

SH ARC-PClu

Universal ARCNET PCI card
for 3.3V and 5V signal environment



Scope of application

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

When you update to a PC with PCI 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 SMC which is completely compatible with the COM20020. It supports standardized bit rates up to 10 Mbit/s. The SH ARC-PClu is a 32 bit card conforming to PCI 2.2. 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 receiving channel
- Activity on ARCNET sending channel
- PC access to ARCNET module

For technical information on the ARCNET interfaces of SH ARC-PClu product family, please have a look at our product datasheet "ARCNET Interface Modules".

Key features

PCI 2.2 compatible
32 bit bus
Mapping of the COM20022 registers into the I/O and memory space of the PC
Automatic adaptation to 3.3V and 5V signal environment
Usable in legacy systems owing to DOS support
Fast controller access via Advanced-Memory Mode
Coaxial transceiver protected against invalid bit rate and transmission mode
Switchable termination of the RS-485 interface
Compound cards featuring RS485AC, TWP and various optical fiber interfaces are also available

Specification

Compatibility	ANSI/ATA 878.1, PCI 2.2, CE for industrial environment
Power requirements	3.3, 5 & -12 V from PC, max. 4 W
Temperature range, operation	0°C to +55°C
Temperature range, storage	-20°C to +85°C
Dimensions (w/h/d), in mm	120/107/19 (without connectors and slot bracket)
Weight	max 250 g (incl. Packaging)

Drivers

Universal RAW driver (UARC)	Windows 98/ME/NT/2000 Windows XP/2003/2008/Vista/7 ¹⁾
NDIS	Windows 95/98/NT/2000 ¹⁾
Other drivers	Linux ¹⁾

¹⁾ Detailed overview of drivers and supported OS can be found on www.sohard.de



Order Information

Product name	Bit rate	Signal	Socket	Cable type
SH ARC-PClu-K	2.5 Mbit/s	sine dipulse	BNC	coaxial cable RG-62
SH ARC-PClu-LWLSMA	156.25 kbit – 2.5 Mbit/s	optical	FSMA	multi-mode fibers
SH ARC-PClu-LWLST	156.25 kbit – 2.5 Mbit/s	optical	ST/BFOC	multi-mode fibers
SH ARC-PClu-LWLTOS	156.25 kbit – 2.5 Mbit/s	optical	TODX296/TOSLINK	multi-mode fibers
SH ARC-PClu-R	156.25 kbit – 10 Mbit/s	RS-485/EIA-485	DE-9/D-Sub	twisted pair cable
SH ARC-PClu-RS485AC ¹⁾	2.5–10 Mbit/s	RS-485/EIA-485 ²⁾	RJ45	twisted pair cable
SH ARC-PClu-TWP ¹⁾	2.5 Mbit/s	sine dipulse	RJ45	twisted pair cable

¹⁾ 2 PC slots are required. ²⁾ RS-485/EIA-485 via signal transformer (AC coupled)
User manual and CD with drivers are included with "SH ARC-PClu".