

RF EXPOSURE EVALUATION

FCC ID : 2AKMF-IDR0900ME-L3

Standard Requirement

The following FCC Rule Parts and procedures are applicable :

Part 1.1310 Radiofrequency radiation exposure limits

Table 1 below sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			<u>f/1500</u>	30
1,500-100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density



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MPE calculation

$$S = \text{EIRP} / (4\pi R^2)$$

Where S : Power density (mW/cm²)
EIRP (mW) : P * T * G
EIRP (dBm) : P + T + G
P (dBm) : Maximum transmitter power
G (dBi) : Antenna gain
T (dB) : Power tolerance
R (cm) : Safety distance

EUT RF Exposure

Safety distance(R) : 20 cm

Frequency [MHz]	Declared output power [dBm]	Antenna Gain [dBi]	Power tolerance [dB]	EIRP [dBm]	EIRP [mW]	Power density [mW/cm ²]	Limit [mW/cm ²]
927.25	29.62	-10.29	+ 0.5	19.83	96.161	0.019	0.618

- * Minimum Safety distance(R) : ≥ 3.52 cm
- * The values in the table above are the worst case, and it was confirmed that they are within the declared output tolerance when measuring the actual output.

Conclusion

This confirms compliance to the required Radio frequency radiation exposure limit.