

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

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.

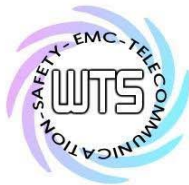
The appropriate information can be drawn from the test report no: W6M21808-18343-C-1  
and the accompanying calculations.

Company: AES Corporation  
Address: 285 Newbury Street Peabody Massachusetts United States 01960  
Date: 2018-08-30

Signature



MICHAEL J. SHERMAN



Registration number: W6M21808-18343-C-1  
FCC ID: L9N-7085NUE5

## 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

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

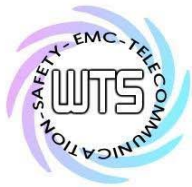
$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} \cdot \frac{E^2}{377}$$

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

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



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

Registration number: W6M21808-18343-C-1  
FCC ID: L9N-7085UE5

| Max output power<br>(W) | Antenna numeric<br>Gain | Power Density(S)<br>(mW/cm <sup>2</sup> ) | Limit of Power<br>Density (S)<br>(mW/cm <sup>2</sup> ) | Test Result |
|-------------------------|-------------------------|-------------------------------------------|--------------------------------------------------------|-------------|
| 7.6                     | 3                       | 0.19                                      | 0.2                                                    | Complies    |

From the peak EUT RF output power, the minimum mobile separation distance,  $d = 0.8$  m as well as the gain of the used antenna, the RF power density can be obtained.