

P12 - PC-MIP 10/100Base-T Ethernet



- **10/100Base-T Fast Ethernet**
- **Intel® 21143 Ethernet controller**
- **RJ45 connector**
- **Full duplex**
- **Electrical isolation**

The P12 is based on the PC-MIP ANSI mezzanine standard. It can be used as an I/O extension in any type of bus system, i.e. CPCI, PXI, VME or on any type of stand-alone SBC. Appropriate PC-MIP carrier cards in 3U, 6U and other formats are available from MEN or other manufacturers. Comparable with the larger foot print PMC mezzanine cards, PC-MIP boards also support PCI bus.

The P12 adds standard Ethernet functionality with a

high 1.5kVrms isolation to all types of industrial applications from small embedded-system up to high-end workstation configurations.

The P12 features the fast 21143 Ethernet controller, supporting 10/100Base-T via an RJ45 connector at the front panel. The PC-MIP offers full duplex support and the MAC address in an onboard serial EEPROM.

Technical Data

Ethernet Interface

- 10/100Base-T with three status LEDs at front
- Full duplex support
- Media Access Control (MAC) address stored in onboard serial EEPROM

PCI Characteristics

- 32-bit PCI, complying with PCI Local Bus Specification, Rev. 2.1
- Target and initiator

Peripheral Connections

- Via front panel on a standard 8-pin RJ45 receptacle connector

Electrical Specifications

- Isolation voltage: 1.5kV RMS (0..1000m above sea level)
- Supply voltage/power consumption:
 - +5V (4.85V..5.25V), 120mA typ. (operation), 80mA typ. (stand-by)
 - +3.3V (3.15V..3.6V), 150mA typ. (operation), 30mA typ. (stand-by)
- MTBF: 316,000h @ 50°C

Mechanical Specifications

- Dimensions: PC-MIP Type II conforming to PC-MIP specification
- Weight: 30g

Environmental Specifications

- Temperature range (operation):
 - 0..+60°C
 - Industrial temperature range on request
 - 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/0.33ms, 6g/6ms
- Vibration: 1g/5..2,000Hz

Safety

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

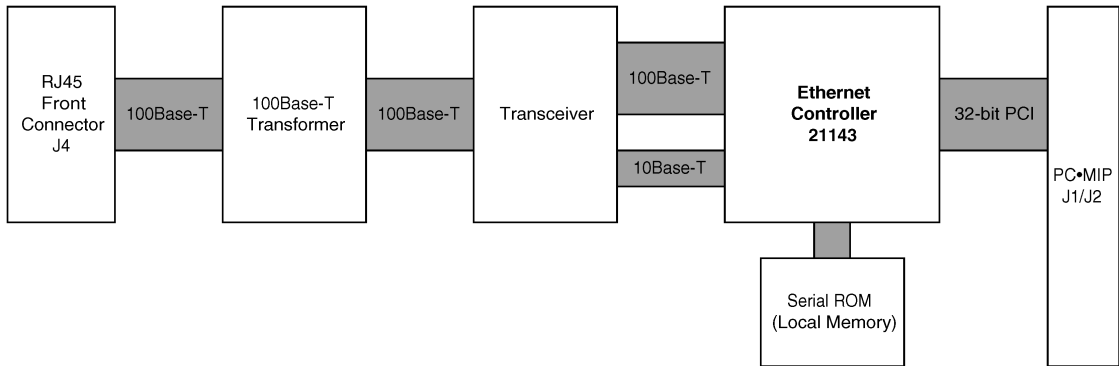
EMC

- Tested according to EN 55022 / 1999-05 (radio disturbance) and EN 55024 / 1999-05 (immunity) with regard to CE conformity

Software Support

- WindowsNT
- VxWorks
- Linux

Diagram



Related Products

Standard Hardware

15P012-00	P12, PC-MIP Type II (front I/O), 21143 Ethernet controller, 10/100Mbit/s, 100Base-T, RJ45
15P012-02	P12, PC-MIP Type II (front I/O), 21143 Ethernet controller, 10/100Mbit/s, 100Base-T, RJ45, -40..+85°C

Please refer to our PC-MIP and PMC compare chart for a selection of mezzanine functions.

Software

For driver software for various operating systems including Windows® and Linux, please refer to www.intel.com.

Documentation

20P000-00	PC-MIP draft specification Rev. 0.92b
20P012-00	P12 user manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the P12 online data sheet under www.men.de. --> [Click here!](#)

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

UK

MEN Micro Ltd
Whitehall, 75 School Lane
Hartford, Northwich
Cheshire UK, CW8 1PF
Phone +44 (0) 1477-549-185
Fax +44 (0) 1477-549-178
E-mail info@menmicro.co.uk
www.menmicro.co.uk

USA

MEN Micro, Inc.
PO Box 4160
Lago Vista, TX 78645-4160
Phone (512) 267-8883
Fax (512) 267-8803
E-mail sales@menmicro.com
www.menmicro.com

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