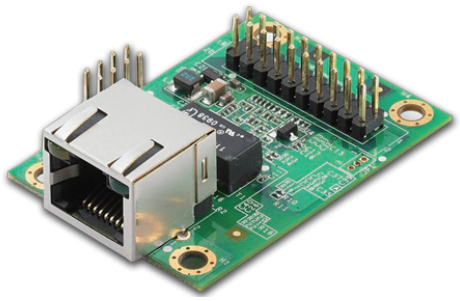
MiiNePort E3 Series

10/100 Mbps embedded serial device servers



- IEEE 802.3af compliant PoE pass-through
- Use Moxa's high quality and reliable second generation MiiNe SoC
- Versatile choice of operation modes fulfill specific application requirements
- Green design with extremely low power consumption
- MiiNePort NetEZ Technology makes integration incredibly easy
- Highly compact embedded device module
- Support IPv6

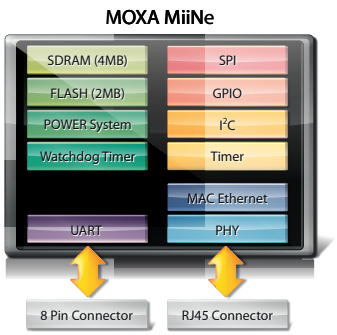
Overview

Moxa's MiiNePort E3 series embedded device servers are designed for manufacturers who want to add sophisticated network connectivity to their serial devices with minimal integration effort. The MiiNePort E3 is empowered by the MiiNe, Moxa's second generation SoC, which supports 10/100 Mbps Ethernet, up to 921.6 kbps serial baudrate, a versatile selection of ready-to-use operation modes, and requires only a small amount of power. By using Moxa's innovative NetEZ technology, the MiiNePort E3 can be used to convert any device with a standard serial interface to an Ethernet enabled device in no time. In addition, the MiiNePort E3 is a compact embedded device server with an RJ45 connector, making it easy to fit into virtually any existing serial device.

The MiiNe—Moxa's 2nd Generation SoC

MiiNe The MiiNe was created to provide manufacturers with a competitive embedded serial-to-Ethernet solution. The MiiNePort E3, which uses the MiiNe for its SoC, is a compact embedded device server that has the lowest power consumption of similar products. The MiiNe has the following features:

- Designed for serial-to-Ethernet applications
- Uses an ARM core
- Uses Moxa's own advanced UART technology
- 2 MB Flash and 4 MB SDRAM memory built in



Specifications

Form Factor

Type: Pin header module
Dimensions: 35 x 52.5 x 18 mm (1.38 x 2.07 x 0.71 in)
Weight: 12 g

System Information

CPU: 32-bit ARM Core
RAM: 4 MB built in
Flash: 2 MB built in

Ethernet Interface

Number of Ports: 1
Speed: 10/100 Mbps, auto MDI/MDIX
Magnetic Isolation Protection: 1.5 kV built-in
Connector: RJ45 (magnetic)
LEDs: 10BASE-T & 100BASE-TX Link Activity
PoE Pass-through: 802.3af compliant

Serial Interface

Number of Ports: 1
Transmission Format: Standard TTL

Serial Communication Parameters

Data Bits: 5, 6, 7, 8
Stop Bits: 1, 1.5, 2
Parity: None, Even, Odd, Space, Mark
Flow Control: RTS/CTS, DTR/DSR, XON/XOFF
Baudrate: (non-standard baudrates supported)
MiiNePort E3: 50 bps to 230.4 kbps
MiiNePort E3-H: 50 bps to 921.6 kbps

Serial Signals

TTL: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RST (reset circuit), GND

Digital I/O Pins

GPIO: 4 configurable I/O pins

Software

Network Protocols: ICMP, ARP, IPv4/v6, TCP, UDP, DHCP, HTTP, SNMP V1, SMTP, TFTP, Auto IP, Telnet, BOOTP
Configuration Options: Web Console, Serial Console (Serial Command Mode), Telnet Console, Windows Utility
Windows Real COM Drivers: Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded
Fixed TTY Drivers: SCO Unix, SCO OpenServer, UnixWare 7, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X
Linux Real TTY Drivers: Linux 2.4.x, 2.6.x, 3.x
Operation Modes: Real COM, TCP Server, TCP Client, UDP, Ethernet Modem, RFC2217
NetEZ function: EZPower, EZPage, SCM (Serial Command Mode), AutoCFG

Environmental Limits

Operating Temperature:
Standard Models: 0 to 55°C (32 to 131°F)
Wide Temp. Models: -40 to 85°C (-40 to 185°F)
Storage Temperature (package included): -40 to 60°C (-40 to 140°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Altitude: Up to 2000 m
Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

Power Requirements

Input Voltage: 3.3 to 5 VDC (±5%)
Power Consumption: 157 mA @ 3.3 VDC, 119 mA @ 5 VDC input max.

Standards and Certifications

EMI: EN 55022 Class B, EN 61000-3-2, EN 61000-3-3
EMS:
EN 55024,
EN 61000-4-2 (ESD),
EN 61000-4-3 (RS),
EN 61000-4-4 (EFT),
EN 61000-4-5 (Surge),
EN 61000-4-6 (CS),
EN 61000-4-8,
EN 61000-4-11
Shock: IEC-68-2-27
Vibration: IEC-68-2-6

Reliability

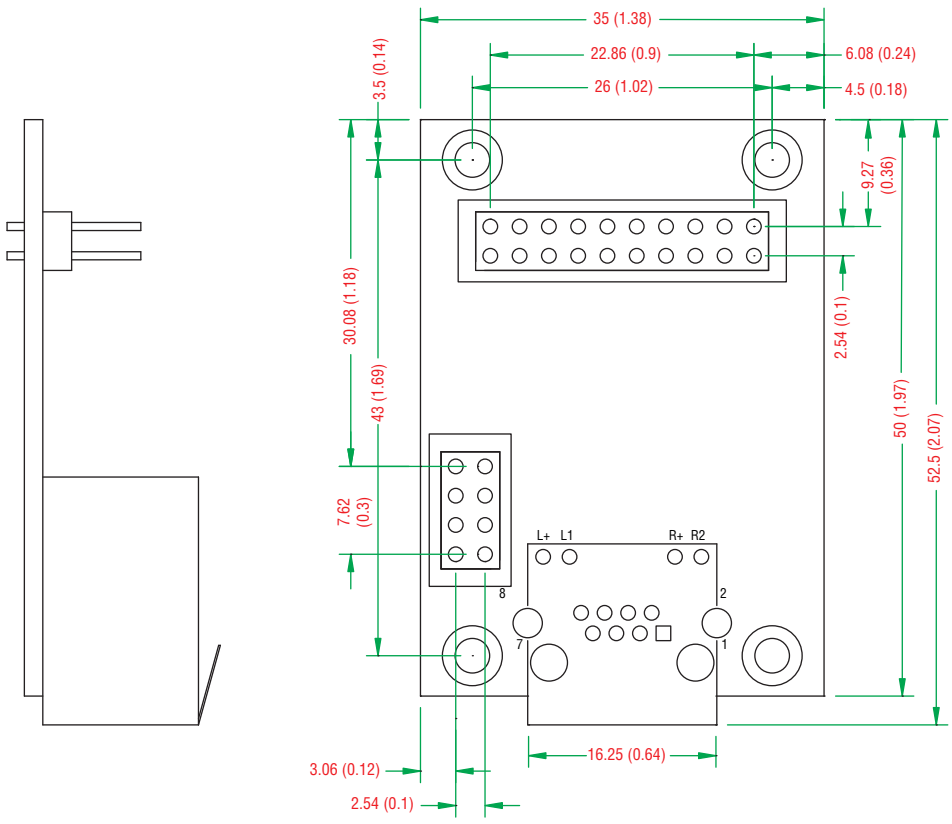
MTBF (mean time between failures): 3,608,031 hrs

Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty

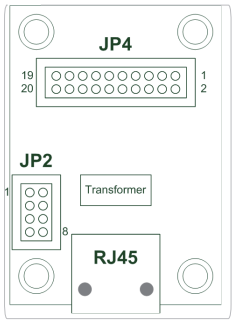
Dimensions

Unit: mm (inch)



Pin Assignment

Ethernet Pins (JP2)			Serial Pins and Power Pins (JP4)					
Pin	Signal Name	Function	Pin	Signal Name	Function	Pin	Signal Name	Function
1	Reserve	N/A	1	Serial Rx	Receive Serial Data	11	DTR	Data Terminal Ready
2	Reserve	N/A	2	Ready LED	System To Ready LED	12	Reserve	N/A
3	Reserve	N/A	3	Serial Tx	Transmit Serial Data	13	LDSR	Data Set Ready
4	Reserve	N/A	4	GPIO	Programmable I/O	14	Reserve	N/A
5	POE signal pair 1	PoE Power from Tx signal	5	LDCD	Data Carrier Detect	15	LCTS	Clear To Send
6	POE spare pair 1	PoE Power from RJ45 4, 5 pin	6	GPIO	Programmable I/O	16	SW_Reset	Reset to factory default
7	POE signal pair 2	PoE Power from Rx signal	7	RS485_ EN0	RS-485 Enable	17	Reserve	N/A
8	POE spare pair 2	PoE Power from RJ45 7, 8 pin	8	GPIO	Programmable I/O	18	Reserve	N/A
			9	LRTS	Request To Send	19	GND	Circuit Ground
			10	GPIO	Programmable I/O	20	VCC	Power Supply



Ordering Information

Available Modules

MiiNePort E3: Embedded device server for TTL devices, pin header module, 10/100M with RJ45 connector, 50 bps to 230.4 kbps baudrate, 0 to 55°C operating temperature
MiiNePort E3-H: Embedded device server for TTL devices, pin header module, 10/100M with RJ45 connector, 50 bps to 921.6 kbps baudrate, 0 to 55°C operating temperature
MiiNePort E3-T: Embedded device server for TTL devices, pin header module, 10/100M with RJ45 connector, 50 bps to 230.4 kbps baudrate, -40 to 85°C operating temperature
MiiNePort E3-H-T: Embedded device server for TTL devices, pin header module, 10/100M with RJ45 connector, 50 bps to 921.6 kbps baudrate, -40 to 85°C operating temperature

Available Starter Kits

MiiNePort E3-ST: Starter kit for the MiiNePort E3 Series, module included
MiiNePort E3-H-ST: Starter kit for the MiiNePort E3-H Series, module included

Package Checklist (modules)

- MiiNePort E3 module

Package Checklist (starter kits)

- MiiNePort E3 module
- MiiNePort E3 evaluation board
- Universal power adaptor
- 2 power cords
- Null modem cable
- Cross-over Ethernet cable
- 2 flat cables
- 1 pack screw and spacer
- Document and software CD
- Quick installation guide (printed)
- Warranty card

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