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Report No.: 2505TWO601-U3
Report Version: 1.0
Issue Date: 2025-08-13

RF Exposure Evaluation Declaration

FCC ID: LZ6-ALPHA612XJ
IC: 2838A-ALPHA612XJ
APPLICANT: FOMOTECH INTERNATIONAL CORP.

Application Type: Certification
Product: Transmitter
Model No.: Alpha 612XJ
Brand Name: FOMOTECH
FCC Rule Part(s): Part 2.1093 (Portable)
Received Date: May 15, 2025

Reviewed By : 

(Paddy Chen)

Approved By : 

(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report. Test results reported herein relate only to the item(s) tested.

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Revision History

Report No.	Version	Description	Issue Date	Note
2505TWO601-U3	1.0	Original Report	2025-08-13	

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	Transmitter
Model No.	Alpha 612XJ
Supports Radios Spec.	Sub-1G
Operating Frequency	902~928MHz
Modulation Type	FHSS (GFSK)

1.2. Antenna Description

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	FOMOTECH	A6XX_ETA	PCB	0dBi

2. MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1. Limits

According to FCC KDB 447498 D04V01 - SAR-Based Exemption

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula .

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula.

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

The example values shown as below are for illustration only.

Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

Note: when 10-g extremity SAR applies, SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds

2.2. Test Result

Frequency (MHz)	EIRP (dBm)	ERP (dBm)	ERP (mW)	FCC SAR Test Exclusion Threshold (mW)
903	11.21	9.06	8.10	8.62
915	11.21	9.06	8.10	8.55
927.5	11.19	9.04	8.00	8.48

Note:

1. EIRP = peak power – duty factor($10 \log(1/\text{duty cycle})$).
2. ERP = EIRP – 2.15dBm.

So, this device can complies the SAR test exclusion.

_____ The End _____