

Produkte  
 Products

**RF Exposure Statement: 12307581 002** Page 1 of 1

**Client:** **Panasonic Corporation**  
 1-15 Matuso-cho, Kadoma City, Osaka 571-8504, Japan

**Test item:** **2.4 GHz RF Module**

**Identification:** **TNPA4870**

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b) 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> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	-/-	-/-	F/300	6
1500-100,000	-/-	-/-	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	-/-	-/-	F/1500	6
1500-100,000	-/-	-/-	1	30

**Friis Formula**

Friis transmission formula:  $S = (P_{out} \cdot G) / (4 \cdot \pi \cdot d^2)$

Where

S = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = output power to antenna in mWv ( see table below)

G = gain of antenna in linear scale (0.9 linear scale, -0.14dBi)

π = 3.1416

d = distance between observation point and radiating structure in cm ( =20cm)

Radio	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
Zig bee	2475	0.4	0.00007

The calculated maximum power density has been found to be compliant with the limit set at 1 mW/cm<sup>2</sup>.

Please refer to test report 12307581 001 for more details.