PCIe-FIP v1.00
FIP/WorldFIP Arbitrator for PCI Express bus
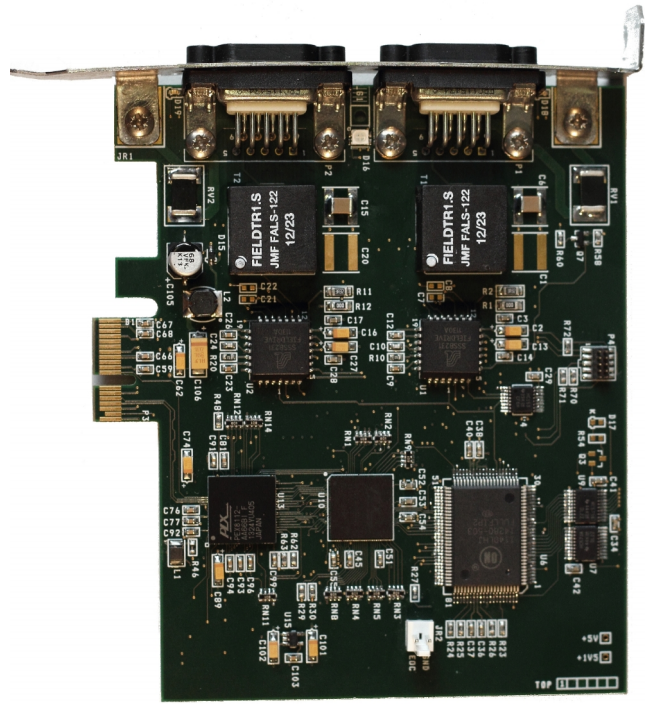
Technical features

General characteristics

PCI Express slot type	1X
PCI Express supply	+3.3V, +12V
Consumption	300mA max
Operating temperature range	-40°C to +85°C
Storage temperature range	-40°C to +85°C
MTBF at 25°C (bi-medium)	178 000 h
MTBF at 40°C (bi-medium)	140 000 h

Wired FIP bus

Protocol	FIP / WorldFIP
Data rate	31.25 kbps
	1 Mbps
	2.5 Mbps
Maximum cable length	3 km @ 31.25 kbps
	1 km @ 1Mbps
	400 m @ 2.5Mbps
Impedance	120 Ω or 150 Ω

Presentation

The PCIe-FIP arbitrator board allows the installation and the management of a FIP/WorldFIP network according to the IEC 61158-2 standard.

It can be single medium or dual medium according to the need of the user.

Installation

The installation in a PC computer is done very simply via a PnP PCI Express 1X connector.

The detection and the installation of the driver are performed by the operating system like any standard installation.

Software tools

The driver of the card is provided for Windows XP, 7 32 bits and 64 bits.

The card is controlled by the DLL « FipEngine » allowing performing all of the basic queries FIP/WorldFIP for any application customization.

Optionally, the software « FipDesigner » is an application allowing a quickly set a FIP/WorldFIP station. This station can be the arbitrator of the bus.

Wired connection

The connection to the FIP network is traditionally made by an isolated SUBD9 connector.
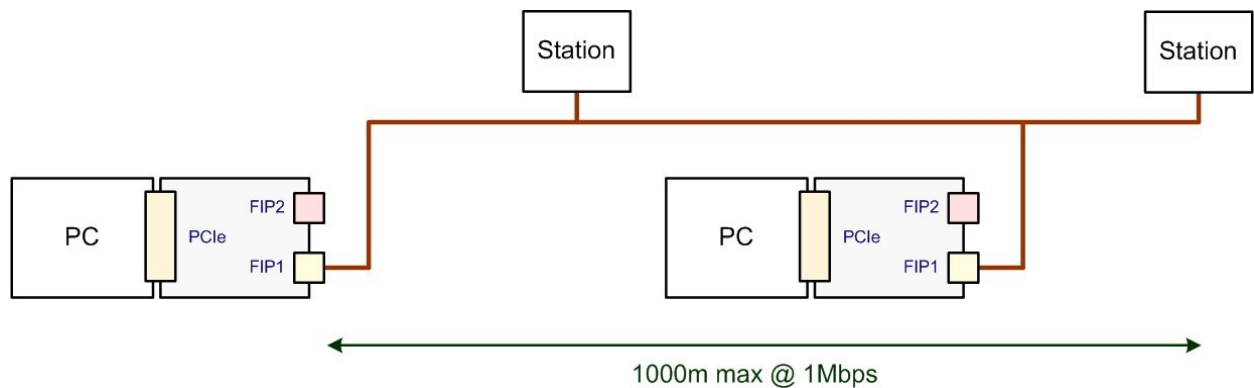
The basic configuration is as follows :

> FIP + : pin 6
>
> FIP- : pin 7
>
> Impedance : 150Ω

Contact *Exoligent* for any other configuration.

Single médium bus topology

1000m max @ 1Mbps

Dual medium bus topology

1000m max @ 1Mbps