Maximum Permissible Exposure (MPE) Compliance Statement, FCC Radio Frequency Exposure Limit 1.1310 Health Canada Safety Code 6

CBDA PCSAC 10W80 Indoor Repeater

The CBDA PCSAC 10W80 Indoor Repeater has been tested and the performance characterized in accordance with the MPE requirements of FCC 47 CFR and RSS 102.

At the maximum operating frequency of 1990MHz the MPE limit for the General Population/Uncontrolled Exposure is 1.0mW/cm^2 . This device complies with this limit at the following line of sight distances from the antenna element:

CBDA PCSAC 10W80 : 28.2cm

The analysis is provided below.

Power Density (S) = EIRP/($4\pi R^2$) , Therefore, $R \geq \sqrt{EIRP/S \times 4\pi}$
Using this calculation:

Maximum Antenna Gain = 16dBi
Maximum output power = 24dBm

S = 1.0 mW/cm^2
EIRP = 40dBm or 10W(max. worst case)
Therefore,
R= 28.2cm

This minimum safe distance for the general population of 28.2cm shall be stated in the installation & operators instruction manual under the RF Safety Exposure Warning Statement.

Analyses provided by,
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