

Company: Tarana Wireless

Test of: AbsoluteAir 2  
To: FCC CFR 47 Part 15 Subpart E 15.407

Report No.: TARA13-MPE

**MPE TEST REPORT**



# MPE TEST REPORT

FROM



Test of: Tarana Wireless AbsoluteAir 2

to

To: FCC CFR 47 Part 15 Subpart E 15.407

Test Report Serial No.: TARA13-MPE

This report supersedes: NONE

Applicant: Tarana Wireless  
2953 Bunker Hill Lane  
Santa Clara, California 95054  
USA

Product Function: Point to Point and Multiple Point to Point  
Wireless Backhaul

Issue Date: 18<sup>th</sup> April 2016

## **This Test Report is Issued Under the Authority of:**

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## 1. MAXIMUM PERMISSIBLE EXPOSURE

### Calculations for Maximum Permissible Exposure Levels

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP}/(4*\pi*d^2)$$

$$\text{EIRP} = P * G$$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

$$\text{Numeric Gain} = 10 \wedge (\text{G (dBi)}/10)$$

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm<sup>2</sup>

The calculations in the table below use the highest conducted power values together with the lowest antenna gain specified for the EUT. These calculations represent worst case in terms of the exposure levels.

| Freq. Band (MHz) | Ant Gain (dBi) | Numeric Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Calculated Safe Distance @ 1mW/cm <sup>2</sup> | Calculated Power Density @ 20cm | Minimum Separation Distance (cm) |
|------------------|----------------|------------------------|-------------------------|------------------------|------------------------------------------------|---------------------------------|----------------------------------|
| 5150.0 - 5250.0  | 13.00          | 19.95                  | 28.84                   | 965.0                  | 39.14                                          | 3.83                            | 40.0                             |
| 5725.0 - 5850.0  | 13.00          | 19.95                  | 29.99                   | 998.0                  | 39.80                                          | 3.96                            | 40.0                             |

**Note:** for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

### Specification

#### Maximum Permissible Exposure Limits

**FCC §1.1310** Limit = 1mW / cm<sup>2</sup> from 1.310 Table 1

**RSS-Gen §3.2** In addition to RSS-Gen, the requirements in Radio Standards Specification RSS-102 shall be met.



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