



FEATURES 48V Inputs / Single Output

- High Efficiency
- Industrial Standard Eight-Brick Pin Map
- Low No-Load Power Dissipation
- Precision Thermal Protection (Accuracy $\pm 3^{\circ}\text{C}$)
- Over Current and Short Circuit Protection
- Under Voltage Lockout (UVLO)
- Input Over Voltage Protection
- Output Over Voltage Protection
- Over Temperature Protection (OTP)
- Remote On/Off Control (CNT)
- Output Voltage Adjustment (TRM)
- Positive / Negative Remote Sense
- 2 Year Warranty

ELECTRICAL SPECIFICATIONS

Input

- Input Range DC 48V(36 - 75)
- Efficiency 87 - 88% Typ.
- Remote On / Off
 - On : 2.5 to 6 Vdc or Open
 - Off : 0 to 0.8 Vdc

Output

- Output Voltages 1.5V, 1.8V, 2.5V, 3.3V
- Output Voltage Tolerance $\pm 2.0\%$
- Line Regulation $\pm 0.5\%$ Max.
- Load Regulation $\pm 0.5\%$ Max.
- Ripple and Noise 50mVp-p
- Dynamic Response 100mV
(50% \rightarrow 75%, 75% \rightarrow 50%, 0.1A/ μs)
- Sense Range 10% Max.
- Trim Range $\pm 10\%$ Max.

Protection Circuit

- Over Current Protection Over 105% of Rating (Auto-Recovery)
- Over Voltage Protection About 125% of Rating (Latch-Up)
- Input Under Voltage Protection DC 32V (Auto-Recovery)
- Input Over Voltage Protection DC 80V (Auto-Recovery)
- Over Temperature Protection 125 $^{\circ}\text{C}$ (Auto-Recovery)

Electrically Isolated

- Isolation Input-Output / DC1500V

ENVIRONMENTAL

- Operating Temperature Range -40 $^{\circ}\text{C}$ ~ 85 $^{\circ}\text{C}$
- Operating Humidity (Non-Condensing) 20% ~ 90%RH
- Storage Temperature Range -40 $^{\circ}\text{C}$ ~ 125 $^{\circ}\text{C}$
- Storage Humidity (Non-Condensing) 10% ~ 95%RH
- MTBF (MIL-HDBK-217F) 7.0 x 10⁵ hrs

ORDERING INFORMATION

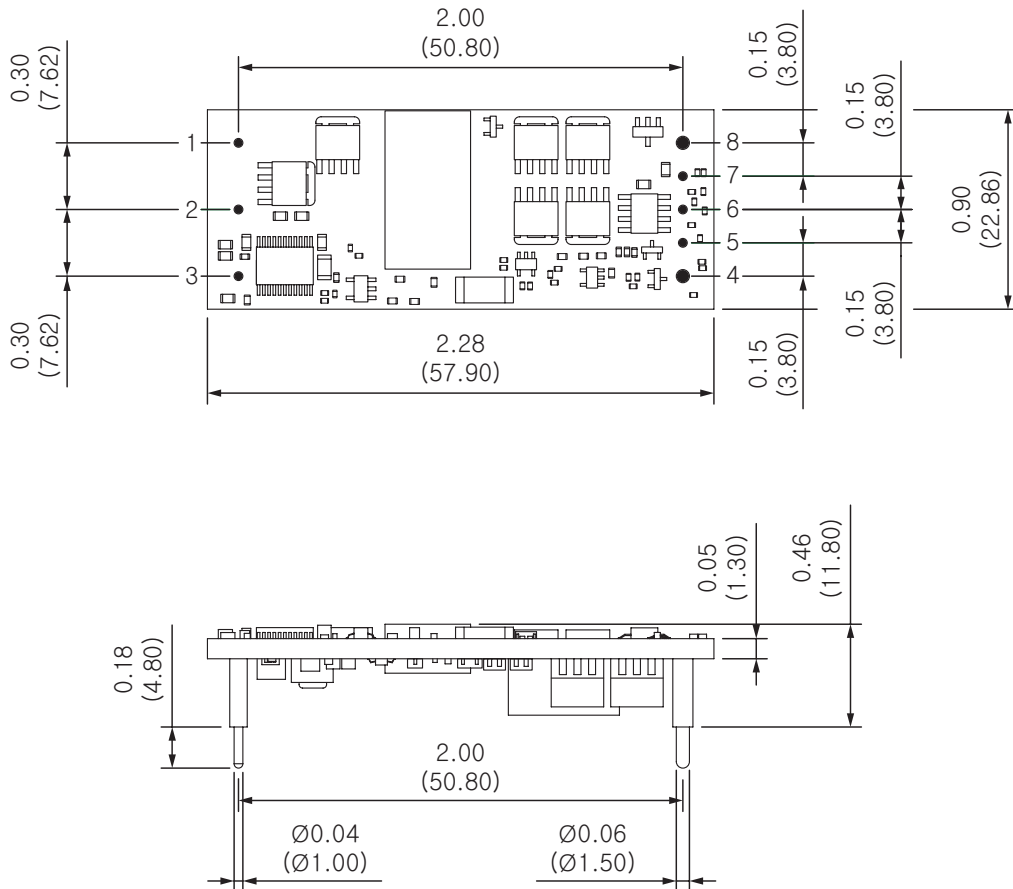
| Input | Output | Maximum Power | Ripple&Noise Max. | Efficiency Typ. | Model Number |
|----------|-------------|---------------|-------------------|-----------------|---------------------|
| 36 - 75V | 1.5V@30.00A | 45.00W | 50mVp-p | 87% | NES50-48-1R5 |
| 36 - 75V | 1.8V@30.00A | 54.00W | 50mVp-p | 87% | NES50-48-1R8 |
| 36 - 75V | 2.5V@20.00A | 50.00W | 50mVp-p | 86% | NES50-48-2R5 |
| 36 - 75V | 3.3V@20.00A | 66.00W | 50mVp-p | 88% | NES50-48-3R3 |

1. Typical at Ta = +25°C under nominal line voltage and full load conditions.
2. Ripple & Noise is tested / specified over a 20MHz bandwidth and are tested specified with 1µF / 15µF ceramic / tantalum output.

PIN ASSIGNMENTS

| Single Output |
|---------------|
| 1. +Vin |
| 2. CNT |
| 3. - Vin |
| 4. - Vout |
| 5. - Sense |
| 6. TRM |
| 7. +Sense |
| 8. +Vout |

DIMENSIONS



NOTE 1 All dimension are in inches (mm)
2 Weight : 25g or less