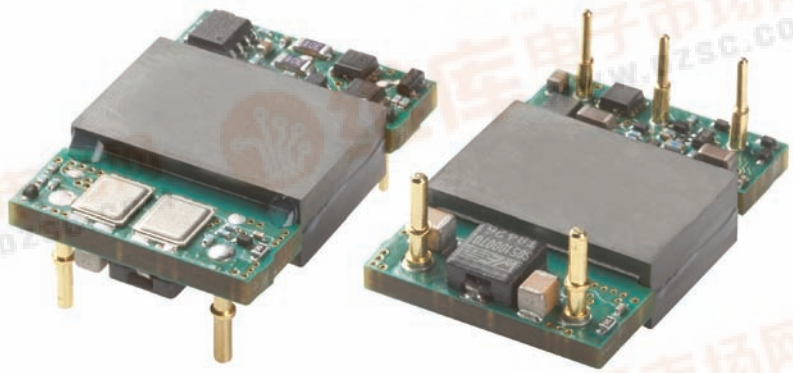
Embedded Power for
Business-Critical Continuity

AED/ALD13B50

1/16th Brick IBC Series

Total Power: 150 Watts
Input Voltage: 38 - 60 Vdc
Output Voltage: 12 Vdc



RoHS 2002/95/EC

Special Features

- Intermediate Bus Converter for Front End (DPA) Distributed Power Architecture application
- High efficiency (95% Typical)
- Industry standard package 16th Brick 0.90" x 1.30"
- High capacitive load limit on start-up
- Output Enable Pin
- Undervoltage lockout
- Over Temperature Protection
- Meets Basic Insulation
- EU directive 2002/95/EC compliant for RoHS

Safety

- UL, cUL: 60950
- TUV: EN60950

Electrical Specifications

Input	
Input range:	38 V to 60 V
Efficiency:	95%@ 12 V (typical)
Over Voltage Protection:	67 V typical
Input UVLO:	33 V to 38 V
Output	
Output current:	13 A max
Output Voltage over line, load and temperature:	8.7 V to 15 V
Noise/ripple[1]:	180 mV (typical)
Over current limit:	Auto-restart
Over temperature protection:	110 °C minimum (autorecovery)
Switching frequency:	165 kHz
Control	
Enable:	TTL compatible (positive or negative enable logic)
Isolation Voltage:	
Input to Output:	2000 Vdc max

Environmental Specifications

Operating ambient temperature range:	-40 °C to +85 °C ambient
Storage temperature:	-55 °C to +125 °C
MTBF:	> 1 million hours

EMERSON Network Power

Ordering Information

Input Voltage	Output Voltage	Output Current	Efficiency[2]	Model Number
38 - 60V	12 V	13 A	95% Typ	A(X)D13B50(N)-(6)(L)

Options:

(X) : "L" = Open Frame / Low Profile
"E" = Heatplate Construction

(N) : "N" = Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)

(6) : "-6" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with no suffix "-6" required)

(L) : "L" = RoHS Compliant (RoHS 6)

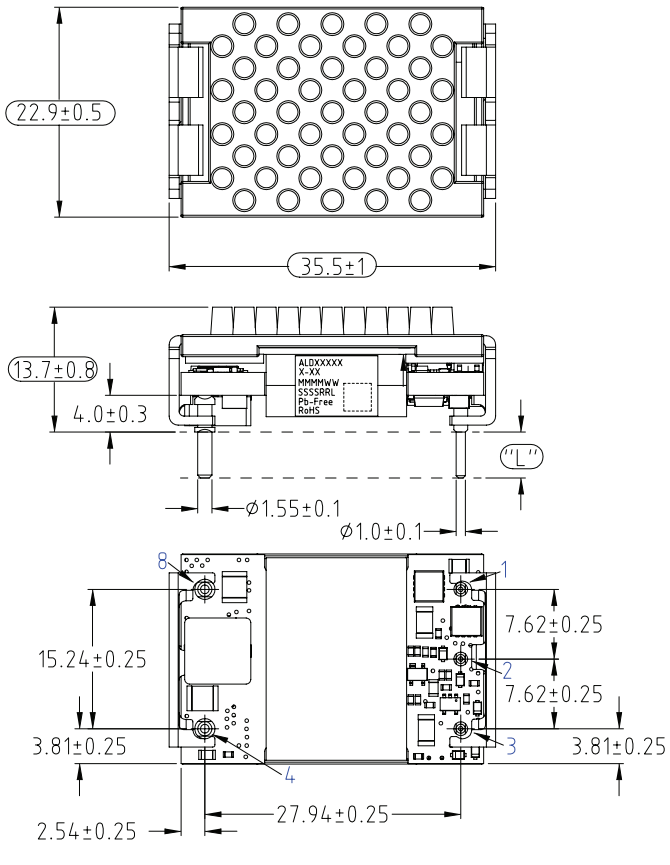
Pin Connections

Single Output
1. +Vin
2. Enable
3. -Vin
4. -Vout
5. Blank
6. Blank
7. Blank
8. +Vout

Notes:
1. 20 MHz bandwidth. External 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed across the output and secondary return ground.
2. Efficiency measurements are typical values taken at 48 V input, nominal output, full load and T_A = 25 °C.
3. All specifications are typical at nominal line, full load and T_A = 25 °C unless otherwise noted.
4. All specifications subject to change without notice.
5. Mechanical drawings are for reference only. Dimensions are in inches [millimeters]. Pin placement tolerance ± 0.005 [0.127]. Mechanical Tolerance ± 0.02 [0.5]. Pin diameter, Ø = 0.06" for Pin 4 (-Vout) and Pin 8 (+Vout), the rest of the pins are Ø = 0.04".
6. Technical Reference Notes should be consulted for detailed information when available.
7. Warranty 1yr.

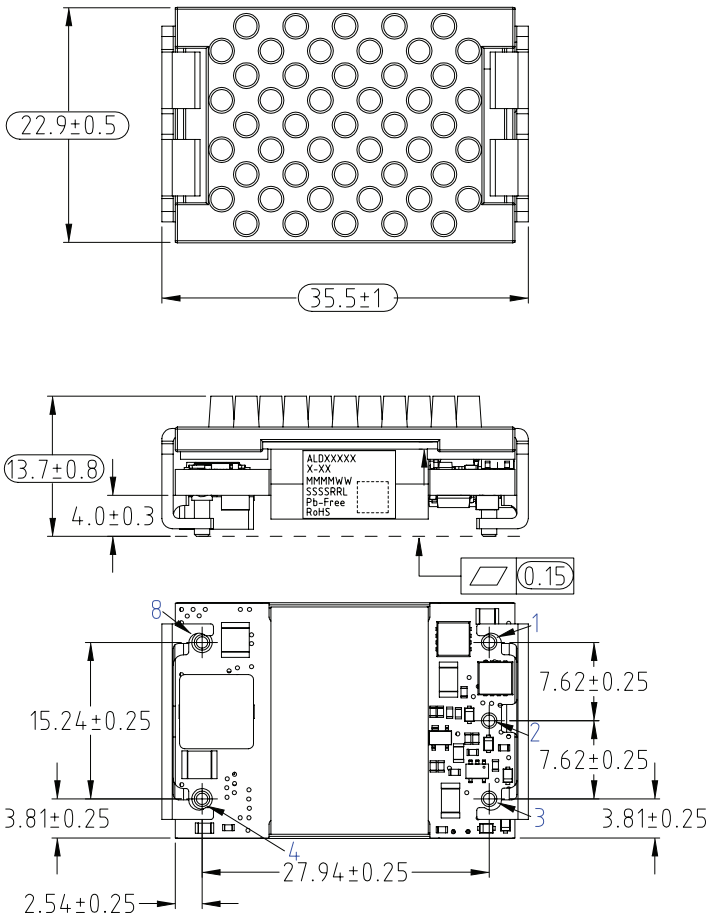
Mechanical Drawings

AED13B50-L



MODEL	IDENTIFICATION	"L" (mm)
AED13B50	-L N-L	5.0±0.5
	-6L N-6L	3.7±0.5

AED13B50-SL



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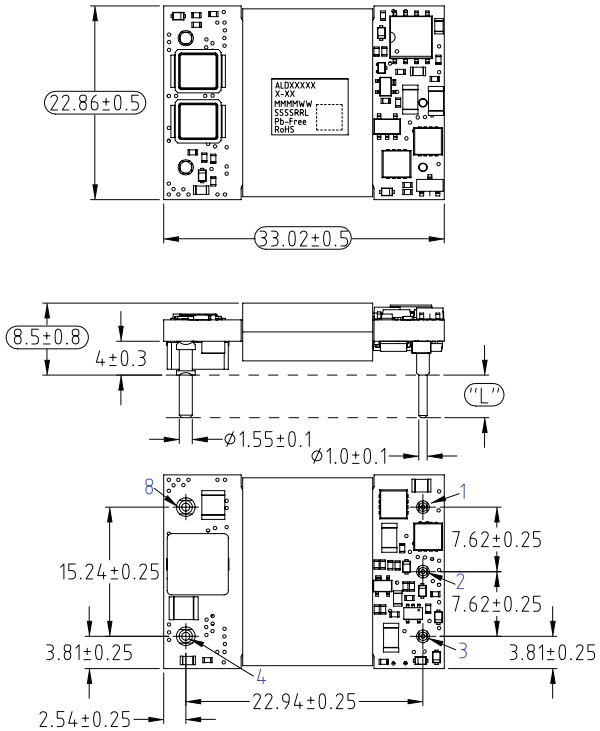
ALD13B50-L



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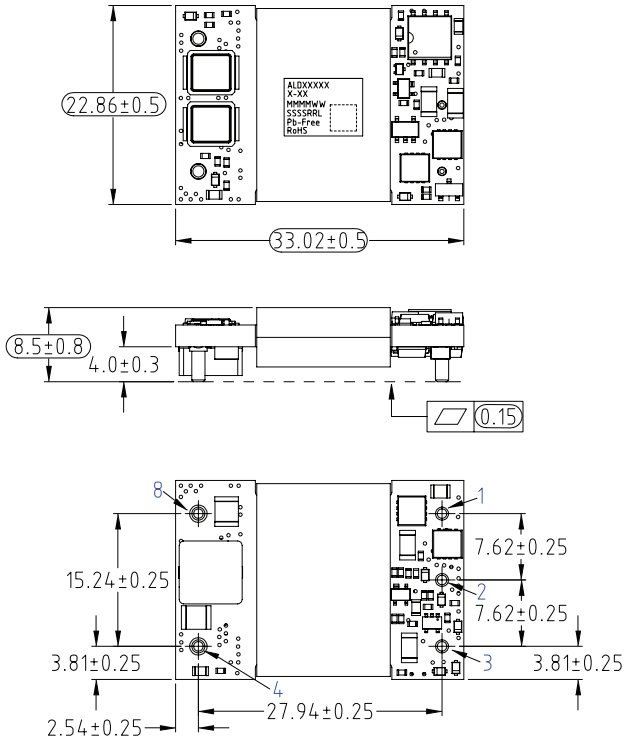
ALD13B50-SL



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