

Company: Digi International

Test of: i.MX28 with Atheros AR6203
To: FCC CFR 47 Part 15 Subpart E 15.407

Report No.: DIGI60-U6_MPE Rev A

MPE TEST REPORT



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FROM



Test of: Digi International i.MX28 with Atheros AR6203
to

To: FCC CFR 47 Part 15 Subpart E 15.407

Test Report Serial No.: DIGI60-U6_MPE Rev A

This report supersedes: NONE

Applicant: Digi International
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USA

Product Function: 802.11 a/b/g/n Wireless Module

Issue Date: 27th May 2016

This Test Report is Issued Under the Authority of:

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MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



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)

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

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm²

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 ²	Calculated Power Density @ 20cm	Minimum Separation Distance (cm)
5725.0 - 5850.0	2.00	1.58	17.37	54.62	2.62	0.02	20.00

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 / cm² 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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