

FCC CFR47 PART 15 SUBPART C INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

BT SCANNER WITH 1D LINEAR IMAGER

MODEL NUMBER: LI4278

FCC ID: UZ7LI4278 IC: 109AN-LI4278

REPORT NUMBER: 11CA43439

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:					
EUT DESCRIPTION:	EUT DESCRIPTION: BT Scanner with 1D Linear Imager				
MODEL: LI4278					
SERIAL NUMBER: LI_EVAL_117 and LI_EVAL_121					
DATE TESTED:	ESTED: 2011-09-21 to 2011-10-04				
	APPLICABLE STANDARDS{PRIVATE }				
:	STANDARD TEST RESULTS				
CFR 47	Pass				
INDUSTRY CANA	Pass				
INDUSTRY C	Pass				

Underwriters Laboratories Inc. tested the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Inc. based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation, as described by the referenced documents. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL By:

Tested By:

Bob DeLisi Senior Staff Engineer UL

Mirtal At

Mike Antola Senior Project Engineer UL

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 1285 Walt Whitman Rd. Melville, NY 11747, USA.

UL Melville is accredited by NVLAP, Laboratory Code 100255-0. The full scope of accreditation can be viewed at <u>http://ts.nist.gov/standards/scopes/1002550.htm</u>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB) 36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.3 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.00 dB

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an image scanner, Model: LI4278, which has a Bluetooth transceiver internally imbedded.

The radio module is manufactured by Motorola Solutions Inc.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range	Mode	Output Power	Output Power
(MHz)		(dBm)	(mW)
2402 - 2480	GFSK	3.43	2.20
2402 - 2480	QPSK	3.06	2.02
2402 - 2480	8PSK	3.41	2.19

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an SMD antenna, with a maximum gain of 2.7 dBi.

5.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was STB2078 Regulatory Test App, rev. 1.10.

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power. This was found to be 8PSK, DH5 and GFSK, DH5.

The EUT can be operated in either a Passthru Cradle or Charging Cradle. The worse-case configuration was deemed to be with the Passthru Cradle. Therefore, all radiated testing was performed under this configuration.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description Manufacturer Model Serial Number							
Passthru Cradle	Motorola Solutions Inc.	STB4278	1119100503197	H9PLMX5452			
Charge Cradle	Motorola Solutions Inc.	STB4208	1115400504980	UZ7CR0078			
Power Supply	Motorola Solutions Inc.	PWRS-14000-148R	10196-C6-0821306-888C	N/A			
Power Supply	Motorola Solutions Inc.	PWRS-14000-253R	F33351045000996	N/A			

I/O CABLES

	I/O CABLE LIST							
Cable	Port	# of	Connector	Cable	Cable	Remarks		
No. Identica Type			Туре	Туре	Length			
		Ports						
	RS232 Host					Connects Passthru Cradle		
1	Cable	1	RJ45/DB9	Ethernet	>3M	to support PC		

TEST SETUP

The EUT is synced with the Passthru Cradle during the tests. Test software exercised the radio.

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SETUP DIAGRAM FOR TESTS



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6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

	Test Equipment Used						
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due		
Radiated Emiss	sions			·			
30-1000MHz							
EMI Receiver	Rohde & Schwarz	ESIB40	34968	2011-03-01	2012-03-01		
Bicon Antenna	Schaffner	VBA6106A	43441	2010-09-09	2011-09-30		
Log-P Antenna	Schaffner	UPA6109	44068	2011-04-05	2012-04-05		
Switch Driver	HP	11713A	ME7A-627	N/A	N/A		
System				N/A	N/A		
Controller	Sunol Sciences	SC99V	44396				
Camera				N/A	N/A		
Controller	Panasonic	WV-CU254	44395				
RF Switch Box	UL	1	44398	N/A	N/A		
Measurement				N/A	N/A		
Software	UL	Version 9.3	44740				
Temp/Humidity/	0 L D	00700.00	4000	2010-12-07	2012-12-07		
Pressure Meter	Cole Parmer	99760-00	4268	0011.00.01			
Multimeter	Fluke	83111	ME5B-305	2011-02-01	2012-02-29		
Above 1GHz (Ba	nd Optimized Syster	n)	Τ	0044.07.00	0040 07 00		
Spectrum	Agilant		70000	2011-07-26	2012-07-26		
Analyzer	Aglient	E4440A	12823	2000 02 20			
Hom Antenna	ETS	2161 01	51440	2008-03-28	See below		
(1-2GHZ)	E13	3101-01	51442	2007 00 27	Soo * bolow		
(2-4 GHz)	FTS	3161-02	48107	2007-09-27	See Delow		
Horn Antenna		5101.02	40107	2007-09-27	See * below		
(4-8 GHz)	FTS	3161-03	48106	2007 03 27	Occ below		
Horn Antenna				2008-11-24	See * below		
(8-12 GHz)	ETS	3160-07	8933				
Horn Antenna	_			2007-09-27	See * below		
(12-18 GHz)	ETS	3160-08	8932				
Horn Antenna				2007-09-26	See * below		
(18-26.5 GHz)	ETS	3160-09	8947				
Signal Path				N/A	N/A		
Controller	HP	11713A	50250				
Gain Controller	HP	11713A	50251	N/A	N/A		
RF Switch /				N/A	N/A		
Preamp Fixture	UL	BOMS1	50249				
System		501/00		N/A	N/A		
Controller	UL	BOMS2	50252				
Measurement		Version 0.0	44740	N/A	N/A		
Software	UL	version 9.3	44740		0040 40 07		
I emp/Humidity/	Colo Dorres ar	00700.00	4000	2010-12-07	2012-12-07		
Pressure Meter		99760-00	4200	2011 02 01	2012 02 20		
iviultimeter	FIUKE	୪୪୩୮	ME28-302	2011-02-01	2012-02-29		

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Test Equipment Used						
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due	
* - Note: As allowed by the calibration standard ANSI C63.4 Section 4.4.2, standard gain horns need only a one-time calibration. Only if physical damage occurs will the horn antenna require re-calibration.						
* Gain standard horn antennas (sometimes called standard gain horn antennas) need not be calibrated beyond that which is provided by the manufacturer unless they are damaged or deterioration is suspected, or they are used at a distance closer than $2D^2/\lambda$. Gain standard horn antennas have gains that are fixed by their dimensions and dimensional tolerances.						

Test Equipment Used							
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due		
Conducted Emi	ssions – GP 1						
	Rohde &			2011-01-27	2012-01-31		
EMI Receiver	Schwarz	ESIB26	ME5B-081				
LISN	Solar	9252-50-R-24-BNC	ME5A-636	2011-02-04	2012-02-28		
Switch Driver	HP	11713A	44397	N/A	N/A		
RF Switch Box	UL	4	44404	N/A	N/A		
Measurement				N/A	N/A		
Software	UL	Version 9.3	44736				
Temp/Humidity/				2010-03-08	2012-03-08		
Pressure Meter	Cole Parmer	99760-00	43734				
Multimeter	Fluke	43443	2011-02-01	2012-02-29	43443		

Test Equipment Used							
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due		
Conducted RF	Tests						
Spectrum				2011-07-02	2012-07-02		
Analyzer	Agilent	E4446A	72822				
Power Meter	HP	437B	71769	2011-05-17	2012-05-17		
Power Meter				2011-05-17	2012-05-17		
Sensor	HP	8481A	71770				
Temp/Humidity/				2010-03-08	2012-03-08		
Pressure Meter	Cole Parmer	99760-00	43734				

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7. ANTENNA PORT TEST RESULTS

7.1. DH5 DATA RATE GFSK MODULATION

7.1.1. 20 dB AND 99% BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to \geq 1% of the 20 dB bandwidth. The VBW is set to \geq RBW. The sweep time is coupled.

RESULTS

Channel	Frequency	20 dB Bandwidth	99% Bandwidth
	(MHz)	(kHz)	(kHz)
Low	2402	1120	859.4
Middle	2441	1125	903.4
High	2480	1120	874.1

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20 dB AND 99% BANDWIDTH



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7.1.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

IC RSS-210 A8.1 (b)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hoping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

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HOPPING FREQUENCY SEPARATION



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7.1.3. NUMBER OF HOPPING CHANNELS

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

79 Channels observed.

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NUMBER OF HOPPING CHANNELS



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7.1.4. AVERAGE TIME OF OCCUPANCY

<u>LIMIT</u>

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

RESULTS

Time of Occupancy = 10 * xx pulses * yy msec = zz msec

DH Packet	Pulse	Number of	Average	Limit	Margin
	(msec)	Pulses in 3.16	Time of (sec)	(sec)	(sec)
	(/	seconds	(/	(/	()
DH1	0.38	32	0.122	0.4	0.278
DH3	1.63	16	0.261	0.4	0.139
DH5	2.88	11	0.317	0.4	0.083

GFSK Mode

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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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7.1.5. OUTPUT POWER

<u>LIMIT</u>

§15.247 (b) (1)

RSS-210 Issue 8 Clause A8.4

The maximum antenna gain is less than 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

<u>RESULTS</u>

Channel	Frequency	Output Power	Limit	Margin
	(MHz)	(dBm)	(dBm)	(dB)
Low	2402	3.43	30	-26.57
Middle	2441	3.05	30	-26.95
High	2480	2.61	30	-27.39

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OUTPUT POWER



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					Mk	r1 2.440 i	883 GHz
ef 11 dBm	At	ten 10 dB				3	.05 dBm
Peak			1				
og			<u> </u>				
B/							
ffst							
8							
gAv							
1 S2							
3 FC							
m:							
Tun							
wp							

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Atten 10	dB		7.61 dBm
	1		
	\		
	Atten 10	Atten 10 dB 3 <tr< td=""><td>Atten 10 dB 3 3 3</td></tr<>	Atten 10 dB 3 3 3

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7.1.6. AVERAGE POWER

<u>LIMIT</u>

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency	Average Power	
	(MHz)	(dBm)	
Low	2402	2.04	
Middle	2441	1.65	
High	2480	1.12	

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7.1.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Limit = -20 dBc

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

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SPURIOUS EMISSIONS, LOW CHANNEL



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SPURIOUS EMISSIONS, MID CHANNEL



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SPURIOUS EMISSIONS, HIGH CHANNEL



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SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON



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7.2. DH5 DATA RATE 8PSK MODULATION

7.2.1. 20 dB AND 99% BANDWIDTH

<u>LIMIT</u>

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to \geq 1% of the 20 dB bandwidth. The VBW is set to \geq RBW. The sweep time is coupled.

<u>RESULTS</u>

Channel	Frequency	20 dB Bandwidth	99% Bandwidth
	(MHz)	(kHz)	(kHz)
Low	2402	1120	918.5
Middle	2441	1125	870.7
High	2480	1125	893.5

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20 dB AND 99% BANDWIDTH



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7.2.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

IC RSS-210 A8.1 (b)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hoping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

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HOPPING FREQUENCY SEPARATION



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7.2.3. NUMBER OF HOPPING CHANNELS

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

79 Channels observed.

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NUMBER OF HOPPING CHANNELS



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7.2.4. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

RESULTS

Time of Occupancy = 10 * xx pulses * yy msec = zz msec

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupan cy (sec)	Limit (sec)	Margin (sec)
DH1	0.38	32	0.122	0.4	0.278
DH3	1.63	16	0.261	0.4	0.139
DH5	2.88	11	0.317	0.4	0.083

8PSK Mode

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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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PULSE WIDTH



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NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



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7.2.5. OUTPUT POWER

<u>LIMIT</u>

§15.247 (b) (1)

RSS-210 Issue 8 Clause A8.4

The maximum antenna gain is less than 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

<u>RESULTS</u>

Channel	Frequency	Output Power	Limit	Margin
	(MHz)	(dBm)	(dBm)	(dB)
Low	2402	3.41	30	-26.59
Middle	2441	3.06	30	-26.94
High	2480	2.62	30	-27.38

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OUTPUT POWER



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	000 21, 2011		Mkr1	2 440 967 CHz	
ef 11 dBm	Atten 10 dB		3.06 dBm		
Peak		1			
og		•			
8/					
líst					
3					
JAv					
1 S2					
f):					
Fun					
wp					

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Rynein 01.12.35	3ep 21, 2011		Л	MI-4 2 470	042 CH-
ef 11 dBm	Atten 10 d	R		MKM 2.479	942 GHZ 2 62 dBm
Peak					2.02 00111
og		<u> </u>			
3/					
3					
JAV					
1 S2					
3 FC					
AA					
η: Γυρ					
wp					

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7.2.6. AVERAGE POWER

<u>LIMIT</u>

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency	Average Power	
	(MHz)	(dBm)	
Low	2402	2.03	
Middle	2441	1.65	
High	2480	1.12	

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7.2.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Limit = -20 dBc

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

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SPURIOUS EMISSIONS, LOW CHANNEL



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SPURIOUS EMISSIONS, MID CHANNEL



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SPURIOUS EMISSIONS, HIGH CHANNEL



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SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON



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8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

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8.2. TRANSMITTER ABOVE 1 GHz

8.2.1. DH5 DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

I O UL E	MC - Melville 27 Sep 2011 13:41:35
	Restricted Bandedge
90	Matarola Salutions Inc. Madel: L14278 - GFSK Low Ch. BT Scanner w Linear Imager Project#: 11CA43439 Tested by: MA
80 Re	trictad Bond - Peok
70	
64H	
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50	creanthala-aireanna an tarthall an thaireanna ann an tarthal ann ann ann ann ann ann ann ann ann a
50 <u></u>	croweddylawda, agerlynystaf sylfred felynywraeth ferdda fawraitwr feryfer daethaethynef hyr Printer Prestan Printer (1997)
50 40 30	<pre>crowsed.dow.meepi.dowstad.tubre </pre>
50 40 30	<pre>cmaxxxxddybaandquargesdyddyddiaddiaddaadaandaanaadaanaadaanaadaanaadaanaadaad</pre>
50 40 30	
50 40 30 20	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
50 40 30 20 2310	Frequency [MHz]

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90 UL EMC Test System	27 Sep 2011 13:55:55
	Restricted Bandedge
30	Motarola Solutions Inc. Model: L14278 - GFSK Low Ch. BT Scanner w Linear Imager Project#: 11CA43439 Totted buy Mo
///	Tested by. HH
50	
Restricted Band - Avg	
50	
40	
30	
20	
0	
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2310	230
	Frequency [MHz]
dge Low Uh Hvg 615K.URI	

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RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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90 UL EMC Test System	27 Sep 2011 13:55:55
	Restricted Bandedge
80	Motorola Solutions Inc. Model: L14278 - GFSK Low Ch. BT Scanner w Linear Imager Project#: 11CA43439 Tested bu: Mo
70	restor sg. mit
60	
Restricted Band - Avg	
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40	
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9	
2210	2005
2010	Frequency [MHz]
ledge Low Ch Rvg GFSK.DAT	

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RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



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80 Material Restricted Bander Material 14278 - 6 BT Scanner w Linear Project#: 11CA43439 Tested by: MA	ige Inc. FSK High Ch. Imager
70 Matanala Salutions Madel: L14278 - C BT Scanner w Linear Project#: 11CA43439 Tested by: MA	Inc. FSK High Ch. Imager
70 lested by: MA	
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Restricted Band - Avg	
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A	
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183 5	250
103.0	

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RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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90 CE ENC Test system	1		27 Sep 2011	14:40:03
		R	estricted Bandedge	
30		Mi Mi B' Pi	otorola Solutions Inc. odel: LI4278 – GFSK High Ch. [Scanner w Linear Imager pject#: l1CA43439	
70		T	ested by: MA	
50				
Kestricted Band	I - Avg			
50				
10				
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20				
0				
0				
483.5		Francis FM		2500
dge High Ch Avg GFSK.DAT		in equallegi th		

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RESTRICTED BANDEDGE (LOW CHANNEL, PK & AVG, HORIZ & VERT)

Model: LI4278 - BT Scanner w Lii									
Model: LI4278 BT Scanner w Li	ions Inc.								
BI Scanner w Li	- GFSK Low Ch.								
	near Imager								
Project#: 11CA4	13439								
Tested by: MA									
PEAK MEASUREN	MENT								
Horizontal 2310	- 2390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Peak	Margin	Height [cm]	Polarity
2389.44	35.22	PK	21.1	4.3	60.62	74	-13.38	100	Horz
Vertical 2310 - 2	2390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Peak	Margin	Height [cm]	Polarity
2389.2	34.18	PK	21.3	4.31	59.79	74	-14.21	100	Vert
AVERAGE MEAS	UREMENT								
Horizontal 2210	- 2390MH+								
Test Frequency	Mater Reading	Detector	AE-48107 [dp]	BOMS Factor [dB]	dB[uVolts/metor]	Restricted Band, Avg	Margie	Haight [cm]	Polarity
2200 44	21.01	Au	Ar-46107 [08]	BOINS FACTOR [UB]	47.21	Restricted band - Avg	6 70	Height [chi]	Here
2505.44	21.01	AV	21.1	4.5	47.21	54	-0.79	100	HOLZ
Vertical 2310 - 2	390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Avg	Margin	Height [cm]	Polarity
2389.44	21.82	Av	21.3	4.3	47.42	54	-6.58	100	Vert
PK Paak datast	or.								
OP - Ouasi-Peak	detector								
LoAv-Linear Ave	arage detector								
Leav-Log Avera	erage detector								
Av. Average det	sedetector								
CAV - CISPP Ave	rana datactor								
DAY - CISER AVE	rage detector								
CRMS - CISPR PM	S detection								
Chivia - Clark Niv	sterection								

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RESTRICTED BANDEDGE (HIGH CHANNEL, PK & AVG, HORIZ & VERT)

Model: Ll4278 - GFSK High Ch. Image Image <t< th=""></t<>
Model, Liver V - Stork high Chi. BT Scanner w Linear I mager Project#: 11CA43439 Tested by: MA PEAK MEASUREMENT Horizontal 2483.5 - 2500MHz Test Frequency Meter Reading 2483.59 33.59 PK 2483.59 33.59 PK 21.6 AF-48107 [dB] BOMS Factor [dB] BOMS Factor [dB] BOMS Factor [dB] dB[uVolts/meter] AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.64 AF-48107 [dB] BOMS Factor [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.64 AF-48107 [dB] BOMS Factor [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.64 AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P AF-48107 [dB] AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P AF-48107 [dB] AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P AF-48107 [dB] AF-48107 [dB] A
OF Octamer W Chreat Mager Imager
Indication incomposition Indication Indication <thindication< th=""> Indication</thindication<>
PEAK MEASUREMENT Image: marked op: marked
PEAK MEASUREMENT Image: measure
Average Measures Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.649 33.74 PK 21.4 4.27 59.41 74 -14.59 100 H Vertical 2483.5 - 2500MHz Image: Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.599 33.59 PK 21.6 4.26 59.45 74 -14.55 100 V 2483.649 33.59 PK 21.6 4.26 59.45 74 -14.55 100 V 2483.599 33.59 PK 21.6 4.26 59.45 74 -14.55 100 V AVERAGE MEASUREMENT Image: Meanue of the state of t
Test Frequency Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.649 33.74 PK 21.4 4.27 59.41 74 -14.59 100 H Vertical 2483.5 - 2500MHz Image: PK 21.6 AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.599 33.59 PK 21.6 4.26 59.45 74 -14.55 100 V AVERAGE MEASUREMENT Image: PK 21.6 4.26 59.45 74 -14.55 100 V Horizontal 2483.5 - 2500MHz Image: PK Imag
Ale alors Bit alors PK 21.4 Alors PK 21.4 Alors PK 21.4 Alors PK 100 H Vertical 2483.5 - 2500MHz Image: Alors Im
Vertical 2483.5 - 2500MHzDetectorAF-48107 [dB] 2483.599BOMS Factor [dB] 3.59dB[uVolts/meter] 59.45Restricted Band - Peak 74Margin 14.55Height [cm] 100PAVERAGE MEASUREMENTImage: constraint of the second seco
Vertical 2483.5 - 2500MHz Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.599 33.59 PK 21.6 4.26 59.45 74 14.55 100 V AVERAGE MEASUREMENT Image: Comparison of the participation of the
Test Frequency Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Peak Margin Height [cm] P 2483.599 33.59 PK 21.6 4.26 59.45 74 14.55 100 V AVERAGE MEASUREMENT Image: Company of the state of th
2483.599 33.59 PK 21.6 4.26 59.45 74 -14.55 100 V AVERAGE MEASUREMENT Average Measurement Average Measurement Average Measurement Margin Height [cm] P 100 Vertical 2483.5 - 2500MHz Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.649 21.33 Av 21.4 4.27 47 54 -7 100 H Vertical 2483.5 - 2500MHz Av 21.4 4.27 47 54 -7 100 H Vertical 2483.5 - 2500MHz Av 21.4 4.27 47 54 -7 100 H Vertical 2483.5 - 2500MHz Av 21.6 4.26 47.25 54 -6.75 100 V Vertical 2483.632 21.39 Av 21.6 4.26 47.25 54 -6.75 100 V PK - Peak detector Av 21.6 4.26 47.25 54 -6.75 100 V
AVERAGE MEASUREMENT Image: Constraint of the system of
AVERAGE MEASUREMENT Image: Constraint of the state
Height [cm] AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.649 21.33 Av 21.44 4.27 47 54 -7 100 H Vertical 2483.5 - 2500MHz Vertical 2483.5 - 2500MHz Margin Height [cm] P Vertical 2483.649 Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P Vertical 2483.632 21.39 Av 21.6 42.6 47.25 54 -6.75 100 V PK - Peak detector P
Test Frequency Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.649 21.33 Av 21.44 4.27 47 47 54 -7 100 H Vertical 2483.5 - 2500MHz Vertical 2483.632 21.39 Av 21.64 BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.632 21.39 Av 21.64 42.67 47.25 54 -6.75 100 V 2483.632 21.39 Av 21.6 42.6 47.25 54 -6.75 100 V PK - Peak detector Image: Pice Arrow of the detector Image: P
2483.649 21.33 Av 21.4 4.27 1 <th1< th=""> 1</th1<>
Vertical 2483.5 - 2500MHz Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.632 21.39 Av 21.6 4.26 47.25 54 -6.75 100 V PK - Peak detector Vertical band - band Vertical band
Vertical 2483.5 - 2500MHz Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.632 21.39 Av 21.6 4.26 47.25 54 -6.75 100 V PK - Peak detector V
Test Frequency Meter Reading Detector AF-48107 [dB] BOMS Factor [dB] dB[uVolts/meter] Restricted Band - Avg Margin Height [cm] P 2483.632 21.39 Av 21.6 4.26 47.25 54 -6.75 100 V PK - Peak detector PR -<
2483.632 21.39 Av 21.6 4.26 47.25 54 -6.75 100 V
PK-Peak detector
PK-Peak detector
OD Out i Dark data star
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection

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HARMONICS AND SPURIOUS EMISSIONS

Motorola Solutio	ons Inc.											
Model: LI4278												
BT Scanner w Lin	ear Imager											
Project#: 11CA4	3439											
Tested by: MA												
Horizontal 1000	- 2000MHz											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
1614.28	61.12	PK	21.1	-44.29	57.95	54	-16.07	/4	-36.07	154	557	HOLZ
Horizontal 4000	- 8000MHz											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
4003.382	63.37	PK	28	-52.14	39.23	54	-14.77	74	-34.77	340	345	Horz
4804.291	75.56	PK	27.1	-52.54	50.12	54	-3.88	74	-23.88	296	345	Horz
Vertical 1000 2	DOOMHz											
	SOCIAL LE											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
1614.419	62.5	PK	21.1	-44.29	39.31	54	-14.69	74	-34.69	287	332	Vert
Vertical 4000 - 8	DOOMHz											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
4003.386	63.73	PK	28	-52.14	39.59	54	-14.41	74	-34.41	317	387	Vert
4804.006	74.14	РК	27.3	-52.53	48.91	54	-5.09	74	-25.09	214	396	Vert
PK - Peak detecto	or (Maximized)											
QP - Quasi-Peak	detector											
LnAv - Linear Ave	rage detector											
LgAv - Log Averag	e detector											
Av - Average det	ector											
CAV - CISPR Aver	age detector											
RMS - RMS detec	tion											

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	ons Inc.											
Model: LI4278												
BT Scanner w Lin	ear Imager											
Project#: 11CA43	3439											
Tested by: MA												
Horizontal 1000 ·	- 2000MHz											
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
1613.3	64.28	PK	21.1	-44.26	41.12	54	-12.88	. 74	-32.88	48	343	Horz
Horizontal 4000.	8000MHz											
101/2011/01 1000	000011112											
Test Frequency	Meter Reading	Detector	4F-48106 (dB)	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15,209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4055 364	61.07	PK	28.1	-51.81	37.36	54	-16.64	74	-36.64	217	318	Horz
4882.375	74.27	PK	27.2	-52.53	48.94	54	-5.06	74	-25.06	176	200	Horz
7322.851	68.05	PK	28	-51.86	44.19	54	-9.81	74	-29.81	290	257	Horz
		1.5										1.arts
Vertical 1000 - 20	DOOMHz											
_						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-51442 [db]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
1614.1287	52.49	РК	21.1	-44.23	29.5	54	-24.7	/4	-44.7	352	250	Vert
Vertical 4000 - 80	000MHz											
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4056.96	51.24	PK	27.9	-51.79	27.35	54	-26.65	74	-46.65	204	328	Vert
4882.318	72.53	PK	27.5	-52.53	47.5	54	-6.5	74	-26.5	346	372	Vert
7322.762	67.66	PK	27.9	-51.86	43.7	54	-10.3	74	-30.3	295	223	Vert
PK - Peak detecto	or (Maximized)											
QP - Quasi-Peak d	letector											
LnAv - Linear Ave	rage detector											
LgAv - Log Averag	e detector											
Av - Average dete	actor											
	age detector											
CAV - CISPR Avera	1											

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CC Part 15 Subpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 Subpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 ubpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 ubpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 Subpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 Subpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 Jubpart C 15.209 54	Margin	FCC Part 15				
CC Part 15 Subpart C 15.209 54	Margin	FCC Part 15				
ubpart C 15.209 54	Margin			Azimuth	Height	
54	-	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
	-14.43	74	-34.43	307	186	Horz
00 Beet 15		500 Beat 15		A		
UC Part 15		FUL Part 15		Azimuth [Dage1	Height	Delecier
ubpart C 15.209	12 CT	Subpart C Peak	Margin 22.67	[Degs]	[cm]	Polarity
54	-13.07	74	-33.07	254	207	Hora
54	-10.33	74	-22.77	204	343	Horz
	-10.55	/4	-30.33	203	545	1012
CC Part 15		FCC Part 15		Azimuth	Height	
ubpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
54	-11.52	74	-31.52	95	213	Vert
CC Part 15		FCC Part 15		Azimuth	Height	
ubpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
54	-15.7	74	-35.7	180	370	Vert
54	-2.95	74	-22.95	195	330	Vert
54	-12.39	74	-32.39	302	385	Vert
	CC Part 15 ubpart C 15.209 54 54 CC Part 15 ubpart C 15.209 54 CC Part 15 ubpart C 15.209 54 54 54 54	CC Part 15 ubpart C 15.209 Margin 54 -13.67 54 -2.77 54 -10.33 CC Part 15 ubpart C 15.209 Margin 54 -11.52 CC Part 15 ubpart C 15.209 Margin 54 -12.39 54 -2.95 54 -12.39	CC Part 15 FCC Part 15 Jubpart C 15.209 Margin Subpart C Peak 54 -13.67 74 54 -2.77 74 54 -10.33 74 54 -10.33 74 54 -10.33 74 54 -10.33 74 54 -10.33 74 54 -10.33 74 54 -10.33 74 54 -11.52 Subpart C Peak 54 -11.52 74 54 -11.52 74 54 -15.7 74 54 -2.95 74 54 -2.95 74 54 -2.95 74 54 -2.95 74 54 -12.39 74 54 -12.39 74 54 -12.39 74	CC Part 15 Margin FCC Part 15 Margin Subpart C Peak Margin 54 -13.67 74 -33.67 54 -2.77 74 -22.77 54 -10.33 74 -30.33 -10.33 74 -30.33 -10.33 74 -30.33 -10.33 74 -30.33 -10.33 74 -30.33 -10.33 74 -30.33 -10.33 74 -30.33 -10.34 -10.35 Margin Subpart C 15.209 Margin Subpart C Peak -11.52 74 -31.52 -11.52 74 -31.52 -11.52 74 -31.52 -11.52 74 -35.7 -15.7 74 -32.39 -15.7 74 -32.39 -12.39 74 -32.39 -12.39 74 -32.39 -15.7 74 -32.39 -12.39 <t< td=""><td>CC Part 15 Hargin FCC Part 15 Azimuth Jubpart C 15.209 Margin Subpart C Peak Margin [Degs] 54 -13.67 74 -33.67 196 54 -2.77 74 -22.77 264 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 FCC Part 15 Margin Azimuth 1000000000000000000000000000000000000</td><td>CC Part 15 FCC Part 15 Azimuth Height jubpart C 15.209 Margin Subpart C Peak Margin [Degs] [Cm] 54 -13.67 74 -33.67 196 390 54 -2.77 74 -22.77 264 387 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 FCC Part 15 Margin [Degs] [cm] 54 -11.52 74 -31.52 95 213 54 -11.52 74 -31.52 95 213 54 -15.7 74 -35.7 180 370 54 -2.95 74 -32.39 302 385 54 -12.39 74 -32.39</td></t<>	CC Part 15 Hargin FCC Part 15 Azimuth Jubpart C 15.209 Margin Subpart C Peak Margin [Degs] 54 -13.67 74 -33.67 196 54 -2.77 74 -22.77 264 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 74 -30.33 203 54 -10.33 FCC Part 15 Margin Azimuth 1000000000000000000000000000000000000	CC Part 15 FCC Part 15 Azimuth Height jubpart C 15.209 Margin Subpart C Peak Margin [Degs] [Cm] 54 -13.67 74 -33.67 196 390 54 -2.77 74 -22.77 264 387 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 74 -30.33 203 343 54 -10.33 FCC Part 15 Margin [Degs] [cm] 54 -11.52 74 -31.52 95 213 54 -11.52 74 -31.52 95 213 54 -15.7 74 -35.7 180 370 54 -2.95 74 -32.39 302 385 54 -12.39 74 -32.39

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8.2.2. DH5 DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



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00 UL EMC Test System	27 Sep 2011 14:07:15
	Restricted Bandedge
	Motorola Solutions Inc. Model: L14278 – 8PSK Low Ch. BT Scanner w Linear Imager Project#: 11CA43439
(Ø	lested by: MH
50	
Restricted Band - Avg	
50	
10	
30	
20	
0	
n	
2.310	239
dee Les CL Due BROK DOT	Frequency [MHz]
age Low on Hvg ensklutri	

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RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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90 <mark>0 LEMC lest System</mark>	27 Sep 2011 14:07:15
	Restricted Bandedge
80	Matarola Salutions Inc. Madel: L14278 – 8PSK Law Ch. BT Scanner w Linear Imager Project#: 11CA43439 Tactad bw: Mo
/0	10000 bg. 111
60	
Restricted Band - Avg	
50	
40	
30	
20	
10	
0	
2310	2398
ledge Low Ch Avg BPSK.DAT	Frequency LMHzJ

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RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



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OL EML lest System	27 Sep 2011 14:34:19
	Restricted Bandedge
3	Matarola Solutions Inc. Madel: L14278 - 895K High Ch. BT Scanner w Linear Imager Project#: 11CA43439
3	Tested by: MA
3	
Restricted Band - Avg	
3	
3	
3	
3	
3	
33.5	Ecoupocu [MHz]
ge High Ch Avg 8PSK.DAT	· · · · · · · · · · · · · · · · · · ·

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RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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90 CLEMC lest bys	tem	27 Sep 2011 14:34:1
		Restricted Bandedge
30		Matorola Solutions Inc. Madel: L14278 - 895K High Ch. BT Scanner w Linear Imager Project#: 11CA43439
70		Tested by: MA
50		
Restricted B	and - Avg	
50		
40		
30		
20		
10		
0		
483.5		Economic [MHz]
sdge High Ch Avg 8PSK.DAT		rioquonog cinici

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RESTRICTED BANDEDGE (LOW CHANNEL, PK & AVG, HORIZ & VERT)

Motorola Solut	ions los								
Model: 114278	- SBSK Low Ch								
BT Scapper w Li	near Imager								
Broject# 11CA	12420								
Trated by MA	+5+55								
rested by: MA									
PEAK MEASURE	MENT								
Horizontal 2310	- 2390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Peak	Margin	Height [cm]	Polarity
2389.6	35.33	PK	21.1	4.29	60.72	74	-13.28	100	Horz
Vertical 2310 - 2	2390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Peak	Margin	Height [cm]	Polarity
2389.52	35.13	PK	21.3	4.29	60.72	74	-13.28	100	Vert
AVERAGE MEAS	UREMENT								
Horizontal 2310	0 - 2390MHz								
Test Frequency	Meter Reading	Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Avg	Margin	Height [cm]	Polarity
2389.2	21.81	Av	21.1	4.31	47.22	54	-6.78	100	Horz
Vertical 2310-2	290MHz								
Test Frequency	Meter Reading	Detector	AE-48107 [dB]	BOMS Eactor [dB]	dB[uVolts/meter]	Restricted Band - Ave	Margin	Haight [cm]	Polarity
2389.52	21.82	Av	21.3	4 29	47.41	Kestricted band - Avg	-6.59	100	Vert
2505.52	21.02	~	21.5	4.25			-0.55	100	vert
PK - Peak detect	tor								
QP - Quasi-Peak	detector								
LnAv - Linear Av	erage detector								
LgAv - Log Avera	ge detector								
Av - Average de	tector								
CAV - CISPR Ave	rage detector								
RMS - RMS dete	ction								
CRMS - CISPR RM	1S detection								

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RESTRICTED BANDEDGE (HIGH CHANNEL, PK & AVG, HORIZ & VERT)

Model: LI4278 - 8PSK High BT Scanner w Linear Image Project#: 11CA43439 Tested by: MA PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Ch. r Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarity Horz
BT Scanner w Linear Image Project#: 11CA43439 Tested by: MA PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	r Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz
Project#: 11CA43439 Tested by: MA PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz Polarit
Tested by: MA PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz Polarit
PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 3 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz
PEAK MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 3 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz Polarit
Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.682 3 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz
Test Frequency Meter Rea 2483.682 : Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 : AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 : Vertical 2483.5 - 2500MHz	ding Detector 4.28 PK ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.4 AF-48107 [dB] 21.6	BOMS Factor [dB] 4.27 BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.95 dB[uVolts/meter] 59.47	Restricted Band - Peak 74 Restricted Band - Peak 74	Margin -14.05 Margin	Height [cm] 100 Height [cm]	Polarit Horz Polarit
2483.682 3 Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	4.28 PK ding Detector 3.61 PK Hz ding Detector	21.4 AF-48107 [dB] 21.6	4.27 BOMS Factor [dB] 4.26	59.95 dB[uVolts/meter] 59.47	74 Restricted Band - Peak 74	-14.05 Margin	100 Height [cm]	Horz
Vertical 2483.5 - 2500MHz Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.6	BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.47	Restricted Band - Peak 74	Margin	Height [cm]	Polarit
Test Frequency Meter Rea 2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	ding Detector 3.61 PK Hz ding Detector	AF-48107 [dB] 21.6	BOMS Factor [dB] 4.26	dB[uVolts/meter] 59.47	Restricted Band - Peak 74	Margin	Height [cm]	Polarity
2483.616 3 AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	3.61 PK Hz ding Detector	21.6	4.26	59.47	74			1 Olarity
AVERAGE MEASUREMENT Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector					-14.53	100	Vert
Horizontal 2483.5 - 2500M Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	Hz ding Detector							
Test Frequency Meter Rea 2483.616 2 Vertical 2483.5 - 2500MHz	ding Detector							
2483.616 2 Vertical 2483.5 - 2500MHz	1.20 4.	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Avg	Margin	Height [cm]	Polarity
Vertical 2483.5 - 2500MHz	1.32 AV	21.4	4.26	46.98	54	-7.02	100	Horz
Test Frequency Meter Rea	ding Detector	AF-48107 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Restricted Band - Avg	Margin	Height [cm]	Polarity
2483.665 2	1.41 Av	21.6	4.27	47.28	54	-6.72	100	Vert
PK - Paak datastar								
OR-Oussi-Reak detector								
Lo Av - Linear Average dete	tor							
I gAv - Log Average detecto								
Av - Average detector								
CAV - CISPR Average detect	or							
RMS - RMS detection								
CRMS - CISPR RMS detectio	1							

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HARMONICS AND SPURIOUS EMISSIONS

Motorola Solutio	ns Inc.											
Model: LI4278												
BT Scanner w Line	ear Imager											
Project#: 11CA43	439											
Tested by: MA												
Horizontal 1000 -	ZOOOMHZ											
						FCC Part 15		FCC Part 15		Azimuth	Haight	
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15 209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
1599.96	67.99	PK	21.2	-44 15	45.04	54	-8.96	74	-28.96	149	307	Horz
1613.114	63.41	PK	21.1	-44.26	40.25	54	-13.75	74	-33.75	217	346	Horz
1010.111	05.11			11.20	10.25	51	20.75		22.72		5.0	
Horizontal 4000 -	8000MHz											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
4056.15	59.49	PK	28.1	-51.8	35.79	54	-18.21	74	-38.21	172	358	Horz
4882.19	75.87	PK	27.2	-52.53	50.54	54	-3.46	74	-23.46	290	383	Horz
7322.606	67.06	PK	28	-51.87	43.19	54	-10.81	74	-30.81	329	383	Horz
4003.495	63.1	PK	28	-52.14	38.96	54	-15.04	74	-35.04	357	166	Horz
4803.8436	74.88	PK	27.1	-52.53	49.45	54	-4.55	74	-24.55	360	396	Horz
Vertical 1000 - 20	00MHz											
		_				FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
1602.16	74.9	PK	21.2	-44.21	51.89	54	-2.11	74	-22.11	80	340	Vert
1609.62	68.78	РК	21.2	-44.24	45.74	54	-8.26	/4	-28.26	90	345	Vert
Vertical 4000 - 80	00MHz											
ventical 4000-80	00MH2											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AE-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15 209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
4055.03	60.96	PK	27.9	-51.82	37.04	54	-16.96	74	-36.96	43	400	Vert
4881.902	75.61	PK	27.5	-52.52	50.59	54	-3.41	74	-23.41	288	389	Vert
7323.086	63.76	PK	27.9	-51.86	39.8	54	-14.2	74	-34.2	93	339	Vert
4003.317	64.54	PK	28	-52,14	40.4	54	-13.6	74	-33.6	305	382	Vert
4804.09	73.62	PK	27.3	-52.53	48.39	54	-5.61	74	-25.61	38	390	Vert
DK. Daaladaa	(Marcine in all											
PR-Peak detecto	r (waximized)											
QP-Quasi-Peak d	etector											
LnAv - Linear Aver	age detector											
LgAV - LOg Average	ster											
CAV. CISPP Avera	e detector											
RMS_RMS_datacti	acuerector											
CRMS - CISPR DMC	detection											
CRMS - CISPR RMS	detection											

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	45 54 440 [40]	20140 5		FCC Part 15		FCC Part 15		Azimuth	Height	
ig Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
99 PK	21.2	-44.15	45.04	54	-8.96	74	-28.96	149	307	Horz
Detector	AE 49106 [40]	POMS Eactor [dP]	dP[u\/olts/mater]	FCC Part 15 Subpart C 15 209	Margin	FCC Part 15 Subpart C Paak	Margin	Azimuth	Height	Polarita
IG PK	28.1	-51.8	35.79	50000010.200	-18 21	74	-38 21	172	358	Horz
27 PK	20.2	-52.53	50.54	54	-3.46	74	-23.46	290	383	Horz
06 PK	28	-51.87	43.19	54	-10.81	74	-30.81	329	383	Horz
				FCC Part 15		FCC Part 15		Azimuth	Height	
ng Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
.9 PK	21.2	-44.21	51.89	54	-2.11	74	-22.11	80	340	Vert
				FCC Part 15		FCC Part 15		Azimuth	Height	
ng Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
96 PK	27.9	-51.82	37.04	54	-16.96	74	-36.96	43	400	Vert
51 PK	27.5	-52.52	50.59	54	-3.41	74	-23.41	288	389	Vert
76 PK	27.9	-51.86	39.8	54	-14.2	74	-34.2	93	339	Vert
)										
ir .4 .6	99 PK ing Detector 49 PK 87 PK 06 PK 100 PK 101		B PK 21.2 -44.15 ing Detector AF-48106 [dB] BOMS Factor [dB] 49 PK 28.1 -51.8 87 PK 27.2 -52.53 06 PK 28 -51.87 ing Detector AF-51442 [dB] BOMS Factor [dB] 9 PK 21.2 -44.15 ing Detector AF-51442 [dB] BOMS Factor [dB] 9 PK 21.2 -44.21 ing Detector AF-48106 [dB] BOMS Factor [dB] 9 PK 21.2 -44.21 ing Detector AF-48106 [dB] BOMS Factor [dB] 9 PK 27.5 -52.52 61 PK 27.9 -51.86 ing Interval Interval Interval ing Interval Interval Interval ing Detector AF-48106 [dB] BOMS Factor [dB] ing Interval Interval	B Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] 49 PK 28.1 -51.8 35.79 49 PK 28.1 -51.8 35.79 49 PK 28.1 -51.8 35.79 87 PK 27.2 -52.53 50.54 06 PK 28 -51.87 43.19 49 PK 21.2 -44.21 51.87 100 PK 27.2 -52.53 50.54 0.06 PK 28 -51.87 43.19 110 Detector AF-51442 [dB] BOMS Factor [dB] dB[uVolts/meter] 4.9 PK 21.2 -44.21 51.89 111 PK 27.9 -51.82 37.04 112 PK 27.9 -51.82 37.04 113 PK 27.9 -51.86 39.8 114 PK 27.9 -51.86 39.8 115 PK	a b	B Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C 15.209 Margin 49 PK 28.1 -51.8 35.79 54 -18.21 49 PK 28.1 -51.8 35.79 54 -18.21 87 PK 28.1 -51.87 43.19 54 -10.81 87 PK 27.2 -52.53 50.54 54 -3.46 06 PK 28 -51.87 43.19 54 -10.81 19 Detector AF-51442 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C 15.209 Margin 4.9 PK 21.2 -44.21 51.89 54 -2.11 19 Detector AF-51442 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C 15.209 Margin 19 PK 21.2 -44.21 51.89 54 -2.11 19 Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C 15.20	No. PK 21.2 44.15 Af. 45.04 54 a.g. Arg. (7.4) Margin Detector AF-48106 (dB) BOMS Factor (dB) dB[uVolts/meter] Subpart C15.209 Margin Subpart C Peak Margin PK 28.1 -51.8 35.79 54 -18.21 74 Margin PK 28.1 -51.8 35.79 54 -18.21 74 Margin PK 28.1 -51.8 35.79 54 -10.81 74 Margin PK 28.1 -51.87 43.19 54 -10.81 74 Margin Detector AF-51442 (dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C15.209 Margin Subpart C Peak Margin Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C15.209 Margin Subpart C Peak Margin Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C15.209 Margin Subpart C Peak Margin	No. P.K. 21.2	B PK 21.2 44.15 45.04 54 8.96 74 28.96 149 Ing Detector AF-48106 [dB] BOMS Factor [dB] dB[uVolts/meter] Subpart C 15.209 Margin Subpart C Peak Margin [Dess] 49 PK 28.1 -51.8 35.79 54 -18.21 74 -38.21 172 87 PK 27.2 -52.53 50.54 54 -3.46 74 -28.46 290 96 PK 28 -51.87 43.19 54 -10.81 74 -30.81 329 97 PK 27.2 -52.53 50.54 54 -3.46 74 -23.46 290 96 PK 28 -51.87 43.19 54 -10.81 74 -30.81 329 4.9 PK 21.2 -44.21 51.89 54 -2.11 74 -22.11 80 95 PK 27.9 -51.82	PR 21.2 44.15 Company FCC Part 15 Subpart C 15.20 Margin FCC Part 15 Azimuth Height Mag PK 22.7 -52.53 50.54 -30.7 -28.96 149 307 Mag PK 28.1 -51.8 357.9 54 -18.21 74 -38.21 172 358 SN PK 27.2 -52.53 50.54 54 -3.46 74 -38.21 172 358 Mag PK 27.2 -52.53 50.54 54 -3.46 74 -38.21 172 358 Mag PK 27.2 -52.53 50.54 54 -3.46 74 -30.81 32.9 383 Mag PK 27.2 -52.53 64 -10.81 -74 -30.81 32.9 383 Mag PK 21.2 -44.21 S18.9 -21.1 74 -30.81 32.9 383 Mag PK <td< td=""></td<>

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Motorola Soluti	ons Inc.											
Model: LI4278												
BT Scanner w Lir	near Imager											
Project#: 11CA4	3439											
Tested by: MA												
Horizontal 1000	- 2000MHz											
Test Frequency	Meter Reading	Detector	AF-51442 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
1667.641	61.93	РК	20.9	-44.26	38.57	54	-15.43	74	-35.43	291	385	Horz
Horizontal 4000	- 8000MHz											
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4133.304	64.41	PK	28	-51.85	40.56	54	-13.44	74	-33.44	84	394	Horz
4959.785	73.34	PK	27.3	-52.51	48.13	54	-5.87	74	-25.87	257	395	Horz
7439.71	69.02	РК	28.1	-51.39	45.73	54	-8.27	74	-28.27	172	239	Horz
Vertical 1000 - 2	000MHz											
Tast Fragmancy	Motor Ponding	Detector	AE E1442 [48]	POMS Easter [dP]	dP[u)/oltr/motor]	FCC Part 15	Marria	FCC Part 15	Margin	Azimuth	Height	Polority
1ccc occ	Meter Reading	Detector	AF-51442 [0B]	BOINS Factor [dB]	abjuvoits/meterj	Subpart C 15.209	2E 07	Subpart C Peak	Margin 45.07	[Degs]	[cm]	Vort
1005.555	52.20	FN	20.5	-44.25	20.33	54	-25.07	/4	-43.07	235	550	ven
Vertical 4000 - 8	000MHz											
						FCC Part 15		FCC Part 15		Azimuth	Height	
Test Frequency	Meter Reading	Detector	AF-48106 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	Subpart C 15.209	Margin	Subpart C Peak	Margin	[Degs]	[cm]	Polarity
4133.392	63.26	PK	27.9	-51.85	39.31	54	-14.69	74	-34.69	66	360	Vert
4960.298	64.66	PK	27.4	-52.5	52.73	54	-1.27	74	-21.27	215	370	Vert
PK - Peak detect	or (Maximized)											
QP - Quasi-Peak	detector											
LnAv - Linear Ave	erage detector											
LgAv - Log Averag	ge detector											
Av - Average det	ector											
CAV - CISPR Aver	age detector											
RMS - RMS detec	tion											
CRIMS - CISPR RM	sdetection											

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8.3. RECEIVER ABOVE 1 GHz

8.3.1. RECEIVER ABOVE 1 GHz



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Motorola Soluti	ions, Inc.									
Model: LI4278	RCV Mo	de								
BT Scanner with	1D Linear	Imager								
Job: 11CA43439	9 120V 6	OHz								
Tested By: GB	Mid Cha	n								
Horizontal 2000	- 4000MH	z								
Test Frequency	Meter Reading	Detector	3161- 02 Horz 27Seot08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
2413.793	67.44	PK	21.1	-42.74	45.8	54	-8.2	288	215	Horz
2653.673	63.41	PK	21.5	-42.52	42.39	54	-11.61	105	215	Horz
Vertical 1000 - 2	000MHz									
Tast Frequency	Meter	Detector	51442 1 20H- HPI	BOMS	dB[w)/olts/mates]	FCC Part 15 Subsect B Class B	Marria	Azimuth	Height	Polocita
1220 22E	60 24	Detector	20 F		dB[uvoits/meter]	Subpart B Class B	0.40	[Degs]	[cm]	Vort
1470 765	66.00	PK	20.8	-44.22	44.51	54	-11.42	281	99	Vert
1598 201	67.52	PK	20.0	-44.16	44 56	54	-9.44	201	215	Vert
1730.635	68.44	PK	20.8	-44.14	45.1	54	-8.9	256	215	Vert
PK - Peak detect	or									
UP-Quasi-reak	oelector	ctor								
Leavelog Avera	en age dete	r								
Av - Average det	ector	•								
CAV - CISPR Ave	age detec	tor								
RMS - RMS detec	tion									
CRMS - CISPR RM	IS detectio	n								

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8.4. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, TX MODE)



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Motorola Soluti	ions Inc.									
Model: LI4278	Tx Mode									
BT Scanner with	Linear Imager									
Project#: 11CA4	3439									
Tested by: MA										
Horizontal 30 - 2	200MHz									
T	Matao Dandian	Determine	3M Bicon 54 Horz	3MLoc 30-1000MHz		FCC Part 15	Mauria	Azimuth	Height	Delecit
Test Frequency	Meter Reading	Detector	USApr12[dB]	02Feb12 [dB]	dB[uvoits/meter]	Subpart C 15.209	Margin	[Degs]	[cm]	Polarity
144.014	17.29	PK	14.3	1.2	32./9	43.5	-10.71	238	200	Horz
96.026	16.92	РК	9.9	1	27.82	43.5	-15.68	118	300	Horz
Vertical 30 - 200	MHz									
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
48.038	26.39	PK	10.3	0.7	37.39	40	-2.61	358	100	Vert
56.8869	18.53	PK	7.4	0.7	26.63	40	-13.37	3	100	Vert
178.7287	15.3	PK	15.9	1.4	32.6	43.5	-10.9	273	100	Vert
Vertical 200 - 10	000MHz									
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15,209	Margin	Azimuth [Degs]	Height [cm]	Polarity
983.5918	14.55	PK	24.8	3.7	43.05	54	-10.95	324	300	Vert
Vertical 30 - 200	MHz									
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
48.0008	25.23	QP	10.3	0.7	36.23	40	-3.77	40	126	Vert
PK - Peak detect	or									
QP - Quasi-Peak	detector									
LnAv - Linear Ave	erage detector									
LgAv - Log Avera	ge detector									
Av - Average det	tector									
CAV - CISPR Ave	rage detector									
RMS - RMS deteo	tion									
CRMS - CISPR RM	IS detection									

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SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, RX MODE)



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Motorola Soluti	ons Inc.									
Model: LI4278	Rx Mode									
BT Scanner with	Linear Imager									
Project#: 11CA4	3439									
Tested by: MA										
Horizontal 30 - 2	00MHz									
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
96.026	19.02	PK	9.9	1	29.92	43.5	-13.58	269	300	Horz
141.1211	15.57	PK	14.2	1.2	30.97	43.5	-12.53	238	199	Horz
Vertical 30 - 200	MHz									
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
48.038	25.96	PK	10.3	0.7	36.96	40	-3.04	349	100	Vert
168.008	15.21	PK	15.8	1.3	32.31	43.5	-11.19	66	100	Vert
195.5756	14.43	PK	16.3	1.5	32.23	43.5	-11.27	266	100	Vert
Horizontal 200 -	1000MHz									
Test Frequency	Meter Reading	Detector	AF-44067 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
985.993	14.6	PK	24.6	3.7	42.9	54	-11.1	54	400	Horz
Vertical 30 - 200	MHz									
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
48.0047	24.15	QP	10.3	0.7	35.15	40	-4.85	116	112	Vert
PK - Peak detect	or									
QP - Quasi-Peak	detector									
LnAv - Linear Ave	erage detector									
LgAv - Log Avera	ge detector									
Av - Average det	ector									
CAV - CISPR Ave	age detector									
RMS - RMS deter	tion									
ning - ning gerer	S dataction									

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9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted I	.imit (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 PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

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LINE 1 RESULTS – PASSTHRU CRADLE CONFIGURATION

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LINE 2 RESULTS – PASSTHRU CRADLE CONFIGURATION



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NUMERICAL DATA – PASSTHRU CRADLE CONFIGURATION

Motorola Solut	ions Inc.							
Model: 114278								
Passthru Cradi	a . 120V/60H-							
Fassuriu Cradi	e-1207/60H2							
JOD#: 11CA454:	59							
lested by: MA								
Line - L1 .15 - 1M	ИНz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
0.25162	50.50	FK .	10.9	47.46	62.4	-14.54	52.4	-4.94
0.25882	37.48	РК	10.8	48.28	61.5	-13.22	51.5	-3.22
0.37989	31.81	PK	10.6	42.41	58.3	-15.89	48.3	-5.89
0.68425	33.33	PK	10.4	43.73	56	-12.27	46	-2.27
0.72216	33.37	PK	10.4	43.77	56	-12.23	46	-2.23
0.76348	32.2	PK	10.4	42.6	56	-13.4	46	-3.4
0.93131	30.51	РК	10.4	40.91	56	-15.09	46	-5.09
Line - L1 1 - 30M	Hz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
2.17183	30.12	PK	10.4	40.52	56	-15.48	46	-5.48
22.30766	29.85	РК	10.8	40.65	60	-19.35	50	-9.35
Neutral .15 - 1N	1Hz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 2 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
0.24301	34.09	PK	10.9	44.99	62	-17.01	52	-7.01
0.3906	28	PK	10.6	38.6	58.1	-19.5	48.1	-9.5
0.7861	26.41	PK	10.4	36.81	56	-19.19	46	-9.19
Neutral 1 - 30M	Hz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 2 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
1.76575	29.79	PK	10.4	40.19	56	-15.81	46	-5.81
7.29426	22.67	PK	10.5	33.17	60	-26.83	50	-16.83
1.31906	26.19	PK	10.4	36.59	56	-19.41	46	-9.41
Line - L1 .15 - 1M	ИНz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
0.23201	23.19	Av	10.9	34.09	62.38	-28.29	52.38	-18.29
0.25942	22.62	Av	10.8	33,42	61.45	-28.03	51.45	-18.03
0 38008	17.02	Av	10.6	27 62	58.28	-30.66	48.28	-20 66
0 60/117	17.64	Av	10.0	20.04	55.20	-27.96	.5.20	-17.90
0.0041/	17.04	A.,	10.4	20.04	50	-27.90	40	10.00
0.72196	17.54	Av	10.4	27.94	56	-28.06	46	-18.06
0.76343	16.58	AV	10.4	26.98	56	-29.02	46	-19.02
0.9313	16.33	Av	10.4	26.73	56	-29.27	46	-19.27
Line - L1 1 - 30M	IHz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C OPk	Margin	Subpart C Ave	Margin
2 17165	13.4	Av	10.4	23.8	56	-32.2	46	-22.2
2.27205			10.4	20.0	50	32.2		
Neutral 1 - 30M	Hz							
			54636 with Tland		FCC Part 15		FCC Part 15	
	Motor Predice	Detecto	Swilling 2 [40]	[dB(u)/=les ³]	Subpart COP	Marrie	Subpart C Ar-	Marria
Tant Francisco	ivieter Keading	Detector	SW LINE 2 [dB]	[dB(uVolts)]	Subpart C QPk	wargin	Subpart C Avg	wargin
Test Frequency		Av	10.4	18.97	56	-37.03	46	-27.03
Test Frequency 1.76616	8.57							
Test Frequency 1.76616 PK - Peak detect	8.57							
Test Frequency 1.76616 PK - Peak detect	8.57							
Test Frequency 1.76616 PK - Peak detect QP - Quasi-Peak	8.57 tor detector							
Test Frequency 1.76616 PK - Peak detect QP - Quasi-Peak LnAv - Linear Av	8.57 tor detector erage detector							
Test Frequency 1.76616 PK - Peak detect QP - Quasi-Peak LnAv - Linear Av LgAv - Log Avera	8.57 tor detector erage detector ge detector							
Test Frequency 1.76616 PK - Peak detect QP - Quasi-Peak LnAv - Linear Av LgAv - Log Avera Av - Average de	8.57 detector erage detector ge detector tector							
Test Frequency 1.76616 PK - Peak detec QP - Quasi-Peak LnAv - Linear Aw LgAv - Log Avera Av - Average de CAV - CISPR Ave	8.57 detector erage detector ge detector tector rage detector							
Test Frequency 1.76616 PK - Peak detec QP - Quasi-Peak LnAv - Linear Av LgAv - Log Avera Av - Average de CAV - CISPR Ave RMS - RMS dete	8.57 detector erage detector ge detector tector rage detector ction							

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LINE 1 RESULTS – CHARGING CRADLE CONFIGURATION



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LINE 2 RESULTS – CHARGING CRADLE CONFIGURATION



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NUMERICAL DATA – CHARGING CRADLE CONFIGURATION

Motorola Soluti	ons Inc.							
Model: LI4278								
Charging Cradle	- 120V/60Hz							
Job#: 11CA4343	9							
Tested by: MA								
Line - L1 . 15 - 1M	IHz							
Line - L1.15 - 10								
			5A636 with TLand		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C OPk	Margin	Subpart C Ave	Margin
0 175	33.7	PK	11.3	45	64 7	-19.7	54 7	-9.7
0.30218	30.39	PK	10.7	41.09	60.2	-19.11	50.2	-9.11
0.50210	25.55	PK	10.7	37.18	55.6	-19.42	45.5	-9.42
0 69564	17.00	PK	10.5	27.10	50.0	-28.37	40.0	-18 27
0.05504	17.23	DV.	10.4	27.05	50	-20.57	40	-10.3/
0.78304	10.79	FK	10.4	27.19	50	-20.61	46	-10.81
Line - L1 1 - 30M	Hz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 1 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
23.96679	25.7	PK	10.8	36.5	60	-23.5	50	-13.5
Neutral .15 - 1M	Hz							
			5A636 with TI and		FCC Part 15		FCC Part 15	
Test Frequency	Meter Reading	Detector	Sw Line 2 [dB]	[dB(uVolts)]	Subpart C QPk	Margin	Subpart C Avg	Margin
0.18843	31.74	PK	11.2	42.04	CA 1	21.16		
				42.34	04.1	-21.10	54.1	-11.16
0.22243	28.08	PK	11	39.08	62.7	-23.62	54.1	-11.16
0.22243	28.08	PK PK	11	42.94 39.08 41.57	62.7	-23.62	54.1 52.7 55.1	-11.16 -13.62 -13.53
0.22243 0.16751 0.30252	28.08 30.17 28.15	PK PK PK	11 11.4 10.7	42.54 39.08 41.57 38.85	64.1 62.7 65.1 60.2	-21.16 -23.62 -23.53 -21.35	54.1 52.7 55.1 50.2	-11.16 -13.62 -13.53 -11.39
0.22243 0.16751 0.30252 0.48803	28.08 30.17 28.15 23.26	PK PK PK PK	11 11.4 10.7 10.5	42.54 39.08 41.57 38.85 33.76	62.7 65.1 60.2 56.2	-23.62 -23.53 -21.35 -22.44	54.1 52.7 55.1 50.2 46.2	-11.16 -13.62 -13.53 -11.39 -12.44
0.22243 0.16751 0.30252 0.48803	28.08 30.17 28.15 23.26	РК РК РК РК	11 11.4 10.7 10.5	42.54 39.08 41.57 38.85 33.76	62.7 65.1 60.2 56.2	-21.16 -23.62 -23.53 -21.35 -22.44	54.1 52.7 55.1 50.2 46.2	-11.16 -13.62 -13.53 -11.39 -12.44
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH	28.08 30.17 28.15 23.26	РК РК РК РК	11 11.4 10.7 10.5	42.54 39.08 41.57 38.85 33.76	62.7 65.1 60.2 56.2	-21.16 -23.62 -23.53 -21.35 -22.44	54.1 52.7 55.1 50.2 46.2	-11.16 -13.62 -13.53 -11.35 -12.44
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH	28.08 30.17 28.15 23.26	PK PK PK PK	11 11.4 10.7 10.5 5A636 with TI and	42.54 39.08 41.57 38.85 33.76	64.1 62.7 65.1 60.2 56.2	-21.16 -23.62 -23.53 -21.35 -22.44	54.1 52.7 55.1 50.2 46.2	-11.16 -13.62 -13.53 -11.35 -12.44
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH	28.08 30.17 28.15 23.26	PK PK PK PK PK Detector	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB]	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)]	62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk	-21.16 -23.62 -23.53 -21.35 -22.44 Margin	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg	-11.16 -13.62 -13.53 -11.35 -12.44 Margin
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679	28.08 30.17 28.15 23.26 Hz Meter Reading 24.42	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-21.16 -23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect	28.08 30.17 28.15 23.26 Hz Meter Reading 24.42 or	PK PK PK PK PK Detector	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak	28.08 30.17 28.15 23.26 Hz Meter Reading 24.42 or detector	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-21.16 -23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak LnAy - Linear Ave	28.08 30.17 28.15 23.26 Hz Meter Reading 24.42 or detector erage detector	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak LnAv - Linear Ave	28.08 30.17 28.15 23.26 4z Meter Reading 24.42 or detector erage detector ze detector	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak LnAv - Linear Ave LgAv - Log Average	28.08 30.17 28.15 23.26 dz dz dz dz dz dz dz dz dz dz dz dz dz	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MF Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak LnAv - Linear Ave LgAv - Log Average Av - Average det CAV - CISPR Aver	28.08 30.17 28.15 23.26 dz dz dz dz dz dz dz dz dz dz dz dz dz	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-21.16 -23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.39 -12.44 Margin -14.58
0.22243 0.16751 0.30252 0.48803 Neutral 1 - 30MH Test Frequency 23.96679 PK - Peak detect QP - Quasi-Peak LnAv - Linear Ave LgAv - Log Averag Av - Average det CAV - CISPR Aver	Meter Reading 28.08 30.17 28.15 23.26 dz 23.26 dz 24.42 or detector erage detector se detector sector age detector tion	PK PK PK PK PK Detector PK	11 11.4 10.7 10.5 5A636 with TI and Sw Line 2 [dB] 11	42.54 39.08 41.57 38.85 33.76 [dB(uVolts)] 35.42	64.1 62.7 65.1 60.2 56.2 FCC Part 15 Subpart C QPk 60	-23.62 -23.53 -21.35 -22.44 Margin -24.58	54.1 52.7 55.1 50.2 46.2 FCC Part 15 Subpart C Avg 50	-11.16 -13.62 -13.53 -11.35 -12.44 Margin -14.58

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10. SETUP PHOTOS

ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP



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RADIATED RF MEASUREMENT SETUP



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POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP



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END OF REPORT

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