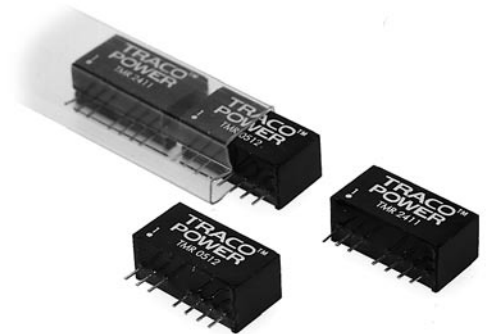




Features

- ◆ Wide 2:1 Input Voltage Range
- ◆ Compact SIP-8 Package
- ◆ Small Footprint
- ◆ Full SMD Design
- ◆ Temperature Range -40° to $+75^{\circ}\text{C}$
- ◆ High Efficiency
- ◆ Excellent Load and Line Regulation
- ◆ Indefinite Short-circuit Protection
- ◆ I/O-Isolation 1000VDC
- ◆ Remote On/Off Control
- ◆ Fully RoHS compliant
- ◆ 3 Year Product Warranty



The TMR-2 series is a family of isolated 2W dc-dc converter modules with regulated output, featuring wide 2:1 input voltage ranges. The product comes in a compact SIP-8 plastic package with small footprint occupying only 2.0 cm² (0.3 square in.) of board space.

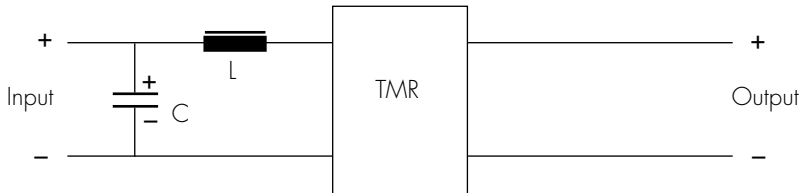
An excellent efficiency allows -40° to $+75^{\circ}\text{C}$ operation temperatures at full load. Further features include remote On/Off control and continuous short circuit protection. The ultra-compact dimensions of these converters make them an ideal solution for many space critical applications in communication equipment, instrumentation and industrial electronics.

Models

| Ordercode | Input voltage range | Output voltage | Output current max. | Efficiency typ. |
|-----------|---------------------|----------------|---------------------|-----------------|
| TMR 0510 | 4.5 – 9.0 VDC | 3.3 VDC | 500 mA | 64 % |
| TMR 0511 | | 5 VDC | 400 mA | 66 % |
| TMR 0512 | | 12 VDC | 165 mA | 71 % |
| TMR 0521 | | ± 5 VDC | ± 200 mA | 64 % |
| TMR 0522 | | ± 12 VDC | ± 85 mA | 69 % |
| TMR 0523 | | ± 15 VDC | ± 65 mA | 71 % |
| TMR 1210 | 9 – 18 VDC | 3.3 VDC | 500 mA | 70 % |
| TMR 1211 | | 5 VDC | 400 mA | 73 % |
| TMR 1212 | | 12 VDC | 165 mA | 80 % |
| TMR 1221 | | ± 5 VDC | ± 200 mA | 73 % |
| TMR 1222 | | ± 12 VDC | ± 85 mA | 78 % |
| TMR 1223 | | ± 15 VDC | ± 65 mA | 78 % |
| TMR 2410 | 18 – 36 VDC | 3.3 VDC | 500 mA | 71 % |
| TMR 2411 | | 5 VDC | 400 mA | 74 % |
| TMR 2412 | | 12 VDC | 165 mA | 81 % |
| TMR 2421 | | ± 5 VDC | ± 200 mA | 74 % |
| TMR 2422 | | ± 12 VDC | ± 85 mA | 78 % |
| TMR 2423 | | ± 15 VDC | ± 65 mA | 80 % |
| TMR 4810 | 36 – 75 VDC | 3.3 VDC | 500 mA | 70 % |
| TMR 4811 | | 5 VDC | 400 mA | 73 % |
| TMR 4812 | | 12 VDC | 165 mA | 79 % |
| TMR 4821 | | ± 5 VDC | ± 200 mA | 71 % |
| TMR 4822 | | ± 12 VDC | ± 85 mA | 77 % |
| TMR 4823 | | ± 15 VDC | ± 65 mA | 77 % |

EMC Characteristics

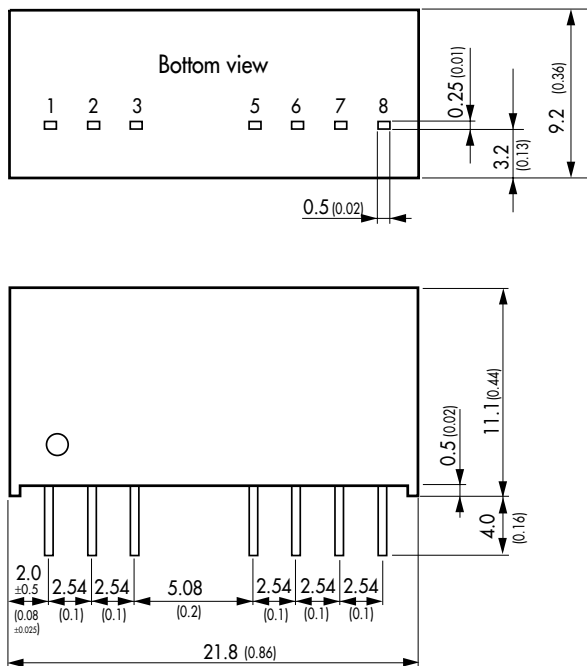
- Use an electrolytic low ESR capacitor at input side to reduce reflected ripple current.
- In order to meet EN55022 class B additionally use a choke to build an L/C filter as follows:



Recommended values for filter:

| Input | C | L |
|-------|-------|-------|
| 5VDC | 100µF | 10µH |
| 12VDC | 100µF | 10µH |
| 24VDC | 10µF | 120µH |
| 48VDC | 10µF | 120µH |

Outline Dimensions mm (inches)



| Pin-Out | | |
|---------|---------------|---------------|
| Pin | Single | Dual |
| 1 | -Vin (GND) | -Vin (GND) |
| 2 | +Vin (Vcc) | +Vin (Vcc) |
| 3 | Remote On/Off | Remote On/Off |
| 5 | No function | No function |
| 6 | +Vout | +Vout |
| 7 | -Vout | Common |
| 8 | No function | -Vout |

Specifications can be changed any time without notice