

# Maximum Permissive Exposure

FCC ID: XVG500144BCBT

Product Name: IPTV STB/PVR

Model No: Kamai YYYYYYYYYYYY

- 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

**Amino Communications Ltd.** 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.

## 2. MPE Calculation

### 2.1 WIFI 5G MPE

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.718 Numerical**, and the highest power output (P) is **801.678mW**, the power density (S) is **0.274002mW/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)=	29.04 dBm = 801.678 mW
Antenna Gain (G)=	2.35 dBi = 1.718 Numerical
MPE (S) = (P*G) / (4*\pi*r <sup>2</sup> ) =	= (801.678*1.718)/(4*\pi*20 <sup>2</sup> )= 0.274002 mW/cm <sup>2</sup>

## 2.2 BT MPE

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.380 Numerical**, and the highest power output (P) is **11.246mW**, the power density (S) is **0.003088mW/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)=	10.51 dBm	=	<b>11.246 mW</b>
Antenna Gain (G)=	1.4 dBi	=	<b>1.380 Numerical</b>
MPE (S) = (P*G) / (4*π*r <sup>2</sup> ) =	<b>= (11.246*1.380)/(4*π*20<sup>2</sup>)=</b>	<b>0.003088</b>	<b>mW/cm<sup>2</sup></b>

MPE			
WIFI 5G (mW/cm <sup>2</sup> )	BT (mW/cm <sup>2</sup> )	Total (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
0.274002	0.003088	0.277090	≤1

Sincerely Yours,



Mr. Ben Cheng  
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