Product:	RF Module
Trademark:	Tractel
Manufacturer:	TRACTEL
Model:	BLE652-SA
FCC ID:	**OVL-BL652**
Registration Number:	197516
Designation Number:	FR0008

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

Equation from page 1 KDB 412172 D01 Determining ERP and EIRP v01r01

$$p_t \times g_t = (E \times d)^2/30$$

- p_t = transmitter output power in watts,
- g_t = numeric gain of the transmitting antenna (unitless),
- **E** = electric field strength in V/m,
- **d** = measurement distance in meters (m).

Transmitter n°1 (RF Proprietary: 2400-2483,5 MHz)

Average E-Field at 3m:	90,95	(dBµV/m)
PG:	0,373354384	(mW)
Prediction distance:	20	(cm)
Prediction frequency:	2480	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0,000074	(mW/cm^2)

Note : Transmitter n°1: Single modular FCC ID: OVL-RF24GHZ operating in colocation with transmitter n°2

Transmitter n°2 (BLE: 2400-2483.5MHz)

Maximum peak output power at the antenna terminal:	4,39	(mW)
Antenna gain(typical):	2,21	(dBi)
Maximum antenna gain:	1,66341265	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	2402	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0,001453	(mW/cm^2)

Transmitter n°1 (RF Proprietary: 2400-2483,5 MHz) + Transmitter n°2 (BLE: 2400-2483,5 MHz)

[Pd(1)/LPd(1)] + [Pd(3)/LPd(3)] =	0,00153 <1