



RADIO TEST REPORT

Report No.: STS2008308H07

Issued for

RTX HONG KONG LTD

8TH FL CORPORATION SQUARE, 8 LAM LOK ST.,
KOWLOON BAY, HK.

Product Name:	Wireless Headset Base
Brand Name:	RTX
Model Name:	RTX7451
Series Model:	N/A
FCC ID:	T7HX7451
Test Standard:	FCC 47 CFR §2.1091

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Test Report Certification

Applicant's Name..... : RTX HONG KONG LTD
Address : 8TH FL CORPORATION SQUARE, 8 LAM LOK ST., KOWLOON BAY, HK.
Manufacturer's Name : RTX HONG KONG LTD
Address : 8TH FL CORPORATION SQUARE, 8 LAM LOK ST., KOWLOON BAY, HK.

Product Description

Product Name..... : Wireless Headset Base
Brand Name : RTX
Model Name : RTX7451
Series Model..... : N/A

Standards : FCC 47 CFR §2.1091

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Date of Test

Date of receipt of test item : 26 Aug. 2020
Date of performance of tests..... : 26 Aug. 2020 ~ 21 Sept. 2020
Date of Issue..... : 22 Sept. 2020
Test Result..... : **Pass**

Testing Engineer :

(Chris chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	22 Sept. 2020	STS2008308H07	ALL	Initial Issue





1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Wireless Headset Base	
Brand Name	RTX	
Model Name	RTX7451	
Series Model	N/A	
Model Difference	N/A	
Product Description	The EUT is Wireless Headset Base.	
	Operation Frequency:	1921.536-1928.448MHz
	Modulation Type:	GFSK
	Antenna Designation:	PCB Antenna
	Antenna Gain (dBi):	Ant A: 1dBi Ant B: 1dBi
Adapter	1. Model: S008ACM0500150(Multi Plug) Input: AC 100-240V 50/60Hz 0.3A Output: DC 5V 1.5A 7.5W 2. Model: S008ACU0500150(US Plug) Input: AC 100-240V 50/60Hz 250mA Output: DC 5V 1500mA	
Battery	Model: BP1729/A Brand: Tianmao DC 3.8V 600mAh 2.28Wh	
Hardware Version	V3RA	
Software Version	V0007 B0001	

Note: 1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47 CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the 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)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
1500 - 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1500 - 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss 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 = gain of antenna in linear scale

$\pi = 3.1416$

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

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.

2.3 EUT OPERATION CONDITION

EUT was enabled to transmit and receive at lowest, middle and highest channels.

2.4 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. Warning statement to the user for keeping at least 20cm or more separation distance from the antenna should be included in the User manual. So, this device is classified as Mobile device.

2.4 TEST RESULT

Turn up

Mode	Detector	Turn up
GFSK	PEAK	19±1dBm

ANT Gain (G)

1dBi (gain of antenna in linear scale=1.26)

Protocol	Output Power to Antenna (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
GFSK	100	0.025	1	Pass

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