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**Name of Test:**

R.F. Radiation Exposure

FCC Rules:

1.1307, 1.1310, 1.1311, 2.1091

Description, EUT:

See page 2 of Test Report

Limits: Uncontrolled  
Exposure  
47 CFR 1.1310  
Table 1, (B)

0.3-1.234 MHz: Limit  $[\text{mW/cm}^2] = 100$   
1.34-30 MHz: Limit  $[\text{mW/cm}^2] = (180/f^2)$   
30-300 MHz: Limit  $[\text{mW/cm}^2] = 0.2$   
300-1500 MHz: Limit  $[\text{mW/cm}^2] = f/1500$   
1500-100,000 MHz: Limit  $[\text{mW/cm}^2] = 1.0$

Test Frequency, MHz

930.3675

Power, Conducted, W

= 2.0

Antenna Gain

= 3 dBi

Antenna Model

Helical Whip

Pre-test

 $\text{Power}_{[\text{W EIRP}]} = P_{[\text{conducted}]} \times G_{[\text{antenna}]} = 4.0$ 

Calculations

 $\text{Limit}_{[\text{mW/cm}^2]} = 0.62$  $\text{Limit}_{[\text{W/m}^2]} = 10 \times \text{Limit}_{[\text{mW/cm}^2]} = 6.20$  $R_{[\text{m}]} = [P_{[\text{W EIRP}]} / (4\pi \times \text{Limit}_{[\text{W/m}^2]})]^{1/2} = 0.243$ 

Instruments

X Narda 8717-1174R, Radiation Meter

Narda 8760B, E-field probe (300 kHz - 1 GHz)

X Narda 8761D, E-field probe (300 kHz - 3 GHz)

Results at tested  
distances

Probe Height, m

**Power Density, mW/cm<sup>2</sup>**

Freq. 930.3675 MHz

Distance 25 cm

2.0	0.075
1.8	0.115
1.6	0.223
1.4	0.383
1.2	0.498
1.0	0.525
0.8	0.495
0.6	0.425
0.4	0.338
0.2	0.263

Power Density  
Calculations:

The measured power density readings were summed and the results divided by the number of readings to calculate the average.

Whole body average (0.2 - 0.8 m, mW/cm<sup>2</sup>) =

930.3675 MHz

0.334

Lower body average (0.2 - 0.8 m, mW/cm<sup>2</sup>) =

0.380

Upper body average (1.0 - 2.0 m, mW/cm<sup>2</sup>) =

0.303

Supervised By:



Morton Flom, P. Eng.

**(The following will be placed in the Instruction Manual)**

**Mandatory Safety Instructions to Installers & Users**

Use only manufacturer or dealer supplied antenna.

**Antenna Minimum Safe Distance: 25cm.**

Antenna Gain: 3dB referenced to isotropic.

The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio Frequency) energy which is below the OSHA (Occupational Safety and Health Act) limits.

**Antenna Mounting:** The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person or persons can come closer than the above indicated minimum safe distance to the antenna i.e. **25cm**

To comply with current FCC RF Exposure limits, the antenna must be installed at or exceeding the minimum safe distance shown above, and in accordance with the requirements of the antenna manufacturer or supplier.

Base Station Installation: The antenna should be fixed-mounted on an outdoor permanent structure. RF Exposure compliance must be addressed at the time of installation.

**Antenna Substitution:** Do not substitute any antenna for the one supplied or recommended by the manufacturer or radio dealer. You may be exposing person or persons to excess radio frequency radiation. You may contact your radio dealer or the manufacturer for further instructions.

**Warning:** Maintain a separation distance from the antenna to a person(s) of at least **25cm**.

You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (above) is maintained between the antenna and nearby persons for satisfying RF Exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use. Transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna.