RADIATION EXPOSURE

The M-WIBS1900 Base Station is the transceiver intended to service multiple subscribers on a point-to-multipoint basis. Antenna is fix-mounted, generally quite high, so it is impossible to use the product in any portable application. Therefore, to comply with RF Exposure Requirement, the MPE is calculated and measured.

The maximum Peak EIRP measured and calculated is 19.7 dBm or 0.1 W. The Power Density can be calculated using the formula

$$S = EIRP/ 4\pi D^2$$

Where: S is Power Density in W/m^2
D is the distance from the antenna.

In the table below, the calculated Power Density (using the formula) at different distances and MPE Limit are presented.

Distance, m	Power Density, W/m^2	MPE, W/m^2
0.05	3.2	10.0
0.1	0.8	10.0
0.2	0.2	10.0
0.3	0.09	10.0
0.6	0.02	10.0
0.8	0.01	10.0
1.0	0.008	10.0

In the table below, the calculated Power Density (using the Field Strength measurement data) at different distances and MPE Limit are presented.

Distance, m	Field Strength (measured) V/m	Power Density (calculated) W/m^2	MPE, W/m^2
0.1	16.0	0.7	10.0
0.2	9.7	0.25	10.0
0.3	6.0	0.095	10.0
0.6	3.4	0.031	10.0
0.8	2.2	0.013	10.0
1.0	1.5	0.006	10.0

As can be seen from the data, the MPE is well below the limit at 5 cm and more.