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Client: vArc Systems, Inc.
Model: 1WTX-2470
FCC ID: ROE1WTX-2470
Standards: FCC Part 90
Report Number: 2003213

APPENDIX A: RF EXPOSURE

From FCC 1.1310 Table 1(B), the maximum permissible RF exposure for a transmitter operating at this frequency in an uncontrolled environment is 1 mW/cm^2. The electric field generated for a 1 mW/cm^2 exposure (S) is calculated as follows:

$$S = (P \times G)/(4 \times \pi \times d^2)$$

where:

S = Power density
P = Transmitter conducted power in watts
G = Numeric gain
d = distance to radiation center

Fundamental Operating Frequency: 2470 MHz
Maximum Rated Output Power: 1.0 Watts (1000 mW)
Measured Maximum Output Power: 0.646 Watts (646 mW)
Antenna Gain =5.5 dBi; Numeric Gain = 3.55

S = (1000 X 3.55)/ (4 x Pi X 20^2) = 0.7 mW/cm^2

Under normal operating conditions, the antenna is designed to maintain a separation distance of 20 cm from all persons. The EUT is for mobile configurations.

Calculated Power Density:

Antenna Gain = 5.5 dBi Conducted Power (mW) = 1000	
Separation Distance = 20 cm	
FCC Power density Limit	Calculated Power density at 20 cm
1 mW/cm^2	0.7 wW/cm^2