

YAZAKI (CHINA) INVESTMENT CORPORATION

SAR COMPLIANCE REPORT

REPORT TYPE:

FCC SAR assessment report

MODEL:

73A1-0139-30(40A), 73A1-0140-30(80A)

REPORT NUMBER:

250100054SHA-002

ISSUE DATE:

March 24, 2025

DOCUMENT CONTROL NUMBER:

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Applicant: YAZAKI (CHINA) INVESTMENT CORPORATION
No.25 building, No.1188, Huyi Highway, Nanxiang Town, Jiading District, Shanghai, China

Manufacturer: YAZAKI (CHINA) INVESTMENT CORPORATION
No.25 building, No.1188, Huyi Highway, Nanxiang Town, Jiading District, Shanghai, China

Factory: Zhangzhou Yazaki Auto Parts Co., Ltd.
No. 6 Wuqiao North Road, Longwen District, Zhangzhou City, Fujian Province

Type/Model: 73A1-0139-30(40A), 73A1-0140-30(80A)

FCC ID: 2BNJL-73A1014030

SUMMARY:

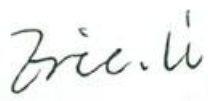
The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06

FCC Part2.1091, FCC Part1.1307(b)

PREPARED BY:**REVIEWED BY:**

Scout Gong
Project Engineer


Eric Li
Reviewer

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Revision History

Report No.	Version	Description	Issued Date
250100054SHA-002	Rev. 01	Initial issue of report	March 24, 2025

1 General Information

1.1 Description of Equipment Under Test (EUT)

Product name:	NACS Charging Cable Assembly
Type/Model:	73A1-0139-30(40A), 73A1-0140-30(80A)
Description of EUT:	The product covered by this report is a NACS charging cable assembly. It works at 315MHz frequency. There are 2 models, the difference is the maximum allowed rated charging current. There is a 12V DC power supply to the internal RF circuit. Model 73A1-0140-30(80A) was tested as a representative. The worst results were listed in this report.
Rating:	DC 12V
EUT type:	☒ Table top ☐ Floor standing
Software Version:	/
Hardware Version:	/
Sample Identification No.:	A250210-23-001
Sample received date:	February 10, 2025
Date of test:	February 10, 2025, to February 13, 2025

1.2 Technical Specification

Operation Frequency:	315MHz
Type of Modulation:	ASK
Product Type:	☐ Mobile ☐ Portable ☒ Fix Location
Channel Number:	1
Antenna Designation:	Integral PCB antenna

1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
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 recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

TEST REPORT

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). P_{th} is given by Formula below:

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

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

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.

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

2.2 Assessment Results

As we can see from the test report 250100054SHA-001:

The highest EIRP adjusted with tune-up tolerance is: $83.53 - 95.30 = -11.77 \text{ dBm} = 0.067 \text{ mW}$.
 $0.067 \text{ mW} < 39 \text{ mW}$ (Test Exclusion Thresholds of 300MHz at 5mm).

Therefore, the SAR requirement is deemed to be satisfied without test.

*****END*****