




## RF Exposure Evaluation

**Report Prepared for:** Daniels Electronics Ltd.  
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**Equipment Under Test (EUT):** UT-4E900-00-300  
Audio and paging base station transmitter

**FCC ID:** H4JUT-4E900  
**FCC Rule Part(s):** Part 22, 90  
**Industry Canada Rule Part(s)** RSS 119

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**FCC OATS registration number:** 386117  
**Industry Canada OATS registration number:** 9578B-1

## 1.1 RF EXPOSURE EVALUATION

FCC 1.1310 states the criteria listed in the table below shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Section 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Section 2.1093. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation".

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (s)
(A) Limits for Occupational/Control Exposures				
300-1500	-	-	F/300	6
1500-100,000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposures				
300-1500	-	-	F/1500	6
1500-100,000	-	-	1	30

TABLE 1 - POWER DENSITY LIMITS

## 1.2 EUT OPERATING CONDITION

Maximum antenna gain = 26 dBi at 896MHz and 960MHz.

## 1.3 RF EXPOSURE EVALUATION DISTANCE CALCULATION

Frequency (MHz)	Conducted Output Power (dBm)	Max Antenna Gain (dBi)	Max EIRP (W)	R (cm)
896	35.60	26	1445	196
928	35.49	26	1409	190
960	35.28	26	1342	183

TABLE 2 - DISTANCE CALCULATIONS

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2}$$

where: S = Power density (in appropriate units, e.g. mW/cm<sup>2</sup>)  
EIRP = Equivalent (or effective) isotropically radiated power

As shown above, the minimum distance where the MPE limit is reached is 196 cm from the EUT with 26dBi antenna.