

RF Exposure / MPE Calculation

No. : 31HE0183-HO-01

Applicant : Murata Manufacturing Co., Ltd.
Type of Equipment : Wireless LAN Module
(11b/g, 11n-20(2.4GHz/5745-5825MHz), 11n-40(2.4GHz/5755-5795MHz), 11a(5745-5825MHz))
Model No. : LBWA1ZZUN1
FCC ID : VPY-LBUN

Murata Manufacturing Co., Ltd. declares that Model : LBWA1ZZUN1
complies with FCC radiation exposure requirement specified in the FCC Rules 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "LBWA1ZZUN1" as calculated from FCC OET Bulletin 65 Appendix A, Table (B) Limits for General Population / Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1.0mW/cm² uncontrolled exposure limit. The Friis formula used was:

2.4GHz	Antenna 0	24.69 dBm + (-0.6) dBi = 24.09 dBm EIRP
	Antenna 1	24.86 dBm + 0.8 dBi = 25.66 dBm EIRP
5745-5825MHz	Antenna 0	21.44 dBm + 3.7 dBi = 25.14 dBm EIRP
	Antenna 1	20.40 dBm + 2.9 dBi = 23.30 dBm EIRP

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 306.20 mW (Maximum peak output power)
G = 1.20 Numerical Antenna gain; equal to 0.80 dBi
r = 20.0 cm

For: LBWA1ZZUN1

$$S = 0.07324 \text{ mW/cm}^2$$

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