

# Tejjer Technology Co., Ltd SAR COMPLIANCE REPORT

## **Report Type:**

FCC SAR assessment report

Model:

XN297

**REPORT NUMBER:** 

230500186HAN-002

**ISSUE DATE:** 

December 25, 2023

**DOCUMENT CONTROL NUMBER:** 

TTRFFCCSAR-01\_V1 © 2022 Intertek





Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North) Caohejing Development Zone Shanghai 200233, China

> Telephone: 86 21 6127 8200 www.intertek.com

Report no.: 230500186HAN-002

**Applicant:** Tejjer Technology Co., Ltd.

128 Hailiang Road, Sanjia Subdistrict, Jiaojiang, Taizhou, Zhejiang,

318000, China

Manufacturer: Same As Applicant

Factory: Same As Applicant

**PRODUCT NAME:** RF Module

TYPE/MODEL: XN297

**FCC ID:** 2AXTW-XN297 **IC:** 26591-XN297

### **SUMMARY:**

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v07 FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:	REVIEWED BY:				
	JK:W				
Alex Wu	Wakeyou Wang				
Project Engineer	Reviewer				

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.





## **Revision History**

Report No.	Version	Description	Issued Date		
230500186HAN-002	Rev. 01	Initial issue of report	December 25, 2023		





## **1 GENERAL INFORMATION**

## 1.1 Description of Equipment Under Test (EUT)

Product name:	RF Module
Type/Model:	XN297
Description of EUT:	The RF module is designed for 2.4GHz ISM band wireless applications using GFSK transceiver. The module has a three-wire SPI interface for communication. The maximum data rate is 4Mbps
Rating:	3VDC
Category of EUT:	Class B
EUT type:	☐ Tabletop ☐ Floor standing
Software Version:	/
HVIN:	XN297
PWM:	XN297
Sample Identification No.:	/
Sample received date:	June 10, 2023
Date of test:	June 11-12, 2023

# 1.2 Technical Specification

Operation Frequency:	2400MHz ~ 2483.5MHz			
Support Standards:	SRD			
Type of Modulation:	GFSK			
	Mobile			
	Portable Portable			
Product Type:	Fix Location			
Channel Number:	7			
Antenna Designation:	Integral PCB antenna			
Gain of Antenna:	1.22 dBi max			





# 1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road (North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is	CNAS Accreditation Lab			
recognized, certified,	Registration No. CNAS L0139			
or accredited by these organizations:	FCC Accredited Lab Designation Number: CN0175			
	IC Registration Lab CAB identifier.: CN0014			
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252			
	A2LA Accreditation Lab Certificate Number: 3309.02			





#### 2 SAR Assessment

Test result: Pass

#### 2.1 SAR Test Exclusion Limit

This method shall only be used at separation distances up to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula below:

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

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

f is in GHz, d is the separation distance (cm), and  $ERP_{20cm}$  is per Formula above. The example values shown in below are for illustration only.

	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
( 7	300	39	65	88	110	129	148	166	184	201	217
(MHz)	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
Frequency	1900	3	12	26	44	66	92	122	157	195	236
正	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

### 2.2 Assessment Results

The highest EIRP adjusted with tune-up tolerance is 91.50 - 106.5 = -15.0dBm = 0.0003mW < 3mW (Test Exclusion Thresholds of 2450MHz at 5mm). Therefore, the SAR requirement is deemed to be satisfied without test.