

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 921.6kbps
- > 1 Ethernet port, 10/100Mbps
- > 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)

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, IPv4, TCP, UDP, DHCP, Telnet, DNS, SNMP V1/V2c/V3, HTTP, SMTP, SNTIP, SSH, HTTPS

Configuration Options: Web/Telnet/HTTPS/SSH/SNMP Console, Windows Utility, Serial command mode (configured through the data port)

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, 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)

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 VDC (±5%)

Power Consumption: 360 mA

Standards and Certifications

Safety: UL 60950-1, EN 60950-1

EMC: CE, FCC, EN 301 489-1/17

EMI: EN 55022 Class A, FCC Part 15 Subpart B Class A

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

Radio: EN 300 328, EN 301 893, DSPR (Japan)

Shock: IEC-68-2-27

Freefall: IEC-68-2-34, IEC-68-2-32

Vibration: IEC-68-2-6

Green Product: RoHS, CRoHS, WEEE

Reliability

Automatic Reboot Trigger: Built-in WDT (watchdog timer)

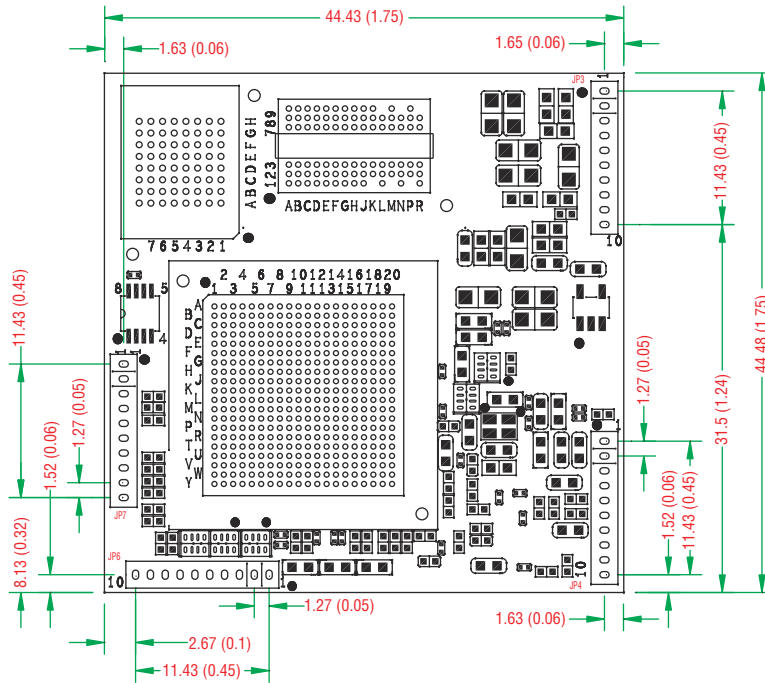
MTBF (mean time between failures): 638,566 hrs

Warranty

Warranty Period: 5 years

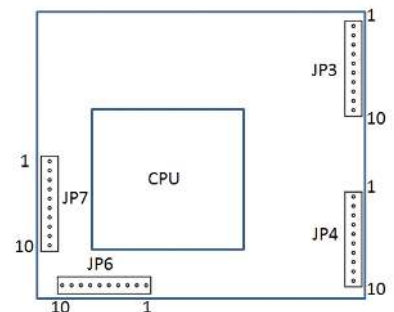
Details: See www.moxa.com/warranty

Dimensions



Pin Assignment

Pin	JP3	JP4	JP6	JP7
1	N.C.	Eth_10M_LED	PI00	LTXD0
2	N.C.	Eth_100M_LED	PI01	LRTS0
3	N.C.	Eth_Rx+	PI02	LDTR0
4	RDY_LED	Eth_Rx-	PI03	LRXD0
5	FLT_LED	Eth_center_tap	PI04	LCTS0
6	HW_RESET	Eth_center_tap	PI05	LDSR0
7	SW_RESET	Eth_Tx+	PI06	LDCC0
8	WLAN_Link	Eth_Tx-	PI07	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)

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

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



ANT-WDB-ARM-02



CRF-MHF/SMA(M)-14.2

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
- 1 cross-over Ethernet cable
- 1 null modem serial cable
- Universal power adaptor
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card