

US Tech Test Report:  
FCC ID:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15 Certification  
2AUFI-FT-06FLC  
20-0196  
July 6, 2020  
OKYANUS TEKNOLOJİ  
FT-06FLC

### Maximum Public Exposure to RF (MPE) CFR 15.247 (i), CFR 1.1310 (e)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S** as per the respective limits in Table 1 below, at a distance, **d**, of 20 cm from the EUT.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

Therefore, for:

#### MPE for 2400 MHz – 2483.5 MHz

Limit: 1 mW/cm<sup>2</sup>

Peak Power (dBm) = +9.0 dBm

Peak Power (Watts) = 0.008 W

Gain of Transmit Antenna = 2.8 dB<sub>i</sub> = 1.91, numeric

d = Distance = 20 cm = 0.2 m

$$\begin{aligned} \mathbf{S} &= (\mathbf{P}\mathbf{G} / 4\pi\mathbf{d}^2) = \mathbf{EIRP}/4\mathbf{A} = 0.008 * (1.91) / 4 * \pi * 0.2^2 * 0.2 \\ &= 0.0153 / 0.5030 = 0.0304 \text{ W/m}^2 \\ &= (0.0304 \text{ W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.00304 \text{ mW/cm}^2 \end{aligned}$$

which is << less than S = 1 mW/cm<sup>2</sup>

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Therefore, for:

**MPE for 4308.00 MHz (UWB Radio #1) FCC ID: 2AIFI-UWB001**

Limit: 1 mW/cm<sup>2</sup>  
Peak Power (dBuV/m) = 70.30 dBuV/m @ 3  
Peak Power (dBm) = 70.30 dBuV/m + 20 log(3) – 104.8 = -24.85 dBm  
Peak Power (Watts) = 0.000003 W  
Gain of Transmit Antenna = 2.6 dB<sub>i</sub> = 1.82, numeric  
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = EIRP/4A = 0.000003 * (1.82) / 4 * \pi * 0.2 * 0.2 \\ &= 0.000006 / 0.5030 = 0.000011 W/m^2 \\ &= (0.000011 W/m^2) (1m^2/W) (0.1 mW/cm^2) \\ &= 0.0000011 mW/cm^2 \end{aligned}$$

which is << less than S = 1 mW/cm<sup>2</sup>

**MPE for 4308.00 MHz (UWB Radio #2) FCC ID: 2AIFI-UWB001**

Limit: 1 mW/cm<sup>2</sup>  
Peak Power (dBuV/m) = 70.30 dBuV/m @ 3  
Peak Power (dBm) = 70.30 dBuV/m + 20 log(3) – 104.8 = -24.85 dBm  
Peak Power (Watts) = 0.000003 W  
Gain of Transmit Antenna = 2.6 dB<sub>i</sub> = 1.82, numeric  
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = EIRP/4A = 0.000003 * (1.82) / 4 * \pi * 0.2 * 0.2 \\ &= 0.000006 / 0.5030 = 0.000011 W/m^2 \\ &= (0.000011 W/m^2) (1m^2/W) (0.1 mW/cm^2) \\ &= 0.0000011 mW/cm^2 \end{aligned}$$

which is << less than S = 1 mW/cm<sup>2</sup>

**Summation:**

$$0.0000011 mW/cm^2 + 0.0000011 mW/cm^2 = 0.0000022 mW/cm^2$$

which is << less than S = 1 mW/cm<sup>2</sup>