RF Exposure Evaluation

FCC ID: 2AH7X-VCF101

1. Client Information

Applicant	:	ViewClix LLC
Address	:	11165 SW Novare Place,Tigard, Oregon 97223 USA
Manufacturer	:	SHENZHEN AVIC ELECTRONICS TECH CO.,LTD
Address	:	4th Floor, East of Huadaweixin B building,Fuqiao 3rd Industrail Area, Fuyong,Bao"an district, Shenzhen, Guangdong province, China,518126

2. General Description of EUT

EUT Name	:	ViewClix 10	
Models No.	:	VCF101, PW1001, PW1002, PW1003, PW1004, PW1005, PW1006, PW1007, PW1008, PW1009, PW1303, PW1017, PW1706, PW2106, PW1902, PW2202	
Model Difference	:	All these models are in the same PCB, layout and electrical circuit, the only difference is the model name	
Product Description	:	Operation Frequency:	**2.4G:** 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz Bluetooth 4.2: 2402MHz~2480MHz
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM) BLE: GFSK BT:GFSK (1 Mbps) Pi/4-DQPSK (2 Mbps) 8-DPSK (3 Mbps)
Power Rating	:	Adapter（JYH37-0552000-CA） Input: AC 100-240V, 50/60Hz, 0.5A Output：DC 5.5V - 2.0A	
Software Version	:	V1.0	
Hardware Version	:	YF-004G V1.0	
Remark	:	the MPE report used the EUT (VCF156s :20200518-02).	

Note: More test information about the EUT please refer the RF Test Report.

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MPE Calculations for WIFI

1. Antenna Gain:

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	Model	Frequency Range
PCB Ant:	N/A	2400~2483.5MHz
		4.1dBi

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S=(PG)/4\pi R^2$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

2.4G WIFI&BLE

Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/cm^2) [S]	Limit of Power Density (mW/cm^2) (S)
BLE	-1.479	-2±1	-1	4.1	20	0.0004	1
802.11B	17.91	17±1	18	4.1	20	0.0323	1
802.11G	15.52	16±1	17	4.1	20	0.0256	1
802.11N(HT20)	14.82	15±1	16	4.1	20	0.0204	1
802.11N(HT40)	14.49	15±1	16	4.1	20	0.0204	1

BT BER+EDR

Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) Numeric [G]	Distance (cm) [R]	Power Density (mW/ cm^2) [S]
GFSK	1.875	1±1	2	4.1	20	0.0008
Pi/4-DQPSK	1.784	1±1	2	4.1	20	0.0008
8-DPSK	1.154	1±1	2	4.1	20	0.0008

Maximum Simultaneous transmission MPE Ratios for 2.4GHz WLAN and Bluetooth			
Worst Calculation Value		Total Calculation Value	Threshold Value
2.4WiFi Mode	Bluetooth Mode		
0.0323	0.0008	0.0331	1.0

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm^2)
300-1,500	F/1500
1,500-100,000	1.0

For BT&BLE:2402~2480 MHz
For WIFI: 802.11b/g/n(HT20): 2412MHz~2462MHz
802.11n(HT40): 2422MHz~2452MHz

MPE limit S: 1mW/ cm^2
The MPE is calculated as ***0.0331mW / cm2 < limit 1mW / cm^2***. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

-----END OF REPORT-----