

# Maximum Permissive Exposure

FCC ID: 2A47N-PRR13PI

Product Description: 13 OUTLET 2U SMART POWER

Model No: PR-R13PI

- According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

**Table 1 Limits for Maximum Permissible Exposure**

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

## 2. MPE Calculation

**Ethereal Home Theater, LLC** declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

Mode	Max Output Power (dBm)	Tune-up factor	Tune-up max power (dBm)
WLAN 2.4GHz	21.78	1.01	22.0

\*\*The value presented in the MPE is the maximum tune-up power.

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.585 Numerical**, and the highest power output (P) is **158.49mW**, the power density (S) is **0.049976mW/cm<sup>2</sup>**.

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where :

Based on safety distance (r) =	20	cm	=		
Highest Power Output (P) =	22.0	dBm	=	<b>158.49</b>	mW
Antenna Gain (G) =	2.0	dBi	=	<b>1.585</b>	Numerical
MPE (S) = (P*G) / (4*π*r <sup>2</sup> ) =	(158.49*1.585)/(4*π*20 <sup>2</sup> ) =			<b>0.049976</b>	mW/cm <sup>2</sup>

Sincerely Yours,

*Johnny Hsueh*

Mr. Johnny Hsueh

Section Manager

AUDIX Technology Corporation