

RF Exposure Evaluation

FCC ID: 2ANNW-AN-H311A

1. Client Information

Applicant	: Shenzhen Annidigital Technology Co., Ltd
Address	: 3rd Floor, Hasee Bldg, NO.1, Banlan Road, Bantian, Buji Town, Longgang, Shenzhen, China
Manufacturer	: Shenzhen Annidigital Technology Co., Ltd
Address	: 3rd Floor, Hasee Bldg, NO.1, Banlan Road, Bantian, Buji Town, Longgang, Shenzhen, China

2. General Description of EUT

EUT Name	: Video Doorbell
Models No.	: AN-H311A, AN-H311C, AN-HXXXX, AN-HXXXXX, AN-XXXXX, AN-XXXXXX("X" dedicated to A to Z and/or 0 to 999 up to 8 digits)
Model Difference	: All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance shape and color.
Product Description	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
	RF Output Power: 802.11b: 9.18dBm 802.11g: 8.64dBm 802.11n (HT20): 8.79dBm 802.11n (HT40): 8.79dBm
	Antenna Gain: 3dBi FPC Antenna
Power Supply	: DC Voltage supplied by AC/DC Adapter DC Voltage supplied by Li-ion battery
Power Rating	: AC/DC Adapter Model(MXM6-0502000U): Input: AC 120~240V 50-60Hz 0.3A Output: DC 5V/2A DC 3.7V by 6000mAh Li-ion battery
Connecting I/O Port(S)	: Please refer to the User's Manual

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

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 3.0 \text{ for 1-g SAR}}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$

2. Calculation:

Test separation: 5mm						
WiFi Mode(802.11b)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.18	9±0.5	9.5	8.913	2.768	3.0
2.437	8.44	8±1	9	7.943	2.480	3.0
2.462	8.78	8±1	9	7.943	2.493	3.0
WiFi Mode(802.11g)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.64	8±1	9	7.943	2.467	3.0
2.437	8.32	8±1	9	7.943	2.480	3.0
2.462	7.91	8±1	9	7.943	2.493	3.0
WiFi Mode(802.11n(HT20))						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.79	8±1	9	7.943	2.467	3.0
2.437	8.52	8±1	9	7.943	2.480	3.0
2.462	7.93	8±1	9	7.943	2.493	3.0
WiFi Mode(802.11n(HT40))						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.422	8.79	8±1	9	7.943	2.472	3.0
2.437	8.58	8±1	9	7.943	2.480	3.0
2.452	8.11	8±1	9	7.943	2.488	3.0

So standalone SAR measurements are not required.

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