



## **Certification Exhibit**

**FCC ID: N2S-SC42E-235470**

**FCC Rule Part: 47 CFR Part 2.1093**

**Project Number: 72150545**

Manufacturer: Silvus Technologies, Inc.  
Model: SC4240E-235470-BB

## **RF Exposure**

**General Information:**

Applicant: Silvus Technologies, Inc.  
 Device Category: Mobile  
 Environment: General Population/Uncontrolled Exposure

**Technical Information:**

Antenna Type: Dual-Band Omni Antenna, Half Wave Dipole (Southwest Antennas, P/N: 1001-071)  
 Antenna Gain: 2.5dBi (2x2 MIMO); Directional Gain: 5.5dBi  
 Maximum Transmitter Conducted Power: 27dBm Per Chain / 30dBm Total, 1000mW  
 Maximum System EIRP: 35.5 dBm, 3556.31 mW  
 Exposure Conditions: Greater than 20 centimeters

**MPE Calculation**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

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

Where:

- S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)
- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

**Table 1: MPE Calculation**

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/cm <sup>2</sup> )	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )
4945	30	1.00	1000.00	5.51	3.556	20	0.708