MPE REPORT

Certification No.	:	TBC-C-202308-0123-2
Applicant	:	XonTel Technology Trd. Co. W.L.L
Equipment Under Test (EUT)		
EUT Name	:	Audio Amplifier
Model No.	:	XT-160AMP
Series No.	:	----
Brand Name	:	XonTel
Receipt Date	:	2023-08-18
Test Date	:	2023-08-18 to 2023-09-15
Issue Date	:	2023-09-15
Standards	:	EN IEC 62311: 2020
Conclusions	:	**PASS**

In the configuration tested, the EUT complied with the standards specified above. The EUT technically complies with the Council Directive 2014/53/EU relating to radio equipment.

Test/Witness Engineer : Seven Wu

Engineer Supervisor : Ivan Su

Engineer Manager : Ray Lai

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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Revision History

Report No.	Version	Description	Issued Date
TBR-C-202308-0123-5	Rev.01	Initial issue of report	2023-09-15

1 General Information

1.1 Client Information

Applicant	:	XonTel Technology Trd. Co. W.L.L
Address	:	Office 21, Justice Tower, Ali Al Salem St. Qibla, Kuwait City, State of Kuwait. Zip code: 13065
Manufacturer	:	XonTel Technology Trd. Co. W.L.L
Address	:	Office 21, Justice Tower, Ali Al Salem St. Qibla, Kuwait City, State of Kuwait. Zip code: 13065

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Audio Amplifier	
Model No.	:	XT-160AMP	
Model different	:	----	
Product Description	:	Operation Frequency:	Bluetooth 5.0:2402MHz~2480MHz
Power Rating	:	Input: AC 115V-230V	
Software Version	:	V33	
Hardware Version	:	V 1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

(1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. This Test Report is EN 62311 under RED Article 3.1(a) Healthy.

(2) More information about test, please refer to the RF test report.

1.3 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)
The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01
The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025：2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351.Designation Number: CN1223.

IC Registration No.: (11950A)
The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.

2 Maximum Permissible Exposure

2.1 Standard

EN IEC 62311-Assess Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)

2.2 Limit

For frequency range 10 MHz to 10 GHz

The basic restriction at frequencies between 10 MHz and 100 GHz is on localized SAR in the head. Any device with output power below 20 mW cannot produce an exposure exceeding this restriction under the most pessimistic exposure conditions. The basic restriction is 2 W/kg so any unit which supplies less than 20 mW (=2/100W) from its antenna port, averaged over 6 minutes, will meet the basic restriction.

For frequency range 10 GHz to 300 GHz

The most conservative assumption is that all the transmitted power is absorbed within the specified area, therefore any device which supplies less than 20 mW will meet the basic restriction. The average time is equal to 68/f-1.05 munutes (where f is in GHz) In the frequency range 10 GHz to 300 GHz, the basic restriction is 10 Wm-2 averaged over any 20cm^2 of exposed area with a spatial maximum of 200 Wm-2 averaged over 1cm^2

2.3 Deviation From Test Standard

No deviation

3 Test Results Summary

3.1 Client Information

RF exposure assessment has been performed below to prove that this unit will not generate the harmful EM emission above the reference level as specified in EC Council Recommendation (1999/519/EC).

3.2 Human Exposure Assessment

Worst Mode	Max output power (dBm)	Max output power (TP) (W)	Max Antenna Gain (G) (dBi)	Numeric Gain	Minimum distance in meter (D) (m)	E (V/m)	Limit (V/m)
2480(8-DPSK)	6.84	0.0048	3.0	2.00	0.2	2.69	61
Note: only show the worst data.							

Exposure Evaluation	
Given $E=\frac{\sqrt{30\times G\times TP}}{D}$	Where G: numerical gain of transmitting antenna; TP: Transmitted power in watt; D: Distance from the transmitting antenna in meter.
Conclusion: E=2.69V/m is significant lower than the 61 V/m as required in Annex III table 2 of EC Council Recommendation (1999/519/EC). This proves that the unit complies with the EN62311 for RF exposure requirement.	

-----END OF REPORT-----