DATASHEET

SH ARC-USB

ARCNET device for USB

Scope of application

The SH ARC-USB family has been developed as USB ARCNET adapters for use in industrial environments. The devices are available with various ARCNET interfaces for connection to ARCNET networks with different signaling methods (sine dipulse, RS-485 (EIA-485), RS485AC and optical) via coaxial, twisted pair or fiber optic cables.

If you use other SOHARD ARCNET network adapters in combination with the SOHARD RAW ARCNET interface and the corresponding driver then they can be immediately substituted by the SH ARC-USB and its driver. Your application needs not to be changed.

Design & Functionality

The SH ARC-USB features the FPGA-based ARCNET IP core SH IP-CORE-ARCCTRL that is thoroughly compatible to the ARCNET standard.

SH ARC-USB meets the USB Standard 2.0. The device is housed in a solid metal casing. The SH ARC-USB is available with various ARCNET interfaces (see order information). A specialty within this product series is the SH ARC-USB-K which comes either in a particularly compact casing or as a low-profile plug-in board for standard as well as low-profile PCs.

Key features

• High speed USB
• ARCNET controller implemented by FPGA-based IP core SH IP-CORE-ARCCTRL
• Programmable logic allows to add costumer-specific functionality
• Bit rates 19.5 kbit/s to 10 Mbit/s
• Various Diagnosis LEDs

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

Status and Diagnosis LEDs

Power LED	Indicates correct device power
USB LED	Flashing frequency indicates USB Bus Speed (Full or High Speed)
ARCNET LED	Indicates activation of IP core
Reset LED	Flashes up during reset
Activity LED	Indicates activity on the ARCNET network
Status LED	Indicating host access to the ARCNET controller

Specification

Compatibility	ANSI/ATA 878.1, USB 2.0, CE for industrial environment
Power requirements	5 V from USB, 2.5 W max.
Temperature range, operation	0°C to + 55°C
Temperature range, storage	– 20°C to + 85°C
Dimensions (w/h/d), in mm	106/33/125 (without connectors), SH ARC-USB-K: 104/24/55
Weight	max 500g incl. packaging

Drivers

USB RAW driver	Windows 2000/XP/2003/ Windows 2008/Vista/7 [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-USB-K (compact case)	2.5 Mbit/s	sine dipulse	BNC	coaxial cable RG-62
SH ARC-USB-K-LP [1]	2.5 Mbit/s	sine dipulse	BNC	coaxial cable RG-62
SH ARC-USB-LWLSMA	19.5 kbit/s – 2.5 Mbit/s	optical	FSMA	multi-mode fibers
SH ARC-USB-LWLST	19.5 kbit/s – 2.5 Mbit/s	optical	ST/BFOC	multi-mode fibers
SH ARC-USB-LWLTOS	19.5 kbit/s – 2.5 Mbit/s	optical	TODX296/TOSLINK	multi-mode fibers
SH ARC-USB-R	19.5 kbit/s – 10 Mbit/s	RS-485/EIA-485	DE-9/D-sub	twisted pair cable
SH ARC-USB-RS485AC-BNC	2.5 – 10 Mbit/s	RS485AC	BNC	coaxial cable RG-62
SH ARC-USB-RS485AC-RJ45	2.5 – 10 Mbit/s	RS485AC	RJ45	twisted pair cable
SH ARC-USB-TWP	2.5 Mbit/s	sine dipulse	RJ45	twisted pair cable

[1] A low-profile plug-in board for PC case.
User manual, USB cable and CD with drivers are included with "SH ARC-USB".