

MPE Calculation

1. Regulation : KDB 447498 D04 (Interim General RF Exposure Guidance v01)

2.1.2 1-mW Test Exemption

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

This exemption applies to all operating configurations and exposure conditions for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions.

This is a standalone exemption and cannot be applied in conjunction with any other test exemption.

This exemption may not be combined with any other exemption.

According to the calculation formula of power:

$$E.I.R.P.[dBm] = E[dBuV/m] + 20\log(d[m]) - 104.77$$

Where:

- E is electric field strength in dBuV/m = 50.00 dBuV/m (@3 m)

- d is measurement distance in meters (m) = 3 m

- E.I.R.P.[dBm] is the equivalent isotropically radiated power in dBm = $50.00 + 20\log(3) - 104.77 = -45.23$ dBm

Model Name : **ML55RA**

FCC ID : **2ABFG-ML55RA**

Modulation	Frequency (MHz)	Converted Field Strength @30m	Measured Field Strength @3m	Calculated E.I.R.P.	Maximum Output Power
		(dBuV/m)	(dBuV/m)	(dBm)	(mW)
ASK	13.560	10.00	50.00	-45.23	0.000 030 008

Conclusion

The calculated maximum E.I.R.P. is -45.23 dBm (0.000 030 008 mW), which is below the 1 mW limit specified in KDB 447498 D04 Section 2.1.2.

Therefore, the device qualifies for the 1 mW RF Exposure Test Exemption, and no further RF exposure evaluation is required.