

RF Exposure Report

Report No.: SA180312C26

FCC ID: VUITX061AEI

Test Model: TX061AEI

Received Date: Mar. 12, 2018

Date of Evaluation: Mar. 30, 2018

Issued Date: Mar. 31, 2018

Applicant: PEGATRON CORPORATION

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

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Test Location: No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
SA180312C26	Original Release	Mar. 31, 2018

1 Certificate of Conformity

Product: Networked Client Set-Top BOX

Brand: technicolor

Test Model: TX061AEI

Sample Status: Identical Prototype

Applicant: PEGATRON CORPORATION

Date of Evaluation: Mar. 30, 2018

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 :



Date:

Mar. 31, 2018

Evonne Liu / Specialist

Approved by :



Date:

Mar. 31, 2018

Dylan Chiou / Project Engineer

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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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

2.5 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	28.06	6.62	30	0.260	1
5180-5240	23.32	7.56	30	0.108	1
5745-5825	23.41	7.56	30	0.111	1

NOTE:

2.4GHz: Directional gain = 4dBi + 10log(2) = 6.62dBi

5.0GHz: Directional gain = 4.6dBi + 10log(2) = 7.56dBi

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.260 + 0.111 = 0.371

Therefore the maximum calculations of above situations are less than the “1” limit.

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