



O.E.M. "Mini-b" 802.11b Serial Port Server Module

OEM Mini-Module 802.11b "Mini-b"

only 1.6 x 2.4 inch – 40 x 60 mm

\$ **79** USD quantity 1

IEEE 802.11b Wireless LAN for O.E.M.

Complete WLAN device (not just the WLAN card)
Wireless Serial Port Server
Full Duplex data transfer
Interface: Choose **Logic level (TTL)** or **RS232**
Antenna: Choose **Built-in** or **External**
Small Size: 1.6 x 2.4 inches (40 x 60 mm)
Networks: **TCP/IP**, UDP/IP, SNMP, HTTP, ARP, DHCP client
Lowest Cost (\$79 USD quantity 1)

Description

OEM WLAN Serial Server module (called "Mini-b"), is designed as a small, low cost 802.11b Wireless LAN Link for embedding into OEM devices.

The OEM Module has a full-duplex asynchronous serial channel with optional Logic Level (TTL) or RS232 signals. The RS232 version of the OEM Module can replace a device's RS232 connector and cable. The Logic Level (TTL) version can connect directly to an embedded device's microprocessor UART signals.

Small Size: only 1.6 x 2.4 inches (60 x 40 mm)

Antenna: The antenna solution options can be either built-in antenna attached to the PCB or can be an external antenna attached with a miniature RF cable.

Compatibility: The OEM Module can connect with any 802.11b wireless network or access point in Infrastructure mode. In Ad Hoc Mode (peer-to-peer) the OEM module can connect to another OEM Module, Laptop, Notebook and any 802.11b compatible device.

Security: OEM supports 64/128-bits WEP security.

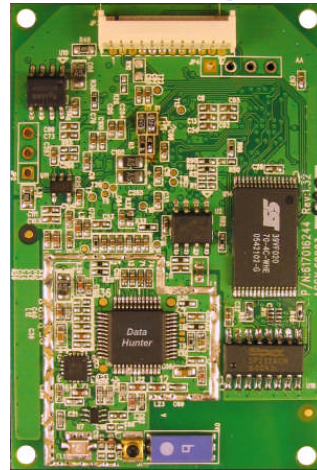
Bit rates: 9600 up to 115 Kbps serial interface

Low power - Current: Rx: 210mA, Tx: 350mA (Max.)

Power Save Mode: 80 mA

Features

- Serial baud rates (9600, 38400, 57600, 115200 bps)
- Full-duplex (serial data in / data out)
- Flow control: "Hardware" or "None"
- Buffer size: 4K bytes buffer
- Firmware-upgrade capable
- Easy set up via commands, or web configuration
- Two status-pins for showing connection status
- Supports Virtual Com driver and device-search utility
- Link to WLAN Access Point (Infrastructure mode)
- Link to another WLAN peer device ("Ad-Hoc" mode)
- Maximum 10 seconds data link retrieval
- Command-Line Control Interface – Make operational changes by feeding command sequence



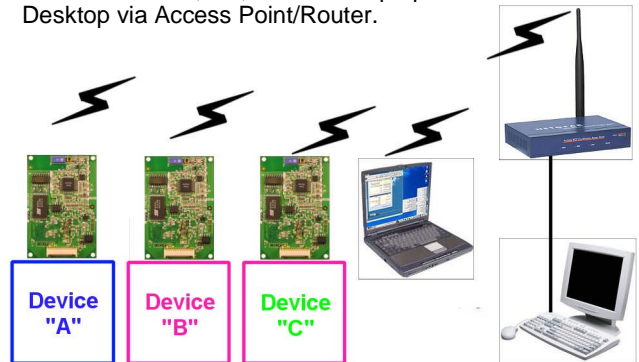
RF Side



MAC side

Where to use the "Mini-b" OEM module:

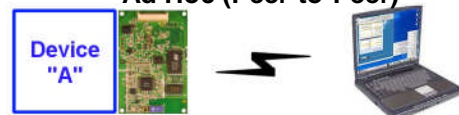
Infrastructure (example: Device "A" can communicate with Devices "B", "C", Wireless Laptop and Networked Desktop via Access Point/Router).



Ad Hoc (Peer-to-Peer)

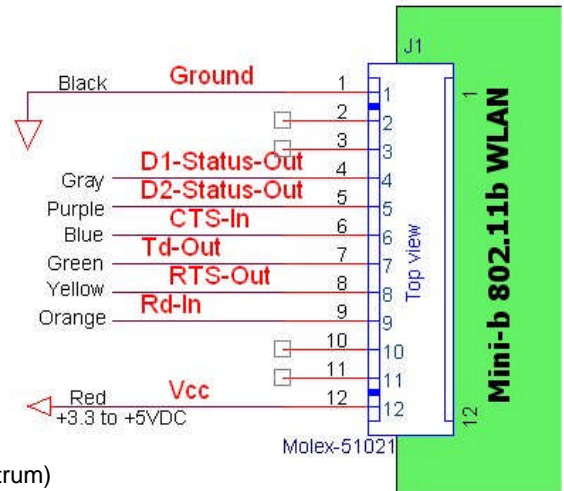


Ad Hoc (Peer-to-Peer)



Specifications – “Mini-b”

- RS232 Features:
 - Baud Rate Options: 9600, 38400, 57600, 115200 bps
 - Data Length Options: 8 bits
 - Parity options: None
 - Stop Bits Options: 1 bit
 - Flow Control: Hardware or none
 - Serial UART Buffer: 256 bytes input, 256 bytes output
- WLAN Radio Features:
 - Protocol Type: 802.11b standard compliant
 - Operating Range: Open Environment: 1000 ft./300m
 - Office Environment: 100-330 ft./30-100m
 - Security: WEP (Wired Equivalent Privacy) 64 and 128 bit encryption
- Radio Characteristics:
 - Spread Spectrum Technology: DSSS (Direct Sequence Spread Spectrum)
 - RF Range: 2.4 ~ 2.4835 GHz
 - Data Rate: 11 / 5.5 / 2 / 1 Mbps
 - Modulation: DBPSK for 1 Mbps, DQPSK for 2 Mbps, CCK for 5.5 / 11 Mbps
 - Operation channels: US - 11, Europe - 13, France - 4, Spain - 2, Japan - 14
 - RF Power Output (Typ.): +15 dBm
 - Receive Sensitivity (Typ. @BER 10E-5): -83 dBm@11Mbps
- Power:
 - Power Supply: 3.3 or 5 VDC Regulated
 - Current: Tx 350mA (Max.), Rx 210mA, Power Saving Mode 80mA
- Software:
 - Windows-based Driver with Multi-Link Virtual Com Driver
 - PC Set UP Utility: User setup and device-search software run on Windows XP/ 98 / ME / NT / 2000
- Network Protocol:
 - TCP/IP, UDP/IP, SNMP, HTTP, ARP, DHCP client
- Mechanical:
 - Antenna: PCB board-mount antenna option, or
 - Ipex connector for external antenna and cable option
 - Dimensions: 1.6 x 2.4 x 0.23 inches (60 x 40 x 5.7 mm)
- Environmental:
 - Temperature: Operating: 0 to +55 °C / +32 to +131 °F
 - Storage: -20 to +65 °C / -4 to +149 °F
 - Relative Humidity: 95% (non-condensing)
- Emissions EMC Certificate:
 - U.S.A.: FCC Part 15 Subpart C
 - CE: ETSI EN 300 328, EN 301 489-1/17, EN 55022, EN 61000, EN 50371
- Certification: Some models are already FCC Modular-Certified for immediate public sale.



Part Number Ordering Information – “Mini-b” – Consult Data Hunter for quantity pricing

\$ USD Part Number

\$249 100809-xxx Developer’s Kit, with Engineering Technical Support and Consultation. Includes OEM Mini-b 802.11b with your choice of Logic or RS232, on-board or external RF connector, interface cable 100810, Regulated 5VDC power supply, CD with documentation, Virtual COM-to-TCP/IP Software, Download Library, Automatic Update Notification, appropriate Connectors,

Kit Options:

\$249 100809-001	Developers Kit & Options:	Interface: RS232	Antenna: On-Board
\$249 100809-003	Developers Kit & Options:	Interface: RS232	Antenna: Ext. Ipex Connector
\$249 100809-101	Developers Kit & Options:	Interface: Logic-Level (TTL)	Antenna: On Board
\$249 100809-103	Developers Kit & Options:	Interface: Logic-Level (TTL)	Antenna: Ext. Ipex Connector

\$79 100800-001	OEM Mini-b 802.11b,	Interface: RS232	Antenna: On-Board
\$79 100800-003	OEM Mini-b 802.11b,	Interface: RS232	Antenna: Ext. Ipex Connector
\$79 100800-101	OEM Mini-b 802.11b,	Interface: Logic-Level (TTL)	Antenna: On Board
\$79 100800-103	OEM Mini-b 802.11b,	Interface: Logic-Level (TTL)	Antenna: Ext. Ipex Connector
\$3 100810-152	Receptacle Connector and pigtail Cable assembly, 152 mm length (about 6 inches)		
\$xx 100810-XXX	Receptacle Connector and pigtail Cable assembly, where XXX specifies the cable lead length in millimeters (example 100810-152 = 152 mm length (about 6 inches))		
\$5 100820-090	“Ipex” RF connector cable with RP-SMA bulk=head mount antenna, Length = 90 mm		
\$xx 100820-XXX	“Ipex” RF connector cable with RP-SMA bulk=head mount antenna, where XXX specifies the cable lead length in millimeters, (example 100820-090 = 90 mm length (about 4.5 inches))		
\$6 100720-000	Antenna, 2dbi gain, articulated, with RP-SMA		



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