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 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 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	 Supported communication determined by firmware: CANopen Master CANopen Slave CANopen Interface Type ISO-11898 Optically 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 LEDCANopen 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 firmware, please visit: CompactPCI[®] Communication Interface for CANopen
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 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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