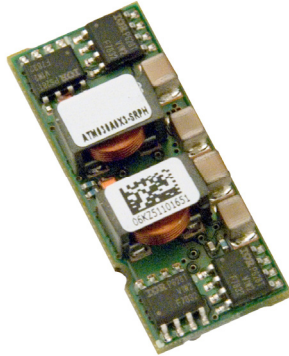


## Austin MegaLynx™ SMT: Non-Isolated DC-DC Power Modules: 2.7Vdc – 4.0Vdc input; 0.8 to 2.0Vdc; 30A Output Current

### RoHS Compliant



### Features

- Compliant to RoHS EU Directive 2002/95/EC
- Compatible in a Pb-free or SnPb reflow environment
- Delivers up to 30A of output current
- High efficiency – 92% @ 1.8V full load ( $V_{IN}=3.3Vdc$ )
- Input voltage range from 2.7V to 4.0Vdc
- Output voltage programmable from 0.8 to 2.0Vdc
- Small size and low profile:
  - 33.0 mm x 9.1 mm x 13.5 mm
  - (1.30 in. x 0.36 in. x 0.53 in.)
- Monotonic start-up into pre-biased output
- Output voltage sequencing (EZ-SEQUENCE™)
- Remote On/Off
- Remote Sense
- Over current and Over temperature protection
- Parallel operation with active current sharing
- Wide operating temperature range (-40°C to 85°C)
- UL\* 60950 Recognized, CSA† C22.2 No. 60950-00 Certified, and VDE‡ 0805 (EN60950-1 3<sup>rd</sup> edition) Licensed
- ISO\*\* 9001 and ISO 14001 certified manufacturing facilities

### Applications

- Distributed power architectures
- Intermediate bus voltage applications
- Telecommunications equipment
- Servers and storage applications
- Networking equipment

### Description

The Austin MegaLynx ATM series SMT power modules are non-isolated DC-DC converters in an industry standard package that can deliver up to 30A of output current with a full load efficiency of 92% at 1.8Vdc output voltage ( $V_{IN} = 3.3Vdc$ ). These modules operate off an input voltage from 2.7 to 4.0Vdc and provide an output voltage that is programmable from 0.8 to 2.0Vdc. They have a sequencing feature that enables designers to implement various types of output voltage sequencing when powering multiple modules on the board. Additional features include remote On/Off, adjustable output voltage, remote sense, over current, over temperature protection and active current sharing between modules.

\* UL is a registered trademark of Underwriters Laboratories, Inc.

† CSA is a registered trademark of Canadian Standards Association.

‡ VDE is a trademark of Verband Deutscher Elektrotechniker e.V.

\*\* ISO is a registered trademark of the International Organization of Standards

## Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only, functional operation of the device is not implied at these or any other conditions in excess of those given in the operations sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect the device reliability.

Parameter	Device	Symbol	Min	Max	Unit
Input Voltage Continuous	All	$V_{IN}$	-0.3	4.0	Vdc
Sequencing pin voltage	All	$V_{SEQ}$	-0.3	4.0	Vdc
Operating Ambient Temperature (see Thermal Considerations section)	All	$T_A$	-40	85	°C
Storage Temperature	All	$T_{stg}$	-55	125	°C

## Electrical Specifications

Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and temperature conditions.

Parameter	Device	Symbol	Min	Typ	Max	Unit
Operating Input Voltage	All	$V_{IN}$	2.7	3.3	4.0	Vdc
Maximum Input Current ( $V_{IN} = V_{IN,min}$ , $V_O = V_{O,set}$ , $I_O = I_{O,max}$ )	All	$I_{IN,max}$			20	Adc
Inrush Transient	All	$I^2 t$			1	$A^2 s$
Input Reflected Ripple Current, peak-to-peak (5Hz to 20MHz, 1 $\mu$ H source impedance; $V_{IN} = 2.7V$ to 4.0V, $I_O = I_{O,max}$ ; See Figure 1)	All			100		mAp-p
Input Ripple Rejection (120Hz)	All			50		dB