# F750 – 3U CompactPCI® CANopen Interface Board

- 4HP 32-bit/33-MHz CompactPCI®
- Full CAN/Extended CAN according to ISO-11898
- CANopen master and slave by loadable firmware
- Based on netX universal network controller
- Optical isolation with 1000 VDC isolation voltage
- Driver support for all common operating systems
- -20 to +70°C screened



The F750 is a single Eurocard CompactPCI® CANopen controller; that needs only one slot on the CompactPCI® bus.

It features one CAN bus interface supporting ISO highspeed up to 1 Mbit/s. The physical interface is isolated from the system.

Master or Slave protocol configuration can easily be done by loadable firmware. The complete protocol stack is executed on the F750, and data exchange to the host is done via Dual-Port-Memory or DMA. The F750 is based on the netX SOC. This highly integrated network controller supports parallel data

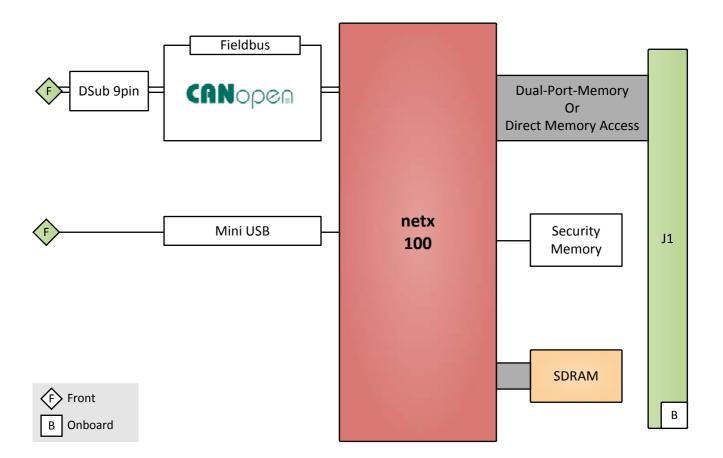
transmission via several data paths between the internal CPU and graphics engines, and the communication and host controllers. The netX SOC also controls the on-board memory and other peripheral interfaces such as UARTS, USB, SPI or I<sup>2</sup>C.

Communication works via a dual-port SRAM interface and is supported by window and pointer access mechanism. Interrupts are available in both directions from F750 to host and from host to F750.

The F750 supports a wide range of operating systems including Windows®, Windows® CE, Linux and VxWorks®.

The F750 has been designed for mission-critical industrial and for mobile applications with demand for high resistance regarding temperature, shock and vibration.

## Diagram



## **Technical Data**

CANopen	<ul> <li>Supported communication determined by firmware:</li> <li>CANopen Master</li> <li>CANopen Slave</li> <li>CANopen Interface</li> <li>Type ISO-11898</li> <li>Optically isolated</li> <li>DSub female connector, 9 pin</li> </ul>
Communication Controller	■ Hilscher netX 100 SOC
Integrated Memory	<ul> <li>8MB SDRAM</li> <li>4 MB serial Flash EPROM</li> <li>64 KByte Dual-Port Memory (DPM)</li> </ul>
Diagnostic Interface	■ Mini B USB plug (5 pin)
LED Display	<ul><li>System status LED</li><li>CANopen status (duo LED)</li></ul>
CompactPCI® Bus	<ul> <li>Compliant with PICMG 2.0 R2.1</li> <li>32-bit/33-MHz bridge</li> <li>DPM or DMA data access</li> </ul>
Electrical Specifications	<ul> <li>Supply voltage/maximum current</li> <li>+3,3V dc ±5% / 650mA</li> <li>Connected via CompactPCI® Bus</li> </ul>
Mechanical Specifications	<ul> <li>Dimensions (L x W x H): 162,2 x 100 x 20 mm</li> <li>Compact PCI slot (3.3 V)</li> <li>Weight: 134 g</li> </ul>
Environmental Conditions	<ul> <li>Operating temperature range</li> <li>-20+70°C</li> <li>Storage temperature range</li> <li>-10+70°C</li> <li>Humidity</li> <li>Max. 95% relative humidity non-condensing</li> </ul>
CE Conformity	<ul> <li>EN 55011:2009 + A1:2010, CISPR 11:2009, Class A (radio disturbance)</li> <li>EN 61000-4-2:2009 (electrostatic discharge)</li> <li>EN 61000-4-3:2006 + A1:2008 + A2:2010 (radiated, radio-frequency, electromagnetic field immunity)</li> <li>EN 61000-4-4:2004 + A1:2010 (burst electrical fast transients/burst)</li> <li>EN 61000-4-5:2006 (surge)</li> <li>EN 61000-4-6:2009 (to conducted disturbances, induced by radio- frequency fields)</li> <li>EN 61000-4-8:2010 (power frequency magnetic field)</li> <li>EN 61000-6-2:2005 + B1:2011 (for industrial environments)</li> </ul>
Certification	<ul> <li>The device is certified according to UL 508</li> <li>UL-File-Nr. E221530</li> </ul>
Operating Systems	<ul> <li>Windows®</li> <li>Windows® CE</li> <li>Linux</li> <li>VxWorks®</li> <li>QNX®</li> </ul>

#### **Technical Data**

Software and Drivers	<ul> <li>Configuration software master and slave:         <ul> <li>SYCON.net</li> </ul> </li> <li>Configuration Software Slave:         <ul> <li>netX Configuration Tool</li> </ul> </li> <li>For more information regarding drivers and firmware, please visit:         <ul> <li>CompactPCI® Communication Interface for CANopen</li> </ul> </li> </ul>
Support and Downloads	■ For more information on supported operating system versions and drivers see Downloads.

### **Ordering Information**

Standard F750 Models	02F750-00	1 CANopen Slave interface, -20+70°C screened			
	02F750-01	1 CANopen 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 <a href="https://www.hilscher.com">www.hilscher.com</a> .				
For operating systems not mentioned here contact MEN sales.					
Documentation	Compare Chart 31	J CompactPCI® / PlusIO peripheral cards » Download			
	20F750-00	F750/F751/F752 and F753 User Manual			

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