

Compliance with 47 CFR 15.247(i)

“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 of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.”

The EUT will only be used with a separation distance of 20 centimeters or greater between the antenna and the body of the user or nearby persons and can therefore be considered a mobile transmitter per 47 CFR 2.1091 (b). Calculations are provided for each radio transmitting through its own internal antenna and optional external antenna.

The total transmit power is less than 1.5 W (ERP), therefore the EUT is categorically excluded from routine environmental evaluation per 47 CFR 2.1091(c).

The MPE estimates are as follows:

Table 1 in 47 CFR 1.1310 defines the maximum permissible exposure (MPE) for the general population. The exposure level at a 20 cm distance from the EUT's transmitting antenna is calculated using the general equation:

$$S = (PG)/4\pi R^2$$

Where: S = power density (mW/cm²)

P = power input to the antenna (mW)

G = numeric power gain relative to an isotropic radiator

R = distance to the center of the radiation of the antenna (20 cm = limit for MPE estimates)

PG = EIRP

Solving for S, the maximum power densities 20 cm from the transmitting antennas are summarized in the tables on the following pages:

KBCIX600-IWL Installed In IX600 Vehicle Mount with Either the 3 or 5 dB Gain MaxRad Antenna.

MPE Estimates for Self Located Device

FCC ID: KBCIX600-IWL with IX600 Vehicle Mount and External Antennas

802.11 (b,) (g)

Antenna Type	Antenna Part No.	Transmit Frequency (MHz)	Max Peak Conducted Output Power (mW)	Antenna Gain (dBi)	Minimum Antenna Cable Loss * (dB)	Power Density @ 20 cm (mW/cm ²)	General Population Exposure Limit from 1.1310 (mW/cm ²)	Ratio of Power Density to the Exposure Limit
MaxRad 3dB	BMAXC24503	2462	92.9	3	4.52	0.013	1	0.013
MaxRad 5dB	BMAXC24505	2462	92.9	5	4.52	0.021	1	0.021
Worst Case Ratio of Power Density to the Exposure Limit = 0.021								
* Note: IX600 Vehicle Mount coaxial and cradle contact losses are included with the 17 feet of LMR195 feeding the antennas.								

The power density to the exposure limit does not exceed 1.0; therefore, the exposure condition is compliant with FCC rules.

Photos of MaxRad Antennas

BMAXC24503



BMAXC24505

