

Statement for RF Exposure

Statement No.	15701840H
Customer	Yaesu Musen Co., Ltd.
Description of EUT	RF Power Amplifier
Model Number of EUT	SPA-1
FCC ID	K660D730X50
Issue Date	April 16, 2025
Approver	 Takumi Shimada Engineer
The Information provided from the customer is as follows; - Customer, Description of Equipment, Model Number of Equipment - Max Power + Tolerance The laboratory is exempted from liability of any results affected from the above information.	

[FCC rule]

§1.1310 Radiofrequency radiation exposure limits.

The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

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 Exposures				
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 - 1500			f/300	6
1500 - 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 - 1500			f/1500	30
1500 - 100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Note 1 to Table 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Note 2 to Table 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

[Results]

Frequency Band	Max Power + Tolerance [dBm]	Antenna Gain [dBi]	EIRP [W]	Uncontrolled Exposure Limit [mW/cm ²]	Compliance distance (meet Uncontrolled Exposure Limit) [cm]
1.8-148 MHz	50.00	2.14	163.68	0.2	255.20

Power density (S) is calculated according to the formula:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = Power density in mW/cm²

P = Transmit power in mW

G = Numeric gain of transmit antenna

R = Distance in cm

Compliance distance is calculated according to the formula:

$$\text{Compliance distance} = \sqrt{\frac{P \times G}{4 \times \pi \times S}}$$

Typical antenna gain (2.14 dBi) was applied to evaluate RF exposure.

The amateur licensee shall ensure compliance with the FCC radio frequency exposure requirements according to 47 CFR 97.13(c).

End of Statement