

## RF Exposure Report

**Report No.:** SA190628E03

**FCC ID:** G95TCHR1AZ0

**Test Model:** TCHR1AZ0

**PN:** AZR0001COM

**Received Date:** May 28, 2019

**Test Date:** July 03, 2019

**Issued Date:** July 23, 2019

**Applicant:** Technicolor Connected Home USA LLC

**Address:** 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**FCC Registration /  
Designation Number:** 723255 / TW2022

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## Table of Contents

<b>Release Control Record .....</b>	<b>3</b>
<b>1      Certificate of Conformity.....</b>	<b>4</b>
<b>2      RF Exposure.....</b>	<b>5</b>
2.1    Limits for Maximum Permissible Exposure (MPE).....	5
2.2    MPE Calculation Formula .....	5
2.3    Classification .....	5
2.4    Antenna Gain .....	5
2.5    Calculation Result of Maximum Conducted Power.....	6

### Release Control Record

Issue No.	Description	Date Issued
SA190628E03	Original release.	July 23, 2019

## 1 Certificate of Conformity

**Product:** Zigbee Repeater

**Brand:** Technicolor

**Test Model:** TCHR1AZ0

**Sample Status:** LAB2b

**Applicant:** Technicolor Connected Home USA LLC

**Test Date:** July 03, 2019

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :** Phoenix Huang, **Date:** July 23, 2019  
Phoenix Huang / Specialist

**Approved by :** May Chen, **Date:** July 23, 2019  
May Chen / Manager

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

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

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

Ant. No.	Transmitter Circuit	Ant. Gain (dBi)	Frequency Range (GHz)	Antenna Type	Antenna Connector
1	Chain 0	3.9	2.4~2.4835	PCB	Morata
2	Chain 1	3.2	2.4~2.4835	PCB	Morata

Note: This report chose the max. Antenna gain to do final test.

## 2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Evaluation Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
Zigbee	2445	143.219	3.9	20	0.06994	1

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