

RF Exposure Report (FCC)

Report No.: WIR124171-FCC-RF Exposure Rev. 1

Test Model: UWT-7020

Received Date: October 14, 2022

Test Date: February 24, 2023

Issued Date: March 23, 2023

Applicant: Zebra Technologies Corporation

Address: 1 Zebra Plaza, Holtsville, NY 11742

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

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1. Certificate of Conformity

Product: UWT-7020

Brand: Zebra Technologies Corporation

Test Model: UWT-7020

FCC ID: UZ7UWT7020

Sample Status: EMC

Applicant: Zebra Technologies Corporation

Test Date: February 24, 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	March 1, 2023	Initial Issue.
1	March 23, 2023	Updated customer address; Added FCC ID.

2. RF Exposure

Requirement:

47 CFR 2.1093(d)(1)

Applications for equipment authorization of portable RF sources subject to routine environmental evaluation must contain a statement confirming compliance with the limits specified in § 1.1310 of this chapter as part of their application. Technical information showing the basis for this statement must be submitted to the Commission upon request. The SAR limits specified in § 1.1310(a) through (c) of this chapter shall be used for evaluation of portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz shall be evaluated in terms of the MPE limits specified in Table 1 to § 1.1310(e)(1) of this chapter. A minimum separation distance applicable to the operating configurations and exposure conditions of the device shall be used for the evaluation. In general, maximum time-averaged power levels must be used for evaluation. All unlicensed personal communications service (PCS) devices and unlicensed NII devices shall be subject to the limits for general population/uncontrolled exposure.

EUT Frequency of operation: 643.3MHz OBW centered at 7.5GHz

SAR –

Per § 2.1093 (d)(1), equipment with a transmit frequency above 6GHz shall be evaluated in terms of MPE

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

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

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

Measured average EIRP = -44.99dBm/MHz = 0.000032 mW = P*G

Minimum Separation distance = 0.5cm

$$S = 0.000032 / (4 * 3.1416 * (0.5)^2) = 0.000010 \text{ mW/cm}^2$$

$$S_{\text{limit}} > S$$

EUT complies to RF exposure at 5mm