Shenzhen Most Technology Service Co., Ltd.
East A, 1 floor of New Aolin Factory buiding, Langshan Erlu, North District,
Hi-tech Industry Park, Nanshan,Shenzhen,Guangdong,China

RF Exposure Evaluation Report

Report Reference No.:	**MTEB23100065-H**
FCC ID:	**2BC8S-ZR320T**
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:	October 11,2023
Representative Laboratory Name:	**Shenzhen Most Technology Service Co., Ltd.**
Address:	East A, 1 floor of New Aolin Factory buiding, Langshan Erlu, North District, Hi-tech Industry Park, Nanshan,Shenzhen,Guangdong,China
Applicant's name:	**MindGallery,LLC**
Address:	668 Liberty Ave Fl 2,Jersey City,United State,07307
Test specification/ Standard:	**47 CFR Part 1.1307;47 CFR Part 1.1310** **KDB447498D01 General RF Exposure Guidance v06**
TRF Originator:	Shenzhen Most Technology Service Co., Ltd.

Test item description:	android tablet
Trade Mark:	N/A
Model/Type reference:	ZR320T
Listed Models:	YR156T,HP101T,HP133T,ZR270T,R430T
Modulation Type:	GFSK, π/4DQPSK, 8DPSK b: DSSS ,CCK g/n: BPSK,QPSK,QAM
Operation Frequency:	From 2402MHz to 2480MHz From 2412 - 2462MHz
Hardware Version:	CLINK-E66-V1.2
Software Version:	XB-RK3566D-DS2.1-BZ-EN-07Z215-0D-EDIITION11-2023090414
Rating:	DC 12V by Adapter
Result:	**PASS**

TEST REPORT

Equipment under Test	:	android tablet
Model /Type	:	ZR320T
Listed Models	:	YR156T,HP101T,HP133T,ZR270T,R430T
Remark		Only the appearance and model name are different, and the internal circuit, motherboard and control chip of the product are the same.
Applicant	:	**MindGallery,LLC**
Address	:	668 Liberty Ave Fl 2,Jersey City,United State,07307
Manufacturer	:	**Shenzhen Hopestar Sci-tech Co.,LTD**
Address	:	Room 602, 6th floor, E building of Yuanfen Industrial Park, Dalang Street, Longhua Area, Shenzhen

Test Result:	**PASS**

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2023-10-11	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

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)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500	.....	.....	f/300	6
1500–100,000	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
1500–100,000	.....	.....	1.0	30

F= Frequency in MHz
Friis Formula
Friis transmission formula: Pd = (Pout*G)/(4* Pi * R 2) Where
Pd = power density in mW/cm2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416

R = distance between observation point and center of the radiator in cm
Pd id the limit of MPE, 1 mW/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.

2.1.3 EUT RF Exposure

WIFI and BT do not support simultaneous transmission.
Antenna Gain: 1.85dBi

WIFI 2.4G

802.11b			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	11.92	11.92±1	12.92
Middle(2437MHz)	11.65	11.65±1	12.65
Highest(2462MHz)	11.82	11.82±1	12.82

802.11g			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	12.15	12.15±1	13.15
Middle(2437MHz)	11.93	11.93±1	12.93
Highest(2462MHz)	12.77	12.77±1	13.77

802.11n(H20)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	11.95	11.95±1	12.95
Middle(2437MHz)	12.05	12.05±1	13.05
Highest(2462MHz)	11.83	11.83±1	12.83

802.11n(H40)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2422MHz)	11.39	11.39±1	12.39
Middle(2437MHz)	12.35	12.35±1	13.35
Highest(2452MHz)	12.10	12.10±1	13.1

Worst case: 802.11g						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Highest(2462MHz)	13.77	23.82	1.85	0.0073	1.0	Pass

Note: 1) Refer to report **MTEB23100065-R1** for EUT test Maximum tune-up Power.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(23.82*1.53)/(4*3.1416*20^2)=0.0073

BT classic

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	-1.761	-1.761±1	-0.761
Middle(2441MHz)	-0.485	-0.485±1	0.515
Highest(2480MHz)	-0.272	-0.272±1	0.728

π/4DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	-0.003	-0.003±1	0.997
Middle(2441MHz)	1.271	1.271±1	2.271
Highest(2480MHz)	1.455	1.455±1	2.455

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	-0.041	-0.041±1	0.959
Middle(2441MHz)	1.225	1.225±1	2.225
Highest(2480MHz)	1.772	1.772±1	2.772

Worst case: 8DPSK						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Highest(2480MHz)	2.772	1.89	1.85	0.00058	1.0	Pass

Note: 1) Refer to report **MTEB23100065-R** for EUT test Maximum tune-up Power.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(1.89*1.53)/(4*3.1416*202)=0.00058
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

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