

Datasheet

TPS1000

Tri-M Technologies Inc.

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, Great Britain and the USA. For more information please contact:

FORTEC Elektronik AG

Hauptniederlassung
Lechwiesenstr. 9
86899 Landsberg am Lech

Telefon: +49 (0) 8191 91172-0
Telefax: +49 (0) 8191 21770
E-Mail: sales@fortecag.de
Internet: www.fortecag.de

FORTEC Elektronik AG

Büro West
Hohenstaufenring 55
50674 Köln

Telefon: +49 (0) 221 272 273-0
Telefax: +49 (0) 221 272 273-10
E-Mail: west@fortecag.de
Internet: www.fortecag.de

FORTEC Elektronik AG

Büro Wien
Nuschinggasse 12
A-1230 Wien

Telefon: +43 1 8673492-0
Telefax: +43 1 8673492-26
E-Mail: office@fortec.at
Internet: www.fortec.at

ALTRAC AG

(Tochter der FORTEC):
Bahnhofstraße 3
CH-5436 Würenlos

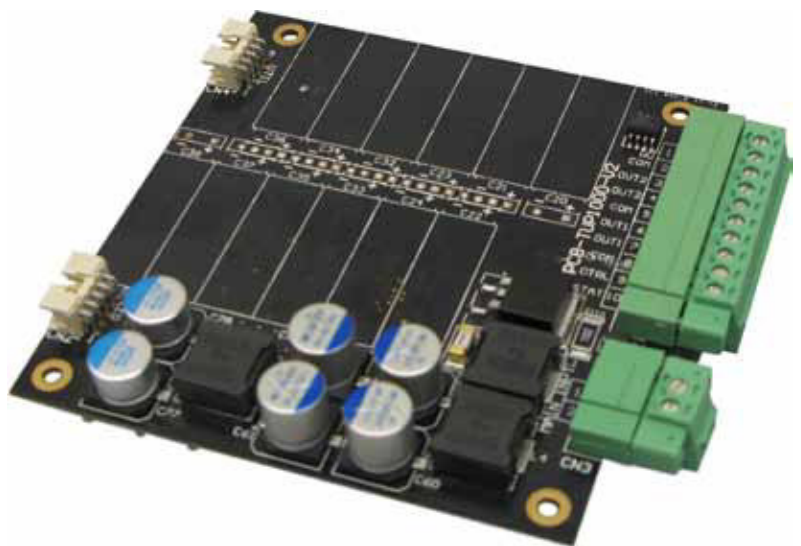
Telefon: +41 (0) 44 7446111
Telefax: +41 (0) 44 7446161
E-Mail: info@altrac.ch
Internet: www.altrac.ch

The information contained in this document has been carefully researched and is, to the best of our knowledge, accurate. However, we assume no liability for any product failures or damages, immediate or consequential, resulting from the use of the information provided herein. Our products are not intended for use in systems in which failures of product could result in personal injury. All trademarks mentioned herein are property of their respective owners. All specifications are subject to change without notice.

TPS1000-512

PC/104 5V@7A & 12V@3.5A Dual Output DC-DC Converter

- **10,000W Transient Protection**
Active voltage clamping
Reverse polarity
- **Input Voltage Range**
4.5V to 33V DC
- **Standard Output**
5V @ 7A max., 12V @ 3.5A max.
- **High Efficiency**
Up to 96%
- **Extended Temperature**
-40°C to +85°C
- **Shock & Vibration**
Tested to meet MIL-STD-810G
- **Communication**
USB: CDC & MSC
RS232: TTL
- **Indicator LEDs**
3 Full colour: Input, Output & Status
Programmable



Power/OS onboard



Enables setup, control and calibration of the module



Protects from harmful environmental conditions



Schedules tasks including self tests and fault detecting



Monitors inputs, outputs, environment and interfaces



Logs history of operation and events

The TPS1000-512 is an ultra high efficiency dual programmable output DC-DC power converter.


Three stage input protection with the on-board PowerOS ensures the system is safeguarded against spikes and transients.

An extended operating temperature range and rugged design allows the TPS1000-512 to be reliably used in extremely harsh environments.

Three full colour RGB LEDs provide a visual at-a-glance indication of input, output and TPS1000-512 operation.

Specifications

Power				
Main Input				Units
Input Voltage Range	4.5 to 33			V
Output 1 (X)	5	12	X	V
Voltage Range	4.75 to 5.25	11.4 to 12.6	4.6 to 12.6	V
Current	7	3.5	3.5 to 7	A
Ripple Voltage	10 to 20	15 to 50	10 to 50	mV
Load Regulation	100 to 120	80 to 100	80 to 120	mV
Line Regulation	<10			mV
Output Temp Drift	100			mV
Efficiency	92	95	92 to 95	%
Output 2 (Y)		12	Y	V
Voltage Range		11.4 to 12.6	6.5 to 25	V
Current		3.5 to 7		A
Ripple Voltage		80 to 100		mV
Load Regulation		<350		mV
Line Regulation		10 to 20		mV
Output Temp Drift		150		mV
Efficiency		96		%

Mechanical	
PC/104 Size & Mounting	
Dimensions	90 × 96 × 11mm (3.55 × 3.775 × 0.43")
Weight	46g
Environmental	
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Communication	
USB	CDC and MSC
RS-232, TX & RX	TTL Levels
LED Indicators	3 on-board RGB Off-board LEDs: 3 RGB or 9 single colour
Configuration	
OS Support	Linux, Windows XP, Windows 7 (32 and 64 bit)
Certifications	 Manufactured in ISO 9001:2008 ISO 14001:2004 & ANSI/ESD S20.20 Environments

Ordering Information

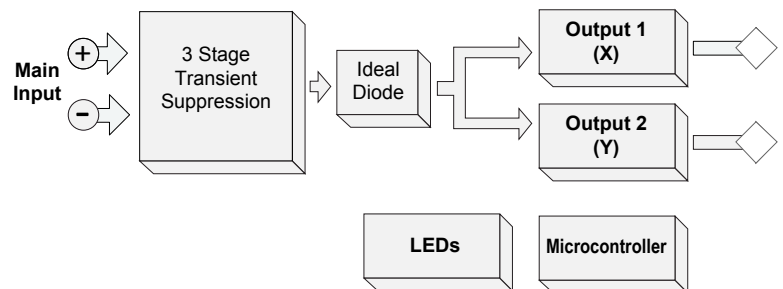
Models

- TPS1000-512** 5V & 12V dual output power supply
- TPS1000-5** 35 watt 5 volt single output power supply (OEM quantities only)
- TPS1000-12** 42 watt 12 volt single output power supply (OEM quantities only)
- TPS1000-XY** Specify Output 1 (X) and Output 2 (Y) (OEM quantities only)
Ex: TUP1000-524 would have output 1 @ 5V and output 2 @ 24V or order as TPS1000-XY for fully programmable outputs.

Options

- Conformal Coating** Acrylic, Silicone or Urethane coatings available
- COM-ADP1** RS-232-TTL Adapter board: includes 3 full colour RGB LEDs, microUSB connector and temperature sensor

Block Diagram



FORTEC

ELEKTRONIK AG

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, Great Britain and the USA. For more information please contact:

FORTEC Elektronik AG

Hauptniederlassung
Lechwiesenstr. 9
86899 Landsberg am Lech

Telefon: +49 (0) 8191 91172-0
Telefax: +49 (0) 8191 21770
E-Mail: sales@fortecag.de
Internet: www.fortecag.de

FORTEC Elektronik AG

Büro West
Hohenstaufenring 55
50674 Köln

Telefon: +49 (0) 221 272 273-0
Telefax: +49 (0) 221 272 273-10
E-Mail: west@fortecag.de
Internet: www.fortecag.de

FORTEC Elektronik AG

Büro Wien
Nuschinggasse 12
A-1230 Wien

Telefon: +43 1 8673492-0
Telefax: +43 1 8673492-26
E-Mail: office@fortec.at
Internet: www.fortec.at

ALTRAC AG

(Tochter der Fortec AG):
Bahnhofstraße 3
CH-5436 Würenlos

Telefon: +41 (0) 44 7446111
Telefax: +41 (0) 44 7446161
E-Mail: info@altrac.ch
Internet: www.altrac.ch

Members of the FORTEC Group:

