

Maximum Permissible Exposure (MPE)

Report identification number: 1-3558/17-01-05

Certification numbers and labeling requirements	
FCC ID	PQC-OBBSBV1
Hardware Version	1
Software Version	B.00.39 / B.02.60

This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

Alexander Hnatovskiy
Lab Manager
Radio Communications & EMC

EUT technologies:

Technologies:	EIRP
MBAN 1 2.4 GHz	3 dBm +/-1 dB
MBAN 2 2.4 GHz	4.2 dBm +/-1 dB
SRR 1 2.45 GHz	3.3 dBm +/-1 dB
SRR 2 2.45 GHz	4.5 dBm +/-1 dB
WMTS 600 MHz	8.57 dBm +/-1 dB

Prediction of MPE limit at given distance - FCC

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where: S = Power density
 PG = Output Power including antenna gain
 R = Distance to the center of radiation of the antenna

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled "Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure"

Frequency Range (MHz)	Power Density (mW/cm ²)	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction: worst case

Technologies:		WMTS	MBAN	SRR	
	Frequency (MHz)	600	2400	2450	
PG	Declared max power (EIRP)	9.57	5.2	5.5	dBm
R	Distance	20	20	20	cm
S	MPE limit for uncontrolled exposure	0.4	1	1	mW/cm ²
	Calculated Power density:	0.0018	0.0007	0.0007	mW/cm ²
	Calculated:	0.45%	0.07%	0.07%	
	Sum (worst case/all transmitters active):	0.59%			

This prediction demonstrates the following:

The power density levels for FCC at a distance of 20 cm are below the maximum levels allowed by regulations.