

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

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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 ²)	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 ²)*	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/cm²

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 ²)	Limit (mW/cm ²)
Zigbee	2445	143.219	3.9	20	0.06994	1

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