

MDE\_TELTO\_FCC\_MPEa  
 FCC ID 2AET4-RUT950  
 IC ID: 23005-RUT950

**Maximum Permissible Exposure**

as specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure

Frequency range (MHz)	Power density (mW/cm <sup>2</sup> )
300 – 1,500	f/1500
1,500 – 100,000	1.0

Limits specified per RSS-102, Issue 5.

Frequency range (MHz)	Power density (W/m <sup>2</sup> )	Power density (mW/cm <sup>2</sup> )
300 – 6000	0.02619 f <sup>0.6834</sup>	mW/cm <sup>2</sup> = W/m <sup>2</sup> * 0.1

**Calculations**

The output power at antenna input terminal:  
 Prediction frequency 1(PF 1) (P): 20MHz BW - 2412 MHz @ 15.8 dBm  
 Prediction frequency 2(PF 2) (P): 40MHz BW - 2422 MHz @ 15.6 dBm  
 Antenna gain(G) @ 2.4GHz: 5.0dBi  
 Prediction distance R: 20 cm  
 MPE limit S: 1 mW/cm<sup>2</sup>

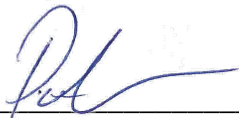
Equation OET bulletin 65, page 18, edition 97-01:  $S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$   
 S = power density  
 P = power input to the antenna  
 G = power gain of the antenna in the direction of interest relative to an isotropic radiator  
 R = distance to the centre of radiation of the antenna (20cm)

Maximum Power density	Limit FCC	Limit IC	Verdict
PF 1: 0.0239 mW/cm <sup>2</sup>	1.0 mW/cm <sup>2</sup>	0.5366	Pass
PF 2: 0.0228 mW/cm <sup>2</sup>	1.0 mW/cm <sup>2</sup>	0.5381	Pass

Margin to FCC Limit (mW/cm <sup>2</sup> )	Margin to IC Limit (mW/cm <sup>2</sup> )	Minimum Distance to be ensured cm (FCC)	Minimum Distance to be ensured cm (IC)
0.9761	0.5127	3.0931	4.2225
0.9772	0.5153	3.0227	4.1206

Note. The calculation was made under the consideration of the duty cycle effect.

Yours sincerely




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