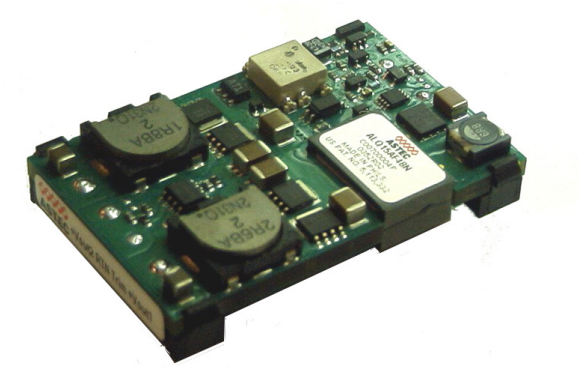
Astec Industry Standard

60 Watts

ALQ15-Dual

High Efficiency

Total Power:	60 Watts
Input Voltages:	48V
No. of Outputs:	Dual



Special Features

- Industry standard Dual O/p 1/4 Brick Footprint
- Open Frame Construction
- Low Ripple and Noise[1] < 30mV$_{PK-PK}$
- Regulation to zero load
- High Capacitive Load start-up
- Fixed Frequency Switching for EMI predictability
- Industry Standard features: OVP, OCP, OTP, Input UVLO, Enable, Trim
- Input Under Voltage Lockout with hysteresis
- Output Voltage Adjustability
- Meets Basic Insulation

Environmental

Operating Ambient Temperature -40°C to +85°C

Storage temperature: -55°C to +125°C

MTBF: > 1 Million Hrs

Safety

UL, cUL 60950 Recognized

TUV EN60950 Licensed

CB Test Ceritifcate

Electrical Specs

Input

Input Range	36 to 75 VDC
Input Surge	100V /100ms
Efficiency[2]	5.0V/3.3V @ 89.5% (typ at 60W) 3.3V/2.5V @ 87.7% 3.3V/1.8V @ 86.5% 2.5V/1.5V @ 84.0%

Output

Line / Load Regulation	< 1% Vo
Load Current	15A max per channel (60W max) 12A max for 5V rail
Noise/Ripple[1]	30mV$_{PK-PK}$
Transient Response	2% Vo deviation (typ) (50% to 75% Step Load) < 300µs settling time (typ)
Over Voltage Protection	130% Vo Typ (latching)
Over Current Protection	130% $I_{O,max}$ Typ (autorecovery)
Over Temperature Protection	115ºC average PCB temperature (autorecovery)
Switching Frequency	350kHz (typ)
Isolation Voltage	1500Vdc

Control

Voltage Adjust	±10% $V_{O,NOM}$
Enable	TTL compatible (Positive or Negative options)

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Ordering Information

Input Volatge	Output Voltage Vo1	Vo2	Output Current Io1	Io2	Efficiency[2]	Model Number
36V to 75V	5V	3.3V	12A	15A	89.5%	ALQ15AF48(N) - (6)
36V to 75V	3.3V	2.5V	15A	15A	87.7%	ALQ15FG48(N) - (6)
36V to 75V	3.3V	1.8V	15A	15A	86.5%	ALQ15FY48(N) - (6)
36V to 75V	2.5V	1.5V	15A	15A	84.0%	ALQ15GM48(N) - (6)

* Total power both outputs combined not to exceed 60 Watts

OPTIONS:

Enable Function "N" = Negative Logic Enable (default is Positive Logic Enable - no suffix “N”)

Pin Length “-6” = 3.7mm nominal pin length (default is 5mm nominal - no suffix “6”)

Pin Assignment

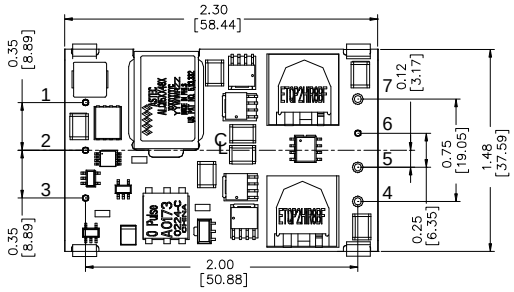
Dual Output

1. +Vin
2. Enable (On/Off)
3. -Vin
4. $+V_{O2}$
5. Secondary Return/Ground
6. Trim
7. $+V_{O1}$

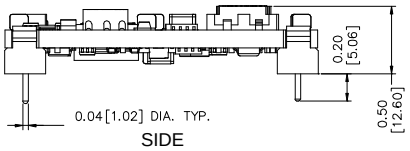
Notes:

1. 20 MHz bandwidth. External 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed output and secondary return ground.
2. Efficiency measurements taken at full load - balanced output load current, nominal line 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. Mechanical drawings are for reference only
5. Technical Reference Notes should be consulted for detailed information when available
6. Warranty 1yr.

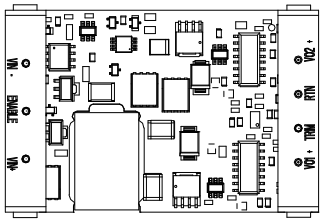
Mechanical Outline



PIN SIDE DOWN



SIDE



PIN SIDE UP

Dimensions are in inches [millimeters]
Pin placement tolerance ± 0.005 [0.127]
Mechanical Tolerance ± 0.02 [0.5]

The information on this data sheet are believed to be accurate at the time of its release. Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use and application.
(REV01: FEB 23, 2004)