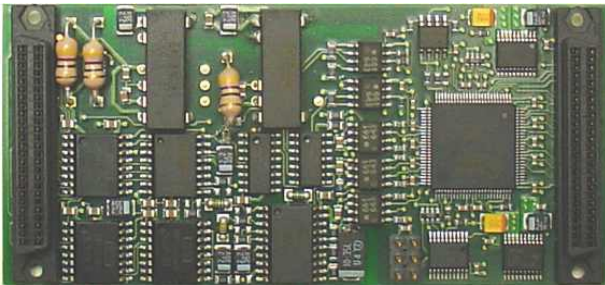


TIP501 16 Channels of Isolated 16 bit A/D Conversion

Application Information

The TIP501 is an IndustryPack® compatible module providing 16 single-ended or 8 differential channels of isolated 16 bit A/D conversion. The data acquisition and conversion time is up to 12µs without channel / gain change and up to 14.5µs with channel / gain change.

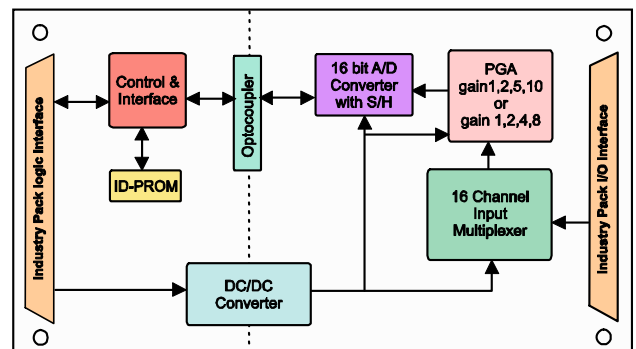


The input multiplexer offers analog overvoltage protection of up to 70Vpp. A programmable gain amplifier allows gains of 1, 2, 5, 10 or 1, 2, 4, 8. The full-scale input range is +/-10V for the TIP501-1x and 0-10V for the TIP501-2x. The isolated ADC, programmable gain amplifier and multiplexer are powered by an on board DC/DC converter. An interrupt can be generated at end-of-conversion supporting an 8 bit vector. Each TIP501 is factory calibrated. The calibration information is stored in the Identification-PROM unique to each IP.

For First-Time-Buyers the Engineering Documentation TIP501-ED is recommended. The Engineering Documentation includes TIP501-DOC, schematics and data sheets. Software Support (TIP501-SW-xx) for different operating systems is available.

Technical Information

- Interface according to IndustryPack specification
- Identification-PROM supports auto-configuration
- Single Size IndustryPack
- 16 single-ended or 8 differential channels of isolated 16 bit A/D conversion
- ESD protected input multiplexer
- Programmable gain amplifier, gain 1, 2, 5, 10 or gain 1, 2, 4, 8
- 16 bit A/D converter with internal S/H and reference
- Full-scale input range +/- 10 V or 0-10V (gain = 1)
- Interrupt capability at end-of-conversion
- Factory calibrated, calibration information in Identification-PROM unique to each IP
- Operating temperature -40°C to +85°C



Order Information

RoHS Compliant

- TIP501-10R** 16 Single-Ended or 8 Differential Channels of Isolated 16 bit Conversion, gain 1, 2, 5, 10, input range +/-10V
- TIP501-11R** 16 Single-Ended or 8 Differential Channels of Isolated 16 bit Conversion, gain 1, 2, 4, 8, input range +/-10V
- TIP501-20R** As TIP501-10R but input range 0-10V
- TIP501-21R** As TIP501-11R but input range 0-10V

None RoHS Compliant

- TIP501-10 None RoHS compliant version of TIP501-10R
- TIP501-11 None RoHS compliant version of TIP501-11R
- TIP501-20 None RoHS compliant version of TIP501-20R
- TIP501-21 None RoHS compliant version of TIP501-21R

Documentation

- TIP501-DOC** User Manual
- TIP501-ED** Engineering Documentation, includes TIP501-DOC

Software

- TIP501-SW-25** Integrity Software Support
- TIP501-SW-42** VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
- TIP501-SW-65** Windows XP/XPE/2000 Software Support
- TIP501-SW-72** LynxOS Software Support
- TIP501-SW-82** LiNux Software Support
- TIP501-SW-95** QNX 6 Software Support

For other operating systems please contact TEWS.