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# **Maximum Permissible Exposure Evaluation** FCC ID: 2A5OS-XM-PT825-80W

## **1. Client Information**

Applicant	:	Shenzhen Tino Security Corp., LTD	
Address	:	201, NO.7, HeDian Industry Park,FuMin Community,Fucheng Street, Longhua District, Shenzhen, China	
Manufacturer	:	Shenzhen Tino Security Corp., LTD	
Address	:	201, NO.7, HeDian Industry Park,FuMin Community,Fucheng Street, Longhua District, Shenzhen, China	

### 2. General Description of EUT

EUT Name	:	WiFi AI Camera				
Models No.	-	XM-PT825-80W, XM-PT817-50W, XM-PT817-30W, XM-PT817E-50W, XM-PT817E-30W, XM-PT816-50W, XM-PT816-20W, XM-PT818-50WL, XM-PTZ819-5X-30W, MI-XM-63-AI-50W, MI-XM-63-AI-30W, XM-CA48-30W, XM-CA45-30W, XM-PT815G-30W, XM-PT815-30W, XM-PT827-80W, XM-PT827-40W, XM-PT827D-40W, XM-PT825-40W, XM-PT825B-30W, XM-PT825B-50W, XM-PT825B-80W, XM-PT825B-40W, TA-XM-PT825G-40W, TA-XM-PT825G-80W, XM-PT805-40W				
Model Different		All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.				
Product Description	:	Operation Frequency: Number of Channel:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz 802.11b/g/n(HT20):11 channels 802.11n(HT40): 7 channels			
		Antenna Gain:	-2.49 dBi Internal Antenna			
Power Rating		Adapter:GA-1201000 Input: AC 100-240V, 50/60 0.6A Output:12V1A				
Software Version	:	General_IPC_NT98566_N8-WQ_S38.713g.Nat.dss				
Hardware Version	:	IPC-RM1-BLK562-M335-MINI-ETH V1.02-566-SC501AI				
Connecting I/O Port(S)	:	Please refer to the User's Manual				
Remark	:	the evaluation report used the EUT(202206-0216-2-2#).				



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### **MPE Calculations for WIFI**

#### 1. Antenna Gain:

Internal Antenna:-2.49dBi.

#### 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<sup>2</sup>

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

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 <sup>2</sup> ) [S]	Limit of Power Density (mW/ cm <sup>2</sup> ) (S)
802.11B	16.395	16±1	17	-2.49	20	0.00562	1
802.11G	16.608	16±1	17	-2.49	20	0.00562	1
802.11N(HT20)	16.161	16±1	17	-2.49	20	0.00562	1
802.11N(HT40)	16.354	16±1	17	-2.49	20	0.00562	1

#### 5. Conclusion:

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

#### Limits for General Population/ Uncontrolled Exposure

Power density (mW/ cm <sup>2</sup> )		
F/1500		
1.0		

For Buletooth:2402~2480 MHz



#### MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as **0.00562 mW / cm2 < limit 1mW / cm<sup>2</sup>**. 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.

#### 6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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