

TEST REPORT

Product Name : Philips Soundbar Speaker
TAB4208/12, TAB4208/37, TAB4208/61,
Model Number : TAB4208/77, TAB4268/37, TAB4268/yy,
TAB4208/yy(yy=00-99 or Nil, for country code)
FCC ID : 2AR2STAB4208

Prepared for : MMD Hong Kong Holding Limited
Address : Units 1208-11, 12th Floor, C-Bons International Center, 108
Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Prepared by : EMTEK (SHENZHEN) CO., LTD.
Address : Building 69, Majialong Industry Zone, Nanshan District,
Shenzhen, Guangdong, China

Tel: (0755) 26954280
Fax: (0755) 26954282

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1. TEST RESULT CERTIFICATION

Applicant : MMD Hong Kong Holding Limited
 Manufacturer : MMD Hong Kong Holding Limited
 Factory : Soundlab Technology Company Limited.
 EUT : Philips Soundbar Speaker
 Model Name : TAB4208/12, TAB4208/37, TAB4208/61, TAB4208/77, TAB4268/37, TAB4268/yy,
 TAB4208/yy(yy=00-99 or Nil, for country code)

Trademark : 
 PHILIPS,

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : October 17, 2023 to January 04, 2024

Prepared by : 
 Sewen Guo /Editor

Reviewer : 
 Joe Xia/Supervisor

Approve & Authorized Signer : 
 Lisa Wang/Manager



Modified History

Rev.	Summary	Date of Rev.	Report No.
	Original Report	2023-11-07	ENS2110170002W00402R

2. EUT Specification

Characteristics	Description
Product:	Philips Soundbar Speaker All product names refer to the same product, but the descriptions are different.
Model Number:	TAB4208/12, TAB4208/37, TAB4208/61, TAB4208/77, TAB4268/37, TAB4268/yy, TAB4208/yy(yy=00-99 or Nil, for country code) Note: Only the model of TAB4208/37 was tested, since the electrical circuit design, layout, components used and internal wiring are identical, only the color of appearance, model name and country code diferent.
Device Type:	Bluetooth V5.3
Data Rate:	1Mbps for BT V5.3 GFSK modulation 2Mbps for BT V5.3 pi/4-DQPSK modulation
Modulation:	GFSK modulation for BT V5.3 (1Mbps) pi/4-DQPSK modulation for BT V5.3 (2Mbps)
Operating Frequency Range(s):	2402-2480MHz
Number of Channels:	79 channels
Transmit Power Max:	1.29 dBm (0.001346 W)
Antenna Type:	Integral Antenna
Antenna Gain:	2.26 dBi
Input Rating:	AC 100-240V 50/60Hz
Temperature Range:	0°C ~ +45°C

3. Test Requirement:

RF EXPOSURE EVALUATION

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

1 Friis transmission 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 = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

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

4. Measurement Result

Antenna gain: 2.26 dBi

Transmit Frequency (MHz)	Mode	Output Power (dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)
2402	GFSK	-0.9	1.36	1±1	2	1.58	0.000539	1
2441	GFSK	-2.22	0.04	0±1	1	1.26	0.000428	1
2480	GFSK	-2.72	-0.46	-1±1	0	1.00	0.000340	1
2402	Π/4-DQPSK	1.29	3.55	3±1	4	2.51	0.000855	1
2441	Π/4-DQPSK	0.09	2.35	2±1	3	2.00	0.000679	1
2480	Π/4-DQPSK	-0.75	1.51	1±1	2	1.58	0.000539	1

*** End of Report ***