The effective eirp for up to 4 radios operating in a band is determined by looking at the increase in total eirp within that band as each additional radio comes on-line.

Radios operating in band	Band	Total EIRP (dBm)	Total EIRP (mW)	EIRP per additional radio	
1	NII 3	24.2	264	264	NII 3 (#1)
2	NII 3	27.2	528	264	NII 3 (#2)
3	NII 3	29.0	792	264	NII 3 (#3)
4	NII 3	29.7	934	143	NII 3 (#4)
1	NII 2	21.3	134	134	NII 2 (#1)
2	NII 2	26.0	396	262	NII 2 (#2)
3	NII 2	28.2	665	268	NII 2 (#3)
1	5.7 DTS	32.4	1744	1744	5.7 DTS (#1)
2	5.7 DTS	35.4	3493	1749	5.7 DTS (#2)
3	5.7 DTS	36.0	3943	450	5.7 DTS (#3)
1	2.4 DTS	27.3	542	542	2.4 DTS (#1)
2	2.4 DTS	33.8	2390	1848	2.4 DTS (#2)

Although there could be more 20 MHz wide radios operating in this band, the highest EIRP is with the maximum # of 40 MHz channels and one 20 MHz channel

The following page provides calculations for the power density 20cm from the system with the maximum number of radios in one band.

The calculations are conservative as they assume all radios would be transmitting at 100% duty cycle and does not consider the separation distance between the individual radios' antennas.

Band	EIRP	Ranking
NII 3 #1	264	9
NII 3 #2	264	7
NII 3 #3	264	8
NII 3 #4	143	11
NII 2 #1	134	12
NII 2 #2	262	10
NII 2 #3	268	6
5.7 DTS #1	1744	3
5.7 DTS #2	1749	2
5.7 DTS #3	450	5
2.4 DTS #1	542	4
2.4 DTS #2	1848	1

This table shows the eirp increase when a radio is turned on in a specific band. For example, the first radio truned on in NII band 3 adds 59mW of eirp to the total eirp from the device, the second radio in that band adds 58mW, the third 83mW and the fourth 83mW.

Listing the eirps in order of power, highest first, we can then determine the maximum eirp from the complete device with all 4 radios operating. This allows the rf exposure hazard to be evaluated based on a maximum power density of 1mW/cm^2 allowed for devices operating in either 2.4GHz or 5GHz bands:

Band	EIRP	Ranking	Total eirp
2.4 DTS #2	1848	1	1848
5.7 DTS #2	1749	2	3597
5.7 DTS #1	1744	3	5341
2.4 DTS #1	542	4	5883

For 4 radios operating simultaneously:

Total EIRP: 5883 mW

S @ 20cm: **1.17 mW/cm^2** 11.7 W/m^2

Minimum separation distance for 1mW/cm^2: **21.6 cm**

Note: Power Density (S) is calculated from:

$$S = \frac{EIRP}{4\pi d^2}$$ where d is the distance from the device.