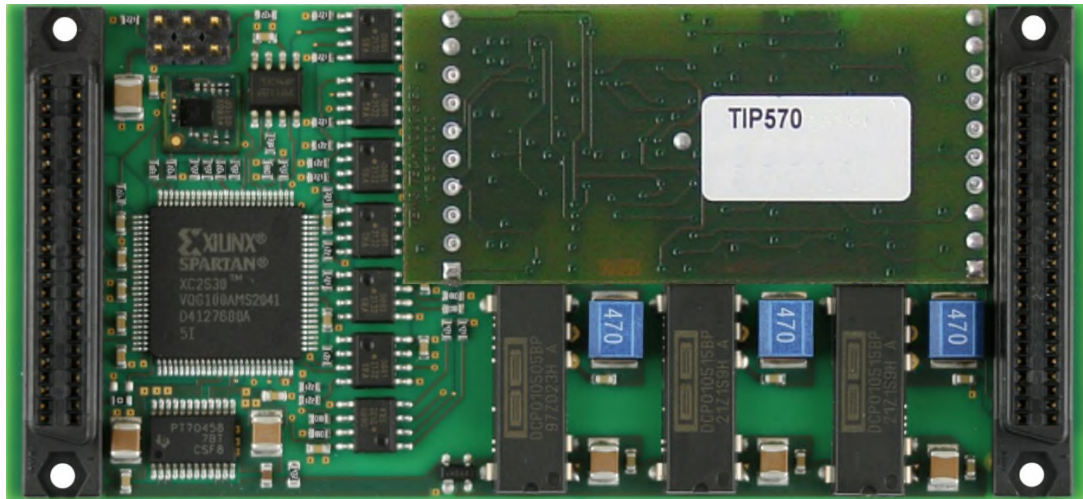## TIP570   16 Channel multiplexed isolated 12 bit ADC / 8 Channel isolated 12 bit DAC

TIP570-10R

Application Information

The TIP570 is an IndustryPack® compatible module with an optically isolated 16 channel multiplexed 12 bit ADC and an optically isolated 8 channel 12 bit DAC. The ADC can be software configured to operate as 16 input channels in single-ended mode or 8 input channels in differential mode.
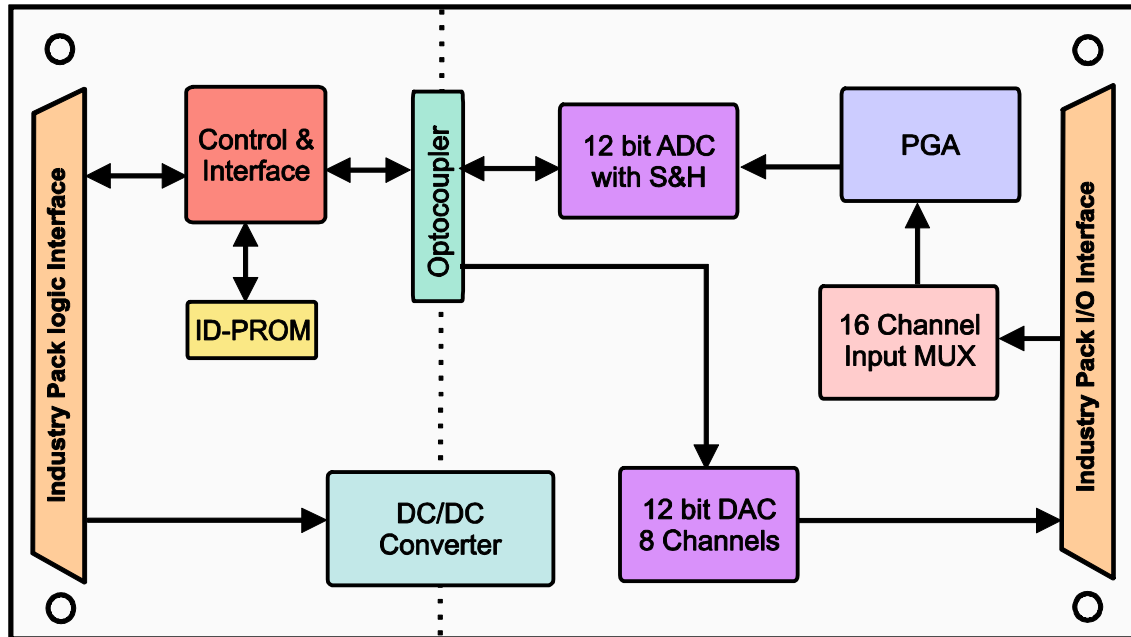
The ADC input multiplexer is overvoltage protected up to 70Vpp. A programmable gain amplifier supports gains of 1, 2, 5, 10 (TIP570-10R) or gains of 1, 2, 4, 8 (TIP570-11R). The full-scale input voltage range is +/-10V. The data acquisition and conversion time is mode-dependent: up to 1µs typical without channel or gain change, up to 12.5µs typical with channel or gain change. The 8 channel DAC full-scale output voltage is +/-10V.

The output amplifier is capable of sinking and sourcing 2mA for each DAC channel (1000pF load). The output voltage settles to 12 bits in 5µs typical. Each TIP570 is factory calibrated. The calibration data is stored in the EEPROM unique to each IP.

Software support (TIP570-SW-xx) for different operating systems is available.

Technical Information

- Interface according to IndustryPack specification
- Identification-PROM supports auto-configura tion
- Single Size IndustryPack
- 16 channel multiplexed isolated 12 bit analog input
  Input voltage range: +/-10V
  Input gains: 1, 2, 5, 10 or 1, 2, 4, 8

- 8 channel isolated 12 bit analog output
  Output voltage range: +/-10V
  Output sources and sinks 2mA / 1000pF load
- Factory calibrated, calibration information in Identification-PROM unique to each IP
- Operating temperature -40°C to +85°C

Order Information

RoHS Compliant

TIP570-10R   16 Ch. Isolated 12 bit A/D, gain 1,2,5,10, +/-10V, 8 Ch. Isolated 12 bit DAC, +/-10V
TIP570-11R   16 Ch. Isolated 12 bit A/D, gain 1,2,4,8, +/-10V, 8 Ch. Isolated 12 bit DAC, +/-10V

For the availability of non-RoHS compliant (leaded solder) products please contact TEWS.

Documentation

TIP570-DOC   User Manual

Software

TIP570-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TIP570-SW-65   Windows Software Support
TIP570-SW-82   Linux Software Support
TIP570-SW-95   QNX Software Support

For operating systems please contact TEWS.

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TEWS TECHNOLOGIES GmbH
Am Bahnhof 7   25469 Halstenbek, Germany
Phone: +49 (0) 4101 4058 0   Fax: +49 (0) 4101 4058 19
e-mail: info@tews.com   www.tews.com