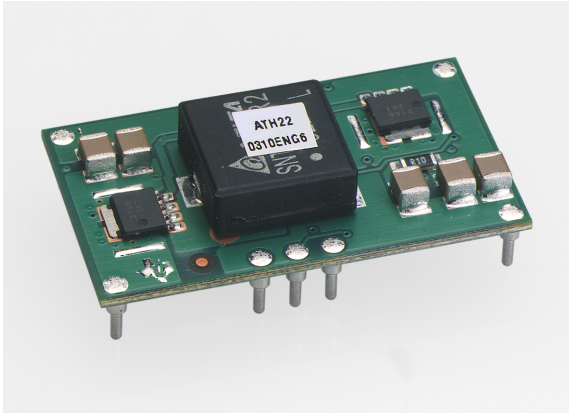


# 22Amps ATH22

PRELIMINARY



Total Power: 99W  
Input Voltages: 3.3V, 5V, 12V  
No. of Outputs: Single



## Electrical Specs

### Input

Input Range 3.0 - 3.6V  
4.5 - 5.5V  
10.8 - 13.2V

Under Voltage Lockout with hysteresis  
Efficiency up to 96%

### Output

Overall Regulation 1% of  $V_o$  Typ  
Noise/Ripple 32mV Typ (2.5 $V_o$  and below)  
1%  $V_o$  Typ ( $V_o > 2.5V$ )  
Remote sense Up to 300mV max  
Transient Response 130mV typical for 3.3 $V_o$   
for 50% to 100%  $I_{O,MAX}$  step change  
70us recovery time ( $C_o = 330\mu F$ )  
Over Current Protection 175%  $I_{O,MAX}$  typical (autorecovery)

### Control

Inhibit On/Off Positive Enable Logic  
Output Voltage Adjust See output range on page 2  
Output Margin  $\pm 5\% V_{O,NOM}$   
Output Auto-Track™ (See Note 5)

Specifications subject to change without notice

## Special Features

- Point-of-Load Alliance product
- Open frame TH or SMT termination
- Auto-Track™ Sequencing
- Margin Up/Down Controls
- Remote sense compensation
- Output Voltage Adjust (Resistor Programming)
- Under Voltage Lockout
- Pre-Biased start-up<sup>2</sup>
- Output On/Off Inhibit
- -40°C to +85°C Ambient Air Operation
- Non Isolated module

## Environmental

Ambient air operating temperature range:  
-40°C to +85°C

Storage temperature: -40°C to +125°C

Calculated MTBF: > 4.9M hours

## Safety

UL,cUL 60950 Recognition (Pending)

EN 60950 through TUV or VDE (Pending)

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## Ordering Information

Input Voltage	Output Voltage	Output <sup>3</sup> Current	Efficiency <sup>4</sup>	Model Number
3.0V to 3.6V	0.8V to 2.5V	22A	95%	ATH22T033-9(S)(J)
4.5V to 5.5V	0.8V to 3.6V	22A	96%	ATH22T05-9(S)(J)
10.8V to 13.2V	1.2V to 5.5V	18A	95%	ATH18K12-9(S)(J)

OPTIONS:

- "-9J" - Output Trim, TH termination, Tray Packaging
- "-9SJ" - Output Trim, SMT termination, Tray Packaging
- "-9S" - Output Trim, SMT Termination, T&R packaging

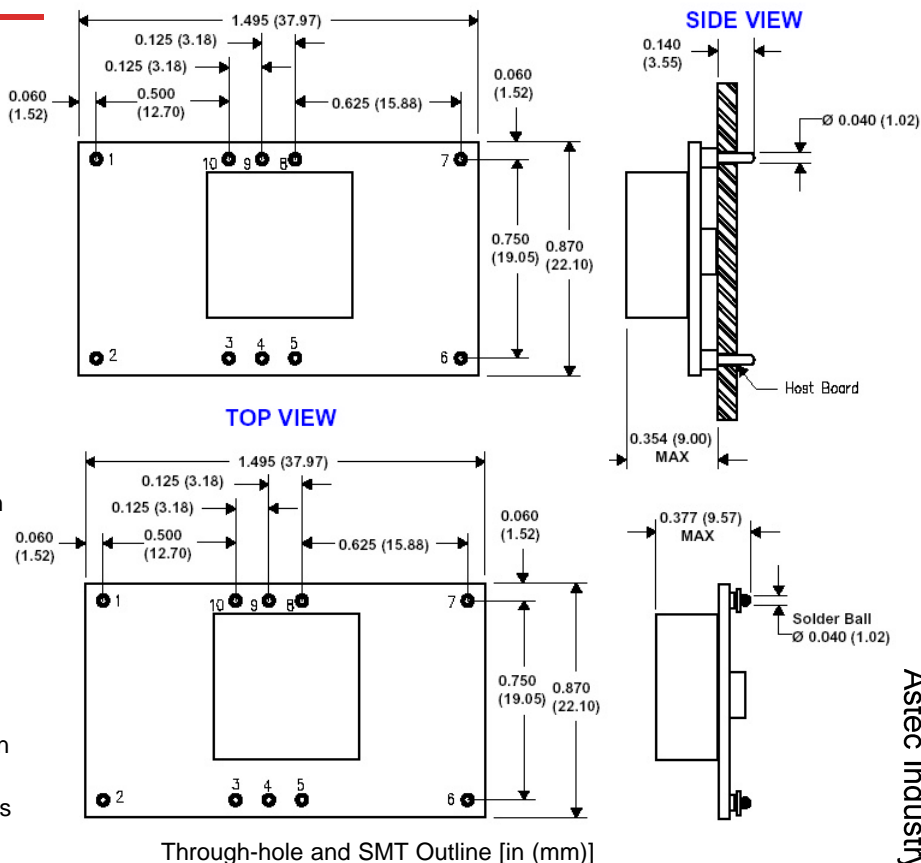
## Pin Assignments

Single Output

	PINS
GND	: 1
Vin	: 2
Inhibit	: 3
Vo Adjust	: 4
Vo Sense	: 5
Vout	: 6
GND	: 7
Track	: 8
Margin Down	: 9
Margin Up	: 10

Notes:

- Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
- Pre-Bias startup capability exists for 3.3Vin and 5Vin devices.
- Output derating applies at elevated ambient temperature.
- Typical efficiency taken at 10A load, 2.5V output (3.3Vin device); 10A load, 3.3V output (5Vin device); 10A load, 5V output (12Vin device).
- Consult the technical reference notes when available.
- Mechanical Dimensions are nominal values
- Auto-Track™ is a trademark of Texas Instruments.
- Specification subject to change without notice.



Astec Industry Standard

\* This is a Preliminary Data Sheet. Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application. (REV01: JULY 31, 2003)