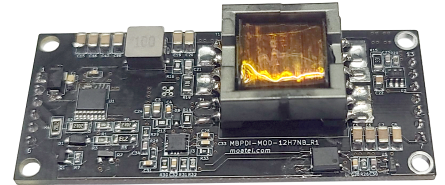


DESCRIPTION

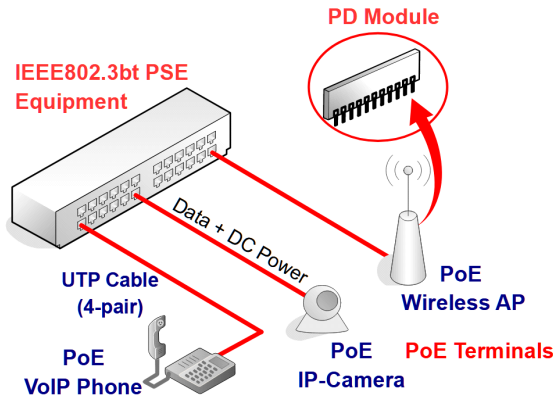
60W Single Port PD(Powered Device) Integrated Module (Isolation Type)

FEATURES

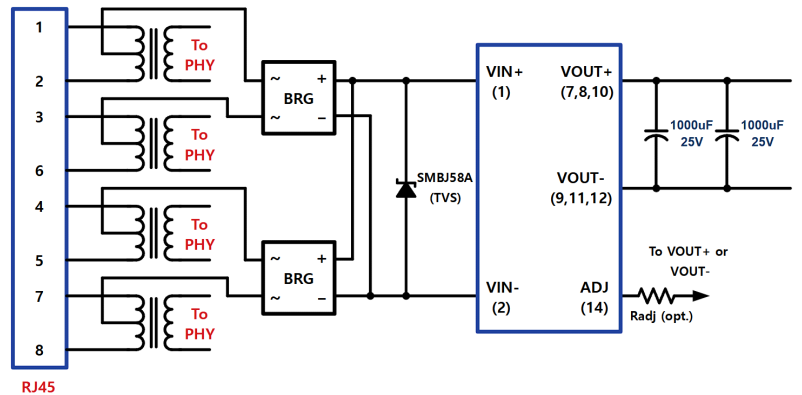
- Fully Supports IEEE802.3bt Compliant (Type-4 and Single-Signature 4-pair)
- Input Voltage Range : 38V to 57V
- Default Class : 7
- Maximum Output Power : 60W
- Short Circuit, Over-temperature Protection and In-rush Current Limit
- High Efficiency (90% min. @Full Load)
- Easy Installation and Low Cost
- Low Output Ripple and Noise
- RoHS Compliant



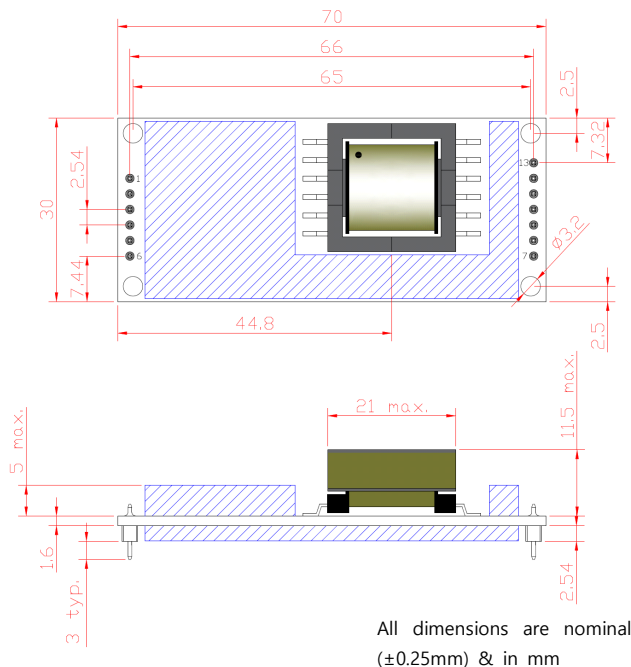
APPLICATION DIAGRAM



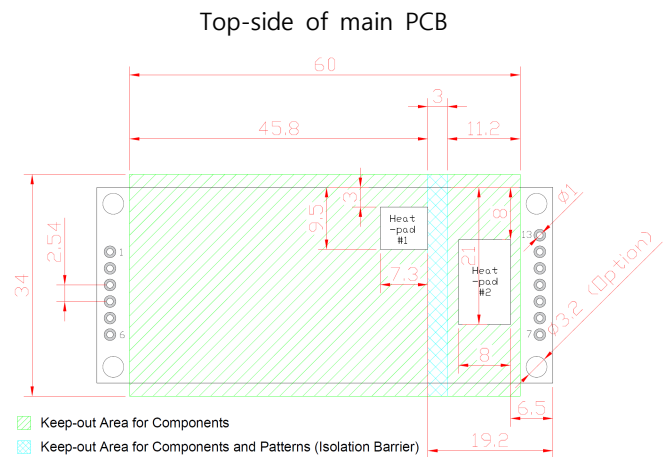
TYPICAL CONNECTION



OUTLINE DRAWING



LAYOUT RECOMMENDATION



Fix-Hole (3.2-pi) Notice :

- No Electrical Connections are allowed to 2 fix-holes on the left.
- DGND Connections are allowed to 2 fix-holes on the right.
- All fix-holes are deletable when there is no stand-off(or spacer).
- In case of using stand-off(or spacer), be careful of interference.

PIN ASSIGNMENT

Pin #	Name	Description
1	VIN+	Input (+) : This input pin connects to the positive (+) outputs of the Bridge Diodes.
2	VIN-	Input (-) : This input pin connects to the negative (-) outputs of the Bridge Diodes.
3	AT-DET	AT Detection : This pin is indicated IEEE802.3at operation.
4	BT-DET	BT Detection : This pin is indicated IEEE802.3bt operation.
5	SIG1	Signature resistor ADJ Pin #1 : The signature resistance can be adjusted to 12.5kΩ by connecting to SIG2. (Normally NC)
6	SIG2	Signature resistor ADJ Pin #2 : The signature resistance can be adjusted to 12.5kΩ by connecting to SIG1. (Normally NC)
7,8,10	VOUT+	PD Output : This pin provides the +12VDC output of PD.
9,11,12	VOUT-	PD GND : This pin provides the GND output of PD.
13	ADJ	Output Voltage Adjust : The output voltage can be adjusted from nominal value by connecting an external resistor from this pin to VOUT+ or VOUT-.

SPECIFICATIONS

No	Item	Specification
Electrical Specification		
1	Input Voltage	38~57VDC
2	Output Voltage	12V typ.
3	Maximum Output Current	5A
4	OCP (Over Current Protection)	110~130%
5	Line Regulation (Vin=38~57V, 50% Load)	1%
6	Load Regulation (Vin=54V, 0.1~Full Load)	1%
7	Ripple & Noise (Vin=54V, Full Load)	100mVp-p max. (Typical Connection)
		15mVp-p max. (Advanced Connection)
8	Efficiency (Vin=54V, Full Load)	90% min.
9	Input to Output Isolation	1500 Vrms
10	Type of DC/DC Converter	Active Clamped Fly-back Type
11	Short Circuit Protection Duration	Inf.
12	Protection	OCP, Short Circuit Protection
Environment Specification		
13	Operating Environment	-20 ~ 50 °C / 10 ~ 80 %
14	Storage Environment	-40 ~ 100 °C / 5 ~ 95 %

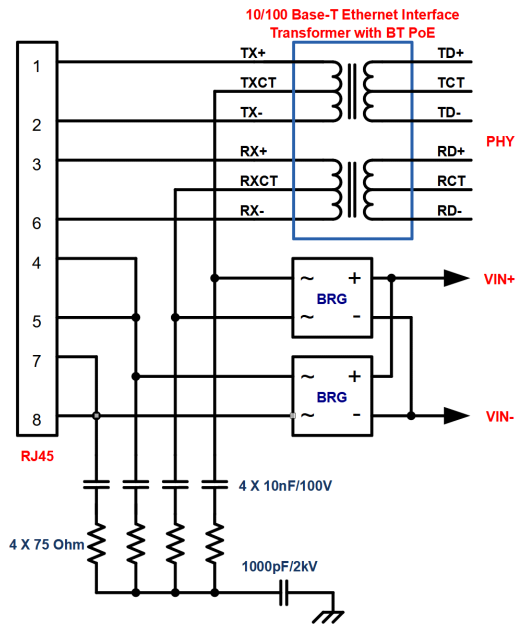
PCB THERMAL LAYOUT

MBPDI-MOD-12H7NB have to be thermally connected to the main-board and heat-sink for continuous operation at 60W. (Please, contact us for detail information.)

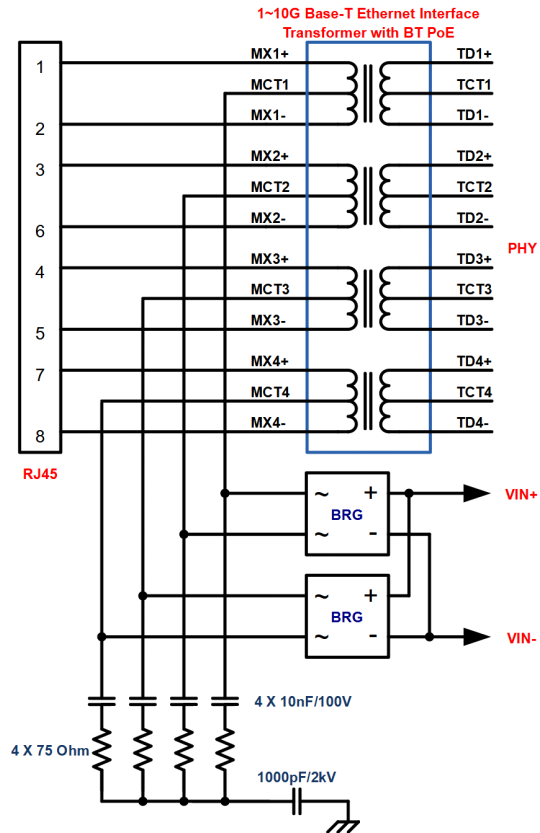
ADJUSTING THE OUTPUT VOLTAGE LEVELS AND REQUIRED EXTERNAL RESISTORS

Vout	Radj	
	To VOUT+	To VOUT-
12.6V	-	0 Ohm
10V	0 Ohm	-

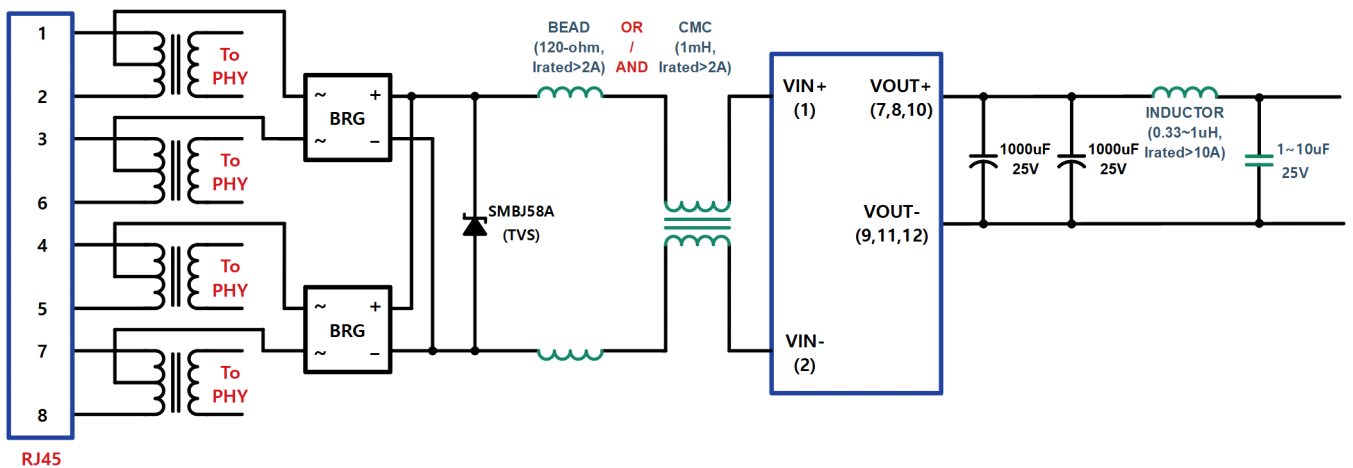
10/100 Base-T APPLICATION



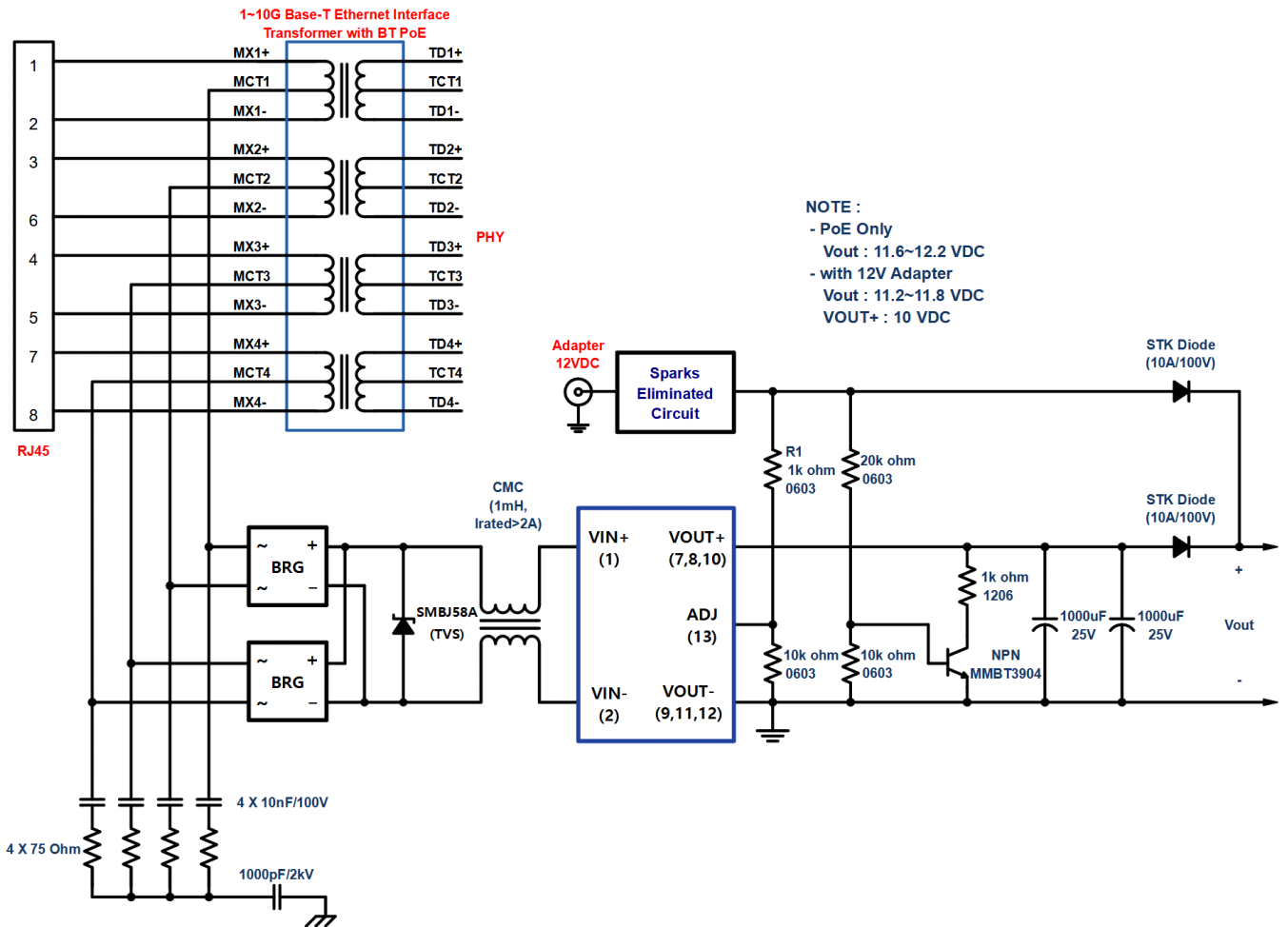
1~10G Base-T APPLICATION



ADVANCED CONNECTION (LOWER NOISE)



OPTIONAL EXTERNAL SCHEMATIC FOR LOCAL POWER SUPPLY (12VDC Adapter)



OPTIONAL CONFIGURATION (ONLY for DLL Supported PSE)

