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MPE CALCULATION AND RADIATION EXPOSURE RISK ASSESSMENT

FCC ID: VC7120-0118
IC ID: 8910A-1200118
Model number: AURA 21

Prediction of MPE limit at a given distance
Equation from page 20 of OET Bulletin No 65, Edition 97-01

$$S = \frac{1.64ERP}{4\pi R^2} \quad \text{re-arranged } R = \sqrt{\frac{1.64ERP}{S4\pi}}$$

where:

S = power density
R = distance to the centre of radiation of the antenna
ERP = EUT Maximum power

So based on a 100% duty cycle the MPE calculation result based on radiated field measurements from Aura 21 test report 14R162FR :

Prediction frequency (MHz)	Max ERP (mW)	Power density limit (S) (mW/cm2)	Distance R cm required to be less than 0.6mW/cm2
927.5MHz	0.034	0.6	0.086

This is further reduced as the duty cycle of the transmitter at its maximum rate is 25ms every 17.6sec ie 0.0014%.

The radiation is only presented by momentary exposure as the human body passes by the Aura 21 which is a fixed installation.

Assessment carried out by:-

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