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FCC PART 15.247

TEST DATA

APPLICANT	MOTOROLA INC.
	8000 WEST SUNRISE BLVD.
TEL	FT. LAUDERDALE, FL 33322-9947
MODEL NUMBER	AZ489FT5848
PRODUCT DESCRIPTION	i580
DATE SAMPLE RECEIVED	4/17/2006
DATE TESTED	5/05/2006
TESTED BY	RICHARD BLOCK
APPROVED BY	MARIO R. DE ARANZETA
TIMCO REPORT NO.	779EUT6TestReport-Revised
TEST RESULTS	☒ PASS ☐ FAIL

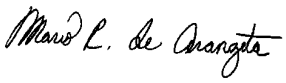
TABLE OF CONTENTS

STATEMENT OF COMPLIANCE

This equipment has been tested in accordance with the standards identified in the referenced test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report and demonstrate that the equipment complies with the appropriate standards. No modifications were made to the equipment during testing in order to demonstrate compliance with these standards.

I attest that the necessary measurements were made by me or under my supervision, at TIMCO ENGINEERING, INC. located at 849 N.W. State Road 45, Newberry, Florida 32669.

Authorized by: MARIO DE ARANZETA

Signature: 

Function: Engineer

Date: 5/12/2006

Tested by: RICHARD BLOCK

Signature: ON FILE

Date: 5/12/2006

GENERAL INFORMATION

EUT SPECIFICATION

The test results relate only to the items tested.		
Model Number	AZ489FT5848	
Serial Number	N/A	
Product Description	i580	
EUT Power	*Primary Power*	Battery Operated
	Secondary Power	N/A
Test Item	☒ Prototype	
	☐ Pre-Production	
	☐ Production	

TEST CONDITION
Normal

MODIFICATION TO THE DUT
No modification was made to the DUT during testing.

TEST STANDARDS ANSI C63.4 - 2003

TEST EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/27/04	3/26/07
3-Meter OATS	TEI	N/A	N/A	Listed 1/11/06	1/10/09
Antenna: Biconnical	Eaton	94455-1	1057	CAL 12/12/05	12/12/07
Antenna: Biconnical	Eaton	94455-1	1096	CAL 8/17/04	8/17/06
Antenna: Biconnical	Electro-Metrics	BIA-25	1171	CAL 4/29/05	4/29/07
Analyzer Tan Tower Quasi-Peak Adapter	HP	85650A	3303a01690	CAL 12/8/05	12/8/07
Analyzer Tan Tower RF Preselector	HP	85685A	3221A01400	CAL 12/7/05	12/7/07
Analyzer Tan Tower Spectrum Analyzer	HP	8566B OPT 462	3188A07786 3144A20661	CAL 12/7/05	12/7/07
Analyzer Tan Tower Preamplifier	HP	8449B-H02	3008A00372	CAL 12/8/05	12/8/07
LISN	Electro-Metrics	ANS-25/2	2604	CAL 8/27/04	8/27/06
LISN	Electro-Metrics	EM-7820	2682	CAL 4/28/05	4/28/07
Antenna: Log-Periodic	Eaton	96005	1243	CAL 12/14/05	12/14/07

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

The test data included in this report is representative of the sample, which was submitted for testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2003 using a Agilent spectrum analyzer with a pre-selector. The bandwidth (RBW) of the spectrum analyzer was 100 kHz up to 1 GHz and 1 MHz above 1GHz 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%.

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 dBuV) to the antenna correction factor supplied by the antenna manufacturer. 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 = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The unit under test was placed on a table 80 cm high and with dimensions of 1m by 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 vertical planes.

RADIATED SPURIOUS EMISSIONS

15.247(c), 15.205 &15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH	FIELD STRENGTH	S15.209	
of Fundamental:	of Harmonics	30 - 88 MHz	40 dBuV/m @3M
902-928MHz		88 -216 MHz	43.5
2.4-2.4835GHz		216 -960 MHz	46
127.37dBuV/m	54dBuV/m	ABOVE 960 MHz	54 dBuV/m @3m

Emissions that fall in the restricted bands (15.205) must be less than 500 uV/m (54 dBuV/m). Emissions not in a restricted band must be 20 dBc.

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol.	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
902.5	902.53	89.6	H	1.95	23.33	114.88	12.50
902.5	902.53	102.5	V	1.95	22.67	127.12	0.26
902.5	1,805.00	21.9	H	2.74	30.03	54.67	52.45
902.5	1,805.00	23.4	V	2.74	30.03	56.17	50.95
902.5	2,707.50	16.3	H	3.40	32.85	52.55	1.45
902.5	2,707.50	17.0	V	3.40	32.85	53.25	0.75
902.5	3,610.10	6.9	H	4.15	33.39	44.44	9.56
902.5	3,610.10	6.9	V	4.15	33.39	44.44	9.56
915.5	915.53	92.9	H	1.97	23.34	118.21	9.17
915.5	915.53	102.4	V	1.97	22.60	126.97	0.41
915.5	1,831.00	18.2	H	2.76	30.19	51.15	55.82
915.5	1,831.00	22.5	V	2.76	30.19	55.45	51.52
915.5	2,746.50	16.7	V	3.42	32.90	53.02	0.98
915.5	2,746.50	16.8	H	3.42	32.90	53.12	0.88
915.5	3,662.10	5.1	V	4.20	33.43	42.73	11.27
915.5	3,662.10	6.6	H	4.20	33.43	44.23	9.77
915.5	4,577.60	7.2	V	4.79	34.16	46.15	7.85
927.5	927.48	93.3	H	1.99	23.45	118.74	8.64
927.5	927.48	101.2	V	1.99	22.67	125.86	1.52
927.5	1,854.90	21.3	H	2.78	30.33	54.41	51.45
927.5	1,854.90	23.3	V	2.78	30.33	56.41	49.45
927.5	2,782.40	16.7	H	3.45	32.94	53.09	0.91
927.5	2,782.40	17.5	V	3.45	32.94	53.89	0.11
927.5	3,709.90	6.2	H	4.24	33.47	43.91	10.09
927.5	3,709.90	6.4	V	4.24	33.47	44.11	9.89

All emissions listed are peak.

NOTE: The duty cycle correction factory is 20log(10.7ms/100ms) = -19.4 dB.

Harmonics were checked through the 10th harmonic

TEST SETUP PHOTOS

RADIATED EMISSIONS TEST SET UP PHOTO