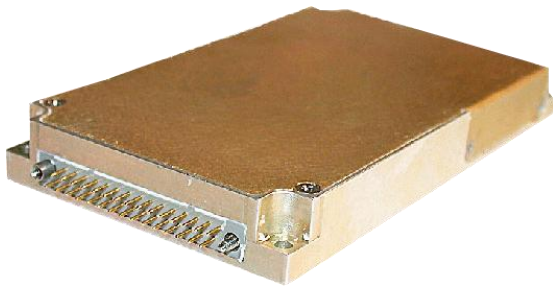


## M7128 SERIES

*DC/DC POWER SUPPLY*



### PRODUCT HIGHLIGHTS

- **MINIATURE**
- **HIGH DENSITY**
- **SINGLE OUTPUT**
- **DC/DC CONVERTER**
- **UP TO 200W**

## M7128 SERIES DC/DC POWER SUPPLY

### Applications

Military, Ruggedized, Telecom, Industrial

### SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 29 W/IN<sup>3</sup>
- Input / Output isolation
- Remote sense
- Parallel connection of modules
- Redundancy connection
- Fixed switching frequency (250 kHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Output voltage adjustment with external resistor
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

### ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

### RELIABILITY

150,000 hours, calculated per MIL-STD-217F at +85°C baseplate, ground fixed.

### Electrical Specifications

#### DC INPUT

DC Input range: 18 to 48 VDC  
33 to 78 VDC

Input transient protection:

All models meet or exceed (no damage) MIL-STD-1275A (100V for 50 mSec) and MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: 78 to 84%

EMI/RFI:

Designed to meet MIL-STD-461F\*  
CE101, CE102, CS101, CS114, CS115, CS116,  
RE101, RE102, RS101, RS103

Isolation:

200V between Input and Output  
200V between Input and Case

#### DC OUTPUT (floating)

Line/Load regulation:

Less than 1% (no load to full load, -55°C to +85°C)

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting (Hiccup):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and a passive transorb on output.

Over temperature protection:

Shutdown at baseplate temperature of +105°C (±5°C)

Automatic recovery at baseplate

temperature lower than +95°C

(±5°C)

Isolation:

200V between Output and Input

100V between Output and Case

\*Compliance achieved with 5μH LISN, shielded harness and static resistive load.

## M7128 SERIES DC/DC POWER SUPPLY

### PIN ASSIGNMENT

| Pin No. | Pin Function   |
|---------|----------------|
| 1       | +VIN           |
| 2       | +VIN           |
| 3       | - VIN          |
| 4       | - VIN          |
| 5       | PAR IN         |
| 6       | PAR OUT        |
| 7       | *IN SIGNAL RTN |
| 8       | SYNC OUT       |
| 9       | +OUT           |
| 10      | +OUT           |

| Pin No. | Pin Function |
|---------|--------------|
| 11      | +OUT         |
| 12      | - OUT        |
| 13      | - OUT        |
| 14      | - OUT        |
| 15      | +SENSE       |
| 16      | +VIN         |
| 17      | +VIN         |
| 18      | - VIN        |
| 19      | - VIN        |
| 20      | INHIBIT      |

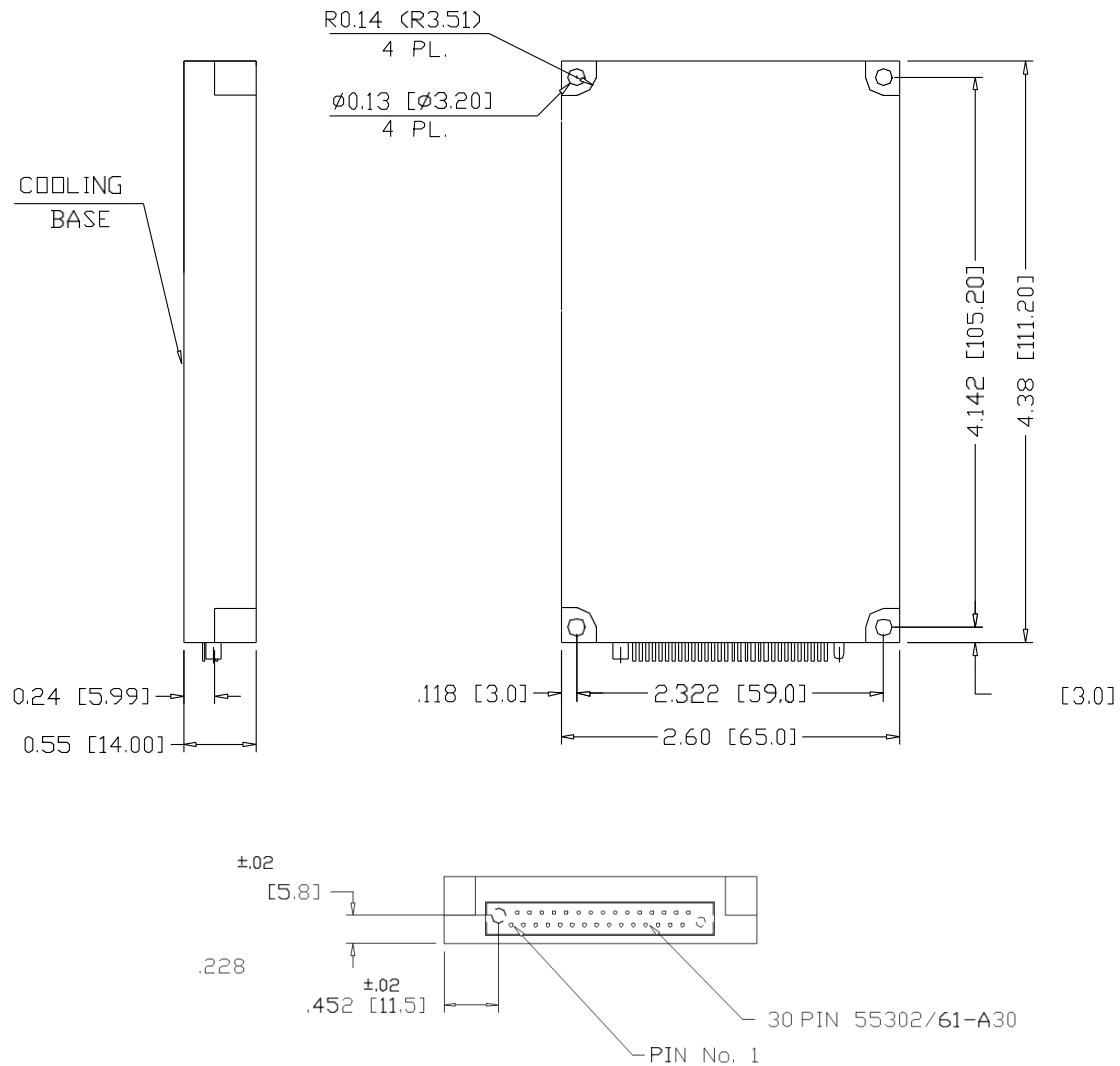
| Pin No. | Pin Function     |
|---------|------------------|
| 21      | OUT V/CAL        |
| 22      | **OUT SIGNAL RTN |
| 23      | SYNC IN          |
| 24      | +OUT             |
| 25      | +OUT             |
| 26      | +OUT             |
| 27      | - OUT            |
| 28      | - OUT            |
| 29      | - OUT            |
| 30      | - SENSE          |

\*SIGNAL IN RTN FOR SYNC IN, SYNC OUT AND INHIBIT

\*\*SIGNAL OUT RTN FOR PAR IN, PAR OUT AND V/CAL

**M7128 SERIES DC/DC POWER SUPPLY**

**OUTLINE DRAWING**



**Notes**

1. Dimensions are in Inches [mm]
2. Tolerance is:  
 .XX  $\pm 0.02$  IN  
 .XXX  $\pm 0.01$  IN
3. Weight: 7.77 oz (224g)
4. Add suffix SL to specify connector with guide set per M55302/57-A30X

\*Specifications are subject to change without prior notice by the manufacturer