

10.1.1 MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

P :power input to the antenna in Mw
 EIRP :Equivalent(effective) isotropic radiated power.
 S :power density mW/ cm²
 G ;numeric gain of antenna relative to isotropic radiator
 R :distance to centre of radiation in cm

FCC radio frequency exposure limits may be exceeded at distances closer than r cm from the antenna of this device

$$r = \sqrt{\frac{PG}{4\pi S}} = \sqrt{\frac{EIRP}{4\pi S}}$$

$$EIRP = 10^{(\text{Antenna Gain} + \text{Peak Output Power}/10)}$$

Note:

1. s=1.0 mW /cm² for limits for General Population/Uncontrolled Exposures.
 2. The time averaged power over 30 minutes will be equaled Output Power.
 3. Minimum calculated separation distance between antenna and persons required:0.53 cm
 4. The Power Density at a distance of 20cm calculated from the formula is far below the limit of 1MW/ cm²
 5. For portable device,the power limit is 60/f(in GHz) mW
 6. For limit 60/f is equal:
 60/2.402=24.98mW
 60/2.441=24.58 mW
 60/2.480=24.19mW
 7. The max.output power E.I.R.P is 0.6324 mW
- So it is complied with the limit,SAR report is not required.

10.1.2 DEVIATION FROM STANDARD

No deviation.

10.1.3 TEST SETUP**10.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

10.1.5 TEST RESULTS

EUT :	Mobile printer	Model Name :	AB-320M
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 9.0V
Test Mode :	CH00 (2402 MHz) , CH39(2441 MHz), CH78 (2480 MHz) -1Mbps		

Frequency (MHz)	Antenna Gain (dBi)	Peak Output Power (dBm)	Calculated EIRP (mW)	Power Density (S) (mW/cm ²)	FCC Threshold (mW)	Test Result
2402	1.82	-3.81	0.6324	0.00012588	24.98	Complies
2441	1.82	-5.24	0.4550	0.00009056	24.58	Complies
2480	1.82	-5.52	0.4266	0.00008491	24.19	Complies