# D700 - Mezzanine Card for D9, A19



- I/O extension for 6U CPCI and VME SBCs
- D9. A19
- 1 DVI-D (front)
- 1 RS232 (front)
- 2 Gigabit Ethernet
- PICMG 2.16 or VITA 31

The D700 is a mezzanine card that can be directly plugged on single-board computers such as the D9 and further CompactPCI® and VMEbus CPU boards. In this combination the CPU board still takes only one slot on the bus.

Modern Intel® based boards increasingly support USB interfaces as an exclusive universal connection of devices such as keyboard, mouse, CD-ROM, or memory. Especially in industrial applications however many existing systems still use COM interfaces. The D700 provides one COM port at the front panel. Also on the front panel it provides a DVI video output that can be used together with the graphics output of

the CPU card to connect two displays showing either the same or different screen content. In addition two Gigabit Ethernet interfaces are available at the backplane to support PICMG 2.16 for CompactPCI® boards, alternatively VITA 31 for VMEbus boards. Two robust connectors which connect the D700 with the CPU board make for high mechanical stability. The D700 is delivered with a complete 6U 4HP front panel, replacing the front panel of the single-board computer.



# **Technical Data**

### **Graphics**

- DVI connector at front panel
  - □ DVI-D single link
  - □ SDVO PanelLink transmitter
  - □ Maximum resolution: 1600 x 1200 pixels
  - □ 60Hz refresh rate
  - □ Dual monitor support

### 1/0

- UART
  - □ RJ45 connector at front panel
  - Via USB-to-UART bridge from the mezzanine-card connector
  - □ RS232, via adapter cable (see Accessories)
  - □ Data rates up to 230kbit/s
  - FIFO receive and transmit buffers for high data throughput
  - □ Handshake lines: CTS, RTS; DCD, DSR, DTR

#### Rear I/O

- Ethernet
  - □ 2 Gigabit Ethernet ports for PICMG 2.16
- SATA
  - 1 channel (only in combination with customer-specific rear I/O module)
- USB
  - Up to 3 interfaces (only in combination with customer-specific rear I/O module)

## PICMG 2.16 interface

 One dual port Ethernet Controller connected via one x1 PCI Express® link

# **Electrical Specifications**

- Supply voltage/power consumption:
  - □ +3.3V (-3%/+5%), 300mA typ.
  - +5.0V (-3%/+5%), 900mA typ. (1 Gbit Ethernet full transmission)
- MTBF: 1,455,417h 40°C according to IEC/TR 62380 (RDF 2000)

### **Mechanical Specifications**

- Dimensions: 142 mm x 52,9 mm
- Weight: 62g (w/o heat sink)

# **Environmental Specifications**

- Temperature range (operation):
  - □ 0..+55°C
- □ Airflow: min. 10m³/h 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 + 2,000m
- Shock: 15g/11ms (EN 60068-2-27)
- Bump: 10g/16ms (EN 60068-2-29)
- Vibration (sinusoidal): 1g/ 10..150Hz (EN 60068-2-6)
- Conformal coating on request

#### Safety

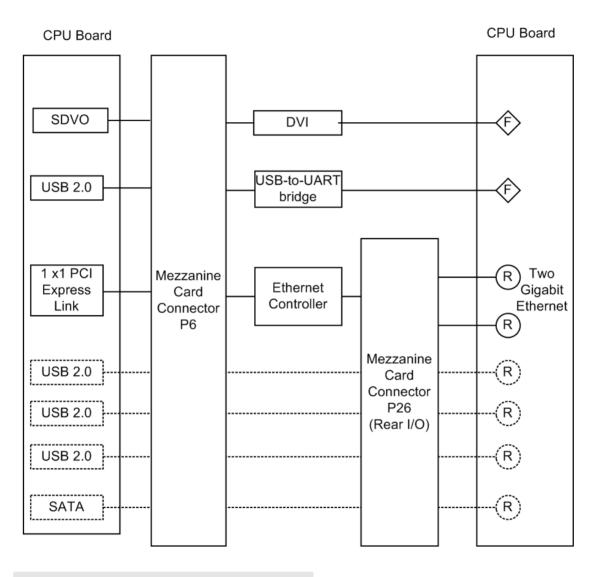
 PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers

#### **EMC**

 Tested according to EN 55022 Class A (radio disturbance), EN 61000-4-2(ESD) and EN 61000-4-4 (burst)



# Diagram





Rear I/O connector

B On board connector

Options (only available with customer-specific rear I/O module)



# **Configuration & Options**

# **Standard Configurations**

Article No.	Front Interfaces	Rear Interfaces	Operation Temperature
02D700-00	1 DVI, 1 RS232	PICMG 2.16 (2 GbE)	0+55°C



# **Ordering Information**

**Standard Hardware** 

02D700-00 1 DVI, 1 COM, PICMG 2.16 (2 Gb Ethernet)

for D9, A19 and compatible cPCI and VME

SBCs, 0..+55°C

Miscellaneous

05F006-00 RS232 interface cable RJ45 to 9-pin D-Sub

(1 COM to 1 COM), 2m

**Documentation** 

**20D700-00** D700 User Manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the D700 online data sheet under » www.men.de.

# Germany

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

Information in this document has been carefully checked and is believed to be accurate as of the date of publication; however, no responsibility is assumed for inaccuracies. MEN Mikro Elektronik accepts no liability for consequential or incidental damages arising from the use of its products and reserves the right to make changes on the products herein without notice to improve reliability, function or design. MEN Mikro Elektronik does not assume any liability arising out of the application or use of the products described in this document.

The products of MEN Mikro Elektronik are not suited for use in nuclear reactors or for application in medical appliances used for therapeutical purposes.

Application of MEN's products in such plants is only possible after the user has precisely specified the operation environment and after MEN Mikro Elektronik has consequently adapted and released the product.

Copyright © 2010 MEN Mikro Elektronik GmbH. All rights reserved.