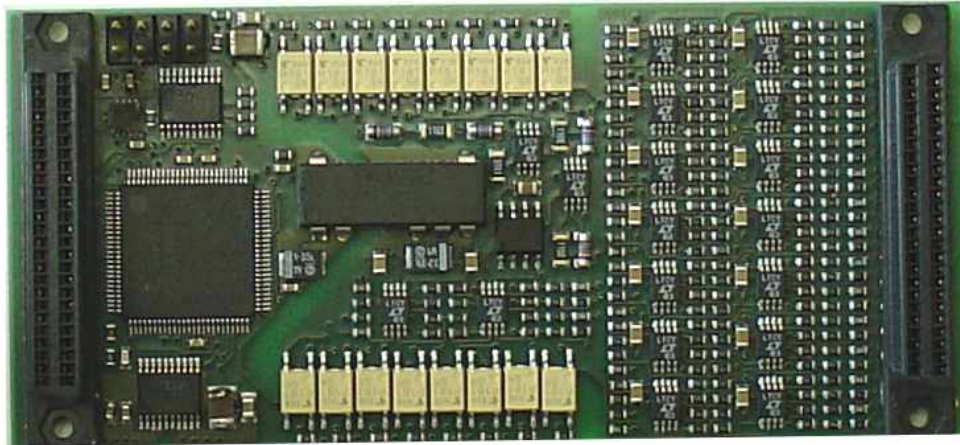# TIP606   16 Interrupt generating Digital Inputs

Application Information

The TIP606 is an IndustryPack® compatible module and is designed for avionic test environments. It provides 16 optically isolated differential inputs for high unipolar input voltage which may exceed the supply voltage of the module. The inputs can withstand input voltage up to 44V maximum between the two differential input pins.

Due to the differential inputs of the TIP606, it is even possible to use the module in noisy environments. The TIP606 provides a high differential input resistance of 112kohms typically.
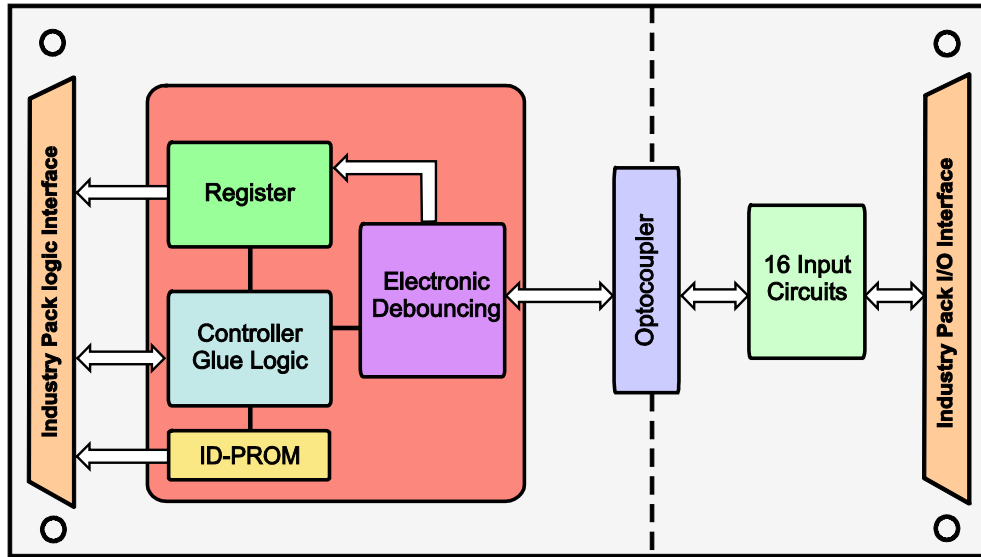
The interface circuit will detect a logic 1, if the differential voltage is typically greater than +14.0V and it will detect a logic 0, if the input voltage is typically lower than +3.5V. The inputs are isolated from the IP interface via optocouplers. Each input is capable of generating interrupts on rising or falling edges of the input signal. It is also possible to disable the generation of interrupts and poll the input register for new data.

All inputs have an electronic debounce circuit. The debounce time is programmable in a range from 900µs up to 230ms in 256 steps of 900µs. The debounce circuit can also be disabled. The TIP606 is designed for an operating temperature from -40°C to +85°C.

The driver software TIP606-SW-xx provides functions to configure the TIP606, read the input status and connect software events to input state changes.

Technical Information

- ❑ Interface according to IndustryPack specification
- ❑ Identification-PROM supports auto-configuration
- ❑ Single Size IndustryPack
- ❑ 16 interrupt generating differential digital inputs
- ❑ Up to 44V signal voltage for all 16 inputs
- ❑ Optocouplers for galvanic isolation of input to computer system
- ❑ All inputs have an electronic debounce circuit, debounce time is freely programmable
- ❑ Operating temperature -40°C to +85°C
- ❑ MTBF (MIL-HDBK217F/FN2 G_B 20°C) TIP606: 673000 h

Order Information

TIP606-10R   16 Digital Inputs for Avionic Applications, isolated, typ. 28V, max 42V

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

Documentation
TIP606-DOC   User Manual

Software
TIP606-SW-25   Integrity Software Support
TIP606-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TIP606-SW-65   Windows Software Support
TIP606-SW-72   LynxOS Software Support
TIP606-SW-82   Linux Software Support
TIP606-SW-95   QNX Software Support

For operating systems please contact TEWS.

TEWS TECHNOLOGIES GmbH keeps the right to change technical specification without further notice.   Issue 1.1.0
All trademarks mentioned are property of their respective owners.   2014-01-15

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