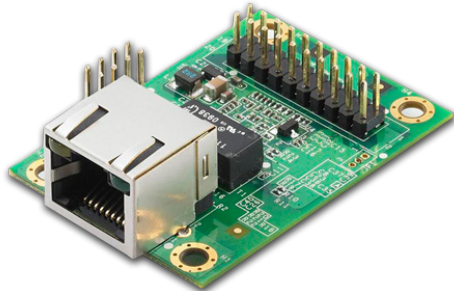


MiiNePort E3 Series

10/100 Mbps embedded serial device servers



- > MiiNePort NetEZ Technology makes integration incredibly easy
- > Use's 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
- > 802.3af compliant PoE pass-through
- > Highly compact embedded device module



Overview

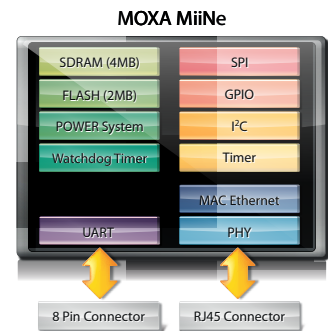
Moxa's MiiNePort E3 series embedded device servers are designed for manufacturers who want to add sophisticated network connectivity to their serial devices with minimal integration effort. The MiiNePort E3 is empowered by the MiiNe, Moxa's second generation SoC, which supports 10/100 Mbps Ethernet, 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 one of the world's tiniest embedded device servers, and has the lowest power consumption of any similar product. 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

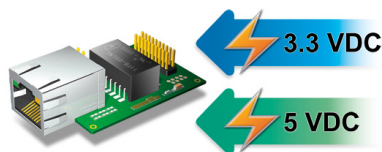


NetEZ Technology

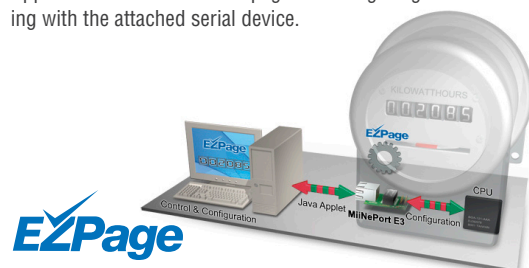


Moxa's NetEZ technology gives serial device manufacturers a range of powerful tools for integrating Ethernet capability into serial devices:

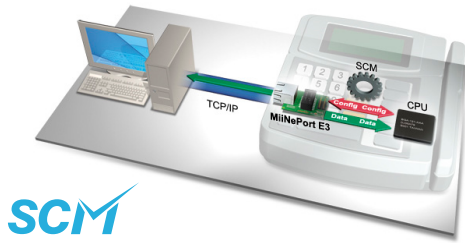
- **EZPower:** Need a module with a versatile system power input voltage? Use the MiiNePort E3's EZPower for 3.3 to 5 VDC system power input.



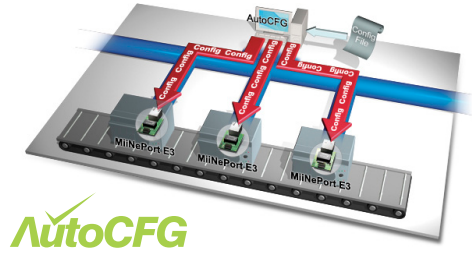
- **EZPage:** Need a module that allows direct communication with the attached serial device? Use the MiiNePort E3's EZPage with Java Applet to create a visual webpage for configuring and communicating with the attached serial device.



- **SCM:** Need an easy tool to configure the network through serial communication inside the device? Try MiiNePort's friendly SCM (Serial Command Mode).



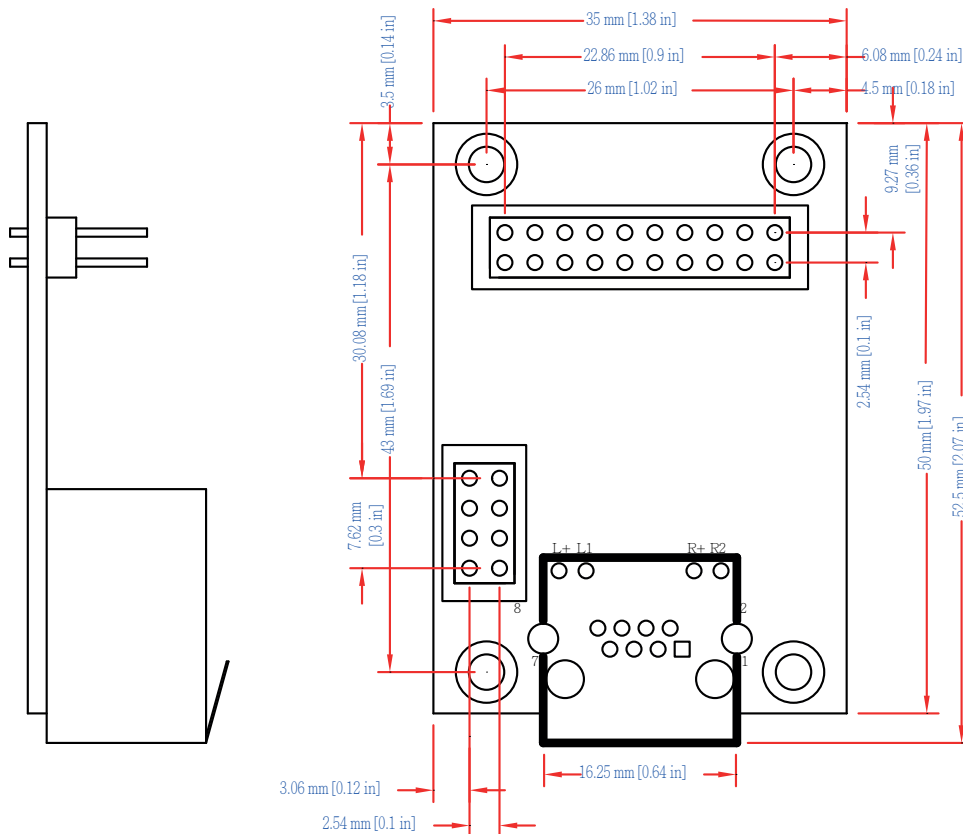
- **AutoCFG:** Tired of spending a large amount of time setting up the device's initial network configuration? Not anymore! The MiiNePort's AutoCFG makes auto-configuration during manufacturing possible.



Moxa's NetEZ technology makes the MiiNePort E3 the world's most user-friendly embedded device server by promising ease-of-use with minimal integration work required.

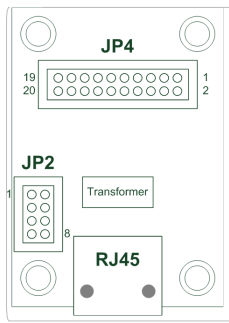
Dimensions

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	DSR	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	DCD	Receive Line Signal Detector	15	CTS	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	RTS	Request To Send	19	GND	Circuit Ground
			10	GPIO	Programmable I/O	20	VCC	Power Supply



Specifications

Form Factor

Type: Pin header module
Dimensions: 35 x 52.5 x 18 mm (1.37 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
Connector: RJ45 (magnetic)
Magnetic Isolation Protection: 1.5 KV built-in
LEDs: 10BASE-T & 100BASE-TX Link Activity, Fault/In-Use

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, RST (reset circuit), GND

Digital I/O Pins

GPIO: 4

Software

Network Protocols: ICMP, ARP, IP, 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 x86/x64, Embedded CE 5.0/6.0, XP Embedded
Fixed TTY Drivers: SCO Unix, SCO OpenServer, UnixWare 7, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x
Linux Real TTY Drivers: Linux kernel 2.4.x, 2.6.x
Operation Modes: Real COM, TCP Server, TCP Client, UDP, Ethernet Modem, RFC2217

Environmental Limits

Operating Temperature:
 Standard Models: 0 to 55°C (32 to 131°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

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: FCC Part 15 Subpart B Class B, EN 55024 (direct & indirect ESD, electrical fast transients & burst immunity, power frequency magnetic field immunity), IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Shock: 500 g's for non-operational shock
Vibration: 20 g's for non-operational vibration

Warranty

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

: 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

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 or MiiNePort E3-H only)
- MiiNePort E3 evaluation board
- Universal power adaptor
- 2 power cords
- Null modem serial cable
- Cross-over Ethernet cable
- 2 flat cables
- 1 pack screw and spacer
- Document and Software CD
- Quick Installation Guide
- Warranty Card