middle frequency

							S	purious	- Peak
MultiView	Spectrum	x Sp	pectrum 2	X Spectr	um 3 🛛 🗴	5			_ ▽
Ref Level 10 Att	7.00 dBµV		W 1 MHz	le Auto Sweep		<u> </u>	Fn	equency 1 5	365000 GHz
Input 1 Frequency	1 AC PS	On No					11	equency 1.5.	• 1Pk Max
								M1[1]	64.18 dBμV 53654995 GHz
100 dBµV									
90 dBµV									
80 dBµV									
70 dBµV									
					V1 V				
60 dBµV									
50 dBµV			- John Market			- And			
John Marchald Mark	umonallyhe	www.	here a service and			Madree	understations	manhar	moldentegythe
40 dBµV									
30 dBµV									
20 dBµV									
10 dBµV									
CF 1.5365 GH	lz		1001 pt	s	1	.0 MHz/			pan 10.0 MHz
							Spur	ious -	Average
						_	•		
MultiView Ref Level 10	Spectrum	BRBW 1	Dectrum 2	X Spectr	rum 3 🛛 🛛				▽
Att Input				ta Cuisan					
1 Гиостично	1 AC PS	Is⊜VBW : On Notch	Off Mode Au	to sweep			Fn	equency 1.5	365000 GHz
1 Frequency	1 AC PS	Tis⊜VB₩ On Notch	Off	to sweep			Fn	M1[1]	 1Pk Мах 63.17 dBµV
1 Frequency	1 AC PS	Tis⊜VB₩ :: On Notch	Off	to sweep			Fn	M1[1]	• 1Pk Max
100 dBµV	1 AC PS	T 1 s ● VBW ∷ On Notch	Off Ad	to sweep			Fn	M1[1]	 1Pk Мах 63.17 dBµV
	1 AC PS	On Notch	Off	lo sweep			Fn	M1[1]	 1Pk Мах 63.17 dBµV
100 dBµV	1 AC PS	Cn Notch					Fn	M1[1]	 1Pk Мах 63.17 dBµV
100 d8µV 90 d8µV 80 d8µV	1 AC PS	T 1 s e VBW : On Notch	Off				Fn	M1[1]	 1Pk Мах 63.17 dBµV
100 dBµV	1 AC PS	T 1 S = VBW 2 On Notch	Off				Fr	M1[1]	 1Pk Мах 63.17 dBµV
100 d8µV 90 d8µV 80 d8µV	1 AC PS	T 1s = VBW : On Notch	Off				Fr	M1[1]	 1Pk Мах 63.17 dBµV
100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV	1 AC PS	r 1 s e VBW : On Notch			1			M1[1]	 1Pk Мах 63.17 dBµV
100 dBµV 90 dBµV 80 dBµV 70 dBµV	1 AC PS	T 1 S = VBW : On Notch		lu sweep				M1[1]	 1Pk Мах 63.17 dBµV
100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV	1 AC PS	T 1 S = VBW : On Notch						M1[1]	 1Pk Мах 63.17 dBµV
100 dBµv 90 dBµv 90 dBµv 90 dBµv 80 dBµv 90 dBµv 60 dBµv 90 dBµv 50 dBµv 90 dBµv	1 AC PS	T 1s e VBW On Notch						M1[1]	 1Pk Мах 63.17 dBµV
100 dBµv 90 dBµv 90 dBµv 80 dBµv 70 dBµv 60 dBµv 50 dBµv 50 dBµv	1 AC PS	T 1 S = VBW : On Notch		h h				M1[1]	 1Pk Мах 63.17 dBµV
100 dBµv 90 dBµv 90 dBµv 90 dBµv 80 dBµv 90 dBµv 60 dBµv 90 dBµv 50 dBµv 90 dBµv	1 AC PS	T 1 S = VBW : On Notch						M1[1]	 1Pk Мах 63.17 dBµV
100 dBµv 90 dBµv 90 dBµv 90 dBµv 80 dBµv 90 dBµv 60 dBµv 90 dBµv 50 dBµv 90 dBµv 30 dBµv 90 dBµv	1 AC PS	r 1s e VBW : On Notch						M1[1]	 1Pk Мах 63.17 dBµV
100 dBµv 90 dBµv 90 dBµv 90 dBµv 80 dBµv 90 dBµv 60 dBµv 90 dBµv 50 dBµv 90 dBµv 30 dBµv 90 dBµv	1AC PS Sweep	T 1 S = VBW : On Notch	0ff 0000 AU			0 MHz/		M1[1]	 1Pk Мах 63.17 dBµV

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				Spurious – Peak
MultiView 🗄 Spectru	m 🕱 Spectrum 2	X Spectrum	3 🕱	▼
Ref Level 107.00 dBµV Att 15 dB SW Input 1 AC PS	● RBW 1 MHz WT 1.01 ms ● VBW 3 MHz Mo On Notch Off	de Auto Sweep		Frequency 1.8295000 GHz
1 Frequency Sweep				• 1Pk Max M1[1] 63.05 dBµV
100 dBµV				1.82944006 GHz
90 dBµV				
80 dBµV				
70 dBµV				
60 dBµV		M		
50 dBµV				
manuturation	have made the server of the server of the		Warden Marcalet and	num manihadramatic data and and
40 dBµV				
30 dBµV				
20 dBµV				
10 dBµV	1001 p	ts	1.0 MHz/	Span 10.0 MHz
				Spurious - Average
MultiView E Spectrum	RBW 1 MHz	X Spectrum 3	3 🛛	Spurious - Average
Ref Level 107.00 dBµV Att 15 dB SW Input 1 AC PS			3 🛛	Spurious - Average
Ref Level 107.00 dBuV Att 15 dB SW Input 1 AC PS I Frequency Sweep	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3 🛛	Spurious - Average Trequency 1.8295000 GHz
Ref Level 107.00 dBµV Att 15 dB SW Input 1 AC PS I Frequency Sweep 100 dBµV 100 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3 🛛	Spurious - Average
Ref Level 107.00 dBµ/ Att 15 dB SW Input 1 AC PS I Frequency Sweep 100 dBµ/	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3 🛛	Spurious - Average
Ref Level 107.00 dBµV Att 15 dB SW Input 1 AC PS I Frequency Sweep 90 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3 🕱	Spurious - Average
Ref Level 107.00 dBμV Att 15 dB SW Input 1 AC PS Is requency Sweep 100 dBμV 90 dBμV 90 dBμV 80 dBμV 90 dBμV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3 🗶	Spurious - Average
Ref Level 107.00 dBj/V Att 15 dB SW Input 1 AC Is PS Influency Sweep 100 dBµV 90 dBµV 80 dBµV 90 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average
Ref Level 107.00 dBj/V Att 15 dB SW Input 1 AC PS I Frequency Sweep 100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average
Ref Level 107.00 dBj/V Att 15 dB SW Input 1 AC PS I Frequency Sweep 100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average
Ref Level 107.00 dB/JV Att 15 dB SW Input 1 AC PS Is 1 AC PS Is Is 90 dB/V 90 dB/V 80 dB/V 90 dB/V 90 dB/V 90 dB/V	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average
Ref Level 107.00 dBµV Att 15 dB SW Input 1 AC PS Input 1 AC PS I Frequency Sweep 90 dBµV 90 dBµV 90 dBµV 80 dBµV 60 dBµV 50 dBµV 90 dBµV 30 dBµV 90 dBµV	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average
Ref Level 107.00 dB/JV Att 15 dB SW Input 1 AC PS Is 1 AC PS Is Is 90 dB/V 90 dB/V 80 dB/V 90 dB/V 90 dB/V 90 dB/V	● RBW 1 MHz WT 1 s ● VBW 10 Hz Mode A		3	Spurious - Average

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							S	purious	s – Peak
MultiView	Spectrum	x Sp	pectrum 2	X Spectr	um 3 🛛 🗴	3			▽
Ref Level 107. Att	.00 dBµV 15 dB SWT	● RB 1.01 ms ● VB	W 1 MHz W 3 MHz Moo	le Auto Sweep		<u> </u>	Fn	equency 2.74	442500 GHz
Input 1 Frequency Sv	1 AC PS weep	On No	itch Off						• 1Pk Max
100 dBµV								M1[1] 2.	60.89 dBµV 74429995 GHz
90 dBµV									
80 dBµV									
70 dBµV									
					11				
60 dBµV									
50 dBµV				<i>×</i>		and the second sec			
40 dBµV	withours	mondersenses	and a state of the			Marger	er malle an much	Mansonder	andorman
30 dBµV									
20 dBµV									
10 dBµV									
CF 2.74425 GH	Z		1001 pt	s	1	.0 MHz/		5	Span 10.0 MHz
							Spur		Augrage
							Spui	10us - i	Average
Multi\/iew	Spectrum		nectrum 2	Spectr	um 3 🛛 🕅	7	Spui	1005 - 7	Average
MultiView 3 Ref Level 107. Att	.00 dBµV	• RBW 1	Dectrum 2 L MHz 10 Hz Mode Au	X Spectr	um 3 🛛 🛛				
	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1			um 3 🛛 🛛	2		equency 2.74	▼ 442500 GHz ● 1Pk Max
Ref Level 107. Att Input	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🛛	2		equency 2.74	▼ 442500 GHz ● 1Pk Max
Ref Level 107. Att Input 1 Frequency Sv 100 dBµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🗴			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 Frequency Sv	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 (x			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 Frequency Sv 100 dBµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🗴			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 Frequency Sv 100 d8µV 90 d8µV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🗴			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 Frequency Sy 100 d8µV 90 d8µV 80 d8µV 70 d8µV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🛛			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107 Att Jnput Input 100 d8µV 90 d8µV 90 d8µV 80 d8µV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 (x			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 10 d8μV 90 d8μV 80 d8μV 70 d8μV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 2			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 (x			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 100 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV 50 dBµV 40 dBµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🛛			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 100 dbµV 90 dbµV 80 dbµV 70 dbµV 60 dbµV 50 dbµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 (3			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input 1 100 dbµV 90 dbµV 80 dbµV 80 dbµV 60 dbµV 50 dbµV 40 dbµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 🛛 🗴			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV
Ref Level 107. Att Input Input 100 dBµV 90 dBµV 90 dBµV 80 dBµV 70 dBµV 60 dBµV 50 dBµV 40 dBµV 30 dBµV	.00 dBµV 15 dB SWT 1 AC PS	• RBW 1 1 s • VBW 1	I MHz 10 Hz Mode Au		um 3 (2			equency 2.74	▼ 442500 GHz ● 1Pk Max 57.78 dBµV

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							S	purious	s – Peak
MultiView	# Spectrum	xs	pectrum 2	X Spectr	um 3 🛛 🕱	3			▽
Ref Level 107 Att	7.00 dBµV 15 dB SWT	● RE 1.01 ms ● VE	3WF 1 MHz 3WF 3 MHz Moo	le Auto Sweep		1	Fn	eauency 3.6	590000 GHz
Input 1 Frequency S	1 AC PS Sweep	On No	otch Off						• 1Pk Max
100 dBµV								M1[1] 3.	57.08 dBµV 65904995 GHz
90 dBµV									
80 dBµV									
70 dBµV									
60 dBµV					<u></u>				
50 dBµV				and the second s	- Con				
Имп Мисти 40 dвµV	an and present	unmaled	hundhand			MANN	howman	Hullmannen	whenman
40 UBHV									
30 dBµV									
20 dBµV									
10 dBµV			1001 pt	s	1	.0 MHz/		5	pan 10.0 MHz
							Sour	ious –	Average
							opui	1000 /	
MultiView Ref Level 107		■ RBW	pectrum 2	X Spectr	rum 3 🛛 🛛				▽
Att Input	15 dB SWT 1 AC PS	1 s ⊜ VBW	10 Hz Mode Au Off	ito Sweep			Fn	equency 3.6	590000 GHz
1 Frequency S	Sweep							M1[1]	 1Pk Max 53.26 dBμV
100 dBµV								3.	65900000 GHz
90 dBµV									
80 dBµV									
00 UBHV									
70 dBµV									
60 dBµV									
					1				
50 dBµV									
40 dBµV				/					
30 dBµV									
20 dBµV									
10 dBµV									
CF 3.659 GHz	1		1001 pt	Ś	1	.0 MHz/	1	5	pan 10.0 MHz

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• RFID _ High frequency

						S	purious	- Peak
Marilla Gaussian Co		nostrum 2			<u>,</u>			_ ▽
MultiView E Sp Ref Level 107.00 dB	μV • R	pectrum 2 BW 1 MHz	X Spectr	rum 3 🛛 🗴	<u> </u>			
Att 15 Input 1. I Frequency Sweep		BWF 3 MHz Moo otch Off	le Auto Sweep			Fr	equency 1.53	• 1Pk Max
							M1[1]	64.90 dBµV 53654995 GHz
100 dBµV							1.	53034993 GHZ
90 dBµV								
80 dBµV								
70 dBµV				41				
60 dBµV								
50 dBµV	Marrahaman	in the backharden			muller	a	polonam	
40 dBµV	Contraction and Different Contractions					and a construction of the		and the for the start
30 dBµV								
20 dBµV								
10 dBµV								
CF 1.5365 GHz		1001 pt	s	1	.0 MHz/		S	pan 10.0 MHz
						Spur	ious - /	Average
					_			
MultiView Sp Ref Level 107.00 dB		pectrum 2	X Spectr	um 3 🛛 🛛				▽
Att 15 Input 1	dB SWT1s ●VBW AC PS On Notch	10 Hz Mode Au Off	to Sweep			Fn	equency 1.53	
1 Frequency Sweep							M1[1]	 1Pk Max 63.84 dBμV
100 dBµV							1.	53648002 GHz
90 dBµV								
80 dBµV								
80 dBµV 70 dBµV								
70 dBµV								
			H					
70 dBµV			H					
70 dBµV								
70 dBµV								
70 dBµV			K					
70 dBµV			M					
70 dBµV 60 dBµV 50 dBµV 40 dBµV 30 dBµV								

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						S	purious	s - Peal
MultiView 🗄 S	pectrum 🕱	Spectrum 2	X Spectr	um 3 🛛 🛛]			▽
RefLevel 107.00 d Att 15	BµV 5dB S₩T 1.01 ms € IAC PS On	RBW 1 MHz VBW 3 MHz Moo	le Auto Sweep			Fre	equency 1.8	545000 GHz
Input 1 Frequency Swee	p	Noteri					M1[1]	1Pk Max 67.00 dBµV
00 dBµV								85450000 GHz
0 dBµV								
0 dBµV								
0 dBµV								
0.000								
0 dBµV								
60 dBµV					No.			
per Marthana and an	hannahimana	and the second where			When from	implanted	mound	menthem
40 dBμV								
10 dBµV								
20 dBµV								
.0 dBµV								
F 1.8545 GHz		1001 pt	S	1	.0 MHz/			Span 10.0 MHz
						Spur	ious – ,	Average
MultiView 🗄 S	pectrum 🛛	Spectrum 2	X Spectr	rum 3 🛛 🕱	.)	Spur	ious – ,	Average
Ref Level 107.00 d Att 15	BµV ● RBN 5dB SWT 1s ● VBN	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🗴				▽
Ref Level 107.00 d Att 15 Input 1	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🛛			equency 1.8	⊽ 545000 GH2 ● 1Pk Max
Ref Level 107.00 d Att 15 Input 1 Frequency Swee	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🕱]		equency 1.8	⊽ 545000 GH2
Ref Level 107.00 d Att 13 Input 14 Frequency Sweet 00 dBµV	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 (x			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 13 Input 14 Frequency Sweet 00 dBµV	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🛛			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 11 Frequency Sweet 00 dBµV 10 dBµV	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		um 3 (x			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 11 is requency Sweet 00 d8μV 10 d8μV 10 d8μV	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🛛			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 11 11 11 Input 14 12 12 10 d8μV 10 14 12 10 d8μV 10 14 12 10 d8μV 10 14 14 10 d8μV 10 14 14	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		um 3 (x			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 11 Incertain 10 11 In dep/ 11 10 dep/ 11	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 2			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 Input 15 Incore 16 00 dBµV 10	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 a			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 Input 15 Incore 16 00 dBµV 10	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🛛			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 10 dbµV 15 10 dbµV 16 10 dbµV 16 10 dbµV 17 10 dbµV 16 10 dbµV 17	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 2			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 10 dbµV 16 10 dbµV 16 10 dbµV 16 10 dbµV 17 10 dbµV 18 10 dbµV 19 10 dbµV 10	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 🛛 🛛			equency 1.8	▼ 545000 GH2 ● 1Pk Max 62.48 dBµV
Input 1 I Frequency Swee 1 100 dbµV 1 90 dbµV 1 80 dbµV 1 90 dbµV 1	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 2			equency 1.8	▼ 545000 GHz ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 10 dbµV 15 10 dbµV 16 10 dbµV 16 10 dbµV 17 10 dbµV 18 10 dbµV 19 10 dbµV 10	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 2			equency 1.8	▼ 545000 GHz ● 1Pk Max 62.48 dBµV
Ref Level 107.00 d Att 11 Input 14 10 dbµV 16 10 dbµV 16 10 dbµV 16 10 dbµV 17 10 dbµV 18 10 dbµV 19 10 dbµV 10	BµV ● RBV 5 dB SWT 1 s ● VBV LAC PS On Not	ø WF 1 MHz WF 10 Hz Mode Au		rum 3 2			equency 1.8	545000 GHz 1Pk Max 62,48 dBµV

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							S	purious	s – Peak
MultiView #	Spectrum	x Sp	ectrum 2	X Spectr	um 3 🛛 🗴				∇
Ref Level 107.0 Att	15 dB SWT	1.01 ms 🖶 VB	WI1 MHz WI3 MHz Moo	le Auto Sweep		_A	Fr	equency 2.78	 317500 GHz
Input 1 Frequency Sw	1 AC PS veep	On Not	tch Off					M1[1]	 1Pk Max 62.38 dBµV
100 dBµV									78175999 GHz
90 dBµV									
90 UDPV									
80 dBµV									
70 dBµV									
60 dBµV					1				
00 00047									
50 dBµV		Jurnan	11 Jack marker	1		Marriage Production	naa habara maa kilo	and the case	emphatication
40 dBµV			invenio -					a and the market	
30 dBµV									
55 dbp1									
20 dBµV									
10 dBµV									
CF 2.78175 GHz	2		1001 pt	S	1	.0 MHz/			span 10.0 MHz
							Spur	ious – ,	Average
MultiView 8	Spectrum	x Sp	ectrum 2	X Spectr	um 3 🛛 🔊				▽
Ref Level 107.0 Att Input	15 dB SWT	● RBW 1 1 s ● VBW 1 On Notch	MHz 10 Hz Mode Au Off	ito Sweep			Fr	equency 2.78	317500 GHz
1 Frequency Sw		on Noter						M1[1]	 1Pk Max 58.30 dBµV
100 dBµV									78173002 GHz
90 dBµV									
80 dBµV									
70 dBµV									
60 dBµV				н	1				
50 dBµV			1						
40 dBµV									
30 dBµV									
20 dBµV									
10 dBµV									
CF 2.78175 GHz	Z		1001 pt	S	1	.0 MHz/		5	Span 10.0 MHz

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							S	purious	s – Peak
MultiView	Spectrum	xs	pectrum 2	X Spectr	.um 3 🛛 🗴	.)			▽
RefLevel 107 Att	15 dB SWT	1.01 ms 🖶 VI	BWF 1 MHz BWF 3 MHz Moo	le Auto Sweep		-	Fn	equency 3.70)90000 GHz
Input 1 Frequency S	1 AC PS weep	On N	otch Off						• 1Pk Max
100 dBµV								M1[1] 3.	55.73 dBµV 70910989 GHz
90 dBµV									
80 dBµV									
70 dBµV									
60 dBµV					M1 ▼.				
50 dBµV				Marian	and have been a second				
	ummum	ant Markanen	mall and and a starter	le contra de la contra de	ب هر	manun		manhaha	mandum
40 dBµV									
30 dBµV									
20 dBµV									
10 dBµV									
CF 3.709 GHz			1001 pt	S	1	.0 MHz/			pan 10.0 MHz
							Spur	ious – ,	Average
MultiView	Spectrum	xs	pectrum 2	X Spectr	rum 3 🛛 🗴]			∇
Ref Level 107 Att	15 dB SWT	● RBW 1 s ● VBW	10 Hz Mode Au	to Sweep		_	Fr	equency 3.70)90000 GHz
Input 1 Frequency S		On Notch	Off					M1[1]	• 1Pk Max 51.61 dBµV
100 dBµV									70900000 GHz
90 dBµV									
80 dBµV									
70 dBµV									
60 dBµV									
50 dBµV					1				
40 dBµV			- /	<u>v</u>					
30 dBµV									
20 da.u.									
20 dBµV									
10 dBµV			1001						
CF 3.709 GHz			1001 pt	s	1	.0 MHz/		5	Span 10.0 MHz

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7. Conducted Emission

7.1 Test Setup

See test photographs for the actual connections between EUT and support equipment.

7.2 Limit

According to §15.207(a) for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network (LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

	Conducted Limit (dBuV)					
Frequency Range (MHz)	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

12.3 Test Procedure

Conducted emissions from the EUT were measured according to the ANSI C63.10.

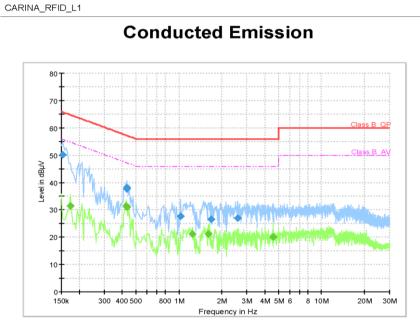
- The test procedure is performed in a 6.5 m × 3.5 m × 3.5 m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m (W) × 1.5 m (L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
- The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
- 3. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
- 4. The excess power cable between the EUT and the LISN was bundled. The power cables of peripherals were unbundled. All connecting cables of EUT and peripherals were moved to find the maximum emission.

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7.4 Test Result

• AC Line Conducted Emission (Graph)

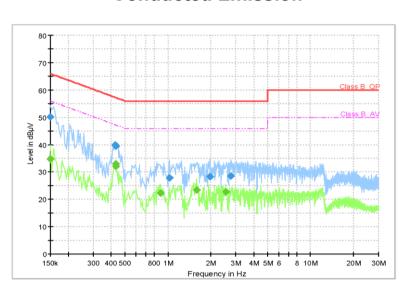


Final Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Bandwidth	Line	Corr.
(MHz)	(dBµV)	(dBµV)	(dBµV)	(dB)	(kHz)		(dB)
0.154	50.03		65.78	15.75	9	L1	19.6
0.174		31.48	54.77	23.28	9	L1	19.8
0.426		31.43	47.33	15.90	9	L1	19.6
0.430	38.03		57.25	19.22	9	L1	19.6
0.434		30.96	47.18	16.22	9	L1	19.6
0.434	37.56		57.18	19.61	9	L1	19.6
1.030	27.61		56.00	28.39	9	L1	19.7
1.240		21.08	46.00	24.92	9	L1	19.7
1.610		21.16	46.00	24.84	9	L1	19.7
1.680	26.54		56.00	29.46	9	L1	19.7
2.570	26.86		56.00	29.14	9	L1	19.7
4.570		20.16	46.00	25.84	9	L1	19.8

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Conducted Emission

Final_Result

CARINA_RFID_N

Frequency	QuasiPeak	CAverage	Limit	Margin	Bandwidth	Line	Corr.
(MHz)	(dBµV)	(dBµV)	(dBµV)	(dB)	(kHz)		(dB)
0.150		34.85	56.00	21.15	9	N	19.6
0.150	50.23		66.00	15.77	9	N	19.6
0.426	39.86		57.33	17.47	9	N	19.7
0.430		32.96	47.25	14.29	9	N	19.7
0.434	39.38		57.18	17.80	9	N	19.7
0.434		32.11	47.18	15.06	9	N	19.7
0.890		22.30	46.00	23.70	9	N	19.8
1.030	27.84		56.00	28.16	9	N	19.8
1.590		23.51	46.00	22.49	9	N	19.7
1.970	28.38		56.00	27.62	9	N	19.7
2.540		22.75	46.00	23.25	9	N	19.7
2.770	28.49		56.00	27.51	9	N	19.7

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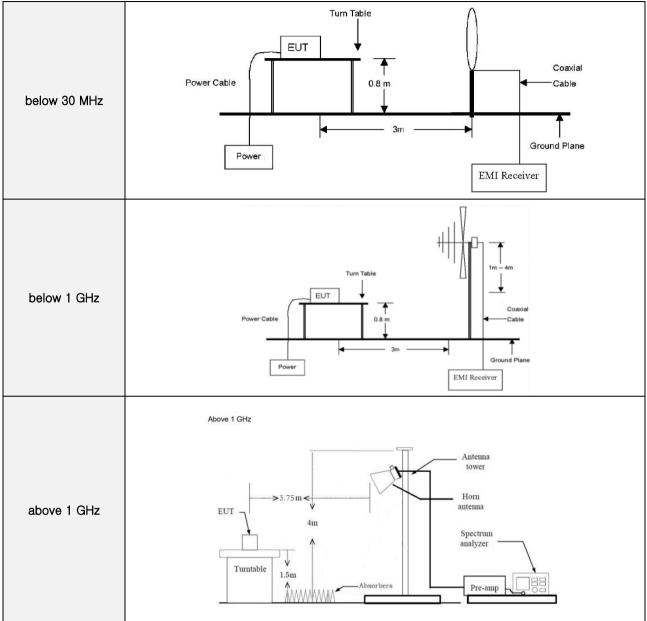
APPENDIX I

TEST SETUP

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Radiated Measurement



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APPENDIX II

UNCERTAINTY

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Measurement Item	Expanded Uncertainty U = <i>k</i> Uc (<i>k</i> =2)			
Conducted RF power	0.34 dB			
Conducted Spurious Emissions	0.34 dB			
Radiated Spurious Emissions	5.82 dB			
Conducted Emissions	2.00 dB			