RF Exposure Statement:

The following statement will appear on page three of the Operator Guide.

RF EXPOSURE STATEMENT

In bodyworn deployments, when installed as directed, this equipment complies with the FCC radiation exposure limits set forth for an Occupational/Controlled environment. Only antennas specifically designed and tested by DTC for on-body applications should be used.

In General Population/Uncontrolled environments, proper spacing must be maintained between the radiating surface of the antenna and any person's body. In the case of a simple dipole antenna with (2.1 dBi gain), a minimum spacing of 2.5" must be maintained. In the case of gain antennas up to (17dBi), a minimum spacing of 12.5" must be maintained.

Calculation Method of RF safety Distance:

The power density S, in mW/ cm^2 is:

$$S = (P*G)/(4*\Pi*r^{2)} \qquad \text{(Eq. 1)}$$

Rearranging and solving for distance yields:

$$r = \sqrt{((P*G)/(4*\Pi*S))} \qquad \text{(Eq. 2)}$$

Where:

P = power input into the antenna in mW
S = allowable power density in mW/cm^2
G = numeric gain of the antenna relative to an isotropic radiator
r = distance to center of radiation in cm

The limit for Maximum Permissible Exposure (MPE) for General Population/Uncontrolled Exposure in the frequency band 2450 – 2500 MHz is 1.0 mW/cm^2 (47 CFR 1.1310).

As shown in the Operators Guide, antennas intended for use with this device range in gain from 2.1 dBi to 17 dBi. The transmitter power is 250 mW.

For the 2.1 dBi gain antenna case, transmitter power = 250 mW, and substituting S = 1.0 mW/cm^2 :

First convert the antenna gain from dB to numeric:

$G = 10^{(2.1/10)}$
G = 1.62

Then substitute P, G, and S into Eq. 2 to solve for the minimum safety distance:

$r = \sqrt{((P*G)/(4*\Pi*S))}$
$r = \sqrt{((250 * 1.62)/(4*\Pi*1.0))}$
r = 5.6 cm **OR** 2.2 inches

So the safe minimum safe distance for a 2.1 dBi gain antenna is 2.2 inches.

For the 17 dBi gain antenna case, transmitter power = 250 mW, and substituting S = 1.0 mW/cm^2 :

First convert the antenna gain from dB to numeric:

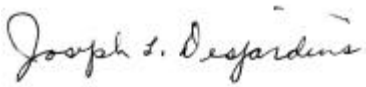
$G = 10^{(17/10)}$
G = 50.1

Then substitute P, G, and S into Eq. 2 to solve for the minimum safety distance:

$r = \sqrt{((P*G)/(4*\Pi*S))}$
$r = \sqrt{((250 * 50.1)/(4*\Pi*1.0))}$
r = 31.6 cm **OR** 12.5 inches

So the safe minimum safe distance for a 17 dBi gain antenna is 12.5 inches.

Therefore, the localized specific absorption rate (SAR) limits as specified in ANSI/IEEE Std. C95.1-1992 are not exceeded when the device is used as described in the Operator Guide. The Operator Guide contains a warning and instructions on limiting RF exposure by instructing the user to install the unit so as to insure a minimum safe distance from the antenna to the general public.



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