TIMCO ENGINEERING, Inc.

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FCC PART 15 B CLASS B

TEST REPORT

Applicant	MOTOROLA MOBILITY, INC.
Address	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	8/22/2012
Tested By	John A. Day
Approved By	Mario R. de Aranzeta
Report Number	2048DUT12TestReport_Rev.doc
Test Results	☒ PASS ☐ FAIL

ACCREDITED

Testing Certificate # 0955-01

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GENERAL REMARKS

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

The test results only relate to the item tested.

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: 2005 requirements.

ACCREDITED

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

REPORT SUMMARY

Applicable Rule(s)	Pt 15.109, Pt 15.107, ANSI C63.4: 2003

TEST ENVIRONMENT

Test Facility	Timco Engineering, Inc. 849 NW State Road 45 Newberry, FL 32669 USA.
Test Condition in the laboratory	Temperature: 26°C Relative humidity: 50%

TEST SETUP SUMMARY

Test Setup Diagram/ Description	The DUT was placed on the turntable per setup per ANSI C63.4: 2003. A test set up photo is provided for clarification.
Deviation from the standard/procedure	No deviation
Modification of DUT	No modification

SUPPORTING PERIPHERAL EQUIPMENT

See radiated emissions page

DUT SPECIFICATION

DUT Description	ATLAS PEAK ROAD iDEN
FCC ID	IHDT56NT1
Model Number	H3051B41033A
Serial #	364BNN0B1G
DUT Power Source	☐ 110–120Vac/50– 60Hz
	☐ DC Power
	☒ Battery Operated Exclusively
Test Item	☐ Prototype
	☐ Pre-Production
	☐ Production
Type of Equipment	☐ Fixed
	☐ Mobile
	☒ Portable
Laboratory Test Conditions	Temperature: 26°C Humidity: 55%
Modifications to DUT:	☒ No ☐ Yes (explanation below)

TEST EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	12/31/11	12/31/13
3-Meter OATS	TEI	N/A	N/A	12/31/11	12/31/13
3-Meter Semi-Anechoic Chamber	Panashield	N/A	N/A	12/31/11	12/31/13
Analyzer Open-Frame Tower Preamplifier	HP	8449B	3008A01075	07/22/09	09/15/13
Analyzer Open-Frame Tower Quasi-Peak Adapter	HP	85650A	2043A00305	10/26/09	09/15/13
Analyzer Open-Frame Tower RF Preselector	HP	85685A	3107A01282	07/22/09	09/15/13
Analyzer Open-Frame Tower Spectrum Analyzer	HP	8566B/85662A	2627A03154/2648A14276	07/22/09	09/15/13
Analyzer Silver Tower Quasi-Peak Adapter	HP	85650A	3303A01844	11/23/10	11/23/12
Analyzer Silver Tower RF Preselector	HP	85685A	2926A00983	11/10/10	11/10/12
Analyzer Silver Tower Spectrum Analyzer	HP	8566B Opt 462	3552A22064 3638A08608	11/10/10	11/10/12
Antenna: Biconnical	Eaton	94455-1	1057	05/31/11	05/31/13
Antenna: Biconnical	Eaton	94455-1	1096	05/04/11	05/04/13
Antenna: Double-Ridged Horn	Electro-Metrics	RGA-180	2319	06/19/12	06/19/14
Antenna: Log-Periodic	Electro-Metrics	LPA-25	1122	05/04/11	05/04/13
Power Line Coupling/Decoupling Network	Fischer Custom Communications	FCC-801-M2-16A	01048	01/04/11	01/04/13
Power Line Coupling/Decoupling Network	Fischer Custom Communications	FCC-801-M3-16A	01060	01/04/11	01/04/13

TEST PROCEDURES

Power line conducted Emission: The test procedure used was ANSI C63.4-2003. The spectrum was scanned from 0.15 to 30 MHz.

Radiation Interference: The test procedure used was ANSI C63.4-2003 using a spectrum analyzer with preselector. The resolution bandwidth used was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The video bandwidth was always greater than or equal to the RBW.

The unit under test was placed on a table 80 cm high and with dimensions of 1mby 1.5m. The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and verticals planes. The frequency was scanned from 30 MHz to 1.0 GHz.. The DUT was measured in three (3) orthogonal planes when necessary.

Formula of Conversion Factors: The field strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBµV) to the antenna correction factor supplied by the antenna manufacturer plus the coax loss. The antenna correction factors are stated in terms of dB. The gain of the preselector was accounted for in the spectrum analyzer meter reading.

Example:

Freq (MHz)	Meter Reading	+ ACF	+CL	= FS
33	20 dBµV	+ 10.36 dB/m	+0.40 dB	=30.76 dBµV/m @ 3m

RADIATED SPURIOUS EMISSIONS

Rules Part No.: 15.109

Requirements:

Frequency MHz	Limits
30 – 88	40.0 dBµV/m measured @ 3 meters
88 – 216	43.5 dBµV/m measured @ 3 meters
216 – 960	46.0 dBµV/m measured @ 3 meters
Above 960	54.0 dBµV/m measured @ 3 meters

Test Configuration: HP Laptop Computer Compaq 8510W
In Berbug Mode, SIM EMI command, USB Cable, Battery

Test Data:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB/m	Field Strength dBuV/m	Margin dB
168.01	6.6	V	0.77	15.26	22.63	20.87
168.01	6.7	H	0.77	15.26	22.73	20.77
253.40	4.4	H	1.01	13.10	18.51	27.49
253.40	11.4	V	1.01	13.10	25.51	20.49
409.96	4.8	H	1.21	16.20	22.21	23.79
409.96	5.1	V	1.21	16.20	22.51	23.49
512.86	5.3	H	1.34	19.03	25.67	20.33
512.86	5.6	V	1.34	19.03	25.97	20.03
710.86	5.4	H	1.72	21.72	28.84	17.16
710.86	6.7	V	1.72	21.72	30.14	15.86
971.54	4.5	H	2.06	24.53	31.09	14.91
971.54	5.0	V	2.06	24.53	31.59	14.41

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216 – 960	46.0 dBµV/m measured @ 3 meters
Above 960	54.0 dBµV/m measured @ 3 meters

Test Configuration: HP Laptop Computer Compaq 8510W
In Subscriber mode, ear piece attached, with battery, and
With camera in preview mode

Test Data:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB/m	Field Strength dBuV/m	Margin dB
71.50	**5.2**	**H**	**1.08**	**8.11**	**14.39**	**25.61**
71.50	**5.3**	**V**	**1.08**	**8.11**	**14.49**	**25.51**
168.01	**6.8**	**H**	**1.82**	**15.26**	**23.88**	**19.62**
168.01	**7.1**	**V**	**1.82**	**15.26**	**24.18**	**19.32**
346.86	**5.8**	**H**	**2.62**	**15.00**	**23.42**	**22.58**
346.86	**6.2**	**V**	**2.62**	**15.00**	**23.82**	**22.18**
718.58	**5.5**	**H**	**4.15**	**21.87**	**31.52**	**14.48**
718.58	**6.0**	**V**	**4.15**	**21.87**	**32.02**	**13.98**
849.26	**5.2**	**H**	**4.76**	**22.79**	**32.75**	**13.25**
849.26	**5.4**	**V**	**4.76**	**22.79**	**32.95**	**13.05**
953.60	**5.4**	**H**	**5.13**	**24.27**	**34.80**	**11.20**
953.60	**5.6**	**V**	**5.13**	**24.27**	**35.00**	**11.00**