

M7128 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

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

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Applications

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 29 W/IN³
- 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.

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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

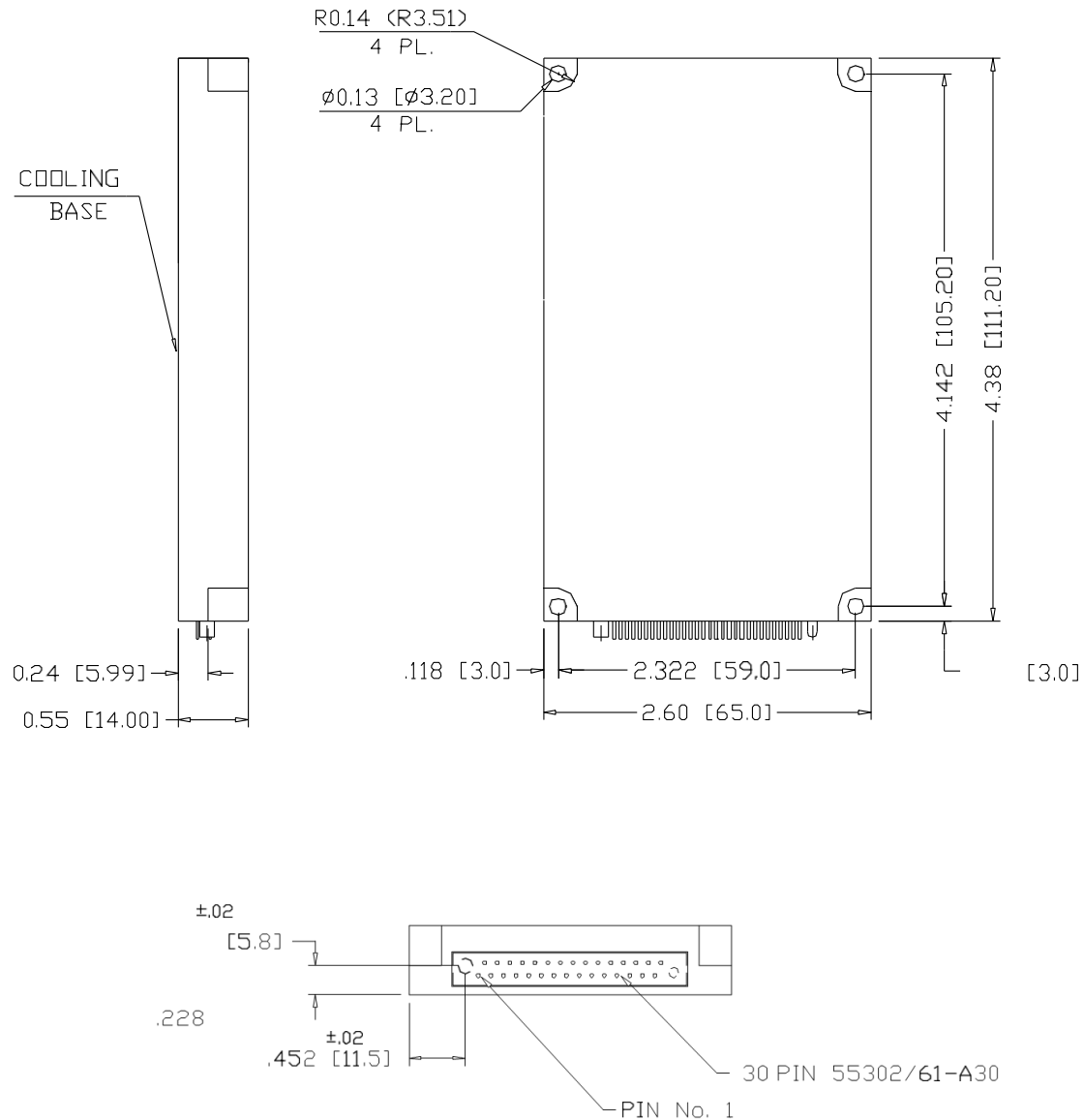
Pin No.	Pin Function
21	OUT V/CAL
22	**OUT SIGNAL RTN
23	SYNC IN
24	+OUT
25	+OUT
26	+OUT
27	- OUT
28	- OUT
29	- OUT
30	- SENSE

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

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

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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