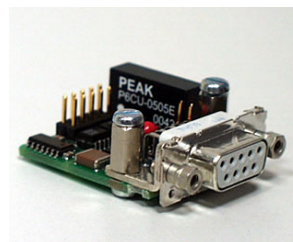


SA2 – RS422/485 SA-Adapter™

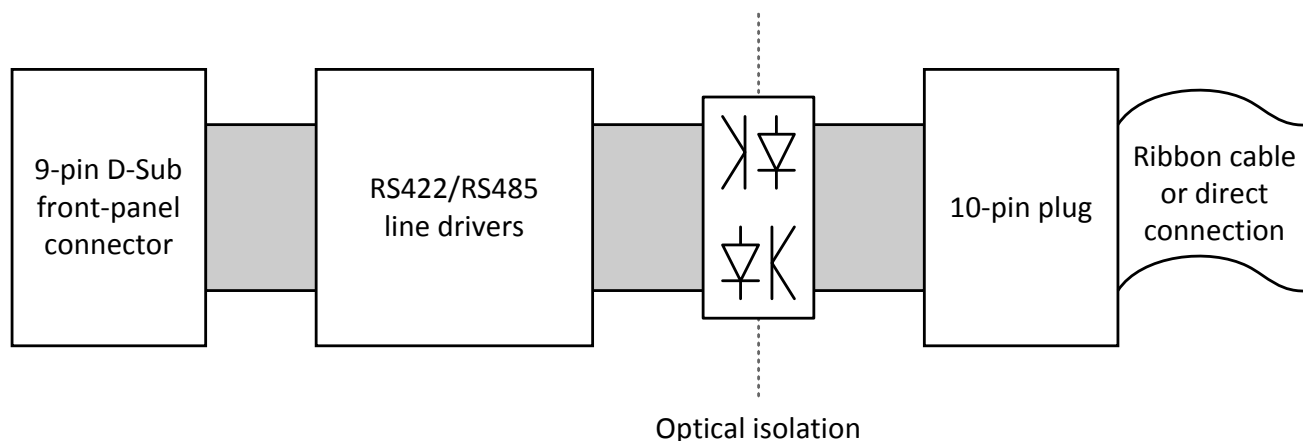
- 1 RS422/485 channel
- Optically isolated
- Shielded 9-pin D-Sub connector



The SA2 is a 1-channel RS422/485 half/full duplex interface adapter with optical isolation. SA-Adapters™ are small universal boards providing the physics for legacy serial I/O, fieldbus interfaces and other small I/O functions. One serial line is provided per adapter, which can be plugged directly to the CPU board as a mezzanine. Alternatively, the adapter can be

connected to the front panel via ribbon cable. The SA concept allows to add additional I/O interfaces to many of MEN's CPU boards, enhancing flexibility with regard to the line transceivers and isolation requirements. Whether a specific SA-Adapter™ (or a mix of different SA-Adapters™) fits on a specific CPU board is determined by a combination of mechanical, performance, FPGA and operating system criteria and needs to be verified for every board configuration requested.

Diagram



Technical Data

Universal Concept	<ul style="list-style-type: none"> ■ 2 data lines ■ Up to 6 handshake signals ■ 2 power supply lines
Interface Type	<ul style="list-style-type: none"> ■ RS422/RS485, half/full duplex, optically isolated
Interface Compliance	<ul style="list-style-type: none"> ■ RS422A ■ CCITT V.11 ■ RS485
Peripheral Connections	<ul style="list-style-type: none"> ■ Via front panel on a shielded 9-pin D-Sub receptacle connector
Installation	<ul style="list-style-type: none"> ■ As a piggy-back board directly on a CPU board ■ Via ribbon cable
Electrical Specifications	<ul style="list-style-type: none"> ■ Isolation voltage: <ul style="list-style-type: none"> □ 500V DC □ Voltage between the connector shield and isolated ground is limited to 180V using a varistor; AC coupling between connector shield and isolated ground through 47nF capacitor ■ Supply voltage/power consumption: +5V (4.85V..5.25V), 220mA typ. ■ MTBF: 1,300,000h @ 50°C (derived from MIL-HDBK-217F)
Mechanical Specifications	<ul style="list-style-type: none"> ■ Dimensions: 32mm x 42mm ■ Weight: 18g
Environmental Specifications	<ul style="list-style-type: none"> ■ Temperature range (operation): <ul style="list-style-type: none"> □ 0..+60°C or -40..+85°C (screened) □ Airflow: min. 10m³/h ■ Temperature range (storage): -40..+85°C ■ Relative humidity (operation): max. 95% non-condensing ■ Relative humidity (storage): max. 95% non-condensing ■ Altitude: -300m to + 3,000m ■ Shock: 15g/11ms ■ Bump: 10g/16ms ■ Vibration (sinusoidal): 2g/10..150Hz ■ Conformal coating on request
Safety	<ul style="list-style-type: none"> ■ PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers
EMC	<ul style="list-style-type: none"> ■ Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst)

Ordering Information

Standard SA2 Models	<p>You can find a more detailed overview of possible carrier board/SA-Adapter™ combinations along with software support in our option matrix (PDF).</p>	
	08SA02-00	RS422/485, half duplex, optically isolated, 0..+60°C
	08SA02-01	RS422/485, full duplex, optically isolated, 0..+60°C
	08SA02-07	RS422/485, full duplex, optically isolated, -40..+85°C screened
	08SA02-09	RS422/485, half duplex, optically isolated, -40..+85°C
Documentation	20SA02-00	SA2 User Manual

Contact Information

Germany

MEN Mikro Elektronik GmbH
Neuwieder Straße 3-7
90411 Nuremberg
Phone +49-911-99 33 5-0
Fax +49-911-99 33 5-901

info@men.de
www.men.de

France

MEN Mikro Elektronik SA
18, rue René Cassin
ZA de la Châtelaine
74240 Gaillard
Phone +33 (0) 450-955-312
Fax +33 (0) 450-955-211

info@men-france.fr
www.men-france.fr

USA

MEN Micro, Inc.
24 North Main Street
Ambler, PA 19002
Phone (215) 542-9575
Fax (215) 542-9577

sales@menmicro.com
www.menmicro.com

The date of issue stated in this data sheet refers to the Technical Data only. Changes in ordering information given herein do not affect the date of issue. All brand or product names are trademarks or registered trademarks of their respective holders.

MEN is not responsible for the results of any actions taken on the basis of information in the publication, nor for any error in or omission from the publication.

MEN expressly disclaims all and any liability and responsibility to any person, whether a reader of the publication or not, in respect of anything, and of the consequences of anything, done or omitted to be done by any such person in reliance, whether wholly or partially, on the whole or any part of the contents of the publication.

The correct function of MEN products in mission-critical and life-critical applications is limited to the environmental specification given for each product in the technical user manual. The correct function of MEN products under extended environmental conditions is limited to the individual requirement specification and subsequent validation documents for each product for the applicable use case and has to be agreed upon in writing by MEN and the customer. Should the customer purchase or use MEN products for any unintended or unauthorized application, the customer shall indemnify and hold MEN and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim or personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that MEN was negligent regarding the design or manufacture of the part.

In no case is MEN liable for the correct function of the technical installation where MEN products are a part of.

Copyright © 2013 MEN Mikro Elektronik GmbH. All rights reserved.