

## RF Exposure Evaluation Report

**Report Reference No.**..... : **MTEB24030315-H**

**FCC ID**..... : **2A2YZ-SP3598**

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.....: March 29,2024

**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**.....: **NINGBO ECHO INT'L TRADE CO.,LTD**

Address.....: 2FL,7 Building,NO.688 JINDA ROAD,YINZHOU INVESTMENT  
BUSINESS CENTRE,Ningbo China 315104.

**Test specification/ Standard**.....: **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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**Test item description**.....: BT TUMBLER SPEAKER

Trade Mark.....: N/A

Model/Type reference.....: SP3598

Listed Models .....: N/A

Modulation Type.....: GFSK,  $\pi/4$ DQPSK, 8DPSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: MLH\_AC6965E\_619-B1

Software Version.....: MLH\_619\_6965E4(MV\_SP3598)\_20240305\_38EE-EC79C396

Rating.....: DC 5V by USB Port

DC 3.7V by Battery

Result.....: PASS

**TEST REPORT**

Equipment under Test : BT TUMBLER SPEAKER

Model /Type : SP3598

Listed Models : N/A

Remark : N/A

Applicant : NINGBO ECHO INT'L TRADE CO.,LTD

Address : 2FL,7 Building,NO.688 JINDA ROAD,YINZHOU INVESTMENT  
BUSINESS CENTRE,Ningbo China 315104.

Manufacturer : NINGBO ECHO INT'L TRADE CO.,LTD

Address : 2FL,7 Building,NO.688 JINDA ROAD,YINZHOU INVESTMENT  
BUSINESS CENTRE,Ningbo China 315104.

<b>Test Result:</b>	<b>PASS</b>
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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	2024.03.29	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  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$   
 $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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 EUT RF Exposure

## Measurement Data

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	-0.676	$-0.676 \pm 1$	0.324
Middle(2441MHz)	-0.334	$-0.334 \pm 1$	0.666
Highest(2480MHz)	-0.053	$-0.053 \pm 1$	0.947

$\pi/4$ DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	0.106	$0.106 \pm 1$	1.106
Middle(2441MHz)	1.683	$1.683 \pm 1$	2.683
Highest(2480MHz)	2.766	$2.766 \pm 1$	3.766

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	1.396	$1.396 \pm 1$	2.396
Middle(2441MHz)	1.997	$1.997 \pm 1$	2.997
Highest(2480MHz)	3.142	$3.142 \pm 1$	4.142

Worst case: 8DPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Highest(2480MHz)	3.142	4.142	2.60	0.81	3.0	Yes

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