

RF Exposure Evaluation Report

Product : PROJECTOR
Trade mark : Victsing
Model/Type reference : BH486A
Serial Number : N/A
Report Number : EED32M00257802
FCC ID : 2AIL4-BH486A
Date of Issue : Nov. 19, 2020
: 47 CFR Part 1.1307
Test Standards : 47 CFR Part 1.1310
: KDB447498D01v06
Test result : PASS

Prepared for:

VTIN TECHNOLOGY CO., LIMITED
UNIT D 16/F ONE CAPITAL PLACE 21
LUARD ROAD WAN CHAI HK

Prepared by:

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Nov. 19, 2020

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Check No.: 4762139138

2 Version

Version No.	Date	Description
00	Nov. 19, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	VTIN TECHNOLOGY CO., LIMITED
Address of Applicant:	UNIT D 16/F ONE CAPITAL PLACE 21 LUARD ROAD WAN CHAI HK
Manufacturer:	VTIN TECHNOLOGY CO., LIMITED
Address of Manufacturer:	UNIT D 16/F ONE CAPITAL PLACE 21 LUARD ROAD WAN CHAI HK
Factory:	VTIN TECHNOLOGY CO., LIMITED
Address of Factory:	UNIT D 16/F ONE CAPITAL PLACE 21 LUARD ROAD WAN CHAI HK

4.2 General Description of EUT

Product Name:	PROJECOR
Model No.(EUT):	BH486A
Trade Mark:	Victsing
EUT Supports Radios application:	IEEE 802.11 b/g/n(HT20)(HT40): 2412MHz to 2462MHz

4.3 Product Specification subjective to this standard

Operating Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz		
Modulation Type:	IEEE for 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK)		
Test Power Grade:	Default		
Test Software of EUT:	Secure CRT		
Antenna Type:	Internal antenna		
Antenna Specification:	2dBi		
Maximum tune up power:	IEEE 802.11b Mode:	9.63 dBm	(9.183 mW)
	IEEE 802.11g Mode:	7.92 dBm	(6.194 mW)
	IEEE 802.11n HT 20 Mode:	7.87 dBm	(6.124 mW)
	IEEE 802.11n HT 40 Mode:	7.53 dBm	(5.662 mW)
Power Supply:	AC 100-240V~ 50/60Hz		
Sample Received Date:	Aug.24, 2020		
Sample tested Date:	Aug.24, 2020 to Oct. 10, 2020		
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.			

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

2.4G WIFI

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
1	2412	9.183	2	20	0.0037	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
1	2412	6.194	2	20	0.0025	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
1	2412	6.124	2	20	0.0024	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
1	2422	5.662	2	20	0.0023	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00257801 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***