

Contact us.  
info@vivint.com  
800.216.5232

Visit us online.  
vivint.com

**47 C.F.R. Part 1, Subpart I, Section 1.1310  
47 C.F.R. Part 2, Subpart J, Section 2.1091  
Maximum Permissible Exposure Calculations**

**For Vivint M/N: CP04**

**908.4 / 908.42 / 916.0 MHz Z-Wave Transceiver**

EUT Device Category = General Population/Uncontrolled Exposure

EUT consists of one Z-Wave radio transmitting at one of three possible frequencies:  
**908.4MHz, 908.42MHz, 916.0MHz**

MPE Summary:

According subpart 1.1307 (b)(1) and 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Strength (V/m)	Field Magnetic Strength (A/m)	Field Power Density (mW/cm <sup>2</sup> )	Averaging Time (Minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; \* = Plane-wave equivalent power density

Utah  
4931 North 300 West  
Provo, UT 84604 USA  
801.705.2900

Canada  
1602 3<sup>rd</sup> Avenue S.  
Lethbridge, AB T1J 0L2  
403.214.6740

Minnesota  
2854 Highway 55, Suite 200  
Eagan, MN 55121 USA  
651.450.4853

**vivint.SmartHome**

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#### Calculated Formulary:

Predication of MPE limit at a given distance

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

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

PG = EIRP

MPE and Limit are calculated as follows:

f (MHz)	Field Strength (dBuV/m [@3m])	EIRP (mW)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Δ
908.40	93.2	0.63	0.000125	0.6056	0.6055
908.42	93.0	0.60	0.000119	0.6056	0.6055
916.00	92.9	0.58	0.000115	0.6107	0.6106

**Result:** The device meets FCC MPE limit at 20 cm for General Population/Uncontrolled Exposure as specified in 47 CRF §1.1310 and §2.1091.

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