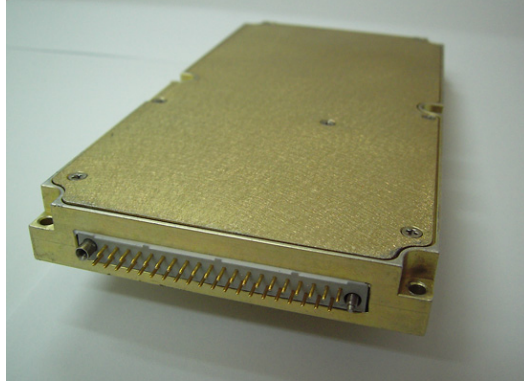


# M814 SERIES

THE MOST COMPLETE  
MINIATURE, HIGH DENSITY,  
EIGHT OUTPUTS,  
DC/DC CONVERTERS  
(UP TO 145W)



## **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**

Meets or exceeds MIL-STD-810D

Temperature:

Operating  $-55^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$  (baseplate)

Storage  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

## **RELIABILITY**

150,000 hours, calculated per  
MIL-STD-217F at  $+85^{\circ}\text{C}$  baseplate,  
ground fixed.

## **ELECTRICAL SPECIFICATIONS**

### **DC INPUT**

DC Input range: 18 to 70 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: 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,  $-55^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ )

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

Current limiting:

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of  $+105^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Automatic recovery at baseplate temperature

lower than  $+95^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Isolation:

200V between Output and Input

100V between Output and Case

## PIN ASSIGNMENT

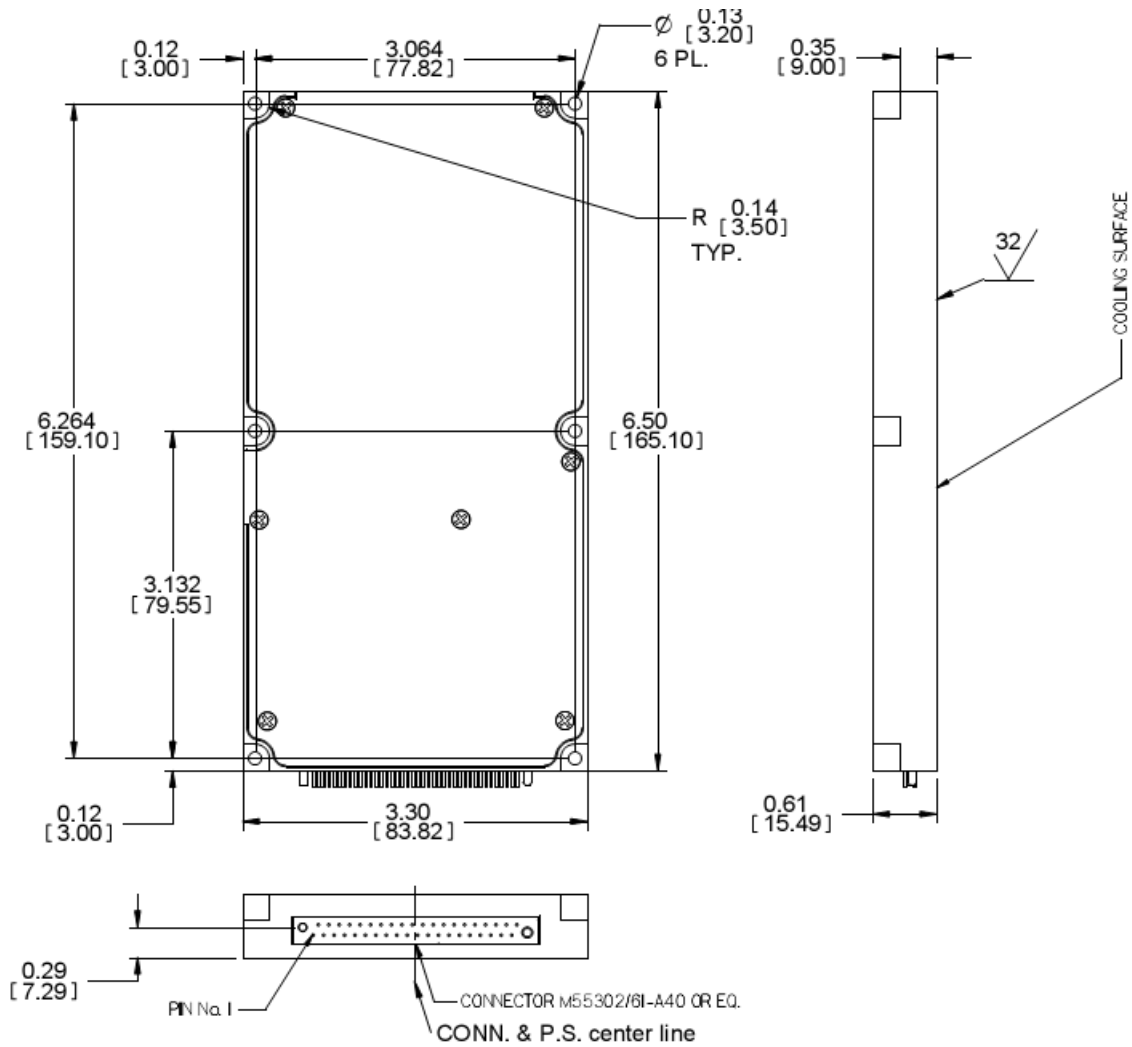
PIN No.	PIN Function
1	Vin
2	Vin
3	Vin
4	Vin RTN
5	Vin RTN
6	OUT 6 RTN
7	OUT 6
8	OUT 5
9	OUT 4,5 RTN
10	OUT 4
11	OUT 1 RTN
12	OUT 1 RTN

PIN No.	PIN Function
13	OUT 1
14	OUT 1
15	OUT 2
16	OUT 2 RTN
17	-OUT 7
18	OUT 7,8 RTN
19	OUT 8
20	OUT 3 RTN
21	Vin
22	Vin
23	Vin RTN
24	Vin RTN

PIN No.	PIN Function
25	Vin RTN
26	INHIBIT
27	SIG RTN
28	SYN IN
29	OUT 4,5 RTN
30	OUT 1 RTN
31	OUT 1 RTN
32	OUT 1
33	OUT 1
34	OUT 2
35	OUT 2 RTN
36	CHASSIS

PIN No.	PIN Function
37	OUT 7,8 RTN
38	OUT 3
39	OUT 3
40	OUT 3 RTN

**OUTLINE DRAWING**



\*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: ( )