FCC Test Report

For:

Unimax Communications LLC

Model(s):

U307TG and MXG308

Product Description:

Mobile phone with GSM/GPRS, UMTS/HSDPA, WiFi, BT, and GPS

FCC ID: P46-UMX35INT

Per:

47 CFR Parts: 15.207

REPORT #: EMC_INTEL-105-16001_FCC_15.207

DATE: 2016-06-17

A2LA Accredited

IC recognized # 3462B-1

***CETECOM* Inc.**

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CETECOM Inc. is a Delaware Corporation with Corporation number: 2905571

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1 Assessment

The following device as further described in section 3 of this report was evaluated against the applicable criteria specified in the Code of Federal Regulations Title 47 parts 15.207.

No deficiencies were ascertained.

Company Name	Product Description	Model
Unimax Communications LLC	Mobile phone with GSM/GPRS, UMTS/HSDPA, WiFi, BT, and GPS	U307TG and MXG308

Responsible for Testing Laboratory:

Date	Section	Name	Signature
2016-06-17	Compliance	Franz Engert (Compliance Manager)	Digitally signed by Franz Engert DN: cn=Franz Engert, c=US, o=CETECOM, ou=Complience, email=franz.engert@cetecom.com

Responsible for the Report:

Date	Section	Name	Signature
2016-06-17	Compliance	Kris Lazarov (EMC Engineer)	Kris Lazarov Digitally signed by Kris Lazarov DN: cn=Kris Lazarov, o, ou, email=kris.lazarov@cetecom.com, c=US

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Compliance Manager:	Franz Engert
Responsible Project Leader:	Kris Lazarov

2.2 Identification of the Client

Applicant's Name:	Unimax Communications LLC
Street Address:	18201 Mcdurmott St. West Suite E,
City/Zip Code	Irvine, CA 92614
Country	USA
Contact Person:	Dan Gannon
Phone No.	949-748-7485
e-mail:	Dangannon18@gmail.com

2.3 *Identification of the Manufacturer*

Manufacturer's Name:	Unimax Communications LLC
Manufacturers Address:	18201 Mcdurmott St. West Suite E,
City/Zip Code	Irvine, CA 92614
Country	USA

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No	U307TG and MXG308 (Note1)
HW Version	B1.2
SW Version	01.22.ww39_p2.2015
FCC-ID	P46-UMX35INT
Product Description	Mobile phone with GSM/GPRS, UMTS/HSDPA, WiFi, BT, and GPS
Operating Voltage Range	Extended voltage range: 3.6V to 4.2V DC / Nominal Voltage: 3.7V DC
Operating Temperature Range	-20ºC to +60ºC
Radios included in the device	Intel Atom X3 C3130 Chipset - GSM:850/900/1800/1900 MHz (GPRS Multislot Class 12) - WCDMA:850/1900 Intel AG620 Chipset - Bluetooth BDR/EDR/LE - WiFi (802.11 b/g/n) 2.4GHz -GPS 1575.42MHz
Sample Revision	☐Prototype ■Production ☐ Pre-Production
EUT Dimensions	122.00mmx65.40mmx10.40mm
EUT Diameter	■ < 60 cm ☐ Other _____

Note 1: The U307TG and MXG308 hardware and software is identical. Only U307TG sample was tested.

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Comments
1	MB27560400112	B1.2	01.22.ww39_p2.2015	

3.3 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	Serial Number
1	AC/DC Adapter	UMXCHG	UMX	N/A

3.4 Test Sample Configuration

Set-up #	EUT / AE used for set-up	Comments
1	EUT #1+ AE #1	The EUT was connected to WiFi Access Point and a Bluetooth speaker simultaneously. Both EUT radios (WiFi and the Bluetooth) were exercised during the testing by streaming video from the internet to the Bluetooth speaker.

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to evaluate the compliance of the EUT against the relevant requirements specified in the Code of Federal Regulations Title 47 parts 15.207.

4.1 Dates of Testing:

06/15/2015 - 06/16/2016

4.2 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus, with 95% confidence interval (in dB delta to result), based on a coverage factor k=1.

Conducted measurement

150 kHz to 30 MHz ±0.7 dB (LISN)

RF conducted measurement ±0.5 dB

4.3 Environmental Conditions during Testing:

The following environmental conditions were maintained during the course of testing:

- Ambient Temperature: 20-25°C
- Relative humidity: 40-60%

Deviating test conditions are indicated at individual test description where applicable.

5 Measurement Procedures

Testing is performed according to the guidelines provided in ANSI C63.10:2013

6 Measurement Results Summary

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
FCC §15.207	AC Conducted Emissions	Nominal	TX Mode	■	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.

7 Test Result Data

7.1 AC Power line Conducted Emissions according to CFR 47 Part 15.207

Spectrum Analyzer Setting	
Frequency band	150 kHz – 30 MHz
Resolution Bandwidth	9 kHz
Detector (Exploratory Measurements)	Peak, Average
Detector (Final Measurements)	Quasi-Peak, Average
Trace Mode	Max Hold
Step Size	4 kHz
Measurement Time	20 ms

7.1.1 Measurement Procedure:

- The EUT and accessories are placed on a non-conducting table 80 cm above the horizontal ground plane and 40 cm from the vertical ground plane.
- Cables that hang closer than 40 cm to the ground plane are gathered into a 30 cm to 40 cm long bundle.
- The power cable of the EUT is connected to the LISN.
- The 6 highest emissions within 20 dB of the limit are noted.

7.1.2 Limits:

FCC 15.207 Limits		
Frequency of emission (MHz)	**Conducted Limit (dBµV)**	
	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

7.1.3 Test Summary:

Environmental Conditions	
Ambient Temperature:	25° C
Relative Humidity:	44%
Atmospheric Pressure:	1012 mbar

Test Results							
Plot #	**EUT Set-Up #**	**EUT operating mode**	**Detector (Peak / AVG / QP)**	**Line Under Test**	**Power Supply Input**	**Comments**	**Result**
1	1	TX Mode	Peak & AVG	Line & Neutral	120V AC	Final measurement	Pass

7.1.4 Measurement Plots:

Plot # 1

EUT Information

EUT Name: U307TG
Manufacturer: Intel
SN MB27560400112
Comment: 120V

Quasipeak Measurement Final Result

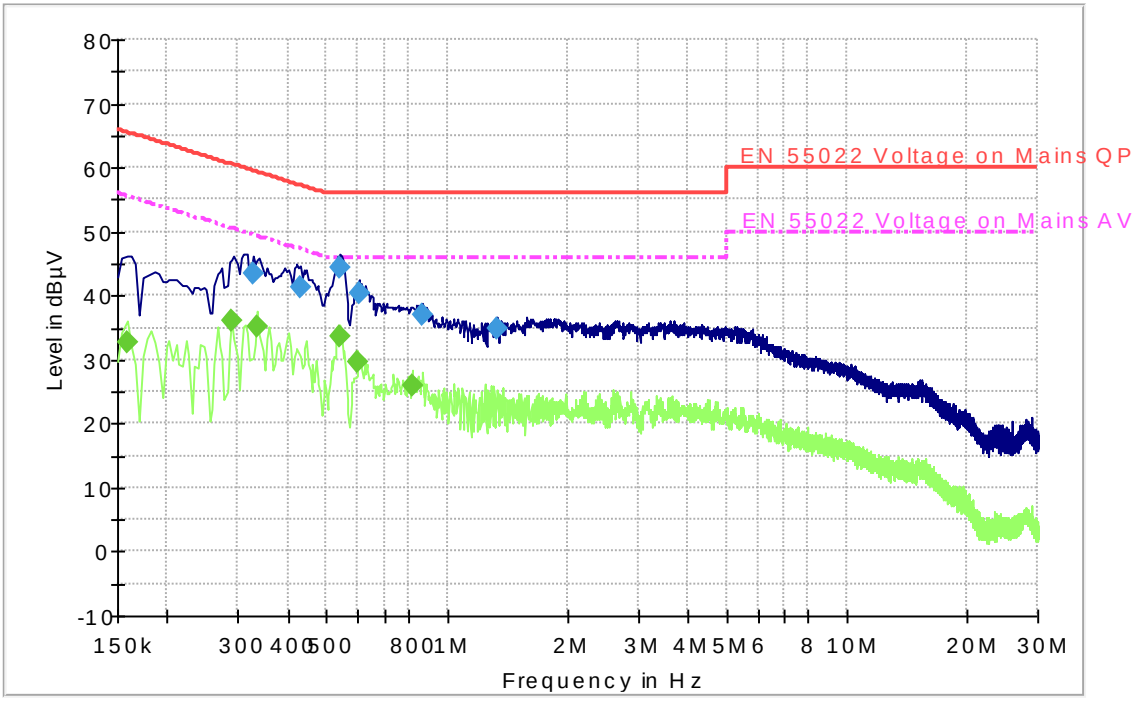
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.326000	43.4	500.0	9.000	GND	L1	3.7	16.1	59.6	
0.430000	41.3	500.0	9.000	GND	N	2.6	15.9	57.3	
0.542000	44.4	500.0	9.000	GND	L1	1.9	11.6	56.0	
0.602000	40.4	500.0	9.000	GND	N	1.6	15.6	56.0	
0.870000	37.1	500.0	9.000	GND	L1	1.0	18.9	56.0	
1.338000	34.8	500.0	9.000	GND	L1	0.8	21.2	56.0	

Average Measurement Final Result

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.158000	32.8	500.0	9.000	GND	N	8.4	22.8	55.6	
0.290000	36.0	500.0	9.000	GND	L1	4.3	14.5	50.5	
0.334000	35.0	500.0	9.000	GND	L1	3.6	14.3	49.4	
0.542000	33.7	500.0	9.000	GND	L1	1.9	12.3	46.0	
0.598000	29.7	500.0	9.000	GND	L1	1.6	16.3	46.0	
0.818000	26.0	500.0	9.000	GND	L1	1.1	20.0	46.0	

Disclaimer: Any measurement data within 2dB from the limit line is conditional PASS/FAIL due to measurement uncertainty considerations.

CISPR 22 Mains Conducted FCC_LISN



EN 55022 Voltage on Mains QP
Preview Result 1-PK+
Final Result 1-QPK
EN 55022 Voltage on Mains AV
Preview Result 2-AVG
Final Result 2-AVG

Test Date:6/15/2016 3:58:47 Test Engineer:SMoon

8 Test setup photos

Setup photos are included in supporting file name: "EMC_INTEL-105-16001_FCC_15.207_Setup_Photos.pdf"

9 Test Equipment And Ancillaries Used For Testing

Item Name	Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
Beatbox Portable	Bluetooth Speaker	Beatbox	MSP BTS	WB4E5S7633	N/A	N/A
Access Point	Access Point	CISCO	AIR-AP1262N	FTX1553E037	N/A	N/A
Antenna Biconilog 3142E	Biconlog Antenna	EMCO	3142E	166067	3 years	6/14/2014
Antenna Horn 3115 SN 35111	Horn Antenna	EMCO	3115	35111	3 years	7/24/2015
LISN FCC-LISN-50-25-2-08	LISN	FCC	FCC-LISN-50-25-2-08	8014	2 Years	3/26/2015
Digital Barometer	Compact Digital Barometer	Control Company	35519-055	91119547	2 Years	4/7/2015
Digital Radio Comm. Tester CMU 200 #1	Digital Radio Comm. Tester	R&S	CMU 200 #1	101821	2 Years	7/4/2015
Spectrum Analyzer FSU26 #2	Spectrum Analyzer	R&S	FSU26	200065	3 years	7/4/2015
Thermometer Humidity TM320	Thermometer Humidity	Dickson	TM320	5280063	1 Year	7/29/2015

Equipment used meets the measurement uncertainty requirements as required per applicable standards for 95% confidence levels.
Calibration due dates, unless defined specifically, falls on the last day of the month. Items indicated "N/A" for cal status either do not specifically require calibration or is internally characterized before use.

10 Revision History

Date	Report Name	Changes to report	Report prepared by
2016-06-17	EMC_INTEL-105-16001_FCC_15.207	Initial Version	Kris Lazarov