



MPE/RF EXPOSURE REPORT

FCC CFR 47 Part 1.1310

Report No.: DIGI93-U5 Rev A

Company: Digi International

Model Name: XBee-PRO S2C

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Model Name: XBee-PRO S2C

To: FCC CFR 47 Part 1.1310

Test Report Serial No.: DIGI93-U5 Rev A

This report supersedes: NONE

Applicant: Digi International
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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

Power Density = P_d (mW/cm²) = $EIRP / (4 * \pi * d^2)$

$EIRP = P * G$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

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

The calculations in the table below use the highest conducted power values together with the lowest antenna gain and the highest antenna gain after cable loss taken into consideration for the EUT. These calculations represent worst case in terms of the exposure levels.

Frequency 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
2400.0 - 2483.5	2.1	1.62	16.95	49.55	0.02	1.00	2.53	1.00
2400.0 - 2483.5	15.0	31.62	*11.95	15.67	0.098	1.00	6.28	1.00

Note 1: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

*Note 2: The specified antenna (15 dBi) has a 5 dB loss cable which is reflected in the output power column.

Specification - Maximum Permissible Exposure Limits

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



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