

CAN-IB230/PCIe 104



The Ixxat CAN-IB230/PCIe 104 is an active PCI Express 104 interface card with four channels and galvanic isolation. It provides a simple and efficient way to connect computers to CAN or LIN networks.

By using software it is possible to switch one of the four CAN high-speed channels to CAN low-speed. Beside this, an additional LIN channel is available, which can be operated in master and slave mode and can also be set via software. Thus, the active board offers highest flexibility for future requirements.

Galvanic isolation reliably enhances the protection of the device against damage to electronics caused by voltage peaks.

FEATURES AND BENEFITS

- Active CAN interface card with powerful 32 bit microcontroller
- 4 x CAN high-speed channels, thereof 1 x switchable channel to CAN low-speed
- 1 x LIN channel
- Galvanic isolation
- Common driver interface for easy exchange of the PC interface type
- Powerful programming interface for Windows (VCI) as well as for Linux (socketCAN or ECI), QNX and VxWorks (ECI)

ORDER NUMBER	1.01.0239.42001
CAN channels (high-speed)	4
CAN channels (low-speed)	1
CAN bus interface	4 x CAN 2.0 A/B interfaces; bent 2 x 5 pin connector according to CiA 303-1
CAN bit rates	10 kBit/s to 1 Mbit/s (high-speed), 10 kBit/s to 125 kBit/s (low-speed)
CAN high-speed transceiver	SN65HVD251
CAN low-speed transceiver	TJA1054
Galvanic isolation	1 kV DC for 1 sec.
CAN propagation delay (typical)	With galvanic isolation typical 6 ns, max. 10 ns
LIN transceiver	TJA1020T
LIN channels	1
PC bus interface	PCI express (V1.1), PCI/104 Express and PCIe/104 Specification V2.01

ORDER NUMBER	1.01.0239.42001
PC address range/interrupts	Plug & Play
Power supply	3.3 V DC (via PCIe/104 socket)
Power consumption	Typ. 350 mA
Dimensions	90 x 96 mm
Weight	Approx. 60 g
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
Relative humidity	10 % to 95 %, non-condensing
Certification	CE, FCC
Operating systems	Windows 11, Windows 10 (32/64), Windows 8 (32/64), Windows 7 (32/64), Linux

CERTIFICATES



PIN ALLOCATION

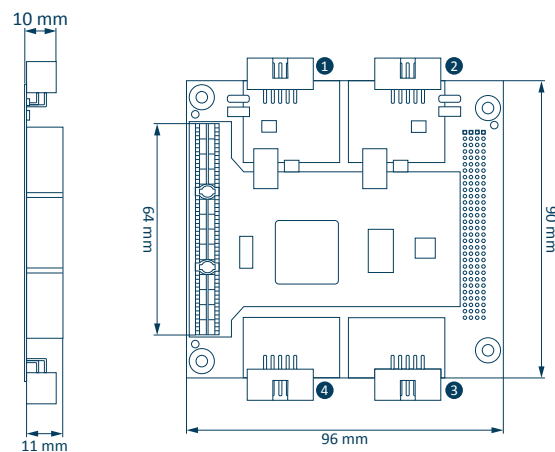
CAN CONNECTORS ① ② ③ ④



Pin Allocation of 10 Pin Box Header

Pin no.	Signal
1	CAN-low (low speed)
2	—
3	CAN-low (high speed/CAN FD)
4	CAN-high (high speed/CAN FD)
5	CAN GND
6	LIN
7	CAN-high (low speed)
8	VBAT _{LIN}
9, 10	—

TECHNICAL DRAWING



SCREW CONNECTORS

- 1 = CAN 1
- 2 = CAN 2
- 3 = CAN 3
- 4 = CAN 4

SOFTWARE SUPPORT

Drivers and programming interfaces

Comprehensive and powerful driver and software packages for the CAN-IB230/PCIe 104 series are available for free at ixxat.com/support. The driver packages can be downloaded for Windows (VCI - Virtual Communication Interface) and Linux (ECI), and are available on request for various real-time operating systems (INtime, RTX, Vxworks, QNX).

Using the Ixxat driver packages, customers can easily switch between the different PC interfaces offered by HMS. This would allow them to use USB, PCIe, Ethernet or other PC connections without changes to their application. The drivers support all protocols available on the interface with one API, so customers can easily access CAN, CAN FD and LIN simultaneously and get the data with a common time stamp.

Softwaretools

The software tool canAnalyser3 Mini is included in the VCI V4 download package and enables the first analysis steps and monitoring in CAN networks. Further information about the tools as well as Demo/Trial versions are available on the Ixxat webpage.