

MiiNePort W1 Series

Wireless LAN embedded serial device servers



Antenna ordered separately

- > IEEE 802.11 b/g compatible
- > AES, WEP 64/128-bit, WPA, WPA2, PSK, 802.11i security support
- > Low power consumption (1.18W)
- > 1 serial port, up to 921.6 kbps
- > 1 Ethernet port, 10/100 Mbps
- > HTTPS/SSH support for configuration
- > Fast roaming to enhance connection reliability



Overview

The MiiNePort W1 series provides serial to IEEE 802.11 b/g embedded wireless solution with compact size and ultra low power consumption features. Numerous operation modes are designed to fulfill the

requirements of embedded module application. Complete driver support reduces software redesign effort and accelerate time to market.

Specifications

Form Factor

Type: Drop-in module
Dimensions: 44.4 x 44.4 x 9.7 mm (1.75 x 1.75 x 0.38 in)
Weight: 15.35 g (0.03 lb)

System Information

CPU: 32-bit ARM Core
RAM: 64 MB built in
Flash: 16 MB built in

Ethernet Interface

Number of Ports: 1
Speed: 10/100 Mbps, auto MDI/MDIX

WLAN Interface

Standard Compliance: IEEE 802.11b/g
Network Modes: Infrastructure mode (b/g), Ad-Hoc mode (b/g)
Spread Spectrum Technology: DSSS, CCK, OFDM
Transmit Power:
 IEEE 802.11b: 16 dBm (typical)
 IEEE 802.11g: 14 dBm (typical)
Receive Sensitivity: -71 dBm (Min)
Transmission Rate:
 IEEE 802.11b: 11 Mbps
 IEEE 802.11g: 54 Mbps
Transmission Distance: Up to 100 meters (in open areas)

Wireless Security:

AES, WEP 64/128-bit, WPA, WPA2, PSK, 802.11i

Serial Interface

Number of Ports: 1
Serial Standards: TTL

Serial Communication Parameters

Data Bits: 7, 8
Stop Bits: 1, 2
Parity: None, Even, Odd
Flow Control: RTS/CTS, XON/XOFF
Baudrate: 50 bps to 921.6 kbps

Serial Signals

TTL: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Digital I/O Pins

GPIO: 8 configurable I/O pins

Software

Network Protocols: ICMP, ARP, IPv4, TCP, UDP, DHCP, Telnet, DNS, SNMP V1/V2c/V3, HTTP, SMTP, SNTIP, SSH, HTTPS
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/2008/7/8/8.1/10 (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, 4.x
Android API: Android 3.1.x and later
Operation Modes: Real COM, TCP Server, TCP Client, RFC2217
Environmental Limits
Operating Temperature:
 Standard Models: 0 to 55°C (32 to 131°F)
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included): -40 to 60°C (-40 to 140°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Input Voltage: 3.3 VDC
Input Current: 400 mA @ 3.3 VDC

Standards and Certifications

Safety: UL 60950-1, EN 60950-1
EMC: EN 55032/24
EMI: CISPR 32, FCC Part 15B Class A
EMS:
 IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV
 IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m
 IEC 61000-4-4 EFT: Power 1 kV; Signal 0.5 kV
 IEC 61000-4-5 Surge: Power 1 kV
 IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m Signal: 3 V/m
 IEC 61000-4-8 PFMF
Vibration: IEC 60068-2-6, 5-25.7 Hz: ±15 mm; 25.7-500 Hz: 20g; 3 hours/axis
Shock: IEC 60068-2-27, 500g/2ms
Radio: EN 300 328, EN 301 489, EN62311 (US), DSPR (Japan)
Drop: IEC 60068-2-34
 IEC 60068-2-32, ISTA-2A

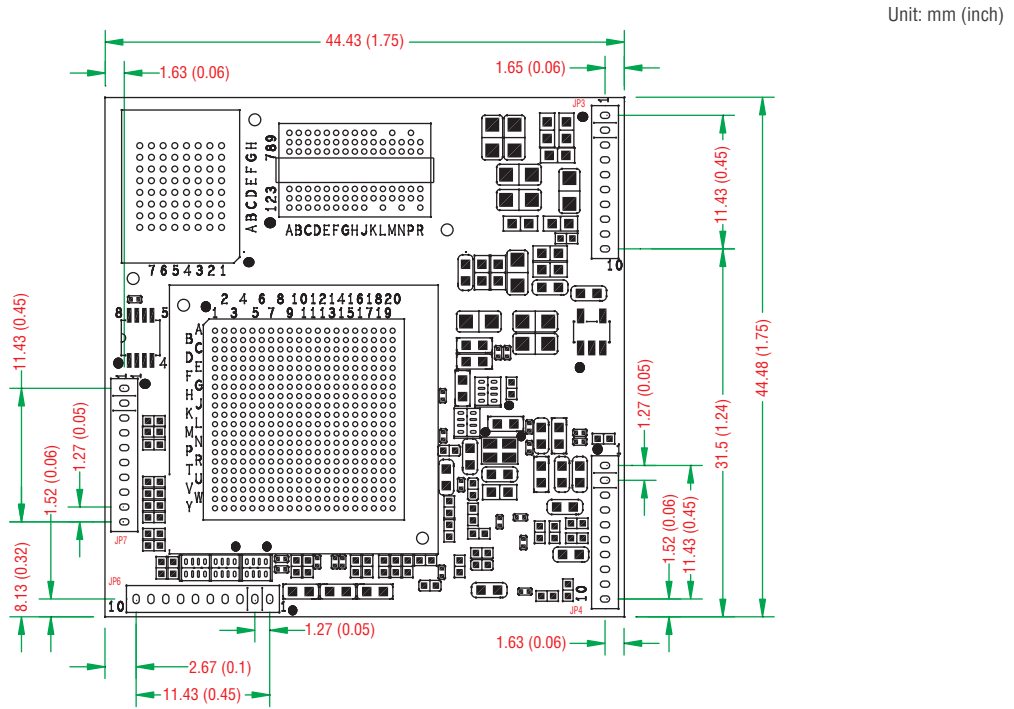
Reliability

Automatic Reboot Trigger: Built-in WDT (watchdog timer)
MTBF (mean time between failures):
 Time: 441,378 hrs
 Standard: Telcordia (Bellcore) TR/SR

Warranty

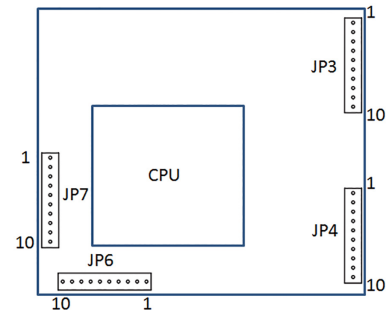
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions



Pin Assignment

Pin	JP3	JP4	JP6	JP7
1	N.C.	Eth_10M_LED	PIO0	LTXD0
2	N.C.	Eth_100M_LED	PIO1	LRTS0
3	N.C.	Eth_Rx+	PIO2	LDTR0
4	RDY_LED	Eth_Rx-	PIO3	LRXD0
5	FLT_LED	Eth_center_tap	PIO4	LCTS0
6	HW_RESET	Eth_center_tap	PIO5	LDSR0
7	SW_RESET	Eth_Tx+	PIO6	LDCC0
8	WLAN_Link	Eth_Tx-	PIO7	N.C.
9	Vin	GND	LTXD1	LCTS1
10	Vin	GND	LRTS1	LRXD1



Ordering Information

Available Modules

MiiNePort W1: Embedded wireless device module supporting IEEE 802.11 b/g, 0 to 55°C operating temperature (internal antenna not included)

MiiNePort W1-T: Embedded wireless device module supporting IEEE 802.11 b/g, -40 to 75°C operating temperature (internal antenna not included)

Available Starter Kits

MiiNePort W1-ST: Starter kit for MiiNePort W1, module included

Optional Accessories (can be purchased separately)

PWR-12050-WPUSJP-S2: Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC with US/JP plug, 0 to 40°C

PWR-12050-WPEU-S2: Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC with Continental European (EU) plug, 0 to 40°C

PWR-12050-WPUK-S2: Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC with United Kingdom (UK) plug, 0 to 40°C

PWR-12150-CN-S1: Non-locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC with China (CN) plug, 0 to 40°C

PWR-12050-WPAU-S2: Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC with Australian (AU) plug, 0 to 40°C

CBL-F9M9-150: DB9 female to DB9 male serial cable, 150 cm

CBL-RJ458P-100: 8-pin RJ45 CAT5 Ethernet cable, 100 cm

ANT-WDB-ARM-02: 2.4/5 GHz, dual-band omnidirectional antenna, 2 dBi, R-SMA (male), Dipole

CRF-MHF/SMA(M)-14.2: Mini1.13 cable, MHF to RP-SMA (female), 0.14 meters

Package Checklist (modules)

- MiiNePort W1 series wireless module (Antenna ordered separately)

Package Checklist (starter kits)

- 1 MiiNePort W1 series wireless module
- MiiNePort W1 evaluation board
- Antenna: ANT-WDB-ARM-02
- Antenna: CRF-MHF/SMA(M)-14.2
- Serial Cable: CBL-F9M9-150
- Ethernet Cable: CBL-RJ458P-100
- 100 to 240 VAC power adapter (excluding T models)*
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

*The package includes one power adapter suitable for your region.

