

M4061 SERIES

HOLDUP UNIT



PRODUCT HIGHLIGHTS

- *VITA 62 Compliant, 3U Form Factor
- 366 W @ 55mSec Holdup
- Wide Input Range
- Fully Operating: -55°C to +85°C (measured at unit edge)
- Pass Through Power During Normal Line
- Fixed Switching Frequency (250khz)
- Early Warning Bits & IPMI Communication
- Compliant: MIL-HDBK-454, MIL-STD-461, MIL-STD-704, MIL-STD-1275, MIL-STD-810

*Unit does not comply with VITA width / pitch requirement. All other dimensions comply.





Electrical Specifications

DC Input

18 to 48 V_{DC}
 Continuous work during
 MIL-STD-704 transients

DC Output

VS1: Power
 VS2: Power rtn

Isolation

Over 20 MΩ at test voltage:
 200V between Input & output to case

Line/Load regulation

Less than 1% for
 (No load to full load, -55°C to 85°C)

Efficiency

Up to 90 % at Low Line
 Up to 98 % at Normal Line

EMC

Complies with MIL-STD-461F
 (5μH LISN): CE101, CE102, CS101

Ripple and Noise

Communication

IPMI protocol available for
 voltages

Environmental ¹

Design to Meet MIL-STD-810G

Temperature

Operating: -55°C to +85°C at
 unit edge
 Storage: -55°C to +125°C

Altitude

Method 500.5, Procedure I & II
 Storage/Air Transport: 40 Kft
 Operation/Air carriage: 70 Kft

Salt Fog:

Method 509.5

Fungus

Does not support fungus growth, in
 accordance with the guidelines of MIL-
 HDBK-454, Requirement 4.

Humidity

Method 507.5, Up to 95% RH

Shock

Method 516.6
 40g, 11msec saw-tooth (all directions)

Vibration

Shock: Saw-tooth, 20g peak, 11mS.
 Vibration: Figure 514.6E-1. General minimum integrity exposure. (1 hour per axis.)

Note 1: **Environmental Stress Screening (ESS)** Including random vibration and thermal cycles is
 also available. **Please consult factory for details.**



Protections ¹

Input

- **Inrush Current Limiter**
Peak value of $5 \times I_{IN}$ for initial inrush currents lasting more than $50\mu\text{Sec}$.
- **Under Voltage**
Unit shuts down when input voltage drops below $11 \pm 0.5V_{DC}$.
Automatic restart when input voltage returns to 12V Line.

General

- **Over Temperature Protection**
Automatic shutdown at internal temperature of $95 \pm 5^\circ\text{C}$.
Automatic recovery when temperature drops below $90 \pm 5^\circ\text{C}$.

Note 1: Thresholds and protections can be modified / removed (please consult factory)

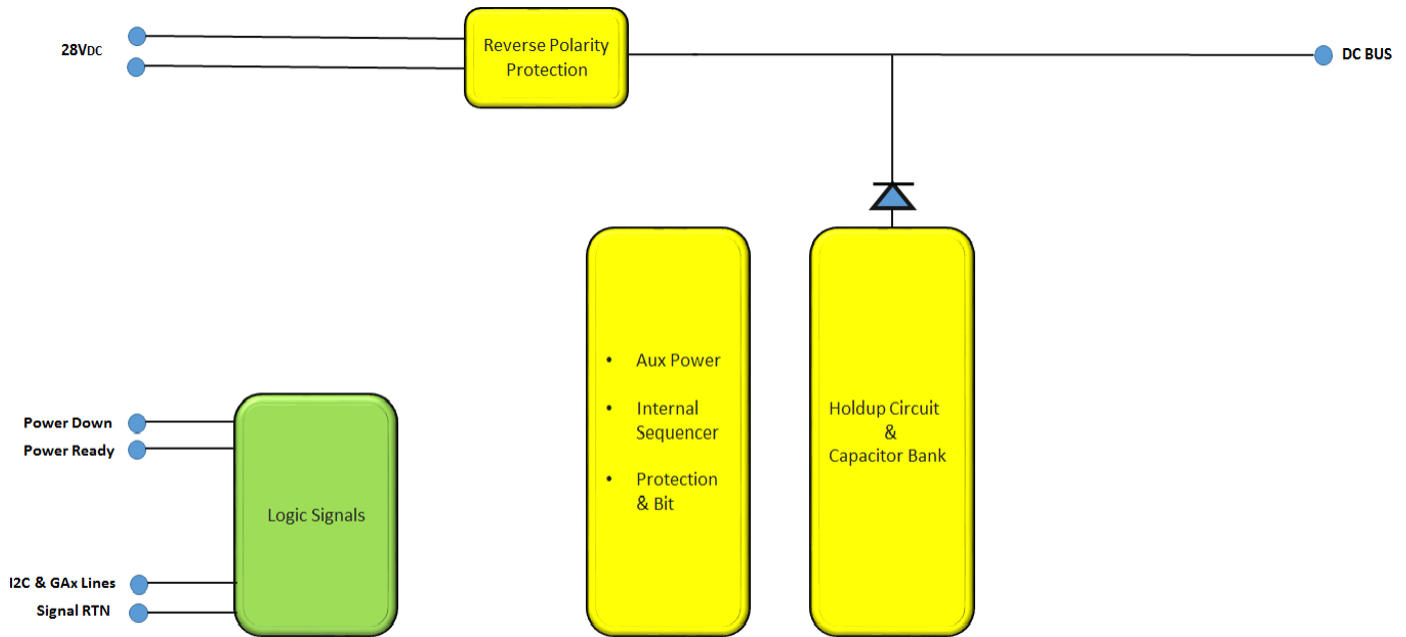


Functions and Signals - According to VITA 62

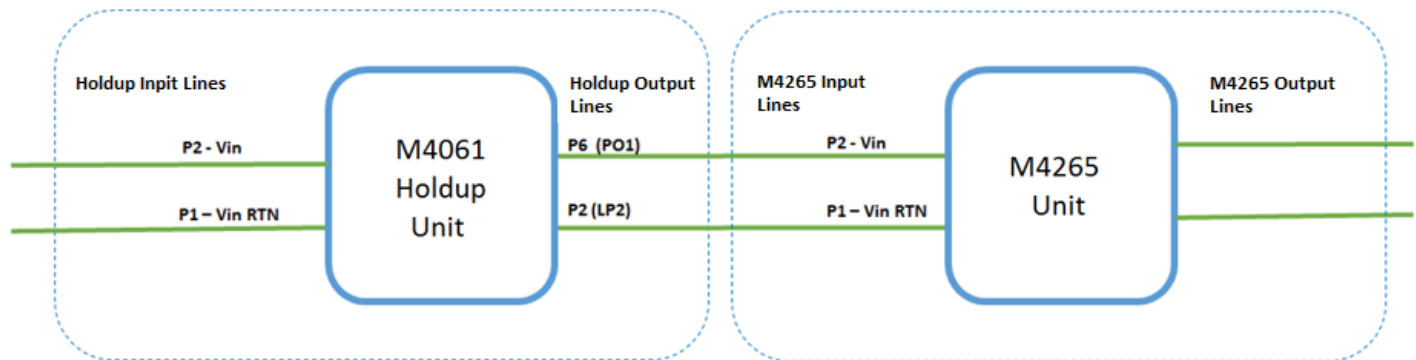
Signal No.	Signal Name	Type	Description	Pin No
1	Power Down	Output	Indicates that Holdup event has occurred. Open Drain. Normally Open, goes low during Holdup time.	A3
2	Power Ready	Input	Indicates to other modules that Holdup capacitor bank is Fully charged. Open Drain. Normally Open, goes low when Holdup energy under 90%.	D1
5	GA0, GA1	Input	Used for geographical addressing. GA1 is the most significant bit and GA0 is the least significant bit.	A5,B5
6	SCL, SDA	Bidirectional	I2C bus Clock and Data respectively. Through this bus the voltage and temperature readouts can be shared.	C5,D5



Simplified Block Diagram



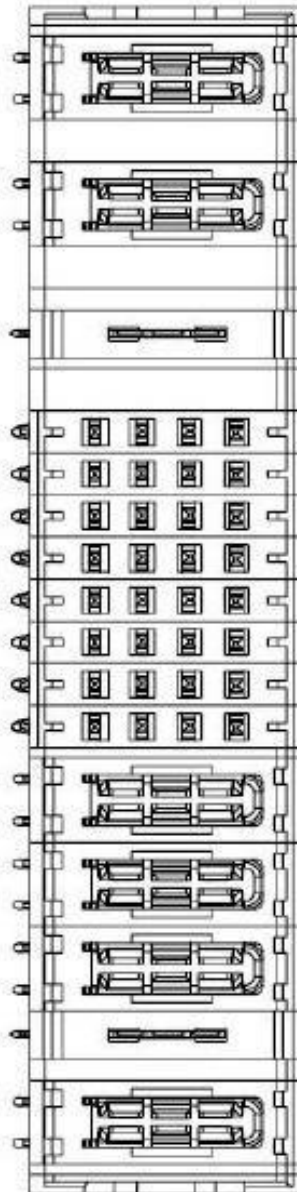
Typical Application



Note: Please consult factory for details.



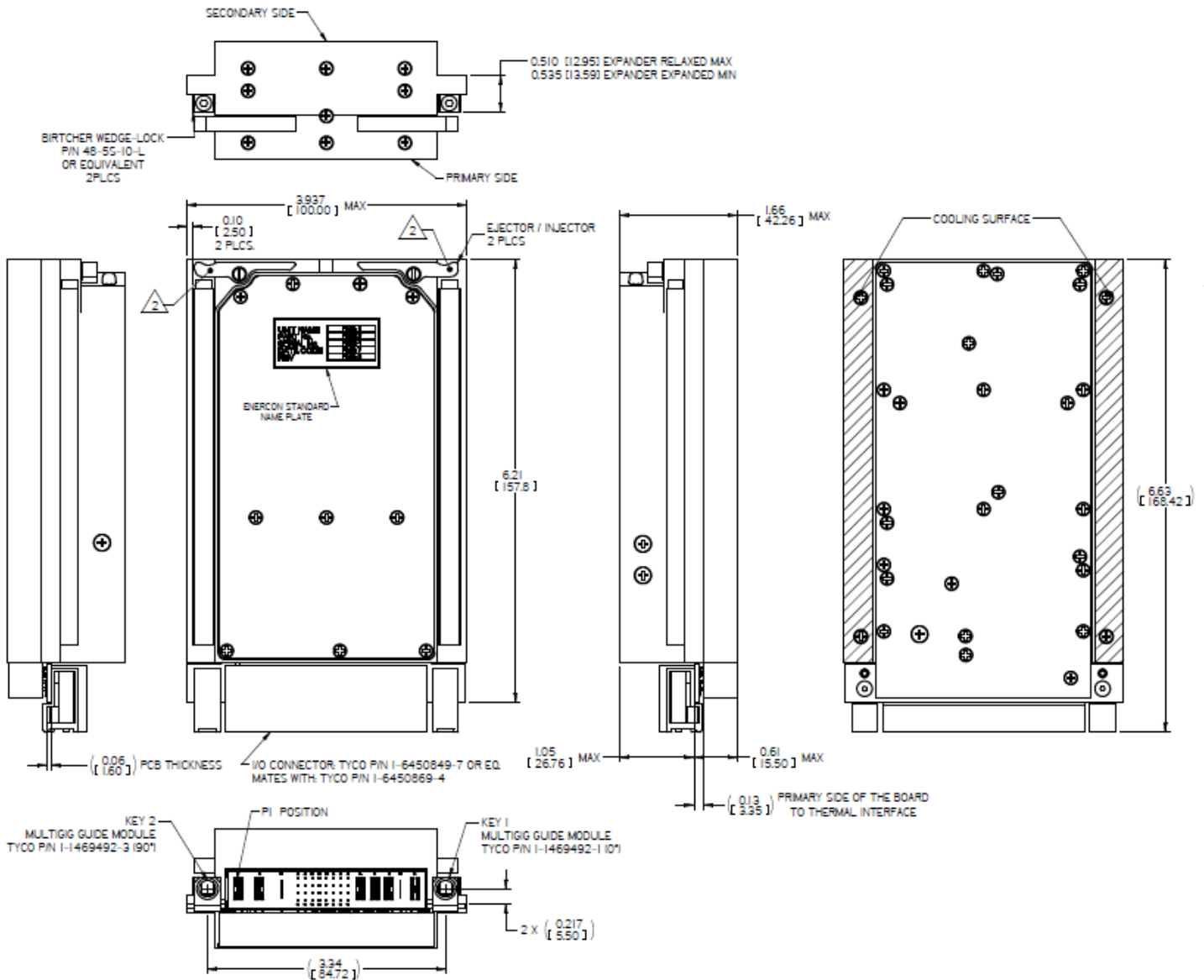
Pin Assignment



PART NUMBER	ROWS	POWER						SIGNAL								POWER						
		P1	P2	LP1	1	2	3	4	5	6	7	8	P3	P4	P5	LP2	P6					
6450849-7	D				Z5	Z5	Z5	Z5	Z5	Z5	Z5	Z5	Z5	Z5	Z5	Z5						
	C				Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5	Y5						
	B	TT	TT	LT	R5	R5	R5	R5	R5	R5	R5	R5	R5	R5	R5	TT	TT	TT	TT	TT	TT	
	A				O5	O5	O5	O5	O5	O5	O5	O5	O5	O5	O5	O1						
2ACP+1LP+32S+3HDP+1LP+1HDP																						



Outline Drawing



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
 .XX ± 0.02 IN
 .XXX ± 0.008 IN
3. Weight: Approx. 27 oz [773 g]
4. 3D model available

***Unit does not comply with VITA width / pitch requirement. All other dimensions comply.**

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