RF Exposure Evaluation Report

Product	:	Unified communications Speakerphone
Trade mark	:	VHD
Model/Type reference	:	VHD-M300, M300
Serial Number	:	N/A
Report Number	:	EED32M00308703
FCC ID	:	2ATFO-M300
Date of Issue	:	Nov. 26, 2020
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1091 KDB447498D01v06
Test result	:	PASS

Prepared for:

ValueHD Corporation
3/F, No.2, Honghui Industrial Park, Xin'an Street,
Bao'an District, Shenzhen, China

Prepared by:

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Check No.:4762161569

2 Version

Version No.	Date	Description
00	Nov. 26, 2020	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	ValueHD Corporation
Address of Applicant:	3/F,No.2, Honghui Industrial Park, Xin'an Street, Bao'an District, Shenzhen, China
Manufacturer:	ValueHD Corporation
Address of Manufacturer:	3/F,No.2, Honghui Industrial Park, Xin'an Street, Bao'an District, Shenzhen, China
Factory:	ValueHD Corporation
Address of Factory:	3/F,No.2, Honghui Industrial Park, Xin'an Street, Bao'an District, Shenzhen, China

4.2 General Description of EUT

Product Name:	Unified communications Speakerphone
Model No.(EUT):	VHD-M300, M300
Test Model No.:	VHD-M300
Trade Mark:	VHD
EUT Supports Radios application	2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz to 2480MHz					
Modulation Type:	GFSK, π/4DQPSK, 8DPSK					
Test Power Grade:	Default					
Test Software of EUT:	FCC.exe					
Antenna Type:	Internal antenna					
Antenna Specification	Bluetooth :	Antenna Gain :	2.93 dBi	(Numeric gain:	1.96)	
Maximum tune up power	Bluetooth:	0.119	(1.028 mW)			
Power Supply:	DC 5V					
	Battery	Model:SUN-INTE-308 Capacity:6500mAh 23.4Wh Nominal Voltage:3.6V Limited Charge Voltage:4.2V				
Sample Received Date:	Sep. 27, 2020					
Sample tested Date:	Sep. 27, 2020 to Oct. 17, 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.
Model No.: VHD-M300, M300
Only the model VHD-M300 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being sales area, customer base and model name.

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 (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

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

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

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 / cm^2

Bluetooth:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
39	2441	1.028	1.96	20	0.0004	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00308701 for EUT external and internal photos.

*** End of Report ***