

## SH ARC-PCIe

### ARCNET PCI Express cards



#### Scope of application

The SH ARC-PCIe ARCNET card series has been developed for use in industrial PCs that feature the PCI Express bus. The cards are available with coaxial interface, galvanically decoupled RS-485/EIA-485 interface or as compound cards featuring different ARCNET interfaces for connection to ARCNET networks with various signaling methods (Sine dipulse, RS-485AC and optical) via coaxial, twisted pair or fiber optic cables.

When you update to a PC with PCI Express interface the card can immediately substitute other SOHARD ARCNET network adapters, if your application is using the SOHARD RAW ARCNET interface and the corresponding driver.

#### Design & Functionality

The card features the ARCNET controller COM20022 from SMSC. It supports standardized bit rates up to 10 Mbit/s. The SH ARC-PCIe is a 32 bit card conforming to PCI Express 1.0a. The card is a plug and play device. Configuration of addresses and interrupts is simple. It may be addressed via I/O addresses or via memory.

4 LEDs indicate the following activities:

- Coaxial transceiver active/inactive (back plane mode on/off).
- Activity on ARCNET receive channel
- Activity on ARCNET transmission channel
- PC access to ARCNET module

For technical information on the SOHARD ARCNET interface modules usable with the card, please have a look at our product datasheet "ARCNET Interface Modules".

#### Key features

- 32 bit bus
- Using single PCIe lane (PCIe x1)
- ARCNET controller COM20022
- Bit rates 156 kbit/s to 10 Mbit/s
- Mapping of the COM20022 registers into the I/O and memory space of the PC
- Fast controller access via Advanced-Memory Mode
- Coaxial transceiver protected against invalid bit rate and transmission mode
- Switchable termination of the RS-485/EIA-485 interface
- Compound cards featuring RS485AC, TWP and various optical interfaces are also available

#### Specification

<b>Compatibility</b>	ANSI/ATA 878.1, PCI Express Base Spec. 1.0a, CE for industrial environment
<b>Power requirements</b>	3.3 V & 12 V from PC, 4 W max.
<b>Temperature range, operation</b>	0°C to + 55°C
<b>Temperature range, storage</b>	- 20°C to + 85°C
<b>Dimensions (w/h/d), in mm</b>	120/107/19 (without connectors and slot bracket)
<b>Weight</b>	max 250 g (incl. Packaging)

#### Drivers

<b>Universal RAW driver (UARC)</b>	Windows XP/2003/2008/Vista <sup>1)</sup> Windows 7/8/10/11 <sup>1)</sup>
<b>Other drivers</b>	Linux <sup>1)</sup>

<sup>1)</sup> Detailed overview of drivers and supported OS can be found on [www.sohard.de](http://www.sohard.de)



**Order Information**

Product name	Bit rate	Signal	Socket	Cable type
SH ARC-PCIe-K	2.5 Mbit/s	sine dipulse	BNC	coaxial cable RG-62
SH ARC-PCIe-LWLSMA <sup>1)</sup>	156.25 kbit/s – 2.5 Mbit/s	optical	FSMA	multi-mode fibers
SH ARC-PCIe-LWLST <sup>1)</sup>	156.25 kbit/s – 2.5 Mbit/s	optical	ST/BFOC	multi-mode fibers
SH ARC-PCIe-LWLTOS <sup>1)</sup>	156.25 kbit/s – 2.5 Mbit/s	optical	TODX296/TOSLINK	multi-mode fibers
SH ARC-PCIe-R	156.25 kbit/s – 10 Mbit/s	RS-485/EIA-485	DE-9/D-sub	twisted pair cable
SH ARC-PCIe-RS485AC-BNC <sup>1)</sup>	2.5 – 10 Mbit/s	RS485AC	BNC	coaxial cable RG-62
SH ARC-PCIe-RS485AC-RJ45 <sup>1)</sup>	2.5 – 10 Mbit/s	RS485AC	RJ45	twisted pair cable
SH ARC-PCIe-TWP <sup>1)</sup>	2.5 Mbit/s	sine dipulse	RJ45	twisted pair cable

1) 2 PC slots are required.

User manual and CD with drivers are included with "SH ARC-PCIe".