LCIE SUD EST
Laboratoire de Moirans
Z.I. Centr'Alp
170, Rue de Chatagnon
38430 MOIRANS – FRANCE

FCCID: XF6-RSWC301

RF Exposure Information

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

When all the antennas are at least 20cm away from the user's body (excluding hands and wrists during normal operation of the device), but individual antennas cannot be separated by more than 20cm from each other.

[Pd(1) / LPd(1)] + [Pd(2) / LPd(2)] + ….. + [Pd(n) / LPd(n)] < 1,

Where;
Pd(n) = Power density of n^{th} transmitter at 20cm
LPd(n) = Power density limit for the n^{th} transmitter

Measurement from Modular approval test report:

Frequency Band	802.11 Protocol	Output Power to Antenna (mW)	Power Density (mW/cm²)	Limit (mW/cm²)
2400 -2483.5MHz	b	77.09	0.0243	1.000
	g	81.84	0.0258	1.000
	n	77.62	0.0245	1.000
5725 – 5850MHz	a	10.88	0.0034	1.000
	n	12.10	0.0038	1.000
5150 – 5250MHz	a	07.65	0.0024	1.000
	n	07.92	0.0025	1.000

The highest power density is 0.03mW/cm² from the table above.

=> 1/0.03 = 33.333

This module may be co-located only with itself up to 33 units within a space of 20cm.

Fresenius in their host integration have less than 33 modules in a 20cm space, in worst case 3 modules.