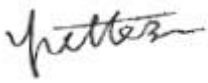
Shenzhen Most Technology Service Co., Ltd.
No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

RF Exposure Evaluation Report

Report Reference No..... :	**MTEB24110015-H**	
FCC ID..... :	**2AHCR-ACR-CID01**	
Compiled by (position+printed name+signature).. :	File administrators Alisa Luo	
Supervised by (position+printed name+signature).. :	Test Engineer Sunny Deng	
Approved by (position+printed name+signature).. :	Manager Yvette Zhou	
Date of issue.....:	**Nov.04,2024**	
Representative Laboratory Name. :	**Shenzhen Most Technology Service Co., Ltd.**	
Address..... :	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.	
Applicant's name.....:	**AKUVOX (XIAMEN) NETWORKS CO., LTD.**	
Address..... :	10/F, No.56 Guanri Road， Software Park II , Xiamen 361009, China	
Test specification/ Standard.....**:**	**47 CFR Part 1.1310** **47 CFR Part 2.1093**	
TRF Originator.....:	Shenzhen Most Technology Service Co., Ltd.	

Test item description.....:	Card Reader
Trade Mark.....:	Akuvox
Model/Type reference..... :	ACR-CID01
Listed Models ..... :	N/A
Modulation Type..... :	GFSK ASK BPSK
Operation Frequency..... :	From 2402MHz to 2480MHz 13.56MHz 0.125Mhz
Hardware Version.....	000
Software Version.....	V6
Rating.....:	DC 5V by USB Port
Result.....:	PASS

T E S T R E P O R T

Equipment under Test	:	Card Reader
Model /Type	:	ACR-CID01
Listed Models	:	N/A
Remark		N/A
Applicant	:	AKUVOX (XIAMEN) NETWORKS CO., LTD.
Address	:	10/F, No.56 Guanri Road， Software Park II , Xiamen 361009, China
Manufacturer	:	AKUVOX (XIAMEN) NETWORKS CO., LTD.
Address	:	10/F, No.56 Guanri Road， Software Park II , Xiamen 361009, China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2024.11.04	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
4.3.1. Standalone SAR test exclusion considerations
Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

2.1.3 Limits

According to FCC Part1.1310: 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 part1.1307(b)

For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C): 33
1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by [1 + log(100/f(MHz))]
2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by ½
3) SAR measurement procedures are not established below 100 MHz.
When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any SAR test results below 100 MHz to be acceptable.34

2.1.3 EUT RF Exposure

Measurement Data

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	2.742	2.742±1	3.742
Middle(2440MHz)	2.891	2.891±1	3.891
Highest(2480MHz)	2.908	2.908±1	3.908

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Highest(2480MHz)	2.908	3.908	2.459	0.77	3.0	Yes

Note: Refer to report MTEB24110015-R for EUT test Max Conducted average Output Power value.

For 13.56MHz wireless:

Field strength=78.5dBuV/m
EIRP =78.5dBuV/m-95.2+6= -10.7dBm

Channel	EIRP (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Limit (MW)	Result
13.56 MHz	-10.7	±1	-9.7	0.107	474	Pass

Note: Refer to report MTEB24110015-R1 for EUT test Maximum field strength value

For 0.125MHz wireless:

Field strength=61.17dBuV/m
EIRP =61.17dBuV/m-95.2+6= -28.03dBm

Channel	EIRP (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Limit (MW)	Result
0.125 MHz	-28.03	±1	-27.03	0.002	948	Pass

Note: Refer to report MTEB24110015-R2 for EUT test Maximum field strength value

.....THE END OF REPORT.....