Rhein Tech Laboratories 360 Herndon Parkway Suite 1400 Herndon, VA 20170 http://www.rheintech.com Client: AMCO Automated Systems, LLC Model: TRACE URFI FCC ID: G8JURF01 Standards: FCC Part 90 Report Number: 2003202 Rev 0.01

APPENDIX A: RF EXPOSURE

From FCC 1.1310 Table 1B, the maximum permissible RF exposure for an uncontrolled environment is 1 mW/cm². The electric field generated for a 1 mW/cm² 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: 451.35 MHz Maximum Rated Output Power: 1.0 Watt (1000 mW) Antenna Gain = 3.2 dBi; Numeric Gain = 2.1

 $S = (1500 \times 2.1)/(4 \times Pi \times 20^2) = 0.63 \text{ mW/cm}^2$

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

Calculated Power Density:

Antenna Gain = 3.2 dBi Conducted Power = 1500 mW	
Separation Distance = 20 cm	
FCC power density limit	Calculated Power density at 20 cm distance
1 mW/cm ²	0.63 mW/cm ²