



RF EXPOSURE EVALUATION REPORT

FCC ID : 2ABOF-G2BNF356900
Equipment : G2 Base Node (BN)
Brand Name : Tarana
Model Name : G2BNF356900
Applicant : Tarana Wireless, Inc.
630 Alder Drive, Milpitas, CA 95035
Manufacturer : Tarana Wireless, Inc.
630 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: 3786) and the FCC designation No. TW3786 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.

Cona Huang

Approved by: Cona Huang / Deputy Manager



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History of this test report



1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	G2 Base Node (BN)
Brand Name	Tarana
Model Name	G2BNF356900
FCC ID	2ABOF-G2BNF356900
Wireless Technology and Frequency Range	CBRS Band: 3550 MHz ~ 3700 MHz 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	CBRS Band: 10, 20, 30, 40MHz U-NII-3 Band: 40MHz, 40+40MHz U-NII-5 Band: 40MHz, 40+40MHz, 40+40+40MHz, 40+40+40+40MHz U-NII-7 Band: 40MHz, 40+40MHz, 40+40+40MHz, 40+40+40+40MHz

Reviewed by: Jason Wang

Report Producer: Carlie Tsai

2. Maximum EIRP Output Power

Mode	Maximum EIRP power(dBm)
CBRS	48.45
U-NII-3	35.95
U-NII-5	36.00
U-NII-7	35.99

Remark:

The maximum EIRP powers are according to the directional gain from Part 15E and Part 96 EMC reports and the maximum power from tune-up procedure.



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.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) 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
1500-100,000			1.0	30

The MPE was calculated at 84 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

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	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 84cm (mW/cm^2)	Limit (mW/cm^2)	Power Density / Limit
CBRS	48.45	69984.20	0.790	1.000	0.790
U-NII-3 Band	35.95	3935.50	0.044	1.000	0.044
U-NII-5 Band	36.00	3981.07	0.045	1.000	0.045
U-NII-7 Band	35.99	3971.92	0.045	1.000	0.045

4.2. Collocated Power Density Calculation

CBRS Power Density / Limit	U-NII-3 Power Density / Limit	U-NII-5 Power Density / Limit	U-NII-7 Power Density / Limit	Σ (Power Density / Limit) of CBRS + U-NII-3 + U-NII-5 + U-NII-7
0.790	0.044	0.045	0.045	0.924

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 CBRS + U-NII-3 + U-NII-5 + U-NII-7.
2. Considering the CBRS collocation with the U-NII-3/5/7 transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 4 collocated transmitters is compliant.

Conclusion:

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