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|----------------------|--|--|------------------------------|----------------------------------|---------------------------|----------|
| Arc Wireless | | | Test Number: | 111109A | | |
| Model: | USB 2x2 2GHz 5GHz Module | | | | | |
| MPE Calculator | MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi. | | | | | |
| | dBi = dB gain compared to an isotropic radiator. | | | | | |
| | S = power density in mW/cm^2 | | | | | |
| | | Output Power | | dBd + 2.17 = dBi | Antenna Gain (dBi) | 18 |
| | | | | | dBi to dBd | 2.2 |
| Tx Frequency (MHz) | 2437 | Maximum (Watts) | 0.1880 | | Antenna Gain (dBd) | 15.83 |
| Cable Loss (dB) | 0.0 | (dBm) | 22.74 | | Antenna minus cable (dBd) | 18.00 |
| Calculated ERP (mw) | 7197.105 | | | EIRP = Po(dBM) + Gain (dB) | | |
| Calculated EIRP (mw) | 11861.998 | | | | Radiated (EIRP) dBm | 40.742 |
| | | | | ERP = EIRP - 2.17 dB | | |
| Occupational Limit | | <div>Power density (S) EIRP ----- = mW/cm^2 4 π r^2 r (cm) EIRP (mW)</div> | | | Radiated (ERP) dBm | 38.572 |
| 5.00000 mW/cm^2 | | | | | | |
| 50.00000 W/m^2 | | | | | | |
| General Public Limit | | | | | | |
| 1.00000 mW/cm^2 | | | | | | |
| 10.00000 W/m^2 | | | | | | |
| | | FCC radio frequency radiation exposure limits per 1.1310 | | | | |
| | | Frequency (MHz) | Occupational Limit | Public Limit | | |
| | | 300-1,500 | f/300 | f/1500 | | |
| | | 1,500-10,000 | 5 | 1 | | |
| | | FCC radio frequency radiation exposure limits per 1.1310 | | | | |
| | | Frequency (MHz) | Occupational Limit @ Tx Freq | Public Limit @ Tx Freq (mW/cm^2) | | |
| | | 300-1,500 (mW/cm2) | 8.123333333 | 1.624666667 | | |
| | | 300-1,500 (W/m2) | 81.23333333 | 16.24666667 | | |
| | | 1,500-10,000 (mW/cm2) | 5 | 1 | | |
| | | 1,500-10,000 (W/m2) | 50 | 10 | | |
| EIRP | S | S | Distance | Distance | Distance | Distance |
| milliwatts | mW/cm^2 | W/m^2 | cm | meter | inches | Feet |
| 11861.998 | 0.09439 | 0.94395 | 100.00 | 1.00 | 39.37 | 0.08 |
| 11861.998 | 0.11654 | 1.16537 | 90.00 | 0.90 | 35.43 | 0.08 |
| 11861.998 | 0.14749 | 1.47492 | 80.00 | 0.80 | 31.50 | 0.07 |
| 11861.998 | 0.16781 | 1.67813 | 75.00 | 0.75 | 29.53 | 0.06 |
| 11861.998 | 0.19264 | 1.92642 | 70.00 | 0.70 | 27.56 | 0.06 |
| 11861.998 | 0.37758 | 3.77579 | 50.00 | 0.50 | 19.69 | 0.04 |
| 11861.998 | 0.58997 | 5.89967 | 40.00 | 0.40 | 15.75 | 0.03 |
| 11861.998 | 0.98226 | 9.82256 | 31.00 | 0.31 | 12.20 | 0.03 |
| 11861.998 | 2.35987 | 23.59870 | 20.00 | 0.20 | 7.87 | 0.02 |
| 11861.998 | 2.61481 | 26.14814 | 19.00 | 0.19 | 7.48 | 0.02 |
| 11861.998 | 2.91342 | 29.13419 | 18.00 | 0.18 | 7.09 | 0.02 |
| 11861.998 | 4.19532 | 41.95324 | 15.00 | 0.15 | 5.91 | 0.01 |
| 11861.998 | 4.81606 | 48.16060 | 14.00 | 0.14 | 5.51 | 0.01 |
| 11861.998 | 4.95667 | 49.56668 | 13.80 | 0.14 | 5.43 | 0.01 |
| 11861.998 | 5.58549 | 55.85490 | 13.00 | 0.13 | 5.12 | 0.01 |
| 11861.998 | 9.43948 | 94.39478 | 10.00 | 0.10 | 3.94 | 0.01 |
| 11861.998 | 11.65368 | 116.53677 | 9.00 | 0.090 | 3.54 | 0.01 |
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Rogers Labs, Inc.
4405 W. 259th Terrace
Louisburg, KS 66053
Phone/Fax: (913) 837-3214
Revision 1

ARC Wireless LLC
Model: ARCFlex 802.11 abgn Module
Test #: 111109A
Test to: CFR47 (15.247)
File: RFExp Z2BAFM2

SN: ENG1
FCC ID#: Z2B-AFM2
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