



Industrial Internet Innovation Center (Shanghai) Co.,Ltd.

MPE REPORT

PRODUCT	SD-D05
BRAND	SD-D05
MODEL	SD-D05
FCC ID	XYO-SD05
APPLICANT	Asiatelco Technologies Co.
ISSUE DATE	February 12, 2025
STANDARD(S)	FCC 47 CFR Part 2 §2.1091

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CONTENTS

1	SUMMARY OF TEST REPORT	3
1.1	TEST STANDARD (S)	3
1.2	REFERENCE DOCUMENTS.....	3
1.3	DATA PROVIDED BY APPLICANT	3
2	GENERAL INFORMATION OF THE LABORATORY.....	4
2.1	TESTING LABORATORY.....	4
2.2	LABORATORY ENVIRONMENTAL REQUIREMENTS.....	4
2.3	PROJECT INFORMATION.....	4
3	GENERAL INFORMATION OF THE CUSTOMER.....	5
3.1	APPLICANT	5
3.2	MANUFACTURER	5
4	GENERAL INFORMATION OF THE PRODUCT	6
4.1	PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	6
4.2	DESCRIPTION FOR AUXILIARY EQUIPMENT (AE)	6
5	GENERAL DESCRIPTION	7
5.1	EVALUATION DISTANCE.....	7
5.2	EVALUATION METHOD	7
6	ASSESSMENT RESULTS.....	8
6.1	STANDALONE EVALUATION	8
ANNEX A: REVISED HISTORY		10
ANNEX B: ACCREDITATION CERTIFICATE.....		11

1 Summary of Test Report

1.1 Test Standard (s)

No.	Test Standard(s)	Title	Version
1	FCC 47 CFR Part 2 §2.1091	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS. Section 2.1091 Radiofrequency radiation exposure evaluation: mobile devices	N/A
NOTE: The standard of FCC 47 CFR Part 2 §2.1091 has not been accredited by A2LA.			

1.2 Reference Documents

No.	Reference Document(s)	Title	Version
1	KDB 447498	General RF Exposure Guidance	D01 v06

1.3 Data Provided by Applicant

No.	Item(s)	Data
1	Maximum tune-up power	BLE: 4.0 dBm
2	Maximum antenna gain	BLE: 0.84 dBi
NOTE: The data of Maximum tune-up power and Maximum antenna gain are provided by the customer may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

2 General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880
FCC Registration No.	708870
FCC Designation No.	CN1364

2.2 Laboratory Environmental Requirements

Temperature	18°C~25°C
Relative Humidity	25%RH~75%RH

2.3 Project Information

Project Manager	Wei Hanyu
Test Date	N/A

3 General Information of The Customer

3.1 Applicant

Company	Asiatelco Technologies Co.
Address	#68 HuaTuo Road, Building-8, Zhangjiang Hi-Tech Park, Pudong, Shanghai 201204, China
Telephone	021-51688806

3.2 Manufacturer

Company	Asiatelco Technologies Co.
Address	#68 HuaTuo Road, Building-8, Zhangjiang Hi-Tech Park, Pudong, Shanghai 201204, China
Telephone	021-51688806

4 General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product	SD-D05
Model	SD-D05
Date of Receipt	N/A
EUT ID*	N/A
SN/IMEI	N/A
Supported Radio Technology and Bands	BLE
Tx Frequency	2402 MHz-2480 MHz (BLE)
Hardware Version	P1
Software Version	1
NOTE1: EUT ID is the internal identification code of the laboratory. NOTE2: Samples in the test report are provided by the customer. The test results are only applicable to the samples received by the laboratory.	

4.2 Description for Auxiliary Equipment (AE)

AE ID*	Description	Model	SN/Remark
N/A	N/A	N/A	N/A
NOTE: AE ID is the internal identification code of the laboratory.			

5 General Description

5.1 Evaluation Distance

Evaluation distance 20cm as a distance between the equipment and the operator or user when it is used normally. The distance used for the assessment had be specified by the manufacturer and be onsistent with the intended usage of the equipment.

5.2 Evaluation Method

For conservative evaluation consideration, only maximum power of each frequency band based on the tighter limits respectively are used to calculate the boundary power density.

Based on the KDB447498 D01 and FCC 47 CFR Part 2 § 2.1091, the DUT is evaluated as a mobile device.

$$S = \frac{P \times G}{4\pi d^2}$$

Where

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

6 Assessment Results

6.1 Standalone Evaluation

6.1.1 Limit/Criterion

Table 6.1.1-1: Limits for Occupational / Controlled Exposure

Limits for Occupational / Controlled Exposure				
Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3 – 3.0	614	1.63	(100)*	6
3.0 – 30	1824/f	4.89/f	(900/f ²)*	6
30 – 300	61.4	0.163	1	6
300 – 1500	--	--	f/300	6
1500 - 100000	--	--	5	6
Limits for General Population / Uncontrolled Exposure				
Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3 – 1.34	614	1.63	(100)*	30
1.34 – 30	824/f	2.19/f	(180/f ²)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	--	--	f/1500	30
1500 - 100000	--	--	1	30
NOTE: f = frequency in MHz; * Plane-wave equivalent power density. For the DUT, the limits for General Population / Uncontrolled Exposure are applicable.				

6.1.2 Standalone Evaluation

Table 6.1.2-1: Standalone Evaluation

Band	Maximum Tune Up Power(dBm)	Highest Output Power (dBm)	Highest Output Power (mW)	Antenna Gain(dBi)	Numeric antenna gain	Power density at 20cm (mW/cm ²)	Limit (mW/cm ²)
BLE	4.00	4.00	2.51	0.84	1.21	0.001	1.000

Annex A: Revised History

Version	Revised Content
V0	Initial

Annex B: Accreditation Certificate**END OF REPORT**