



RF EXPOSURE EVALUATION REPORT

FCC ID : 2ABOF-G1RN6AHB012
Equipment : Remote Node (RN)
Brand Name : TARANA
Model Name : G1RN6AHB012
Marketing Name : TARANA G1
Applicant : Tarana Wireless
590 Alder Drive, Milpitas, CA 95035
Manufacturer : Tarana Wireless, Inc.
590 Alder Drive, Milpitas, CA 95035
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full

Approved by: Cona Huang / Deputy Manager



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History of this test report

Report No.	Version	Description	Issued Date
FA230713001-01	Rev. 01	Initial issue of report	Sep. 28, 2023



1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Remote Node (RN)
Brand Name	TARANA
Model Name	G1RN6AHB012
Marketing Name	TARANA G1
FCC	2ABOF-G1RN6AHB012
Wireless Technology and Frequency Range	U-NII-3 Band: 5725 MHz ~ 5850 MHz U-NII-5 Band: 5925 MHz ~ 6425 MHz U-NII-7 Band: 6525 MHz ~ 6875 MHz
Mode	40MHz 40+40MHz
Remark: 1. Based on the original RF Exposure test report No.: FA230713001, enable UNII-5/7 to additional evaluation MPE calculation.	

Reviewed by: Jason Wang

Report Producer: Daisy Peng

2. Maximum RF average output power among production units

Mode	Maximum Burst Average power(dBm)
UNII-3 Band	30
UNII-5 Band	18.07
UNII-7 Band	17.98



3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Table with 5 columns: Frequency range (MHz), Electric field strength (V/m), Magnetic field strength (A/m), Power density (mW/cm²), Averaging time (minutes). It is divided into two sections: (A) Limits for Occupational/Controlled Exposures and (B) Limits for General Population/Uncontrolled Exposure.

The MPE was calculated at 44 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

S = PG / (4πR²)

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Burst Average Power (dBm)	(¹)Maximum Source based Time Average Power (dBm)	Maximum Source based Time Average EIRP (dBm)	Maximum Source based Time Average EIRP (mW)	Power Density at 44cm (W/m ²)	Limit (W/m ²)	Power Density / Limit
U-NII-3 Band	5725	17.11	30.00	26.2	43.3	21428.91	8.813	9.687	0.910
U-NII-5 Band	5925	17.91	18.07	14.3	32.2	1651.96	0.679	9.917	0.069
U-NII-7 Band	6525	18.01	17.98	14.2	32.2	1655.77	0.681	10.000	0.068

General Note:

1. According to operation descriptonal the maximum transmission duty cycle is 41.83%.
2. As required by Part2.1091(c), time-average effective radiated power applies to power density calculation.

4.2. Collocated Power Density Calculation

<UNII-3 + UNII-5>

UNII-3 Power Density / Limit	UNII-5 Power Density / Limit	Σ (Power Density / Limit) of UNII-3 + UNII-5
0.910	0.069	0.979

<UNII-3 + UNII-7>

UNII-3 Power Density / Limit	UNII-7 Power Density / Limit	Σ (Power Density / Limit) of UNII-3 + UNII-7
0.910	0.068	0.978

<UNII-5 + UNII-7>

UNII-5 Power Density / Limit	UNII-7 Power Density / Limit	Σ (Power Density / Limit) of UNII-5 + UNII-7
0.069	0.068	0.137

Note:

1. Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission) / (corresponding MPE limit)], for UNII-3+UNII5 / UNII-3+UNII7 / UNII-5+UNII7
2. Considering the UNII3 module collocation with the UNII5/7 transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.