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Testing
NVLAP LAB CODE 600222-0

RF Exposure Evaluation Declaration

Report No.: S20211014295901E02
Report Version: V01
Issue Date: 10-29-2021

Applicant:	Xi'an NovaStar Tech Co., Ltd.
Address:	101 Block D-F, 01 Square, Xi'an Software Park, No.72, 2nd Keji Road, Xi'an, Shaanxi, China
FCC ID:	2AG8JTB60
Application Type:	Certification
Product:	Taurus-MediaPlayer
Model No.:	TB60
FCC Classification:	Digital Transmission System (DTS)
FCC Rule Part(s):	Part 15 Subpart C (15.247)
Test Procedure(s):	ANSI C63.10-2013, KDB 558074 D01v05r02
Test Date:	Sept 02 ~ Oct 21, 2021

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Senior Test Engineer

Approved By: Kerry Zhou
(Kerry Zhou)
Engineer Manager

FANGGUANG INSPECTION & TESTING CO.,LTD. APPROVED(02)

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 558074 D01. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date
S20211014295901E02	Rev. 01	/	10-29-2021

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	Taurus-MediaPlayer
Model Name:	TB60
Additional Model:	TB30,TB50,TB60-X,TB30-X,TB50-X (X=blank，0-9 or A-Z for different sale area,no impact on EMC & Safety)
Model Description:	The TB50 has 2 fewer network ports than the TB60, the TB30 has 2 fewer switch buttons, HDMI I/O ports, and 2 fewer network ports. It uses the same PCB as the TB60, but is not welded to the missing components.
Input Voltage Range:	100-240Vac, 50/60Hz,0.6A
Power supply Description:	Power supply 1: Input :100-240Vac, 50/60Hz, 0.7A Output:5Vdc,5A Model:PD-25-S5 Power supply 2: Input :100-277Vac, 50/60Hz, 0.6A Output:5Vdc,5A Model:LM25-23B05
Wi-Fi Specification:	802.11b/g/n-HT20

2. RF Exposure Evaluation

2.1. Limits

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 (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where

Pd = power density in mW/cm^2

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 is the limit of MPE, $1mW/cm^2$. 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.

2.2. Test Result of RF Exposure Evaluation

Product	Taurus-MediaPlayer
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum PK Output Power (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11b/g/n	2412 ~ 2462	14.86	0.0194	1
Note: Pd = (Pout*G)/(4*pi*r2)=($10^{(14.86+5.03)/10}$)/(4*3.1416*20^2)=0.0194mW/cm^2				

CONCULISON:

The Max Power Density at R (20 cm) = 0.0194mW/cm^2 < 1mW/cm^2.

So the EUT complies with the requirement.

The End