WESTERN Multiplex

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Attention: Reviewing Engineer

The HZB-U58-100 radio is designed for fixed-mount point-to-point applications.

The maximum EIRP for the HZB-U58-100 as defined in FCC 15.407 is +53 dBm at 5.725-5.825 GHz band, the power density at 1.5 meters from an antenna is:

$S = EIRP/4\pi R^2 = 7.1\ W/m^2 = 0.71\ mW/cm^2 < 1\ mW/cm^2$

Where: S = Power density
R = distance to the center of radiation of the antenna

The near field power density is : $S_{nf} = 16\eta P/\pi D^2$. The worst case of near-field power density is when the radio output at the certified power of 51mW, η=1, and antenna dimension is the smallest (1 foot panel, with 1.414 foot diagonal distance)

$S_{nf}\ max = 16x0.051/\pi (1.414x0.3048)^2 = 1.4\ W/m^2 = 0.14\ mW/cm^2 < 1\ mW/cm^2$

Where: S_{nf} = maximum near –field power density
P = power fed to the antenna
η = aperture efficiency
D = antenna diameter

Therefore, the power density is compliant with the limit for General Population/ Uncontrolled Exposure as specified in rule 1.1310.

If you should have any questions regarding this submission, please feel free to contact the undersigned.

Yours truly,

Caroline Yu
Homologation Product Manager
Western Multiplex Corporation