

# RF Exposure Calculation

|                    |   |  |  |  |          |
|--------------------|---|--|--|--|----------|
| Digital Ally       | Model: VuLink2  | Test Number:   | 161121                                       |  |          |
| MPE Calculator     | MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.<br>dBi = dB gain compared to an isotropic radiator.<br>S = power density in mW/cm² |  |  |  |          |
|                    |   |  |  | Antenna Gain (dBi)                     | 2.5      |
|                    |   | Output Power   | dBd + 2.17 = dBi                             | dBi to dBd                             | 2.2      |
| Tx Frequency (MHz) | 2437  | Maximum (Watts)  | 0.040000                                     | Antenna Gain (dBd)                     | 0.33     |
| Cable Loss (dB)    | 0.0   | (dBm)  | 16.0   | Antenna minus cable (dBi)              | 2.50     |
|                    | Calculated ERP (mw)   | 43.158   | EIRP = Po(dBm) + Gain (dB)                   |  |          |
|                    | Calculated EIRP (mw)  | 71.131   |  | Radiated (EIRP) dBm                    | 18.521   |
|                    |   | Power density (S)  | ERP = EIRP - 2.17 dB                         | Radiated (ERP) dBm                     | 16.351   |
|                    |   | EIRP<br>----- = mW/cm²<br>4 π r²                         |  |  |          |
|                    |   | EIRP (mW), r (cm)  |  |  |          |
|                    | <b>Occupational Limit</b>   | FCC radio frequency radiation exposure limits per 1.1310 |  |  |          |
|                    |   | Frequency (MHz)  | Occupational Limit (mW/cm²)                  | Public Limit (mW/cm²)                  |          |
|                    | 5<br>50   | 300-1,500  | ƒ300   | ƒ1500                                  |          |
|                    | <b>General Public Limit</b>   | 1,500-10,000   | 5  | 1                                      |          |
|                    | 1<br>10   |  |  |  |          |
|                    |   |  |  |  |          |
|                    | <b>Occupational Limit</b>   | IC radio frequency radiation exposure limits per RSS-102 |  |  |          |
|                    |   | Frequency (MHz)  | Occupational Limit (W/m²)                    | Public Limit (W/m²)                    |          |
|                    | 0.6455/ <sup>0.5</sup><br>31.86574  | 100-6,000  | 0.6455/ <sup>0.5</sup>                       |  |          |
|                    | <b>General Public Limit</b>   | 6,000-15,000   | 50   |  |          |
|                    | 0.02619/ <sup>0.6834</sup><br>5.40397   | 48-300   |  | 1.291                                  |          |
|                    |   | 300-6,000  |  | 0.02619/ <sup>0.6834</sup>             |          |
|                    |   | 6,000-15,000   | 50   | 10                                     |          |
|                    |   |  |  |  |          |
|                    |   |  |  |  |          |
| EIRP               | S   | S  | Distance                                     | Distance                               | Distance |
| milliwatts         | mW/cm²  | W/m²   | cm   | meter                                  | Feet     |
| 40.000             | 0.00039   | 0.00393  | 90.00  | 0.90                                   | 2.95     |
| 40.000             | 0.00050   | 0.00497  | 80.00  | 0.80                                   | 2.62     |
| 40.000             | 0.00065   | 0.00650  | 70.00  | 0.70                                   | 2.30     |
| 40.000             | 0.00088   | 0.00884  | 60.00  | 0.60                                   | 1.97     |
| 40.000             | 0.00127   | 0.01273  | 50.00  | 0.50                                   | 1.64     |
| 40.000             | 0.00199   | 0.01989  | 40.00  | 0.40                                   | 1.31     |
| 40.000             | 0.00354   | 0.03537  | 30.00  | 0.30                                   | 0.98     |
| 40.000             | 0.00796   | 0.07958  | 20.00  | 0.20                                   | 0.66     |
| 40.000             | 0.01883   | 0.18835  | 13.00  | 0.13                                   | 0.43     |
| 40.000             | 0.04974   | 0.49736  | 8.00   | 0.08                                   | 0.26     |
| 40.000             | 0.08842   | 0.88419  | 6.00   | 0.060                                  | 0.20     |
| 40.000             | 0.10523   | 1.05226  | 5.50   | 0.055                                  | 0.18     |
| 40.000             | 0.12732   | 1.27324  | 5.00   | 0.050                                  | 0.16     |
| 40.000             | 0.19894   | 1.98944  | 4.00   | 0.040                                  | 0.13     |
| 40.000             | 0.35368   | 3.53678  | 3.00   | 0.030                                  | 0.10     |
| 40.000             | 0.79577   | 7.95775  | 2.00   | 0.020                                  | 0.07     |
| 40.000             | 3.18310   | 31.83099   | 1.00   | 0.010                                  | 0.03     |
|                    |   |  |  |  |          |
|                    |   |  |  |  |          |
|                    |   | Frequency (MHz)  | Occupational Limit minimum Distance (meters) | Public Limit minimum distance (meters) |          |
|                    |   | 47CFR 1.1310   | 0.01   | 0.20                                   |          |
|                    |   | RSS-102  | 0.01   | 0.20                                   |          |

Rogers Labs, Inc.  
4405 W. 259th Terrace  
Louisburg, KS 66053  
Phone/Fax: (913) 837-3214  
Revision 1

Digital Ally  
Model: VuLink2  
Test #: 161121  
Test to: 47CFR 15.247, RSS-247  
File: Vulink2RFExp

S/N: 09502057  
FCC ID: WPZ-VULINK2  
IC: 7945A-VULINK2  
Date: January 13, 2017  
Page 1 of 1