POE Module

1.product features:

- Compliance with IEEE802.3af standard, Class 0.
- 38V~57V wide operating voltage range.
- Maximum output power up to 13W; Ratedoutput: 12V/1.1A.
- Conversion efficiency can be as high as 88% (input: 48V output:12V@1.1A).
- With over current short circuit under
- Voltage surge and other excellent
- Reliability and circuit protection.
- PCBA standard size: 38mm*38mm*17mm
- Input/Output: isolate 1500Vdc.
- Industrial-grade temperature resistance

2. Applications: IP Camera

3. The main parameters:

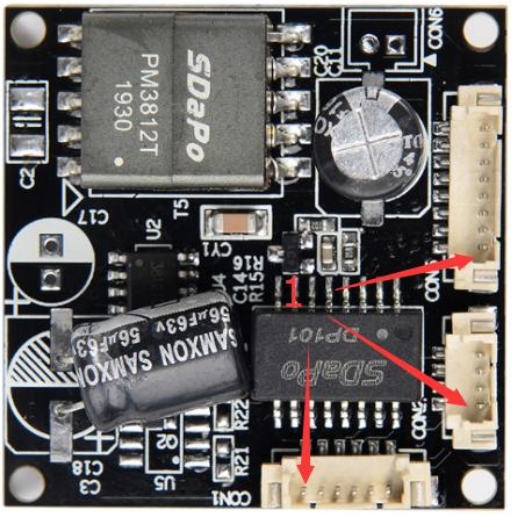
No.	Parameter	Symbol	Min	Typical values	Max	Unit
1	Input Voltage	Vin	38	48	57	V
2	output voltage	+VDC	12	12.2	12.3	V
3	output Current	PWR	0.03	1	1.1	A
4	Isolation Voltage	VISO		1.5		KV
5	Ripple Output Noise	VRN		150	200	mVp-p
6	Storage Temperature	Tj	-40	25	85	℃
7	Operating Temperature	Tstg	-40	25	80	℃

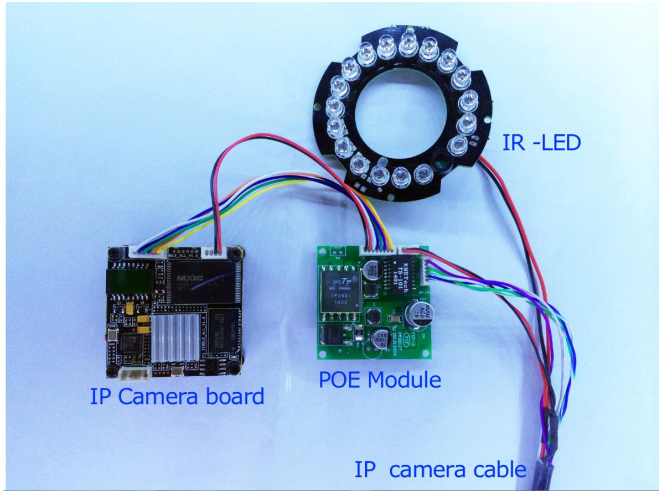
1: Typical number is 25 ℃, nominal voltage is 48V, for auxiliary design only.

2: If operated under the specified minimum load, the module may emits audible noise and cause PSE malfunction.

3:Do not exceed the recommended load value of 850mA (not included IR-cut switch) to adapt to different environments

4. Interface Definition:

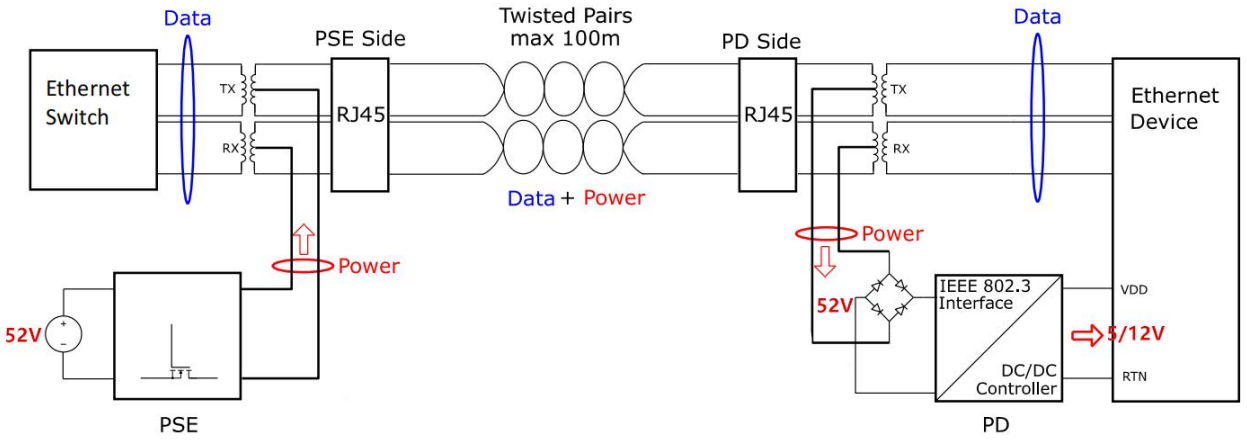




COM	PIN	Name	describe	
CON1	1	12V+	Connect IPC Cable	PoE Power input RJ4/5 and RJ7/8(Midspan); 12V Power Input or output
	2	GND		
	3	RJ4/5		
	4	RJ7/8		
CON2	1	Tx+		PoE power input (Endspan) and RJ45 data interface. LED1/2 is connected to LED1/2 of CON3,
	2	Tx-		
	3	Rx+		
	4	Rx-		
	5	LED1		
	6	LED2		
CON3	1	Tx+	Connect IPC Module	Network data connection port and 12V Power out
	2	Tx-		
	3	Rx+		
	4	Rx-		
	5	LED1		
	6	LED2		
	7	12V+		
	8	GND		

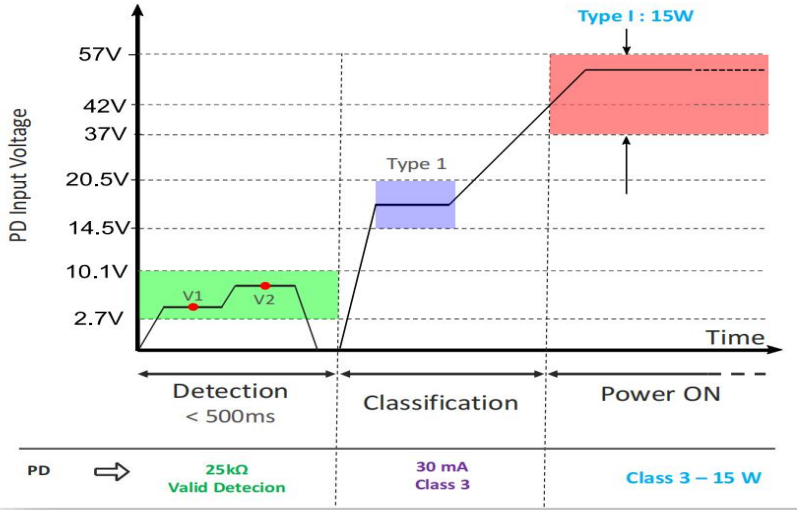
型号 Model	版本	输入电压(V)(整流桥后)	输入电流(mA)	负载电压(V)	负载电流(A)	DC/DC效率(%)	纹波(mV)	启动时间(mS)	备注
PM3812T-V7S	常规品	48.8	4	12.24	0	0.00%			
		48.8	10	12.24	0.024	60.20%			最低负载
		48.5	143	12.24	0.5	88.24%	90		
		48.4	284	12.24	1	89.05%	120	200	
		48.4	313	12.24	1.1	88.88%			

5. Power Delivery in PoE Systems

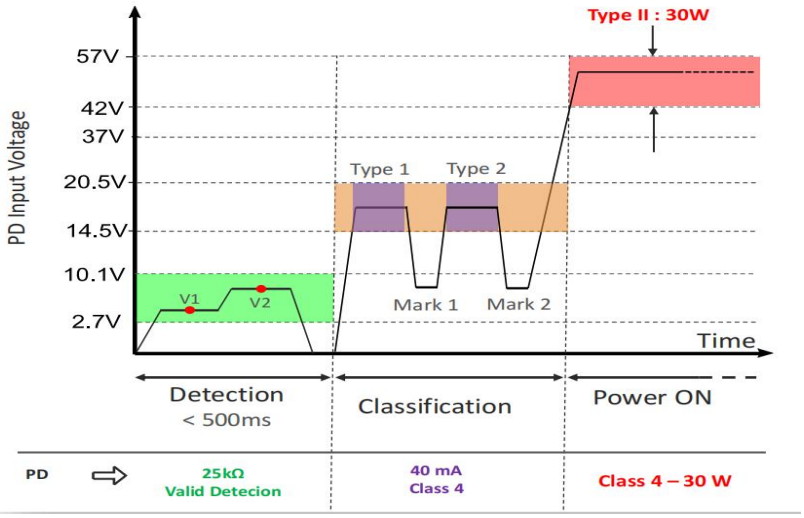


	Type 1 802.3af			Type 2 802.3at	Type 3 802.3bt		Type 4 802.3bt	
Power Class	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Power from PSE	4 W	7 W	15.4 W	30 W	45 W	60 W	75 W	90 W
Power delivered to PD	3.84 W	6.49 W	13 W	25.5 W	40 W	51 W	62 W	71.3 W

6. Establishing PoE Connection – Type 1 (IEEE 802.3af/PoE)



7. Establishing PoE Connection – Type 2 (IEEE 802.3at/PoE+)



8. Establishing PoE Connection – Type 3 and 4 (IEEE 802.3bt)

