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FCC PART 90 TEST REPORT

APPLICANT	MOTOROLA MOBILITY, INC.
	600 NORTH U.S. HWY 45
	LIBERTYVILLE ILLINOIS 60048-5343 USA
FCC ID	IHDT56NT1
MODEL NUMBER	H3051B41033A
SERIAL #	364BNN0B1G
PRODUCT DESCRIPTION	ATLAS PEAK ROAD iDEN
DATE SAMPLE RECEIVED	8/14/2012
DATE TESTED	8/16/2012
TESTED BY	John A. Day
APPROVED BY	Mario R. de Aranzeta
TIMCO REPORT NO.	2048AUT12TestReport.doc
TEST RESULTS	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**



Certificate # 0955-01



TABLE OF CONTENTS

GENERAL REMARKS.....	3
GENERAL INFORMATION.....	4
EQUIPMENT LIST.....	5
TEST PROCEDURE.....	6
FIELD STRENGTH OF SPURIOUS EMISSIONS.....	7
POWER LINE CONDUCTED INTERFERENCE.....	10

Applicant: MOTOROLA MOBILITY, INC.

FCC ID: IHDT56NT1

Report: O:\M\MOTOROLA ILL\2048AUT12\2048AUT12TestReport_Rev.doc

GENERAL REMARKS

The attached report shall not be reproduced except in full without the written permission of Timco Engineering Inc.

Summary

The device under test does:

- fulfill the general approval requirements as identified in this test report
 not fulfill the general approval requirements as identified in this test report

Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.



Testing Certificate # 0955-01

I attest that the necessary measurements were made, under my supervision, at:

Timco Engineering Inc.
849 NW State Road 45
Newberry, Fl 32669



Authorized Signatory Name:

Mario de Aranzeta C.E.T.
Compliance Engineer/ Lab. Supervisor

Date: 8/27/2012

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Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

GENERAL INFORMATION

DUT Specification

DUT Description	ATLAS PEAK ROAD iDEN
FCC ID	IHDT56NT1
Model Number	H3051B41033A
Serial #	364BNN0B1G
Type of Emission	16K0F3E/11K0F3E
Modulation	FM
DUT Power Source	<input type="checkbox"/> 110-120Vac/50- 60Hz
	<input type="checkbox"/> DC Power 12V
	<input checked="" type="checkbox"/> Battery Operated Exclusively
Test Item	<input type="checkbox"/> Prototype
	<input checked="" type="checkbox"/> Pre-Production
	<input type="checkbox"/> Production
Type of Equipment	<input type="checkbox"/> Fixed
	<input type="checkbox"/> Mobile
	<input checked="" type="checkbox"/> Portable
Test Conditions	The temperature was 26°C with a relative humidity of 50%.
Modification to the DUT	None
Test Exercise	The DUT was placed in continuous transmit mode.
Applicable Standards	ANSI/TIA 603-C:2004, FCC CFR 47 Part 90
Test Facility	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA.

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Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
Analyzer Tan Tower Spectrum Analyzer	HP	8566B Opt 462	3138A07786 3144A20661	11/24/09	10/28/13
Analyzer Tan Tower Preamplifier	HP	8449B-H02	3008A00372	11/21/09	10/28/13
Analyzer Silver Tower Spectrum Analyzer	HP	8566B Opt 462	3552A22064 3638A08608	11/10/10	11/10/12
Antenna: Biconnical	Electro-Metrics	BIA-25	1171	06/13/12	06/13/14
Antenna: Biconnical	Eaton	94455-1	1096	05/04/11	05/04/13
Antenna: Log-Periodic	Electro-Metrics	LPA-25	1122	05/04/11	05/04/13
Frequency Counter	HP	5352B	2632A00165	06/22/11	06/22/13
Frequency Counter	HP	5385A	2730A03025	08/17/11	08/17/13
Signal Generator	HP	8640B	2308A21464	02/23/12	02/23/14
Hygro-Thermometer	Extech	445703	0602	06/15/11	06/15/13
Digital Multimeter	Fluke	77	35053830	09/09/11	09/09/13
Analyzer Tan Tower RF Preselector	HP	85685A	3221A01400	11/21/09	10/28/13
Analyzer Silver Tower RF Preselector	HP	85685A	2926A00983	11/10/10	11/10/12
Antenna: Passive Loop	EMC Test Systems	EMCO 6512	9706-1211	06/14/12	06/14/14
Modulation Analyzer	HP	8901A	3435A06868	07/18/11	07/18/13
Analyzer Tan Tower Quasi-Peak Adapter	HP	85650A	3303A01690	11/22/09	10/28/13
Analyzer Silver Tower Quasi-Peak Adapter	HP	85650A	3303A01844	11/23/10	11/23/12
Temperature Chamber	Tenney Engineering	TTRC	11717-7	07/03/12	07/03/14
Frequency Counter	HP	5385A	3242A07460	06/22/11	06/22/13
3-Meter Semi-Anechoic Chamber	Panashield	N/A	N/A	12/31/11	12/31/13

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Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

TEST PROCEDURE

Power Line Conducted Interference: The procedure used was ANSI/TIA 603-C: 2004, using a 50uH LISN. Both lines were observed with the UUT transmitting. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

Bandwidth 20 dB: The measurements were made with the spectrum analyzer's resolution bandwidth (RBW) = 1 MHz and the video bandwidth (VBW) = 3 MHz and the span set as shown on plot.

Power Output: The RF power output was measured at the antenna feed point using a peak power meter.

Antenna Conducted Emissions: The RBW = 100 kHz, VBW = 300 kHz and the span set to 10.0 MHz and the spectrum was scanned from 30 MHz to the 10th harmonic of the fundamental. Above 1 GHz the resolution bandwidth was 1 MHz and the VBW = 3 MHz and the span to 50 MHz.

Radiation Interference: The test procedure used was ANSI/TIA 603-C: 2004, using an Agilent spectrum receiver with pre-selector. The bandwidth (RBW) of the spectrum ANSI/TIA 603-C:2004, receiver was 100 kHz up to 1 GHz and 1 MHz above 1 GHz with an appropriate sweep speed. The VBW above 1 GHz was 3 MHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The ambient temperature of the UUT was 76°F with a humidity of 55%.

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FCC ID: IHDT56NT1

Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

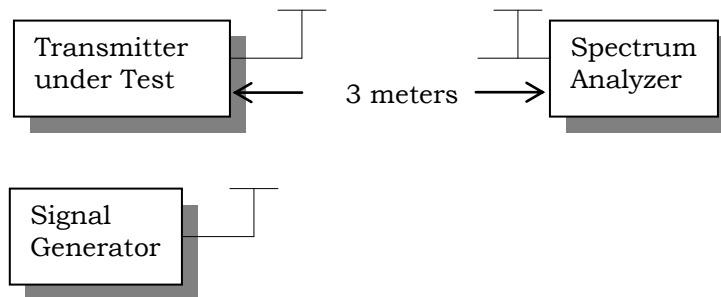
FIELD STRENGTH OF SPURIOUS EMISSIONS

Rule Parts. No.: Part 2.1053

Requirements: 25kHz Channel Spacing = $43 + 10\log(0.64) = 41.0$ dBc
 12.5kHz Channel Spacing = $50 + 10\log(0.64) = 48.0$ dBc

METHOD OF MEASUREMENT: The tabulated data shows the results of the radiated field strength emissions test. The spectrum was scanned from 30 MHz to at least the tenth harmonic of the fundamental. This test was conducted per ANSI/TIA 603-C: 2004 using the substitution method. Measurements were made at the test site of TIMCO ENGINEERING, INC. located at 849 NW State Road 45, Newberry, FL 32669.

Test Setup Diagram:



Test Data:

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
806.06	V	0
1612.10	V	71.4
2418.20	V	82.5
3224.20	H	83.1
4030.30	V	80.8
4836.30	V	79.2
5642.00	H	75.5
6448.50	H	78.0
7254.50	H	78.4
8060.60	V	77.9

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
813.56	V	0
1627.10	V	68.2
2440.70	V	76.8
3254.20	H	83.4
4067.80	V	82.2
4881.30	V	78.2
5694.90	V	77.0
6508.50	H	77.0
7322.00	V	79.4
8135.60	V	79.6

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FCC ID: IHDT56NT1

Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc



Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
820.99	V	0
1641.90	V	68.1
2462.90	V	80.9
3283.90	H	86.6
4104.90	H	82.6
4925.90	V	83.9
5746.90	V	80.4
6567.90	H	75.3
7388.80	H	79.2
8209.80	H	79.7

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
824.99	V	0
1649.90	V	69.6
2474.90	V	79.5
3299.90	H	85.1
4124.90	H	81.5
4949.90	V	81.2
5774.90	V	77.9
6599.90	V	81.3
7424.80	V	79.0
8249.80	H	79.0

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
896.02	V	0
1792.00	V	63.6
2688.00	H	83.1
3584.00	V	79.5
4480.00	H	78.6
5376.10	V	77.4
6272.10	H	76.3
7168.10	H	76.7
8064.10	H	77.3
8960.10	H	74.0

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
900.98	V	0
1801.90	V	60.9
2702.90	H	83.2
3603.90	H	80.3
4504.90	V	78.6
5405.80	H	74.4
6306.80	V	79.7
7207.70	H	77.3
8108.80	H	77.0
9009.80	V	75.6

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FCC ID: IHDT56NT1

Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

Emission Frequency MHz	Ant. Polarity	dB Below Carrier (dBc)
901.49	V	0
1802.90	H	57.9
2704.40	H	84.3
3605.90	V	81.1
4507.40	V	79.4
5408.90	V	74.1
6310.60	H	79.3
7211.90	H	76.7
8113.40	V	77.5
9014.90	V	74.8

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Report: O:\M\MOTOROLA ILL\2048AUT12\2048AUT12TestReport_Rev.doc

POWER LINE CONDUCTED INTERFERENCE

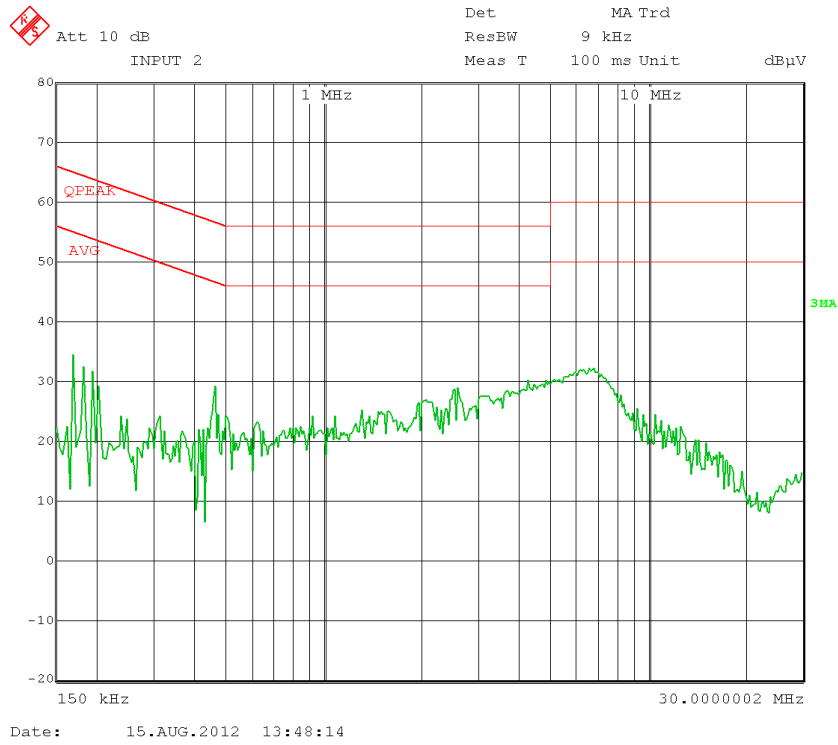
Rules Part No.: Part 15.207

Requirements:

Frequency (MHz)	Quasi Peak Limits (dB μ V)	Average Limits (dB μ V)
0.15 – 0.5	66 – 56 *	56 – 46 *
0.5 – 5.0	56	46
5.0 – 30	60	50
* Decrease with logarithm of frequency		

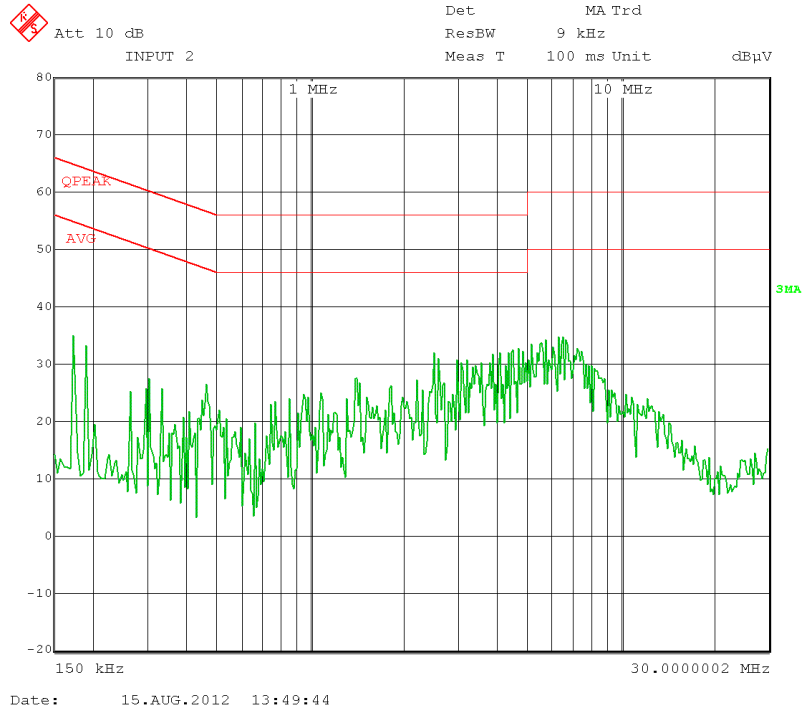
Test Data: The following plots represent the emissions read for power line conducted. Both lines were observed.

POWERLINE CONDUCTED – LINE 1
TX 806.0625 MHz



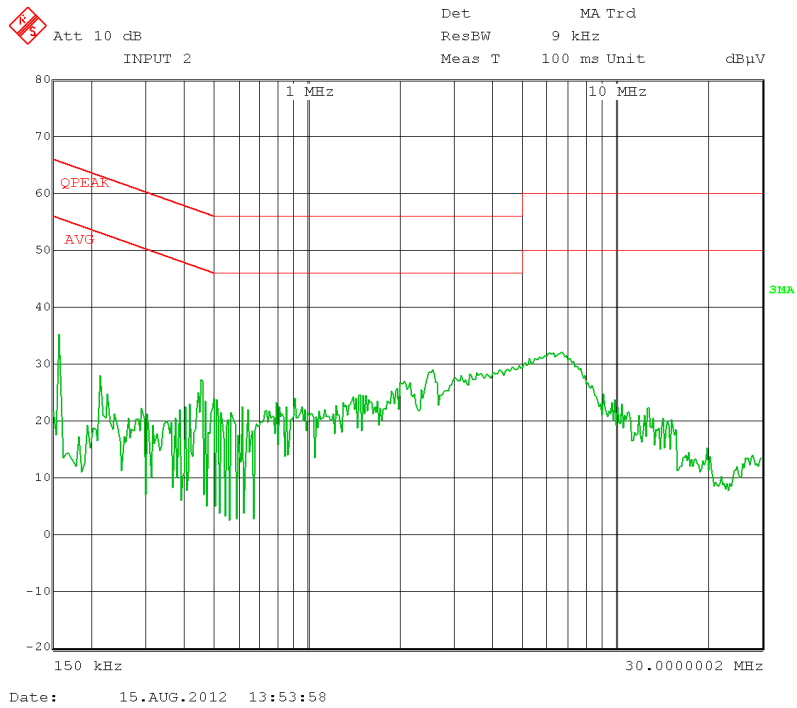
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FCC ID: IHDT56NT1
Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

POWERLINE CONDUCTED – LINE 2
TX 806.0625 MHz



Applicant: MOTOROLA MOBILITY, INC.
FCC ID: IHDT56NT1
Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

POWERLINE CONDUCTED – LINE 1
896.0625 MHz

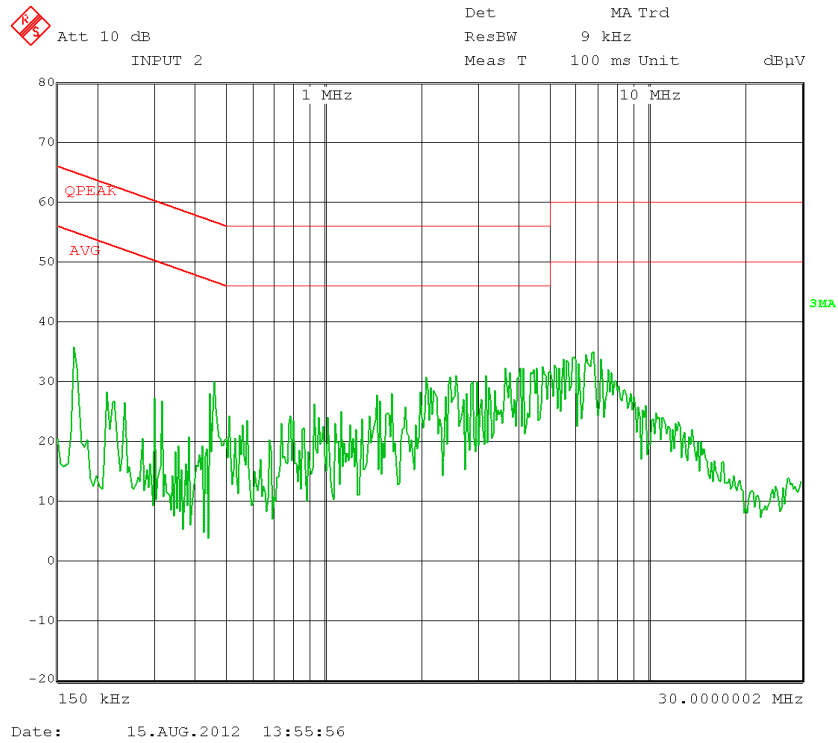


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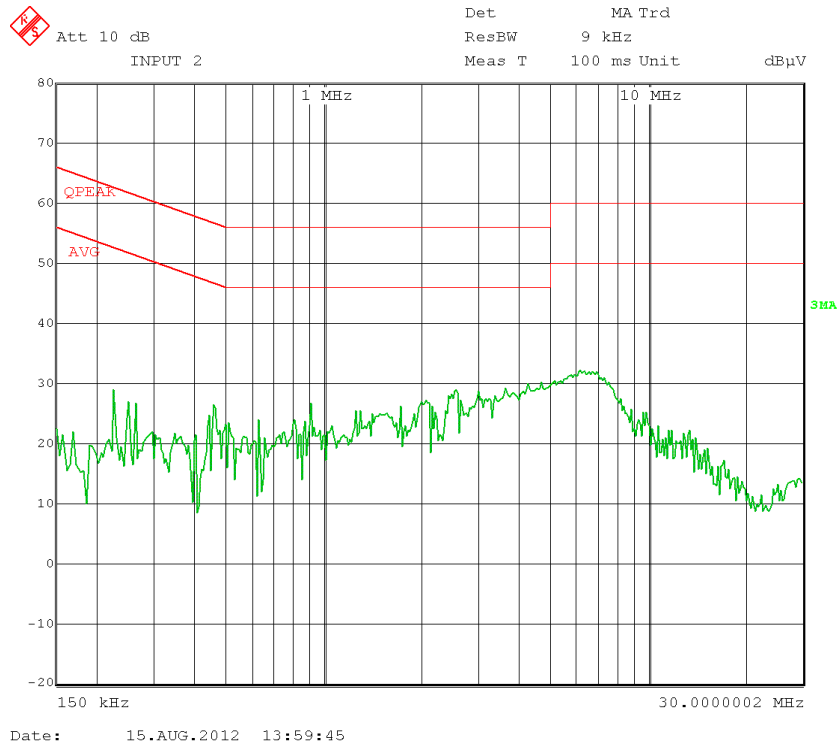
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POWERLINE CONDUCTED – LINE 2
TX - 896.0625 MHz



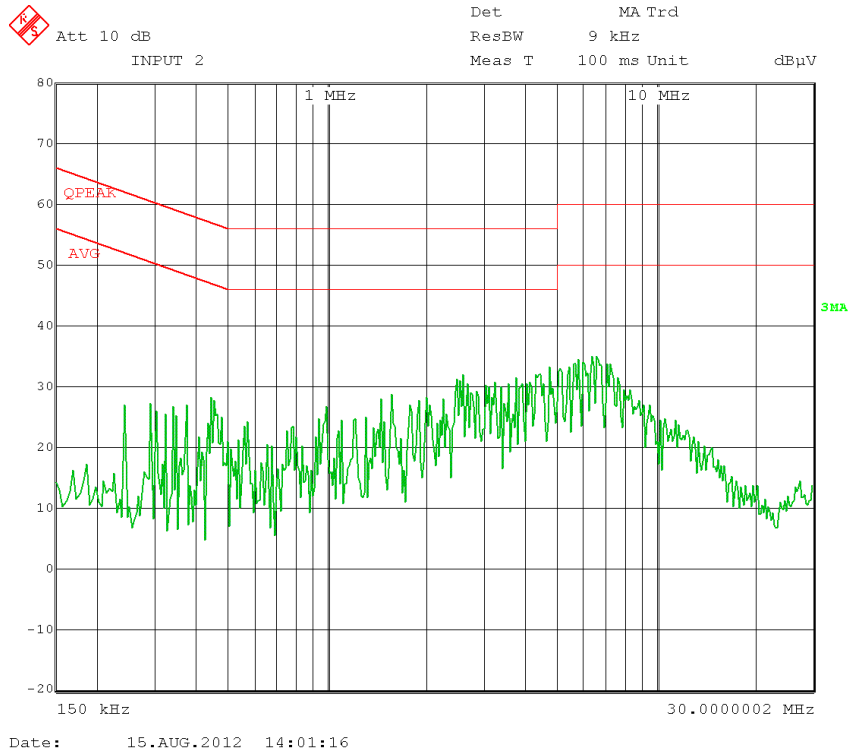
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FCC ID: IHDT56NT1
Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

POWERLINE CONDUCTED – LINE 1
TX 901.49375 MHz



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FCC ID: IHDT56NT1
Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc

POWERLINE CONDUCTED – LINE 2
901.49375 MHz



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 FCC ID: IHDT56NT1
 Report: O:\M\MOTOROLA IL LL\2048AUT12\2048AUT12TestReport_Rev.doc