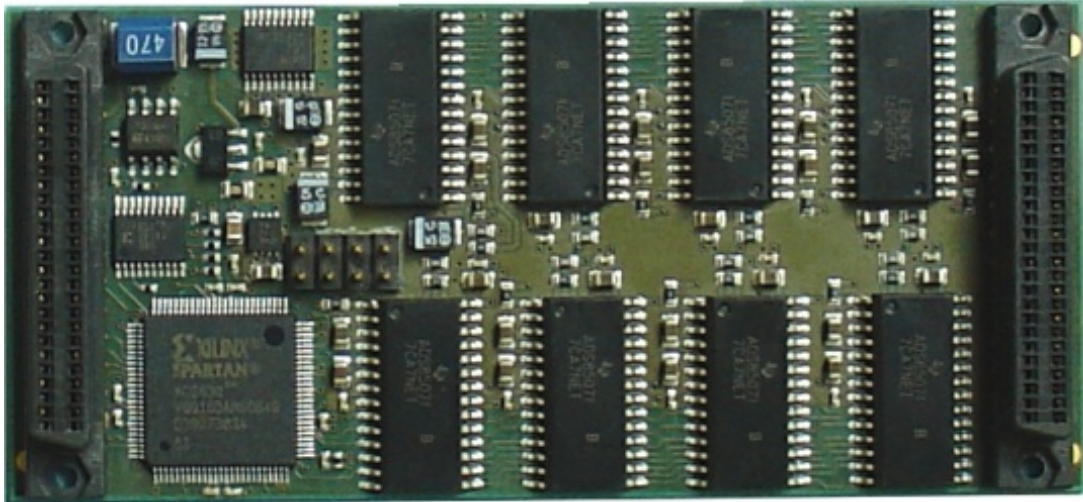


TIP830 8 Channel 12 (16) bit Simultaneous Sampling A/D



Application Information

The TIP830 family consists of IndustryPack® compatible modules with 8 independent channels of high resolution 12 bit or 16 bit analog-to-digital conversion. Each channel consists of a Sample and Hold and a 12 bit or 16 bit A/D converter. The maximum time for sample and convert is 25µs for all channels. The full-scale input range is +/-10V.

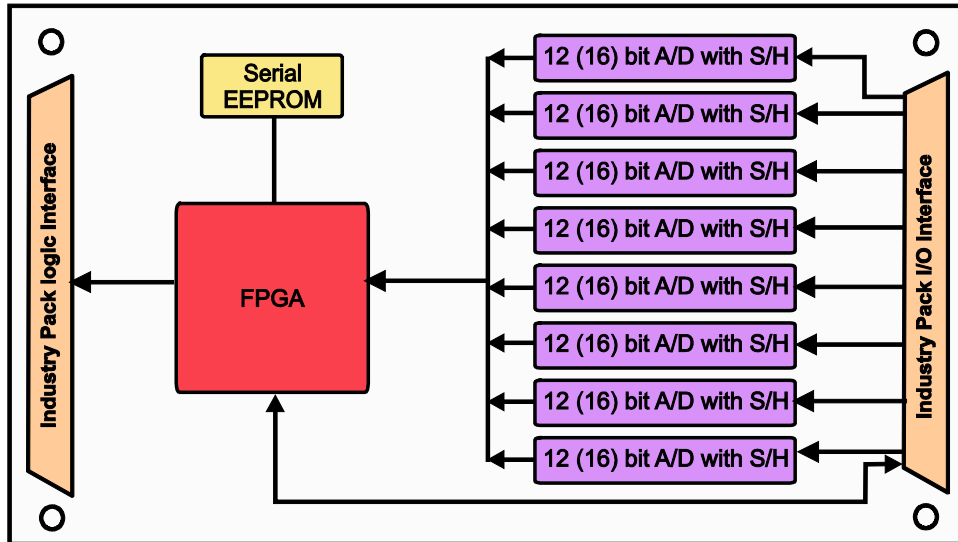
A start-of-conversion is initiated by software command or via the trigger I/O pin. All eight channels of the TIP830 sample and convert simultaneously.

By connecting the trigger I/O pins of several modules it is possible to expand the simultaneous sample and convert feature to several TIP830 modules.

Software support (TIP830-SW-xx) is available for different operating systems.

Technical Information

- Interface according to IndustryPack® specification
- Identification-PROM supports auto-configuration
- Single Size IndustryPack
- Eight 12 bit (16 bit) A/D converter (ADS8506/7)
 - Complete 12 bit (16 bit) sampling A/D converter with internal reference
 - +/- 10 V input, impedance 45 kohm
 - Integral linearity error: +/- 0.9LSB (+/- 3LSB)
 - Differential linearity error: +/- 0.9LSB (+3/-2LSB)
- No missing codes: 12 bits (15 bits)
- 25 µs maximum for sample and convert
- Factory calibration of gain and offset for each channel, correction parameters stored in serial EEPROM
- Simultaneous Sample and Convert for all 8 channels, expandable to other TIP830 by external trigger I/O pin
- Operating temperature range -40°C to +85°C



Order Information

RoHS Compliant

TIP830-10R 8 Channel 12 bit Simultaneous Sampling A/D, +/- 10V

TIP830-20R 8 Channel 16 bit Simultaneous Sampling A/D, +/- 10V

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

Documentation

TIP830-DOC User Manual

Software

TIP830-SW-42 VxWorks Software Support (Legacy and VxBus-Enabled Software Support)

TIP830-SW-65 Windows Software Support

TIP830-SW-82 Linux Software Support

TIP830-SW-95 QNX Software Support

For other operating systems please contact TEWS.