RF Exposure Evaluation Report

For TAG&Find Wireless solutions Ltd.

Equipment Under Test:

Compact UNF RFID reader with BLE connectivity GearEye RFID reader

Model: GearEye-A4
FCC ID: 2AXUS-GRY4

From The Standards Institution
Of Israel
Industry Division
Electronics & Telematics Laboratory
EMC Branch

1. Applicant information

Applicant:	Compact UNF RFID reader with BLE connectivity. TAG&Find Wireless solutions Ltd.
Address:	Golda Meir 21, Haifa, 3498223, Israel.
Sample for test selected by:	The customer
The date of tests:	3, 8, 15 September 2020

Equipment under test information

Description of Equipment Under Test (EUT):	GearEye RFID reader
Model:	GearEye-A4
Software version of radio unit:	GearEye-A4-2.3.1
Hardware version:	GearEye-A4
Manufactured by:	TAG&Find Wireless solutions Ltd.

2. Test performance

Location:	SII EMC Section
Purpose of test:	To prove the safety of radiation harmfulness to the human body for our product
Test specifications:	FCC KDB 447498 D01 General RF Exposure Guidance v06

This Test Report contains 4 pages and may be used only in full.	This Test Report applies only to the specimen tested and may not be applied to other specimens of the same product.

Electronics and
Telematics Laboratory

November 2020

Name: Eng. Yuri Rozenberg
Position: Head of EMC Branch.

Name: Michael Feldman.
Position: Test engineer.

3. FCC and ISEDC Exemption Limits for Routine Evaluation

FCC SAR test exclusions per KDB 447498

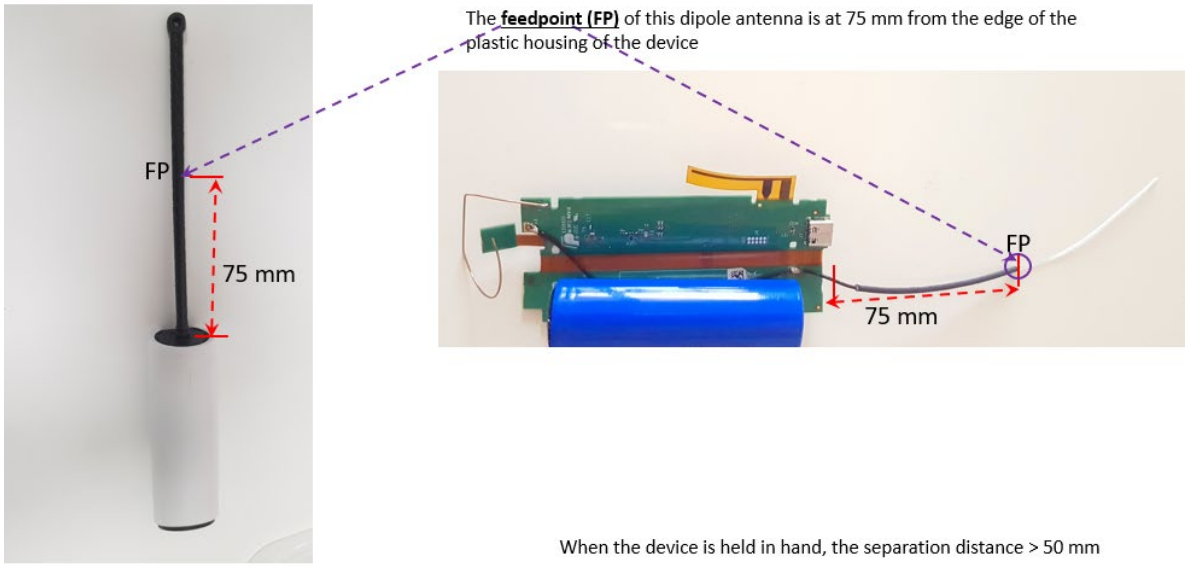
KDB 447498 D01 General RF Exposure Guidance v06 Section: 4.3.2 b).
When an antenna qualifies for the standalone SAR test exclusion and also transmits simultaneously with other antennas the standalone SAR value must be estimated according to the following to determine the simultaneous transmission SAR test exclusion criteria:

1.) [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm

2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distance is > 50 mm.

where
- f(GHz) is the RF channel transmit frequency in GHz
- x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR
- Power and distance are rounded to the nearest mW and mm before calculation

For antenna 1 with min. test separation distance 75 mm (see picture 1):
[590 +5%, mW) / (75, mm)]·[√f(GHz)/18.75] = [620 mW / 75 mm]·[√0.9276 GHz/ 18.75] = 0.42 W/kg that is less than 1.0 W/kg for 10-g SAR, when the test separation distance is > 50 mm.



Picture 1.

For antenna 2 with min. test separation distance 5 mm:
[186 +5%, mW) / (5, mm)]·[√f(GHz)/18.75] = [195 mW / 5 mm]·[√0.9276 GHz/ 18.75]
= 2.0 W/kg that is less than 4.0 W/kg for 10-g SAR, when the test separation distance is < 50 mm.

Summary: thus, satisfying the simultaneous transmission SAR test exclusion consideration given in KDB Publication 447498 D01 4.3.2. Therefore, SAR test is not required.