



# MSTronic Co., Ltd.

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## SPECIFICATION

MIT-28G-8012D

80W 802.3bt PoE Splitter

1. INPUT :

1.1 Input Voltage: DC-40V to DC-60V NORMAL= 56V

2. OUTPUT :

2.1 Output Voltage & Current & Waveform :

OUTPUT	12V
Max. load	6.67A
Power	80W Max
Min. Load	0A
Load reg. %	5%
Line reg. %	1%

TOTAL POWER : 80W

Note :

(1) For maximum output of 80W, the input DC power supply should be 100W min.

(2) **PoE input must use all 8 pins. If only 4 pins input are used when power draw up to 80W, the connector will be burnt.**

3. EFFICIENCY : 85% min @ 56V<sub>in</sub> dc

4. PROTECTION

4.1 Short Circuit Protection

output Short GND Terminal will not damage the Power Supply and will Auto-Reset. Over Load Protection is flyback mode , auto-recovery.

4.2 Operation frequency Switch is 70KHZ

4.3 Isolation Voltage : 1500Vdc

4.4 Isolation Resistance :100M ohms (min)

4.5 Input identify class Resistance : 25K ohms

4.6 Input setting IEEE 802.3bt class 8.

4.7 Maximum Load : 150% over load



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LT4294

## APPLICATIONS INFORMATION

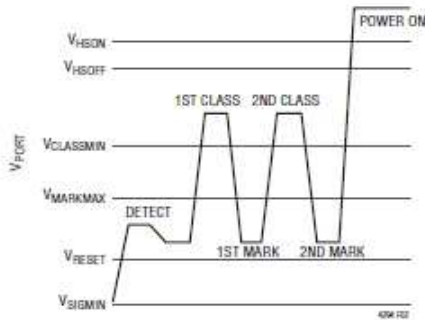


Figure 2. Type 2 PSE, 2-Event Class Sequence

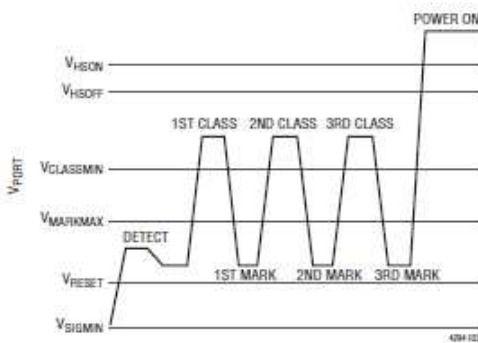


Figure 3. Type 3 or 4 PSE, 3-Event Class Sequence

### IEEE 802.3bt Physical Classification and Demotion

IEEE 802.3bt defines physical classification to allow a PD to request a power allocation from the connected PSE and to allow the PSE to inform the PD of the PSE's available power. Demotion is provided if the PD requested power level is not available at the PSE. If demoted, the PD must operate in a lower power state.

The number of class/mark events issued by the PSE directly indicates the power allocated to the PD and is summarized in Table 1.

IEEE 802.3bt provides nine PD classes and four PD types, as shown in Table 2. The LT4294 class is configured by setting the  $R_{CLS}$  and  $R_{CLS++}$  resistor values.

Table 1. PSE Allocated Class Power

PD REQUESTED CLASS	NUMBER OF PSE CLASS/MARK EVENTS				
	1	2	3	4	5
0	13W				
1	3.84W				
2	6.49W				
3	13W				
4	<b>13W</b>	25.5W			
5	<b>13W</b>	<b>25.5W</b>	40W		
6	<b>13W</b>	<b>25.5W</b>	51W		
7	<b>13W</b>	<b>25.5W</b>	<b>51W</b>	62W	
8	<b>13W</b>	<b>25.5W</b>	<b>51W</b>	71.3W	

Note: Bold indicates the PD has been demoted.

## 5. GENERAL DESCRIPTION

- 5.1 Operation Temperature: -40 - +70 Degree
- 5.2 Storage Temperature: -40 - +85 Degree
- 5.3 Operation Humidity: 5% - 90%
- 5.4 Cooling: Free air cooling
- 5.5 SIZE : 140\*150\*40 (L\*W\*H)m/m



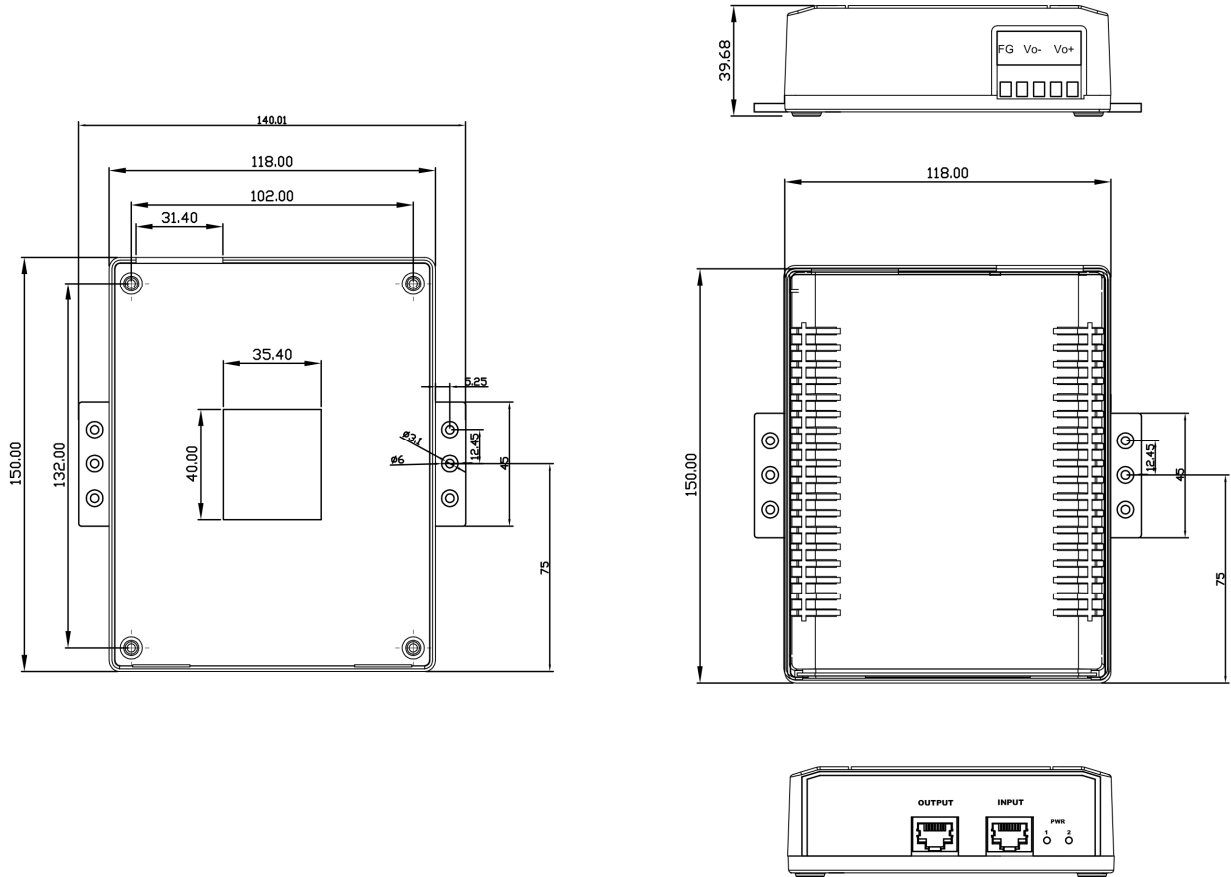
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## 6. CHANNEL CONNECTORS & PINOUT :

### 6.1 Power-Hub RJ45 Input Socket (per channel) data & Power-Connected to DTE

RJ-45 Input (Data & Power)		
Pin	Symbol	Description
1	BI_DA+, Vin A+/-	Data Pair A+, Feeding power A+/-
2	BI_DA-, Vin A+/-	Data Pair A-, Feeding power A+/-
3	BI_DB+, Vin A+/-	Data Pair B+, Feeding power A+/-
4	BI_DC+, Vin B+/-	Data Pair C+, Feeding power B+/-
5	BI_DC-, Vin B+/-	Data Pair C-, Feeding power B+/-
6	BI_DB-, Vin A+/-	Data Pair B-, Feeding power A+/-
7	BI_DD+, Vin B+/-	Data Pair D+, Feeding power B+/-
8	BI_DD-, Vin B+/-	Data Pair D-, Feeding power B+/-
9	Shield	Connector shielding



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## 6.2 Output Power & Data -Connected to DTE

RJ-45 Output (only Data)		
Pin	Symbol	Description
1	BI_DA+	Data Pair A+
2	BI_DA-	Data Pair A-
3	BI_DB+	Data Pair B+
4	BI_DC+	Data Pair C+
5	BI_DC-	Data Pair C-
6	BI_DB-	Data Pair B-
7	BI_DD+	Data Pair D+
8	BI_DD-	Data Pair D-
9	Shield	Connector shielding

### Note :

1. the model is isolated design, the output +/- or input +/- can be shorted to ground (FG).

7. EMI Meet FCC Class A Radiation standard  
Meet EN55032 Class A Radiation standard

8. indicator

\*.Detection 802.3bt, power input on all P1~P8.

\*.Detection dual signal.(1,2/3,6), (4,5/7,8)

POE INPUT = POEat input 56V(1,2/3,6)(4,5/7,8)

LED = GREEN

POE INPUT = 56V on only 1,2/3,6

LED = GREEN (Flash)

POE INPUT = 56V on only 4,5/7,8

LED = GREEN (Flash)