

FCC RF Exposure Evaluation

FCC ID : 2AVRO-BEACON-3
Model : BEACON-3
Trade mark : Noccela

1 MPE evaluation of mobile device

According to 447498 D01 General RF Exposure Guidance v06, human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by FCC for power density.

1.2 Limits

Frequency Range [MHz]	Power Density [mW/cm ²]	Averaging time [min]
1500 ... 100000	1.0	<30

1.3 Evaluation formula

$$S = EIRP / (4 * \pi * R^2)$$

Where

S = Power density in mW/cm²
EIRP = equivalent isotropically radiated power in mW
R = Measurement distance in cm

1.4 MPE evaluation result

Measured EIRP level of 52.63 dBμV/m @6450 MHz reported in SGS test report 'FCC ISSED 15F 299517-1_Beacon.pdf' has used in evaluation calculation.

EIRP [dBm] = 52.63 dBμV/m – 95.2 dB ((ANSI C63.10 (10.3.9), RSS-220 Annex clause 4(c)) = -42.57 dBm = 5.53 x 10⁻⁵ mW

Which leads to

S = 1.1 x 10⁻⁸ mW/cm² , assuming minimum exposure distance of 20 cm. Therefore, SAR test is not required.



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