TIP672 24 Differential I/O Lines with Interrupts

Application Information

The TIP672 is an IndustryPack® compatible module providing 24 digital differential I/O lines using EIA-422 / EIA-485 compatible ESD protected line driver and receiver. Each line can be individually configured as differential input or differential output.

The differential receivers are always enabled, allows determining the state of the I/O line at any time. This can be used as read back function for lines configured as outputs.
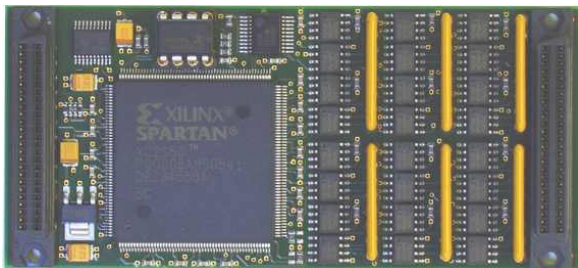
All 24 input lines can generate an interrupt. Each input interrupt can individually be enabled and cleared. The signal edge handling is programmable.

Configuring an I/O line as output enables the differential transmitter and the I/O line reflects the state programmed in the output register.

Optional the I/O lines can be configured for simultaneous update internally and across several IP's by an external clock source. The polarity of the external clock source is programmable.

6 resistor networks (4 x 120 ohms) mounted in sockets are used to terminate the differential I/O lines. The resistor networks can be removed or changed in value.

After power-on or reset all I/O lines are configured as input and all pending interrupts are cleared.
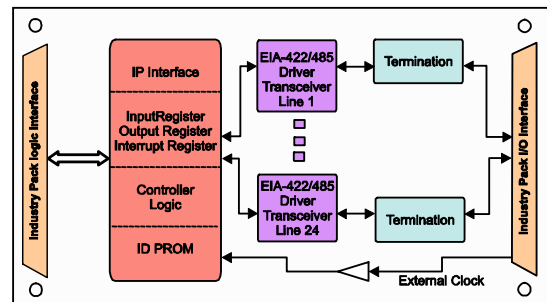
For First Time Users the Engineering Documentation TIP672-ED is recommended. The Engineering Documentation includes TIP672-DOC, schematics and data sheets.

Software Support (TIP672-SW-xx) is available for different operating systems.

Technical Information

❍ Interface according to IndustryPack specification
❍ Identification-PROM supports auto-configuration
❍ Single Size IndustryPack
❍ 24 digital I/O lines with differential EIA-422 / EIA-485 compatible ESD protected line driver / receiver
❍ I/O lines individually programmable as input or output
❍ Full interrupt capability on inputs
❍ Six 4 x 120 ohms resistor networks mounted in sockets for I/O line termination
❍ Programmable simultaneous update feature by external clock source (TTL level)
❍ Operating temperature range -40°C to +85°C

Order Information

RoHS Compliant

TIP672-10R   24 digital I/O lines with differential interface (EIA-422 / EIA-485)

TIP672-10R-ET   Same as TIP672-10R but Extended Temperature Range

None RoHS Compliant

TIP672-10   None RoHS compliant version of TIP672-10R

TIP672-10-ET   None RoHS compliant version of TIP672-10R-ET

Documentation

TIP672-DOC   User Manual

TIP672-ED   Engineering Documentation, includes TIP672-DOC

Software

TIP672-SW-25   Integrity Software Support

TIP672-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)

TIP672-SW-65   Windows XP/XPE/2000 Software Support

TIP672-SW-72   LynxOS Software Support

TIP672-SW-82   LiNUX Software Support

TIP672-SW-95   QNX 6 Software Support

For other operating systems please contact TEWS.