

**AES Corporation**  
**285 Newbury Street, Peabody, Massachusetts 01960,**  
**United States**

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

**Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product  
Product description: RF DATA RADIO  
Model No: 52-7085UE5

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the  
Product: RF DATA RADIO  
will be integrated in the user's manual to provide end-users with transmitter operating  
conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M22003-19794-C-1  
and the accompanying calculations.

Company: AES Corporation  
Address: 285 Newbury Street, Peabody, Massachusetts 01960, United States

Date: 2020-04-17



Signature

Michael Sherman  
President & CEO  
AES Corporation



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22003-19794-C-1  
FCC ID: L9N-7085PUE5

## 12. Maximum Permissible Exposure

### 12.1 Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.9 m normally can be maintained between the user and the device.

### 12.2 MPE Calculation Method

#### (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

#### (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
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
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density

$$E \text{ (V/m)} \cdot \frac{\sqrt{30 \times P \times G}}{d}$$

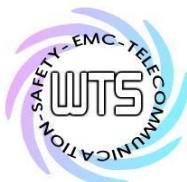
$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} \cdot \frac{E^2}{377}$$

E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd \cdot \frac{30 \times P \times G}{377 \times d^2}$$



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EIRP = max. conducted output power + antenna gain+ tune up

EIRP = 38.75 dBm + (3 dBi [antenna gain claimed by manufacturer]+ 0.35 dB [tune up]) =  
42.1 dBm = 16218.101 mW

Established separation distance is 35 cm.

Operating frequency band: 406~430 MHz, 440~470 MHz

The product meets RF exposure requirement.

Because the power density of 1.0535 mW/cm<sup>2</sup> at 430 MHz is below the power density limit of 1.4333 mW/cm<sup>2</sup>.