MPE/RF EXPOSURE REPORT

FCC CFR 47 Part 1.1310

REPORT No:. ALNT93-U2_MPE Rev A

Company: Alien Technology, LLC.

Test of: Nexus Multiplexer System

MPE/RF EXPOSURE REPORT

FROM

MiCOM Labs
opening wireless markets

Assessment of: Alien Technology, LLC. Nexus Multiplexer System

To: FCC CFR 47 Part 1.1310

Report Serial No.: ALNT93-U2_MPE Rev A

This report supersedes: NONE

Applicant:	Alien Technology, LLC. 845 Embedded Way San Jose, California 95138 USA
Product Function:	Nexus 8 Port Multiplexer with the ALR-F800 RFID Reader
Issue Date:	12th November 2019

This Test Report is Issued Under the Authority of:

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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels
Power Density = Pd (mW/cm^2) = EIRP/($4*\pi*d^2$)
EIRP = P * G
P = Peak output power (mW)
G = Antenna numeric gain (numeric)
d = Separation distance (cm)
Numeric Gain = 10 ^ (G (dBi)/10)

The calculations in the table below use the highest conducted power values together with the lowest and highest antenna gain (< 6 dBi per FCC 15.247 standard) specified for the EUT. At Antenna gains higher than 6 dBi the output power must be reduced by the amount in dB the antenna gain exceeds 6 dBi. 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 Power Density (mW/cm^2) @ 20cm	Power Density Limit (mW/cm^2)	Min Calculated safe distance for Limit (cm)	Calculated Power Density (mW/cm^2) @ Safe Distance
900-928	3.0	2.00	29.94	986.28	0.391	0.6	16.155	0.391
900-928	8.5	7.08	27.50	562.34	0.792	0.6	23.98	1.0

From above calculations the minimum safe distance = 24 cm.

Specification - Maximum Permissible Exposure Limits

The Limit is defined in Table 1 of FCC §1.1310.

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