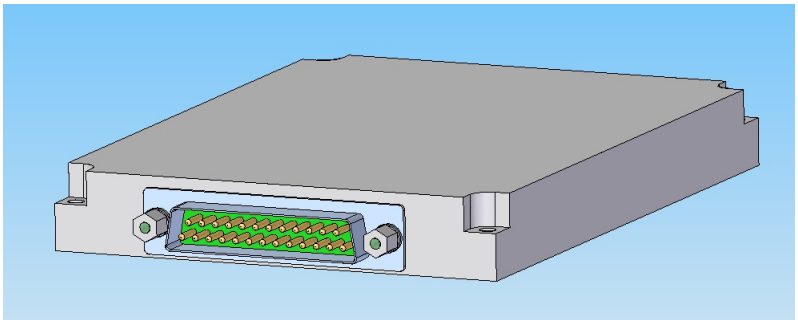
M8337 SERIES

MINIATURE, HIGH DENSITY,

TRIPLE OUTPUT,

DC/DC CONVERTERS

(UP TO 125W)



APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Design to Meets MIL-STD-810F

Temperature:
Operating –55°C to +85°C (baseplate)
Storage –55°C to +125°C

Altitude:
Method 500.4, Procedure I & II, 40,000 ft. and 70,000 ft. Operational

Humidity:
Method 507.4 - Up to 95% RH (including condensation)

Solt Fog:
Method 509-4

Vibration and Shock:
Shock - Saw-tooth, 20g peak, 11mS.
Vibration - Figure 514.5C-17. General minimum integrity exposure. (1 hour per axis.)

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 70 VDC
Option: 12 to 70Vdc – please consult factory

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: up to 80%

EMI/RFI:
Design to meet or exceed MIL-STD-461C
CE03, CE07, CS01, CS02, CS06, RE02, RS02, RS03

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:
Passive tranzorb on outputs.

Over temperature protection (can be removed - please consolt factory):
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

RELIABILITY

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

MILPOWER SOURCE
DIVISION OF QUASAR POWER TECHNOLOGIES INC.

P.O.BOX 810, 7 FIELD LANE RD., ROUTE 106, BELMONT, NEW HAMPSHIRE 03220, U.S.A.
TEL: (603)267-8865, FAX: (603)267-7258 WEBSITE: www.milpower.com

PIN ASSIGNMENT

PIN No.	PIN Function
1	+VIN
2	+VIN
3	VIN RTN
4	INHIBIT
5	SIGNAL RTN
6	SYN
7	-OUT 3
8	+OUT 3
9	-OUT 2
10	+OUT 2

PIN No.	PIN Function
11	-OUT 1
12	+OUT 1
13	+OUT 1
14	+VIN
15	VIN RTN
16	VIN RTN
17	CHASSIS
18	N.C.
19	-OUT 3
20	+OUT 3

PIN No.	PIN Function
21	-OUT 2
22	+OUT 2
23	-OUT 1
24	-OUT 1
25	+OUT 1

* Signal RTN for the INHIBIT and the SYN signals.

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FUNCTIONS AND SIGNALS

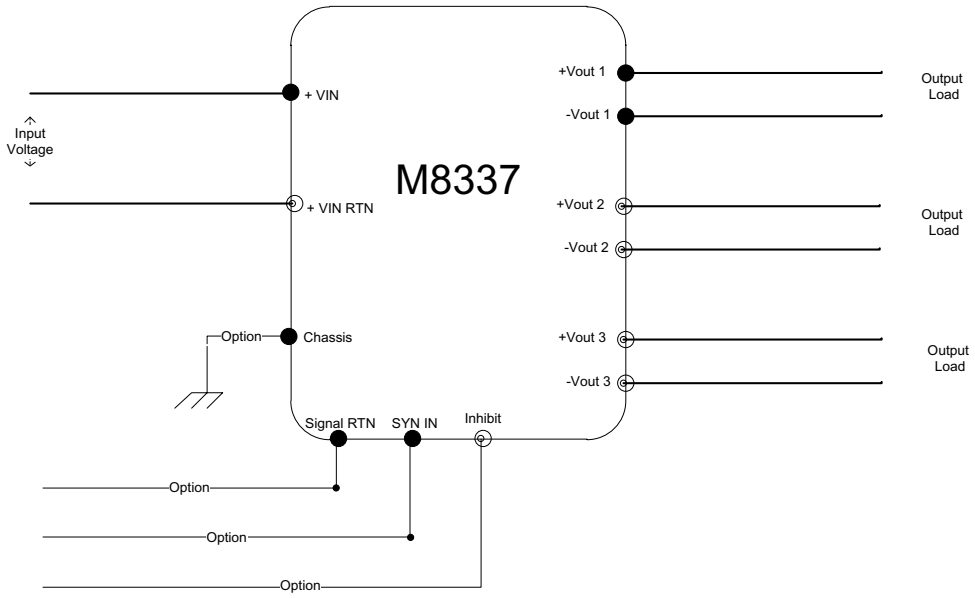
INHIBIT signal
The INHIBIT signal is used to turn the power supply ON and OFF.
TTL "1"or OPEN – will turn on the power supply. (For normal operation leave the signal not connected.)
TTL "0" – will turn off the power supply.
Ground reference for the INHIBIT signal is SIGNAL RTN (pin #5).

SYN signal
The SYN signal is used to allow the power supply frequency to sync with the system frequency. The system frequency should be 250KHz ±10KHz.
When not connected the power supply will work at 250KHz

SIGNAL RTN
The SIGNAL RTN is referred to the input.
This is used as grounding for SYN and INHIBIT signals.

Chassis PIN
This chassis pin allows connection of the unit chassis to system chassis.

Typical connection



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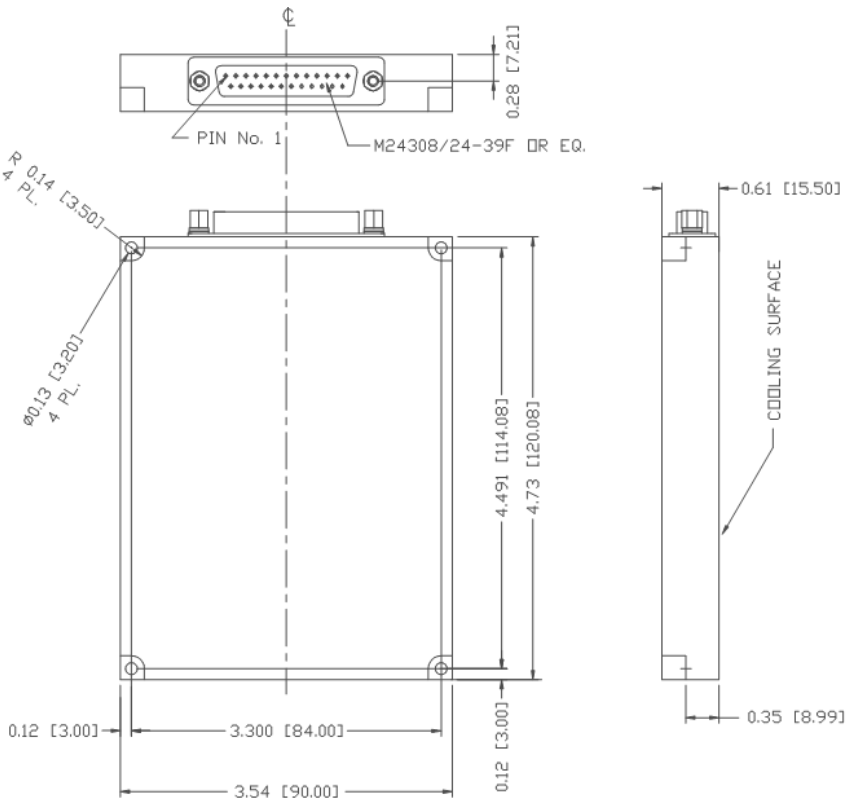
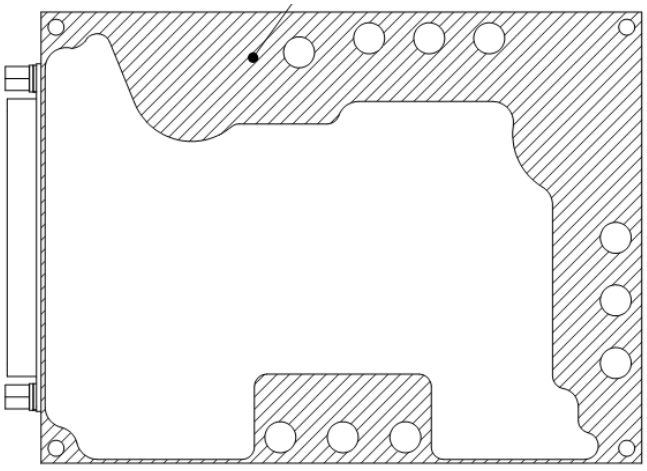
OUTLINE DRAWING



HEAT DISSIPATION SURFACE



COOLING AREA
3950 MM²

NOTE: This module is also available with Airborn connector – please veiw our M8637 catalog

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

Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
   .XX ±0.01 IN
   .XXX ±0.005 IN
3. Weight: 13.4 Oz (380 gr)

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