

RF Exposure Report (FCC)

Report No.: WIR125010-FCC-RF Exposure Rev. 2

Test Model: XEdge

Test Date: February 10, 2023

Issued Date: May 17, 2023

Applicant: VIAVI SOLUTIONS INC.

1445 South Spectrum Boulevard, Suite 102

Address: Chandler, AZ 85286

United States

Issued By: Eurofins Electrical and Electronic Testing NA, Inc.

Lab Address: 914 W. Patapsco Avenue, Baltimore, MD 21230



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1. Certificate of Conformity

Product: XEdge

FCC ID: WUW-RM502QAE
2ABCB-RPI4B

Brand: VIAVI SOLUTIONS INC.

Test Model: XEdge

Applicant: VIAVI SOLUTIONS INC.

Test Date: February 10, 2023

Standard: 47 CFR FCC Part 2.1093



Donald Salguero
Wireless Laboratory Engineer

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements.



Michael Griffiths
Manager, Wireless Laboratory

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	April 4, 2023	Initial Issue.
1	May 12, 2023	Updated customer address; Updated FCC ID; Updated Section 2; Updated Table 1.
2	May 17, 2023	Updated customer address.

2. RF Exposure

Requirement:

47 CFR 2.1091(c)(1)

Evaluation of compliance with the exposure limits in § 1.1310 of this chapter, and preparation of an EA if the limits are exceeded, is necessary for mobile devices with single RF sources having either more than an available maximum time-averaged power of 1 mW or more than the ERP listed in Table 1 to § 1.1307(b)(3)(i)(C), whichever is greater. For mobile devices not exempt by § 1.1307(b)(3)(i)(C) at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in § 1.1310 of this chapter is necessary if the ERP of the device is greater than ERP_{20cm} in the formula below. If the ERP of a single RF source at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz is not easily obtained, then the available maximum time-averaged power may be used (i.e., without consideration of ERP) in comparison with the following formula only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

47 CFR 2.1091(c)(2)

For multiple mobile or portable RF sources within a device operating in the same time averaging period, routine environmental evaluation is required if the formula in § 1.1307(b)(3)(ii)(B) of this chapter is applied to determine the exemption ratio and the result is greater than 1.

Evaluation:

$$S_{\text{limit}} = 1 \text{ mW/cm}^2$$

$$S = \frac{P * G}{4 * \pi * r^2}$$

Where

S = power density in mW/cm²

P = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Worst Case simultaneous transmission:

LTE Band 41 MPE ratio: 0.3011

BT MPE ratio: 0.0013

2.4 WLAN MPE ratio: 0.0097

Sum of MPE ratio = 0.3121

1 > Sum of MPE ratios

EUT complies to RF exposure at 20cm

FCC ID	Technology	Frequency Range (MHz)	Conducted Output Power (W)	Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP/ERP (dBm)	Spectral Density @ 20cm (mW/cm²)	Limit (mW/cm²)	Ratio
WUW-RM502QAE	WCDMA B2	1850-1910	0.1950	22.90	2.51	25.41	0.0691	1.0000	0.0691
	WCDMA B4	1710-1755	0.1936	22.87	2.51	25.38	0.0687	1.0000	0.0687
	WCDMA B5	824-849	0.1820	22.60	0.41	20.86	0.0243	0.5493	0.0442
	LTE B2	1850-1910	0.1986	22.98	2.51	25.49	0.0704	1.0000	0.0704
	LTE B4	1710-1755	0.1986	22.98	2.51	25.49	0.0704	1.0000	0.0704
	LTE B5	824-849	0.2799	24.47	0.41	22.73	0.0373	0.5493	0.0679
	LTE B7	2500-2570	0.2123	23.27	5.00	28.27	0.1336	1.0000	0.1336
	LTE B12	699-716	0.2104	23.23	0.41	21.49	0.0280	0.4660	0.0601
	LTE B13	777-787	0.2280	23.58	0.41	21.84	0.0304	0.5180	0.0587
	LTE B14	788-798	0.2864	24.57	0.41	22.83	0.0382	0.5253	0.0727
	LTE B17	704-716	0.2259	23.54	0.41	21.80	0.0301	0.4693	0.0641
	LTE B25	1850-1915	0.1986	22.98	2.51	25.49	0.0704	1.0000	0.0704
	LTE B26	814-849	0.2831	24.52	0.41	22.78	0.0377	0.5427	0.0695
	LTE B30	2305-2315	0.2104	23.23	3.87	27.10	0.1020	1.0000	0.1020
	LTE B38	2570-2620	0.3990	26.01	5.00	31.01	0.2510	1.0000	0.2510
	LTE B41	2496-2690	0.4786	26.80	5.00	31.80	0.3011	1.0000	0.3011
	LTE B48	3550-3700	0.2296	23.61	3.89	27.50	0.1119	1.0000	0.1119
	LTE B66	1710-1780	0.1986	22.98	2.51	25.49	0.0704	1.0000	0.0704
	LTE B71	663-698	0.2153	23.33	0.41	21.59	0.0287	0.4420	0.0649
	n2	1850-1910	0.2280	23.58	2.51	26.09	0.0809	1.0000	0.0809
	n5	824-849	0.2158	23.34	0.41	21.60	0.0288	0.5493	0.0524
	n7	2500-2570	0.2388	23.78	5.00	28.78	0.1502	1.0000	0.1502
	n12	699-716	0.2377	23.76	0.41	22.02	0.0317	0.4660	0.0680
	n25	1850-1915	0.2280	23.58	2.51	26.09	0.0809	1.0000	0.0809
	n41	2496-2690	0.4560	26.59	5.00	31.59	0.2869	1.0000	0.2869
	n66	1710-1780	0.2432	23.86	2.51	26.37	0.0862	1.0000	0.0862
	n71	663-698	0.2472	23.93	0.41	22.19	0.0329	0.4420	0.0744
	n77	3700-3980	0.4159	26.19	3.89	30.08	0.2026	1.0000	0.2026
2ABCB-RPI4B	BT	2402-2480	0.0030	4.80	3.50	8.30	0.0013	1.0000	0.0013
	2.4 WLAN	2412-2462	0.0219	13.40	3.50	16.90	0.0097	1.0000	0.0097
	5 WLAN	5170-5825	0.0282	14.50	2.30	16.80	0.0095	1.0000	0.0095

Table 1. MPE Test Results