

10.1.1 MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

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^(Antenna Gain+Peak Output Power/10)

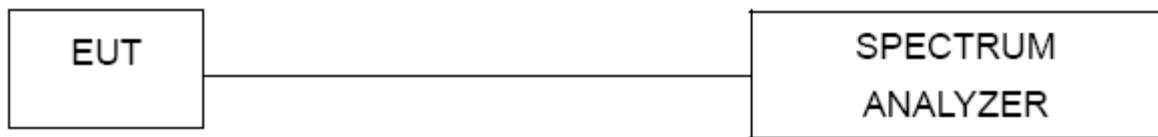
Note:

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/cm²)	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