# TAG TECHNOLOGY CO., LTD.

## PoE Module Family

RoHs+HF

**PDD1260001**

- Compliant With IEEE802.3 af/at/bt CLS5 Standard
- Maximum 72W output power
- Complete PD solution with minimal (low cost) external components required
- Transformer isolation ,1500V isolation (input to output)
- Differential Mode Common Mode 4KV Surge Protection.
- industrial grade temperature resistance -45 to +80℃
- PCBA total height 10mm

## 一、概述 Description:

该模组组件采用红MPS8030 主控，屏蔽变压器隔离，分离网络和供电，支持IEE802.3BT 协议标准。输出使用同步整流，发热小效率高，输出稳定。

The module component adopts red MPS8030 main control, shielding transformer isolation, network separation and power supply, and supports IEE802.3BT protocol standard. Output uses synchronous rectification, high heating efficiency, stable output.

## 二、特性 Features:

▲ ①符合IEEE 802.3BT CLS5 标准

②RJ45 接入，44V-57V,兼容12+,36-和45+,78-输入输出

▲ ③最大输出功率72W，提供12VDC@6A 输出能力

④静电、浪涌保护，变压器隔离

▲ ⑤即插即用

## 三、应用领域 Application:

▲ POE 网络的供电和网络分离。

Power supply and network separation of the POE network.

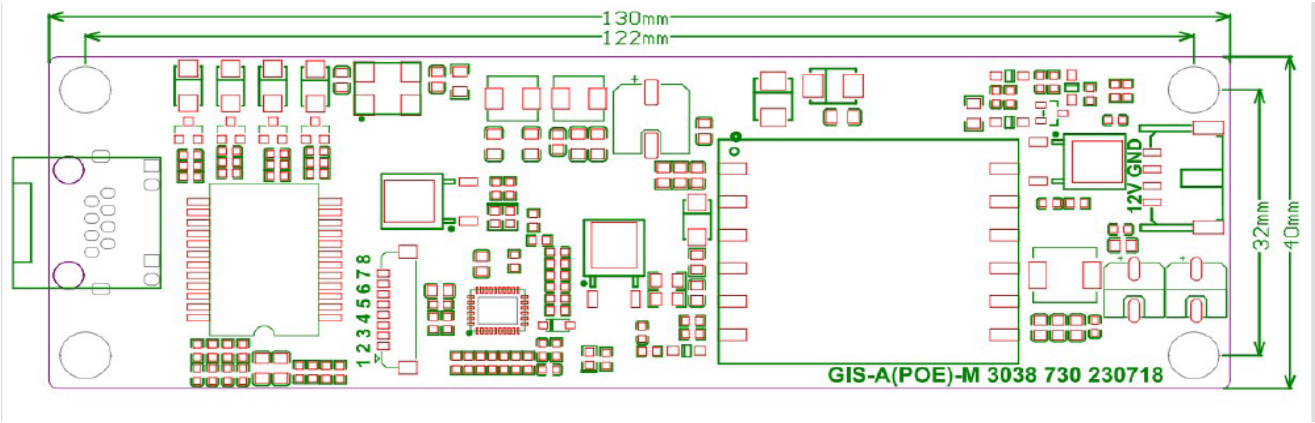

HEAD OFFICE : Taiwan
TEL : 886 2 2791 9208
FAX : 886 2 2791 9271

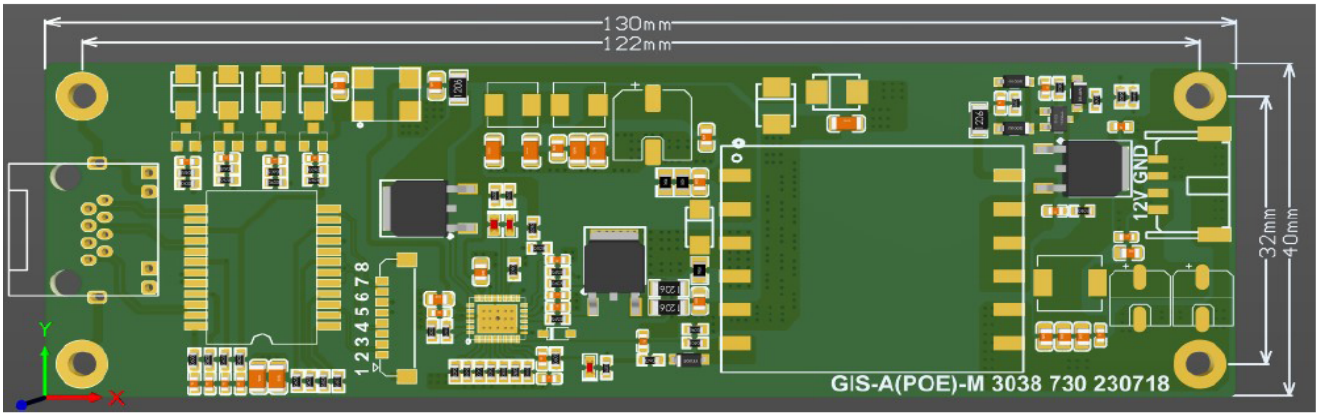
ShenZhen
TEL: 86 755 2265 4565
FAX: 86 755 2265 4561

Dongguan
TEL: 86 769 8298 9853
FAX: 86 769 8280 2057

E -mail : sales-tw@tag-tech.cn URL:ww.tag-tech.cn

## 四、外形尺寸图 Package Dimensions Diagram:




注：未注公差：±0.2mm.　Notes: Tolerances are ±0.2mm;

## 五、实物图 Physical Picture:

HEAD OFFICE : Taiwan
TEL : 886 2 2791 9208
FAX : 886 2 2791 9271

ShenZhen
TEL: 86 755 2265 4565
FAX: 86 755 2265 4561

Dongguan
TEL: 86 769 8298 9853
FAX: 86 769 8280 2057

E -mail : sales-tw@tag-tech.cn　URL:ww.tag-tech.cn

## 六、原理图/SCH Picture:

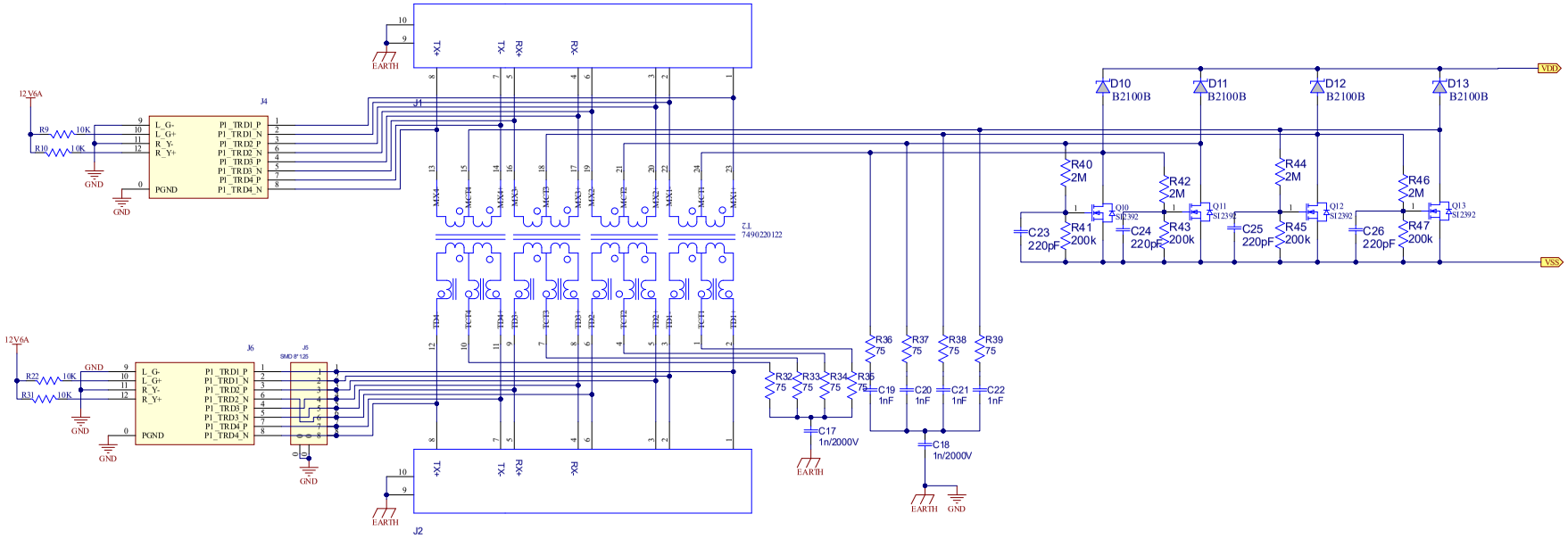
| 电气特性/Electrical Specification | |
|---|---|
| 输入接口： | 符合RJ45 10/100 Base-T IEEE 802.3BT 标准协议POE 44V -57V 输入 |
| RJ45输出接口： | RJ45 10/100Base-T & 12VDC 6A |
| PD功率分级： | CLS5 72W |
| 保护功能： | 共模&差模4KV 浪涌保护变压器隔离 |
| | DC 12V 6A 过流输出保护 |
| | 标准协议检测，自动匹配交换机的输出功率 |
| 外尺寸： | 130mm*40mm |
| 可靠性保护 | |
| 浪涌保护： | 符合IEC61000-4-5 标准, 共模4kV 差模4KV |
| 使用环境 | |
| 工作温度： | -30℃ ~ 60℃ |
| 存储温度： | -30℃ ~ 70℃ |
| 工作湿度： | 10%~90% 无凝结 |
| 存储湿度： | 5%~90% 无凝结 |

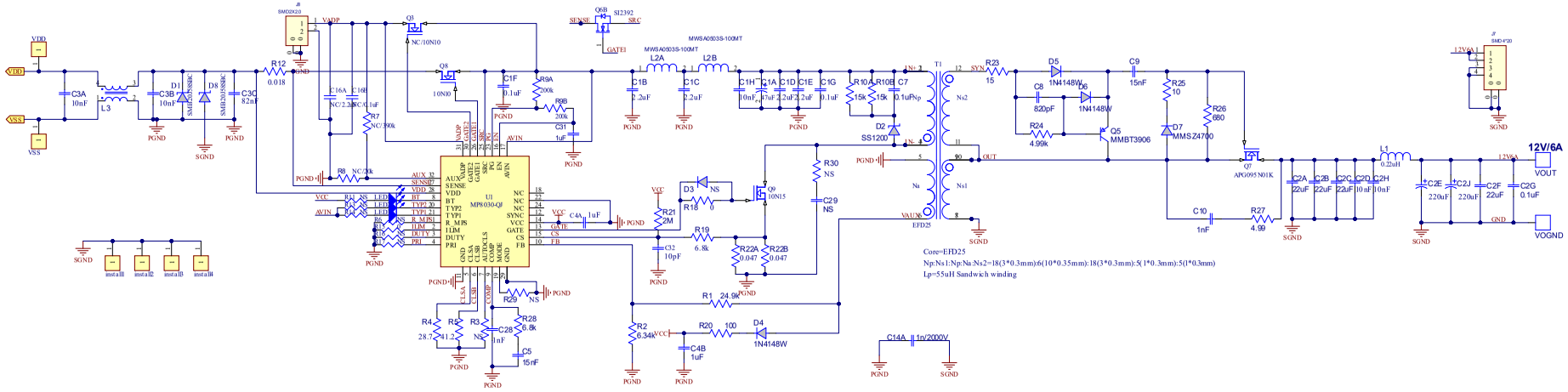
HEAD OFFICE : Taiwan
TEL : 886 2 2791 9208
FAX : 886 2 2791 9271

ShenZhen
TEL: 86 755 2265 4565
FAX: 86 755 2265 4561

Dongguan
TEL: 86 769 8298 9853
FAX: 86 769 8280 2057

E -mail : sales-tw@tag-tech.cn URL:ww.tag-tech.cn


J1
J2
J4
J6
J5
SMD 8*125
T2
7490220122
12V6A
R9
10K
R10
10K
R22
10K
R31
10K
GND
EARTH
L_G-
L_G+
R_Y-
R_Y+
PGND
P1_TRD1_P
P1_TRD1_N
P1_TRD2_P
P1_TRD2_N
P1_TRD3_P
P1_TRD3_N
P1_TRD4_P
P1_TRD4_N
TX+
TX-
RX+
RX-
D10
B2100B
D11
B2100B
D12
B2100B
D13
B2100B
VDD
VSS
R40
2M
R42
2M
R44
2M
R46
2M
R41
200k
R43
200k
R45
200k
R47
200k
C23
220pF
C24
220pF
C25
220pF
C26
220pF
Q10
SI2392
Q11
SI2392
Q12
SI2392
Q13
SI2392
R32
75
R33
75
R34
75
R35
75
R36
75
R37
75
R38
75
R39
75
C17
1n/2000V
C18
1n/2000V
C19
1nF
C20
1nF
C21
1nF
C22
1nF


VDD
VSS
C3A 10nF
L3
C3B 10nF
D1 SMBJ20SSSIC
D8 SMBJ20SSSIC
C3C 32nF
R12 0.018
J8 SMD2X2.0
VADP
Q3 NC/10N10
Q8 10N10
C16A NC/2.2uF
C16B NC/1uF
R7 NC/390k
R8 NC/20k
C1F 0.1uF
R9A 200k
R9B 200k
C31 1uF
AVIN
PGND
SGND
Q6B SI2392
SENSE
SRC
GATE1
MWSA0503S-100MT
L2A
L2B
C1B 2.2uF
C1C 2.2uF
C1H 10nF
C1A 47uF
C1D 2.2uF
C1E 2.2uF
C1G 0.1uF
R10A 15k
R10B 15k
C7 0.1uF
D2 SS1200
T1
Ns2
Np
Na
Ns1
EFD25
SYN
OUT
VAUX
R23 15
D5 1N4148W
D6 1N4148W
C8 820pF
R24 4.99k
Q5 MMBT3906
C9 15nF
R25 10
D7 MMSZ4700
R26 680
Q7 APG095N01K
C10 1nF
R27 4.99
L1 0.22uH
C2A 22uF
C2B 22uF
C2C 22uF
C2D 10nF
C2H 10nF
C2E 220uF
C2J 220uF
C2F 22uF
C2G 0.1uF
J7 SMD 4*20
12V6A
12V/6A
VOUT
VOGND
GND
U1 MP8030-QJ
AUX
SENSE
VDD
BT
TYP2
TYP1
R_MJS
ILIM
DUTY
PRI
GND
CLSA
CLSB
AUTOCLS
COMP
MODE
SYNC
VCC
GATE
CS
FB
EN
R6 NS
R14 NS
R15 NS
R16 NS
R17 NS
R18 NS
R19 NS
R29 NS
R30 NS
C29 NS
C28 NS
D3 NS
Q9 10N15
R21 2M
R18 0
R19 6.8k
R22A 0.047
R22B 0.047
C32 10pF
C4A 1uF
R1 24.9k
R2 6.34k
R20 100
D4 1N4148W
C4B 1uF
R4 28.7
R5 41.2
R3
C28 1nF
R28 6.8k
C5 15nF
C14A 1n/2000V
install1
install2
install3
install4
Core=EFD25
Np:Ns1:Np:Na:Ns2=18(3*0.3mm):6(10*0.35mm):18(3*0.3mm):5(1*0.3mm):5(1*0.3mm)
Lp=55uH Sandwich winding