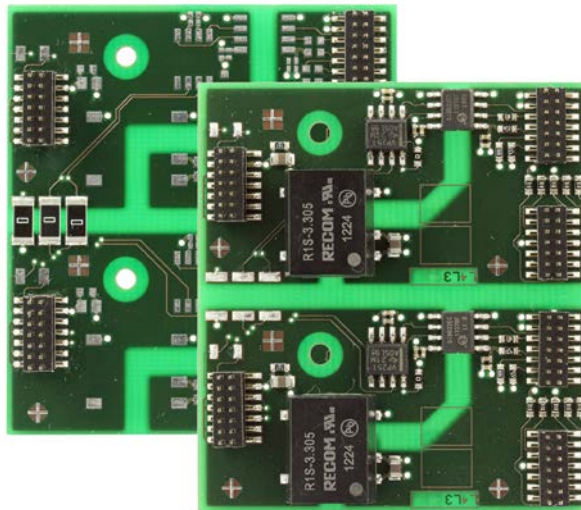


MultiCAN PiggyBack

for IXXAT CAN-Interfaceboards





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1 Introduction

Using IXXAT MultiCAN-PB the number of CAN high speed channels on the Sub-D9 connectors of specific IXXAT CAN interface boards will be doubled. The CAN interface board recognize, with correct installation of the MultiCAN-PB, the installed extensions.

Compatibility with the IXXAT CAN interface boards are shown on the Internet at <http://www.ixxat.com/>.

Hints:

- Be aware, that using MultiCAN PB the pin allocation shown in the manual of the CAN interface board will be changed.
- MultiCAN Modules only can be used if no other field bus extensions modules on the CAN Interface board or the CAN Expansionboard are used.

2 MultiCAN PB

This module redirect the on the IXXAT CAN interface board available CAN channel CAN3 to the Sub-D9 connector of CAN1 and CAN channel CAN4 to Sub-D9 connector of CAN2. Galvanic isolation of CAN channels will remain.

Important note:

- This module may not be used in conjunction with a CAN Expansionboard (1.01.0240.xxxxx).
- Pin allocation of Sub-D9 connectors are shown in chapter 2.3

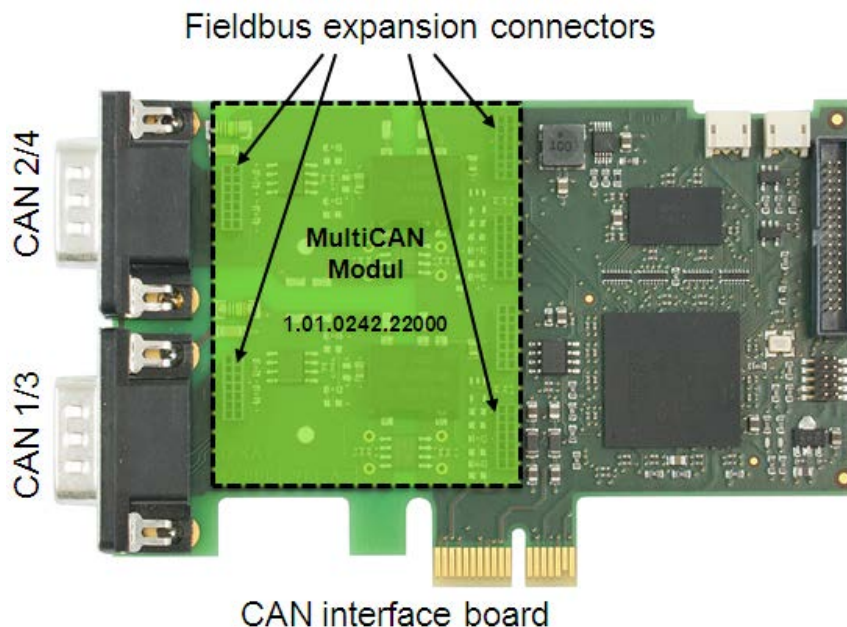
2.1 Compatibility

This module is compatibel with following IXXAT CAN interfaces boards

- *CAN-IB100/PCle* 1.01.0231.22001
- *CAN-IB200/PCle* 1.01.0233.22001

2.2 Installation

Proper ESD precautions must be practiced before installing the module. Be aware, that the module is connected in a proper way onto the fieldbus expansion connectors as shown in following figure.



2.3 Connections

Using MultiCAN module, pin allocation of Sub-D9 connectors CAN1/3 and CAN2/4 of the CAN-Interfaceboard are shown in Table 2-1 und Table 2-2.

Pin No.	Signal	Option
1	CAN ₃ -Low (High-Speed)	CAN3 via MultiCAN module
2	CAN ₁ -Low (High-Speed)	
3	GND ₁	
4	CAN ₃ -High (High-Speed)	CAN3 via MultiCAN module
5	GND ₃	CAN3 via MultiCAN module
6	-	
7	CAN ₁ -High (High-Speed)	
8	-	
9	-	

Table 2-1: Pin allocation Sub-D9 connector CAN1/3

Pin No.	Signal	Option
1	CAN ₄ -Low (High-Speed)	CAN4 via MultiCAN module
2	CAN ₂ -Low (High-Speed)	
3	GND ₂	
4	CAN ₄ -High (High-Speed)	CAN4 via MultiCAN module
5	GND ₄	CAN4 via MultiCAN module
6	-	
7	CAN ₂ -High (High-Speed)	
8	-	
9	-	

Table 2-2: Pin allocation Sub-D9 connector CAN2/4

3 MultiCAN PB / LP

This module can be used in conjunction with IXXAT low profile CAN interface boards. It redirect CAN channel CAN2 of the CAN interface board to CAN1 connector of the CAN interface board. It can also be used in conjunction with the CAN Expansionboard. In this case it redirect CAN channel CAN4 of the CAN expansion board to CAN3 connector of the CAN expansion board. Galvanic isolation of CAN channels will remain.

Important note:

- Pin allocation of Sub-D9 connectors are shown in chapter 3.3.

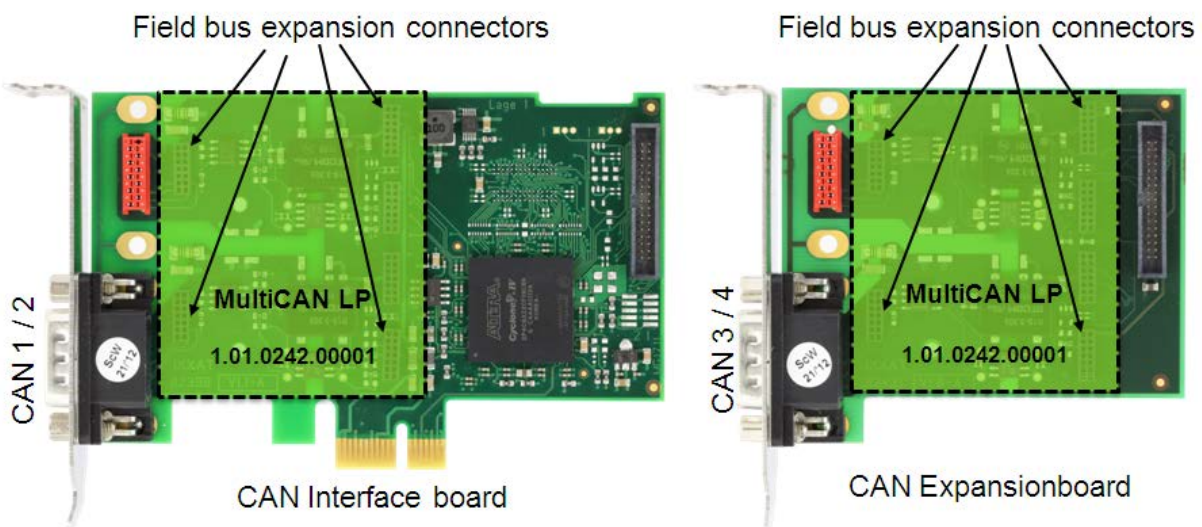
3.1 Compatibility

This module is compatibel with IXXAT CAN interfaces

- *CAN-IB100/PCIe LP* 1.01.0232.22001
- *CAN-IB200/PCIe LP* 1.01.0234.22001
- *CAN-Expansionboard LP* 1.01.0240.22203

3.2 Installation

Proper ESD precautions must be practiced before installing the module. Be aware, that the module is connected in a proper way onto the fieldbus expansion connectors as shown in the following figure.



3.3 Connections

Using MultiCAN LP modul, pin allocation of Sub-D9 connectors of CAN 1/2 of the CAN interface board and CAN3/4 of the CAN Expansionbaord are shown in Table 3-1 and Table 3-2.

Pin No.	Signal	Option
1	CAN ₂ -Low (High-Speed)	CAN2 via MultiCAN module
2	CAN ₁ -Low (High-Speed)	
3	GND ₁	
4	CAN ₂ -High (High-Speed)	CAN2 via MultiCAN module
5	GND ₂	CAN2 via MultiCAN module
6	-	
7	CAN ₁ -High (High-Speed)	
8	-	
9	-	

Table 3-1: pin allocation Sub-D9 connector CAN1/2

Pin No.	Signal	Option
1	CAN ₄ -Low (High-Speed)	CAN4 via MultiCAN module
2	CAN ₃ -Low (High-Speed)	
3	GND ₃	
4	CAN ₄ -High (High-Speed)	CAN4 via MultiCAN module
5	GND ₄	CAN4 via MultiCAN module
6	-	
7	CAN ₃ -High (High-Speed)	
8	-	
9	-	

Table 3-2: pin allocation Sub-D9 connector CAN3/4

4 Notes

For more information on our products, FAQ lists and installation tips, please refer to the support area on our homepage (<http://www.ixxat.com/>). There you will also find information on current product versions and available updates.

If it is necessary to return hardware to us, please download the relevant RMA form from our homepage and follow the instructions on this form.

Further technical details on EMC, FCC and EC Conformity, are shown in the hardware manual of the used CAN interface board.

5 Technical data

MultiCAN PB

CAN Transceiver:	TI SN65HVD251
CAN propagation delay:	typical 6 ns, max. 10 ns
CAN baudrates:	10 kBaud – 1 MBaud (High-Speed)
Dimensions:	47 x 52 mm
Weight:	approx. 12 g
Operating temperature range:	0 °C .. +70 °C
Storage temperature range:	-40 °C .. +85 °C
Relative humidity:	10 - 95 %, no condensation
Galvanic isolation:	500 V AC for 1 minute between CAN bus and internal logic

MultiCAN PB / LP

Dimensions:	47 x 52 mm
Weight:	approx. 9 g
Operating temperature range:	0 °C .. +70 °C
Storage temperature range:	-40 °C .. +85 °C
Relative humidity:	10 - 95 %, no condensation
Galvanic isolation:	see CAN Interface board / CAN-Expansionboard

6 EC Declaration of Conformity

IXXAT Automation declares, that the product: MultiCAN PB

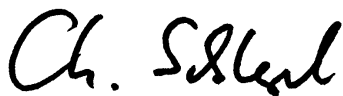
with the article numbers: 1.01.0242.22000
1.01.0242.00001

complies with the EU directive 2004/108/EC.

Applied harmonized standards: EN 55022:1998 + A1:2000 +
A2:2003

EN 55024:1998 + A1:2001 +
A2:2003

03.12.2013, Dipl.-Ing. Christian Schlegel, Managing Director



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