

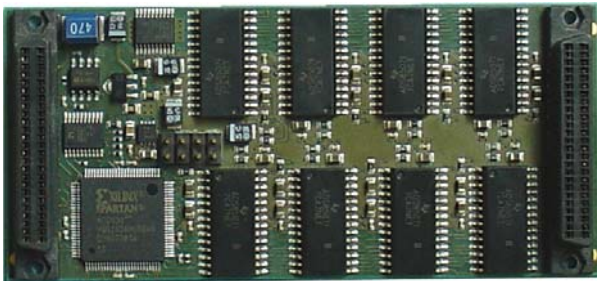
TIP830 8 Channel 12 (16) bit Simultaneous Sampling A/D

Application Information

The TIP830 family are 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.

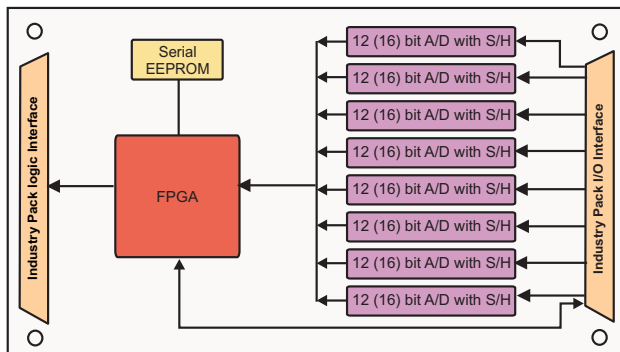
A start-of-conversion is initiated by software command or via the trigger I/O pin. All eight channels of the TIP830 sample and convert simultaneous.

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.



For First-Time-Buyers the Engineering Documentation TIP830-ED is recommended. The Engineering Documentation includes TIP830-DOC, schematics and data sheets.

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
- Sample and convert simultaneous 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** Eight 12 bit A/D channels, single-ended simultaneous sampling and converting
- TIP830-20R** Eight 16 bit A/D channels, single-ended simultaneous sampling and converting

None RoHS Compliant

- TIP830-10** None RoHS compliant version of TIP830-10R
- TIP830-20** None RoHS compliant version of TIP830-20R

Documentation

- TIP830-DOC** User Manual
- TIP830-ED** Engineering Documentation, includes TIP830-DOC

Software

- TIP830-SW-25** Integrity Software Support
- TIP830-SW-42** VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
- TIP830-SW-65** Windows XP/XPE/2000 Software Support
- TIP830-SW-72** LynxOS Software Support
- TIP830-SW-82** LiNux Software Support
- TIP830-SW-95** QNX 6 Software Support

For other operating systems please contact TEWS