

FCC ID: 2AX5VCCOHMNA1

Maximum Permissible Exposure (MPE)

According to FCC 2.1091, FCC 1.1310 and KDB447498 D01 General RF Exposure Guidance v06: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

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			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 * P * G}}{d}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Average RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 * P * G}{377 * D^2}$$

From the EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

Measurement Result

SRD 900:

Operation Frequency: GFSK: 905 MHz~926.5MHz

Antenna Type: Inverted F

Antenna gain: Antenna: -2dBi

R=20cm

JWL

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
905.00	GFSK	14.432	14±1	15	31.623	-2.00	0.63	0.0040	0.60
915.85	GFSK	14.525	14±1	15	31.623	-2.00	0.63	0.0040	0.61
926.5	GFSK	14.621	14±1	15	31.623	-2.00	0.63	0.0040	0.62

WNG

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
905.00	GFSK	14.505	14±1	15	31.623	-2.00	0.63	0.0040	0.60
915.85	GFSK	14.556	14±1	15	31.623	-2.00	0.63	0.0040	0.61
926.5	GFSK	14.618	14±1	15	31.623	-2.00	0.63	0.0040	0.62

SRD 24G(Contains FCC ID: UXS-SMR3X3):

Operation Frequency: CW: 24.000GHz~24.25GHz

Antenna Type: Integrated Patch Antenna

R=20cm

Transmit power:

Frequency (GHz)	Max Peak level (dBuV/m)	EIRP power (dBm)
24.00 – 24.25	104.6	9.4

$EIRP = E - 104.8 + 20 \log(D)$

Frequency (GHz)	Mode	maximum EIRP (dBm)	maximum EIRP (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Result
24.00 – 24.25	CW	9.4	8.71	0.0017	1	Pass

SIMULTANEOUS TRANSMISSIONS

When a number of sources at different frequencies, and/or broadband sources, contribute to the total exposure, it becomes necessary to weigh each contribution relative to the MPE. To comply with the MPE, the fraction of the MPE in terms of E^2 , H^2 (or power density) incurred within each frequency interval should be determined and the sum of all such fractions should not exceed unity. In order to ensure compliance with the MPE for a controlled environment, the sum of the ratios of the power density to the corresponding MPE should not exceed unity. That is

$$\sum_{i=1}^n \frac{S_i}{MPE_i} \leq 1$$

Worse case SRD 900+SRD 24G: $0.0040/1+0.0017+1=0.0057$
JWL and WNG cannot emission at the same time.

Conclusion:

For the max result : $0.0057 \leq 1.0$ for Max Power Density, compliance RF exposure.

Signature:



Date: 2026-05-13

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