

TIP850 16 Channel 12 bit A/D, 4 Channel 12 bit D/A

Application Information

The TIP850 is an IndustryPack® compatible module and offers 16 single-ended or 8 differential channels of 12 bit A/D conversion together with 4 channels of 12 bit D/A conversion.

The input multiplexer of the A/D circuit offers analog overvoltage protection of up to 70Vpp. A programmable gain amplifier allows gains of 1, 10, 100 or 1, 2, 4, 8. The full-scale input range is +/-10V. The data acquisition and conversion time is up to 10µs without channel / gain change and up to 34µs with channel / gain change.

The four D/A channels provide simultaneous loading and output voltages of +/-10V. Default value after reset is 0V for all D/A channels. The settling time to 0.01% is 6µs maximum. Each TIP850 is factory calibrated. The calibration information for A/D and D/A circuits are stored in the Identification PROM unique to each IP.

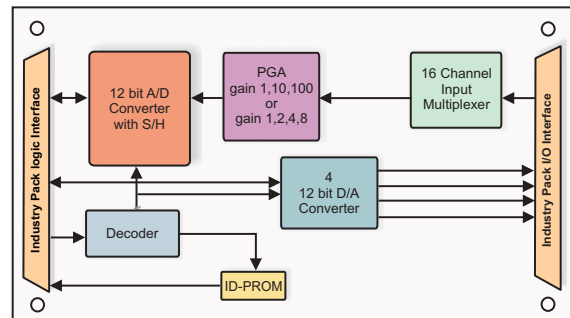


For First-Time-Buyers the engineering documentation TIP850-ED is recommended. The engineering documentation includes TIP850-DOC, schematics and data sheets.

Driver support (TIP850-SW-xx) is available for different operating systems.

Technical Information

- Interface according to IndustryPack specification
- Identification-PROM supports auto-configuration
- Single Size IndustryPack
- 16 single-ended or 8 differential channels of 12 bit A/D conversion
- ESD protected input multiplexer
- Programmable gain amplifier gain 1, 10, 100 or gain 1, 2, 4, 8
- Complete 12 bit A/D converter with internal S/H and reference (100 KHz)
- Full-scale input range +/- 10 V (gain = 1)
- 4 channels of 12 bit D/A conversion, simultaneous load
- Output range +/-10V, 0V after RESET
- Factory calibrated, calibration information in Identification-PROM unique to each IP



Order Information

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| TIP850-10 | 16 Single-Ended or 8 diff. Channels 12 bit A/D, gain 1,10,100 and 4 Channel 12 bit D/A |
| TIP850-11 | 16 Single-Ended or 8 diff. Channels 12 bit A/D, gain 1,2,4,8 and 4 Channel 12 bit D/A |
| TIP850-DOC | User Documentation |
| TIP850-ED | Engineering Documentation, includes TIP850-DOC |
| TIP850-SW-12 | OS-9 Software Support |
| TIP850-SW-32 | pSOS Software Support |
| TIP850-SW-42 | VxWorks Software Support |
| TIP850-SW-62 | Windows NT 4.0 Software Support |
| TIP850-SW-72 | LynxOS Software Support |
| TIP850-SW-82 | LiNux Software Support |
| TIP850-SW-92 | QNX 4 Software Support |
| TIP850-SW-95 | QNX 6 Software Support |