

RF EXPOSURE REPORT

OF

Applicant: Moxa Inc.
4TH FL 135 LANE 235 BAOQIAO RD XINDIAN DISTRICT
NEW TAIPEI CITY 231 TAIWAN

Product Name: Arm-based platform

Brand Name: Moxa

Model No.: UC-8112A-ME-T-LX

Model Difference: N/A

Report Number: E2/2019/30006-01

FCC ID SLE-UC8112A

FCC Rule Part Part 2.1091

Issue Date: Jun. 26, 2019

Date of Test: Mar. 04, 2019 ~ Mar. 27, 2019

Date of EUT Received: Mar. 04, 2019

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation in this report is in compliance with FCC Rules Part 2.

The test results of this report relate only to the tested sample identified in this report.

Approved By:

John Teh

John Yeh / Assistant Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
E2/2019/30006	Rev.00	Initial creation of document	All	Apr. 29, 2019	Elle Chang
E2/2019/30006-01	Rev.01	Updated WWAN Module supplier & Power Supply	Page 4	Jun. 26, 2019	Elle Chang

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

General:

Product Name:	Arm-based platform
Brand Name:	Moxa
Model No.:	UC-8112A-ME-T-LX
Hardware Version:	N/A
Software Version:	N/A
WWAN Module:	Model No.: TOBY-L201 Supplier: ublox
Power Supply:	12-36Vdc

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Antenna Information:

Vendor	Type	Antenna Part No.	Modulation	Frequency (MHz)	Peak Antenna Gain (dBi)
MOXA	Dipole	ANT-LTEUS-ASM-01	WCDMA / HSPA Band II	1852.4 ~ 1907.6	2
			WCDMA / HSPA Band V	826.4 ~ 846.6	1
			LTE Band 2	1850 ~ 1910	2
			LTE Band 4	1710 ~ 1755	2
			LTE Band 5	824 ~ 849	1
			LTE Band 13	777 ~ 787	1
			LTE Band 17	704 ~ 716	1

WCDMA / LTE:

Operating Frequency (MHz)		Module	Max. Output Power (dBm)	Antenna Gain (dBi)	EIRP / ERP (dBm)
WCDMA / HSPA Band 2	1852.4 ~ 1907.6	TOBY-L201	22.73	2.00	24.73
WCDMA / HSPA Band 5	826.4 ~ 846.6		22.03	1.00	23.03
LTE-Band 2	1850.7 ~ 1909.3		22.73	2.00	24.73
LTE-Band 4	1710.7 ~ 1754.3		23.18	2.00	25.18
LTE-Band 5	824.7 ~ 848.3		22.15	1.00	23.15
LTE-Band 13	779.5 ~ 784.5		22.08	1.00	23.08
LTE-Band 17	706.5 ~ 713.5		22.40	1.00	23.40

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2 FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 FCC Standard Applicable

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-15000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equipment power density

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2.2 Power Density Calculation (Worst Case)

Operation Mode	Evaluation Frequency (MHz)	Operation Distance (cm)	Max. output Power (dBm)	Antenna Gain (dBi)	Max. output Power EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Pass / Fail
WWAN	1710.70	20	23.18	2.00	329.61	0.066	1.000	Pass

Note: For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.

~ End of Report ~

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