SOHARD
EMBEDDED SYSTEMS
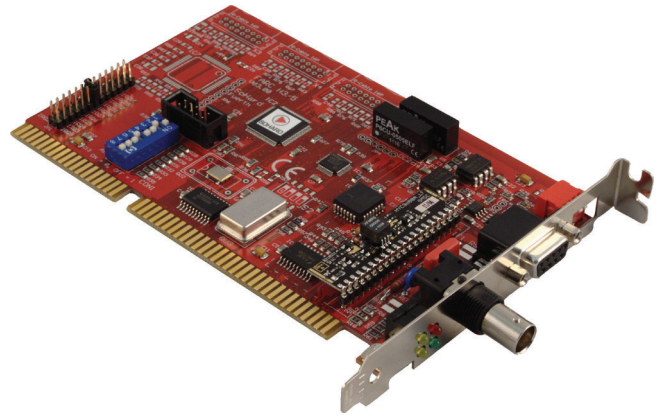
SH ARC-ISA

ARCNET ISA card

Scope of application

The ARCNET card SH ARC-ISA serves as an interface to the field bus ARCNET in industrial PCs or main terminals. The card offers a BNC and a D-sub connector for sine dipulse and RS-485 (EIA-485) transmission via coaxial and twisted pair cables respectively to ensure a maximum of flexibility.

Owing to SOHARD's standardized driver interface the SH ARC-ISA may substitute any other SOHARD ARCNET card without major effort.

Design & Functionality

The card features the following components:

ARCNET controller
The card uses the ARCNET controller COM20022 from SMSC which is fully compatible with the COM20020. It supports bit rates up to 10 Mbit/s as well as additional settings.

ISA bus interface
The 16 bit ISA bus card allows the use of interrupts between 2 and 15. Only 16 I/O addresses will be occupied, their start address being fully adjustable.

Fieldbus connection
You may use the integrated coaxial or RS-485 (EIA-485) interface at your choice. RS-485 allows for bit rates up to 10 Mbit/s, the coaxial interface for a fixed rate of 2.5 Mbit/s. A protective logic prevents the coaxial transceiver from being destroyed due to low data rates or usage of the backplane mode.

Timer module (optional)
The 82C54 timer module from Intel offers three disposable timers which can be used for control and monitoring tasks. This module allows, e.g., to mark a received package with a real-time time-stamp.

Key features

Electrically isolated BNC and D-sub sockets on-board
16 bit ISA bus card
ARCNET controller COM20022
Termination of RS-485 interface switchable by means of DIP switch
Protecting HITs (sine dipulse transceivers) against incorrect mode or speed
Bit rate 156 kbit/s to 10 Mbit/s (sine dipulse 2.5 Mbit/s only)
Requiring 16 I/O addresses; base address selectable by means of DIP switch
Interrupt selectable by means of jumper
Triple timer module (optional)

Specification

Compatibility	ANSI/ATA 878.1, CE for industrial environment
Power requirements	±5 V from PC, 5 W max
Temperature range, operation	0°C to +55°C
Temperature range, storage	-20°C to +85°C
Dimensions (w/h/d) in mm, w/o conn.	156/21/129
Weight	max 200 g packing included

Drivers

Windows	RAW ARCNET and NDIS drivers
Linux	community driver

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-ISA-K	2.5 Mbit/s	sine dipulse	BNC	coaxial cable RG-62
SH ARC-ISA-KR	2.5 Mbit/s or 156.25 kbit/s – 10 Mbit/s	sine dipulse or RS-485/EIA-485	BNC or DE-9/D-sub	coaxial cable RG-62 or twisted pair cable

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