



RF Exposure Evaluation Declaration

FCC ID: 2AYEX-SK202B
IC 26812-SK202B
APPLICANT: Shenzhen EPS Technology Co., Ltd.

Application Type: Certification
Product: Contactless Ethernet module
Model No.: SK202B
FCC Classification: Low Power Communication Device Transmitter (DXX)
FCC Rule Part(s): 2.1091
ISED Rule(s): RSS-102, Issue 5
Test Date: December 18, 2020

Reviewed By:

Oscar Shi

(Oscar Shi)

Approved By:

Robin Wu

(Robin Wu)



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2012RSU016-U5	Rev. 01	Initial Report	01-16-2021	Valid

CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. Applicant	4
1.2. Manufacturer	4
1.3. Testing Facility	4
2. PRODUCT INFORMATION	5
2.1. Equipment Description	5
3. RF Exposure Evaluation.....	6
3.1. Limits	6
3.2. Test Result of RF Exposure Evaluation	7
Appendix A - EUT Photograph	8

1.1. Applicant

9F, Tower 1, Shenyiejinyuan Building, Qingshuihe 1st Road, Qingshuihe Street, Luohu District, Shenzhen

9F, Tower 1, Shenyiejinyuan Building, Qingshuihe 1st Road, Qingshuihe Street, Luohu District, Shenzhen

<input checked="" type="checkbox"/>	Test Site – MRT Suzhou Laboratory	
	Laboratory Location (Suzhou – Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China	
	Laboratory Location (Suzhou – SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China	
	Laboratory Accreditations	
	A2LA: 3628.01 FCC: CN1166 VCCI: R-20025, G-20034, C-20020, T-20020	CNAS: L10551 ISED: CN0001
<input type="checkbox"/>	Test Site – MRT Shenzhen Laboratory	
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China	
	Laboratory Accreditations	
	A2LA: 3628.02 FCC: CN1284	CNAS: L10551 ISED: CN0105
<input type="checkbox"/>	Test Site – MRT Taiwan Laboratory	
	Laboratory Location (Taiwan) No. 38, Fuxing 2 nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
	Laboratory Accreditations	
	TAF: L3261-190725 FCC: 291082, TW3261	ISED: TW3261

2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	Contactless Ethernet module
Model No.:	SK202B
Frequency Range:	60GHz
Power:	DC 4.4~16V or USB
Antenna Type:	Horn Antenna
Type of Modulation:	OOK
Antenna Gain:	9dBi

Note: Above information is declared by manufacturer.

3. RF Exposure Evaluation

3.1. Limits

According to FCC 1.1310: 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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

3.2. Test Result of RF Exposure Evaluation

Product	Contactless Ethernet module
Test Item	RF Exposure Evaluation

For FCC:

Test Mode	Frequency Band (GHz)	Maximum EIRP (Include Max Tune Up value) (dBm)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
SK202B	58.07~62.83	8.63	0.0015	1

For ISED

Test Mode	Frequency Band (GHz)	Maximum EIRP (Include Max Tune Up value) (dBm)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
SK202B	58.07~62.83	8.63	0.0015	1

CONCLUSION:

Therefore, the Max Power Density at R (20 cm) = 0.0015 mW/cm² < 1 mW/cm².

So the safety distance is 20cm for Contactless Ethernet module installed without any other radio equipment.

_____ The End _____

Appendix A - EUT Photograph

Refer to "2012RSU016-UE" file.