RF Exposure Report

Report No.:	SA151123E05A
FCC ID:	RSE-TG788VV3NP
Equipment Name:	Technicolor Gateway
Trade Name:	technicolor
Model Number:	TG788v v3
Product Code:	DSLCBH788PR
Received Date:	Feb. 24, 2017
Test Date:	Mar. 14, 2017
Issued Date:	May 08, 2017
Applicant:	Technicolor Delivery Technologies Belgium
Address:	Prins Boudewijnlaan 47, 2650 EDEGEM BELGIUM
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.

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Release Control Record

Issue No.	Description	Date Issued
SA151123E05A	Original release.	May 08, 2017

1 Certificate of Conformity

Product:	Technicolor Gateway
Brand:	technicolor
Test Model:	TG788v v3
Product Code:	DSLCBH788PR
Sample Status:	Product Unit
Applicant:	Technicolor Delivery Technologies Belgium
Test Date:	Mar. 14, 2017
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 RF characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** May 08, 2017

Claire Kuan / Specialist

Approved by : _____ , **Date:** May 08, 2017

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				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE 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

2.3 Classification

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

2.4 Antenna Gain

Antenna Information				
Ant.	**Brand**	**Model No.**	**Antenna Type**	**Connector**
1	**-**	**-**	**PCB Antenna**	**NA**
2	**-**	**-**	**PCB Antenna**	**NA**

Frequency	**Antenna Gain (dBi)**			
	Ant. A1 (J711)		**Ant. A2 (J710)**	
	20 MHz	**40 MHz**	**20 MHz**	**40 MHz**
2412MHz	**3.02**	**-**	**3.22**	**-**
2422MHz	**-**	**3.01**	**-**	**3.38**
2437MHz	**3.06**	**3.06**	**3.53**	**3.53**
2452MHz	**-**	**3.06**	**-**	**3.61**
2462MHz	**3.15**	**-**	**3.74**	**-**

Frequency	**Maximum Gain (dBi) for CDD mode**			
	CDD mode (1 Stream 2 TX) for Power Gain		**CDD mode (1 Stream 2 TX) for PSD Gain**	
	20 MHz	**40 MHz**	**20 MHz**	**40 MHz**
2412MHz	**3.22**	**-**	**6.13**	**-**
2422MHz		**3.38**		**6.21**
2437MHz	**3.53**	**3.53**	**6.31**	**6.31**
2452MHz		**3.61**		**6.35**
2462MHz	**3.74**	**-**	**6.46**	**-**

Note:

1. Maximum Correlated Directional Gain = 10 log[(10 G1 / 20 + 10 G2 / 20 + … +10 GN / 20)^2 / N ANT] dBi

Number of Transmitter Antennas & Bandwidth

Number of Transmitter Antennas	**1TX**		**2TX**	
Bandwidth Mode	**20 MHz**	**40 MHz**	**20 MHz**	**40 MHz**
802.11b	**V**	**X**	**X**	**X**
802.11g	**V**	**X**	**X**	**X**
802.11n	**V**	**V**	**V**	**V**

2.5 Calculation Result of Maximum Conducted Power

Frequency (MHz)	Max Conducted Power (dBm)	Max Conducted Power (mW)	Directional Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)	Pass / Fail
2412-2462	20.85	121.545	6.31	20	0.10339	1	Pass

Note:

1. Pout*G = EIRP Power = Max Conducted Power(mW) * Gain(numeric)
2. Gain(dBi) to Gain(numeric) = $10^{(6.31/10)}$ = 4.2756
3. Distance (cm) = r = declare by manufacture = 20 cm
4. Pd = (Pout*G) / ($4*pi*r^2$) = (121.545 * 4.2756) / (4 * 3.1416 * 20^2) = 0.10339 (mW/cm2)

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