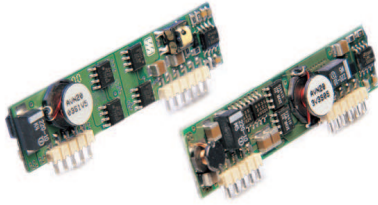


# 20 Watts

## APA06

## APA04 - Boost

**Total Power:** 20 Watts  
**Input Voltages:** 3.3V, 5V  
**No. of Outputs:** Single



### Electrical Specs

#### Input

Input range	3.0 to 5.5V (Buck) 3.0 to 4.0V (Boost)
Efficiency	90% (5/3.3) , 83% (1.8V)

#### Output

Voltage tolerance	± 1.0%
Line regulation	± 0.5%
Load regulation	± 0.5%
Noise/ripple	50mV P-P
Short circuit protection	Auto-recovery
Transient response	4%Vo, 200us

Temperature Regulation ±0.02 %Vo/°C

Switching frequency 430kHz typ

Temperature coefficient ± 0.03%Vo/°C

#### Isolation

Non Isolated

### Special Features

- Excellent for POL Applications
- High Efficiency - Non Isolated
- 3.3V and 5V input,
- Standard SIP package 2.5 X .55 X .31"
- Enable and Trim Function
- Overcurrent Protection
- Sense Pins

### Environmental

Operating ambient temperature: -  
25°C to 55°C (full load, 200LFM)

Storage temperature: -40°C to +125°C

MTBF: =7,000,000 hours (Bellcore TR332,  
Ta=25°C)

Weight: = 7.5 grams max

### Safety

**UL** UL 1950 Recognized  
**CSA** CAN22.2-950 Recognized

**TUV** EN60950 Certified

**AMERICAS**

5810 Van Allen Way  
 Carlsbad, CA 92008  
 Telephone: 760-930-4600  
 Facsimile: 760-930-0698

**EUROPE**

Astec House, Waterfront Business Park  
 Merry Hill, Dudley  
 West Midlands, DY5 1LX, UK  
 Telephone: 44 (1384) 842-211  
 Facsimile: 44 (1384) 843-355

**ASIA**

Units 2111-2116, Level 21  
 Tower 1, Metroplaza  
 223, Hing Fong Road  
 Fwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426



APA06/04

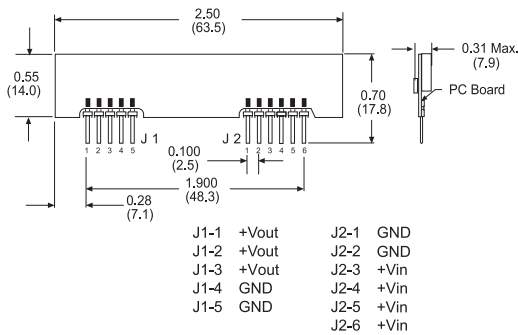
**Ordering Information**

Input Voltage	Output Voltage	Efficiency	Model Number
<b>Buck</b>			
3.0-5.5 V	1.2V @ 6.0 A	80%	APA06K04
3.0-5.5 V	1.5V @ 6.0 A	81%	APA06M04
3.0-5.5 V	1.8V @ 6.0 A	83%	APA06Y04
3.0-5.5 V	2.1V @ 6.0 A	86%	APA06D04
4.5-5.5 V	2.5V @ 6.0 A	87%	APA06G05
4.5-5.5 V	3.3V @ 6.0 A	90%	APA06F05
<b>Boost</b>			
3.3-4.0 V	5.0V @ 4.0 A	89%	APA04A03

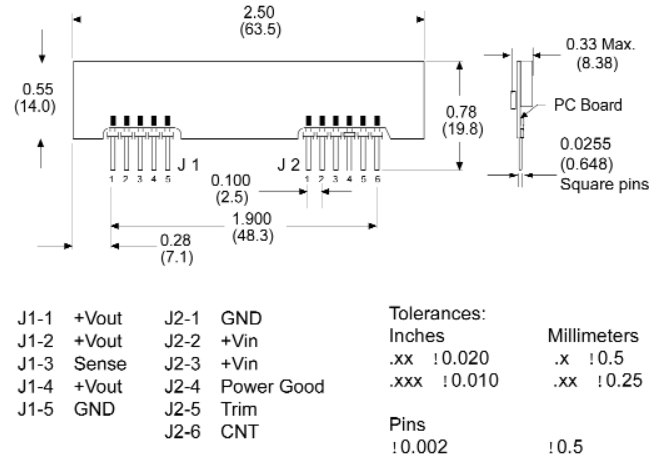
**Notes:**

1. Add -E to eliminate Sense and Power Good feature
2. Right Angle Pins Available

**APA04 ( Boost ) Pinout**



**APA06 ( Buck ) Pinout**



**Notes:**

1. Recommended Input Filter - 220uF Electrolytic Cap in parallel with 2.2uF Ceramic Cap Vin+ to GND
2. Recommended Output Filter - 2.2uF Ceramic Cap in parallel with 1000uF Electrolytic Cap (Vout+ to GND)
3. 20 MHz bandwidth. An external 0.1 uf ceramic capacitor is recommended to be placed from +V out to comm.
4. All specifications are typical at nominal line, full load, and 25°C unless otherwise noted.
5. All specifications subject to change without notice.
6. Mechanical drawings are for reference only.