

EMF TEST REPORT

Test Report No. : OT-255-RWD-021
Reception No. : 2411004008
Applicant : SAM JIN CO., LTD
Address : 81, Anyangcheonseo-ro, Manan-gu, Anyang-si, Gyeonggi-do, South Korea
Manufacturer : SAM JIN CO., LTD
Address : 81, Anyangcheonseo-ro, Manan-gu, Anyang-si, Gyeonggi-do, South Korea
Type of Equipment : Audio Transceiver
FCC ID. : 2AF4SMV60001
Model Name : MV60001
Multiple Model Name : N/A
Serial number : N/A
Total page of Report : 6 pages (including this page)
Date of Incoming : November 11, 2024
Date of issue : May 30, 2025

SUMMARY

The equipment complies with the regulation; **FCC CFR 47 PART 1.1310**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

This report is not correlated with the "KS Q ISO/IEC 17025 and KOLAS accreditation" of Korean Laboratory Accreditation Scheme.





Tested by
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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-255-RWD-021	May 30, 2025	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : SAM JIN CO., LTD

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Contact Person : MyoungGyu Kim / Senior Research Engineer

Telephone No. : +82-31-467-5912

FCC ID : 2AF4SMV60001

Model Name : MV60001

Brand Name : -

Serial Number : N/A

Date : May 30, 2025

E.U.T. DESCRIPTION	Audio Transceiver
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	KDB 447498 D01 General RF Exposure Guidance v06
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
Modifications on the Equipment to Achieve Compliance	None

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The SAM JIN CO., LTD, Model MV60001 (referred to as the EUT in this report) is a Audio Transceiver. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	Audio Transceiver		
Temperature Range	-5 °C ~ +40 °C		
OPERATING FREQUENCY	5 160 MHz ~ 5 245 MHz (U-NII-1)		
	5 730 MHz ~ 5 850 MHz (U-NII-3)		
	5 850 MHz ~ 5 870 MHz (U-NII-4)		
MODULATION TYPE	GFSK		
RF OUTPUT POWER	5 160 MHz ~ 5 245 MHz (U-NII-1)	9.30 dBm	
	5 730 MHz ~ 5 850 MHz (U-NII-3)	11.41 dBm	
	5 850 MHz ~ 5 870 MHz (U-NII-4)	13.25 dBm	
ANTENNA TYPE	PCB Antenna		
ANTENNA GAIN	5 160 MHz ~ 5 245 MHz (U-NII-1)	Antenna A	2.27 dBi
		Antenna B	2.08 dBi
	5 730 MHz ~ 5 850 MHz (U-NII-3)	Antenna A	2.13 dBi
		Antenna B	2.13 dBi
	5 850 MHz ~ 5 870 MHz (U-NII-4)	Antenna A	1.98 dBi
		Antenna B	1.99 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	16 MHz		

Note: This Device works a Diversity Antenna. So, We Tested only Antenna B.

2.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3. EUT MODIFICATIONS

-. None

4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 RF Exposure Calculation

According to the FCC rule §4.3. General SAR test exclusion guidance, the limit for 1-g and 10-g SAR test exclusion thresholds are ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR by the device operating 100 MHz to 6 GHz and test separation distances ≤ 50 mm

4.2 EUT Description

Kind of EUT	Audio Transceiver
Device Category	☐ Portable (< 20 cm separation) ☐ Mobile (> 20 cm separation) ☒ Others
Exposure Evaluation Applied	☒ MPE ☐ SAR ☐ N/A

4.3 Test Result

Operating Mode	Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune-up Power (dBm)	Antenna Gain (dBi)	Max tune-up Power (dBm)	Max tune-up Power (mW)	Separation Distance (mm)	RF Exposure (W/kg)
UNII-1	5 160.00	9.30 ± 1.0	10.30	2.27	12.57	18.07	30	1.368
UNII-3	5 730.00	11.41 ± 1.0	12.41	2.13	14.54	28.44		2.270
UNII-4	5 850.00	11.26 ± 1.0	12.26	1.99	14.25	26.61		2.145

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3.0$$

$$= [(28.44/30)] \times \sqrt{5.730} = 2.270$$