F753 – 3U CompactPCI® PROFIBUS Interface Board

- **4HP 32-bit/33-MHz CompactPCI®**
- **Isolated RS485 interface**
- **PROFIBUS DP master, DP slave and MPI device determined by loadable firmware**
- **Based on netX universal network controller**
- **Isolation with 1000 VDC voltage**
- **Driver support for all common operating systems**
- **-20 to +70°C screened**

The F753 is a single Eurocard CompactPCI® PROFIBUS controller; that only requires one slot on the CompactPCI® bus.

It features an advanced PROFIBUS controller which allows data transmission rates of up to 12 Mbit/s. The physical interface is isolated from the system.
The same hardware can be used either as PROFIBUS DP Master or PROFIBUS DP Slave and a change of functionality/protocol can easily be done by loadable firmware.
The complete protocol stack will be executed on the F753 and data exchange to the host will be done via Dual-Port-Memory or DMA.
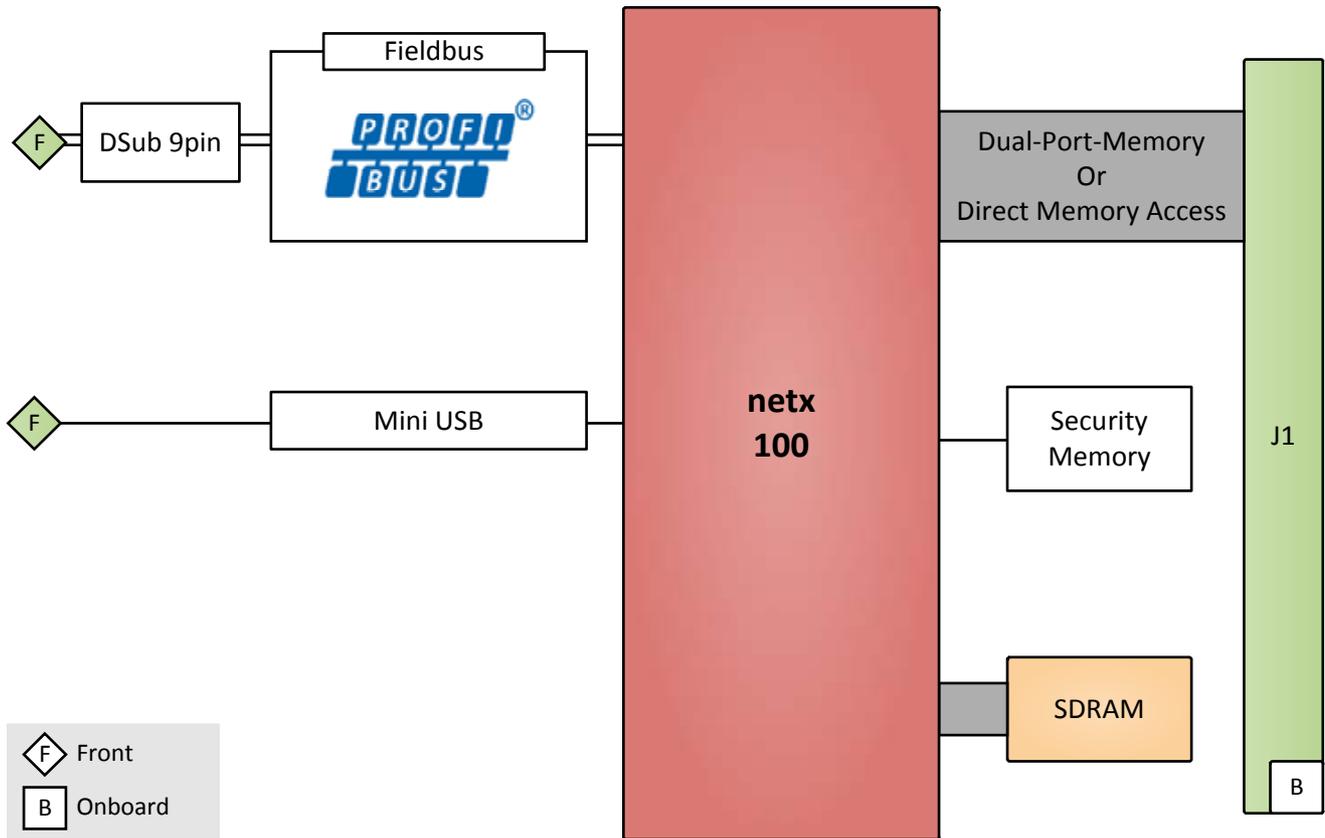
The F753 is based on the netX SOC. This highly integrated network controller supports parallel data transmission via several data paths between the internal CPU and graphics engines, and the communication and host controllers. The netX SOC also controls the on-board memory and other peripheral interfaces such as UARTS, USB, SPI or I²C.
Communication works via a dual-port SRAM interface and is supported by window and pointer access mechanism. Interrupts are available in both directions from F753 to host and from host to F753.
The F753 supports a wide range of operating systems including Windows®, Windows® CE, Linux and VxWorks®.
The F753 has been designed for mission-critical industrial and for mobile applications with demand for high resistance regarding temperature, shock and vibration.

Diagram

| Front | F |
| Onboard | B |

Technical Data

PROFIBUS	■ Supported communication determined by firmware: □ PROFIBUS DP Master □ PROFIBUS DP Slave □ PROFIBUS MPI Device ■ PROFIBUS Interface □ Type RS 485 □ Isolated □ DSub female connector, 9 pin
Communication Controller	■ Hilscher netX 100 SOC
Integrated Memory	■ 8MB SDRAM ■ 4 MB serial Flash EPROM ■ 64 KByte Dual-Port Memory (DPM)
Diagnostic Interface	■ Mini B USB plug (5 pin)
LED Display	■ System status LED ■ LED Communication Status (duo LED)
CompactPCI® Bus	■ Compliant with PICMG 2.0 R2.1 ■ 32-bit/33-MHz bridge ■ DPM or DMA data access
Electrical Specifications	■ Supply voltage/maximum current □ +3,3V dc ±5% / 650mA ■ Connected via CompactPCI® Bus
Mechanical Specifications	■ Dimensions (L x W x H): 162,2 x 100 x 20 mm ■ Compact PCI slot (3.3 V) ■ Weight: 134 g
Environmental Conditions	■ Operating temperature range □ -20..+70°C ■ Storage temperature range □ -10..+70°C ■ Humidity □ Max. 95% relative humidity non-condensing
CE Conformity	■ EN 55011:2009 + A1:2010, CISPR 11:2009, Class A (radio disturbance) ■ EN 61000-4-2:2009 (electrostatic discharge) ■ EN 61000-4-3:2006 + A1:2008 + A2:2010 (radiated, radio-frequency, electromagnetic field immunity) ■ EN 61000-4-4:2004 + A1:2010 (burst electrical fast transients/burst) ■ EN 61000-4-5:2006 (surge) ■ EN 61000-4-6:2009 (to conducted disturbances, induced by radio- frequency fields) ■ EN 61000-4-8:2010 (power frequency magnetic field) ■ EN 61000-6-2:2005 + B1:2011 (for industrial environments)
Certification	■ The device is certified according to UL 508 □ UL-File-Nr. E221530
Operating Systems	■ Windows® ■ Windows® CE ■ Linux ■ VxWorks® ■ QNX®

Technical Data

Software and Drivers	■ Configuration software master and slave:
	  □ SYCON.net
	■ Configuration software slave:
	  □ netX Configuration Tool
	■ For more information regarding drivers and software, please visit:
	  □ CompactPCI® Communication Interface for PROFIBUS

Support and Downloads	■ For more information on supported operating system versions and drivers see Downloads.

Ordering Information

Standard F753 Models	**02F753-00**	1 PROFIBUS DP Slave interface, -20..+70°C screened
	02F753-01	1 PROFIBUS DP Master interface, -20..+70°C screened
Related Hardware	This board can only be ordered together with the MEN MH70I complete system. For more information please go to: MH70I - Rugged 19" Modular Industrial PC.	
Software: Miscellaneous	A large range of corresponding driver software, software updates, firmware and firmware updates, as well as additional technical documentation is available at www.hilscher.com.	

For operating systems not mentioned here contact MEN sales.

Documentation	Compare Chart 3U CompactPCI® / PlusIO peripheral cards » Download	
	20F750-00	F750/F751/F752 and F753 User Manual

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