

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 ISM band radio transmitting at one of 51 possible frequencies:
902.5 MHz to 927.5 MHz

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/cm²)	Averaging Time (Minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	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 3rd Avenue S.
 Lethbridge, AB T1J 0L2
 403.214.6740

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

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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/cm²)

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)	Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Δ
902.5	17.49	2.97	20.46	111.2	0.0221	0.6056	0.5835
915.0	17.86	2.97	20.83	121.1	0.0241	0.6056	0.5815
927.5	17.98	2.97	20.95	124.5	0.0248	0.6107	0.5856

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

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