SocketWireless® Wi-Fi®

Embedded Serial-to-Wi-Fi Device Server

Universal Socket Benefits

- Interchangeable communications devices
- Quick-to-market
- Global approvals
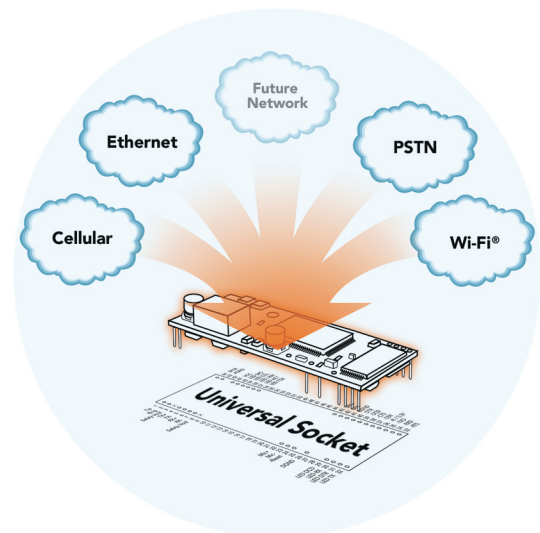- Easy migration to future networks
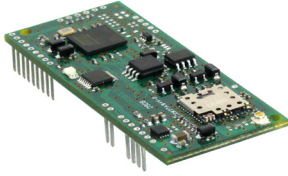
The SocketWireless® Wi-Fi® device server connects serial devices to an IP network via 802.11b/g wireless networking. It enables you to build wireless networking into virtually any device allowing for remote monitoring, control and configuration. The space efficient communications device (1" x 2.5") integrates Multi-Tech's Universal IP™ stack, and can make your existing and next generation device, machine or system, IP-ready while you focus on developing its core features.

Features

- Complete serial-to-Wi-Fi wireless connectivity solution including network processor, media access controller and air interface
- 802.11b/g compliant wireless networking
- Wi-Fi security using WEP, WPA and WPA2
- Universal Socket connectivity
- Intelligent Universal IP stack for enhanced M2M functionality
- Supports ad-hoc and infrastructure mode
- Serial interface supports DTE speeds to 921.6K bps
- UFL antenna connector
- Two LED driver outputs for visual monitoring of link and activity
- Configuration and management via AT commands
- Flash memory to update firmware with the latest enhancements
- Developer's kit available for testing, programming and evaluation
- Two-year warranty

MultiTech® Systems

Highlights

Applications. The SocketWireless Wi-Fi device server will wirelessly IP-enable any device to provide remote monitoring, control and configuration of any system. It is ideal for:

- Appliances
- Credit card and check verification systems
- Data collection
- Industrial and medical remote monitoring systems
- Point-of-sale terminals
- Remote metering
- Security systems
- Ticketing machines
- Vending/gaming machines

Serial-to-Wi-Fi Technology The SocketWireless Wi-Fi device server provides the powerful ability to IP-enable serial devices allowing more options for data acquisition, device management, and industrial control than would otherwise be available. The communications device integrates a processor, Multi-Tech's Universal IP stack, and an 802.11b/g wireless network connection to provide a complete serial-to-Wi-Fi connectivity solution.

Universal Socket Connectivity. Multi-Tech's Universal Socket is a flexible, comm-port architecture that provides cellular, Ethernet, PSTN or Wi-Fi network access with interchangeable communications devices. This means you can utilize one system design and populate it with your connectivity device of choice accommodating multiple connectivity requirements. In addition, you are assured a seamless migration to future technologies.

Universal IP. Multi-Tech's Universal IP consists of a common set of TCP/IP networking protocols and machine-to-machine (M2M) applications implemented using a standard AT command interface. Universal IP allows developers to write their host application one time while having the freedom to select from a growing number of Universal Socket communication devices.

SocketWireless Wi-Fi Pin-Out. The SocketWireless Wi-Fi device server interfaces easily with existing products through a standard serial communication channel. The serial DTE channel is capable of transfer speeds to 921.6K bps and can be interfaced directly to a UART or microcontroller. The SocketWireless Wi-Fi device server also provides two LED driver outputs for visual monitoring of link and activity.
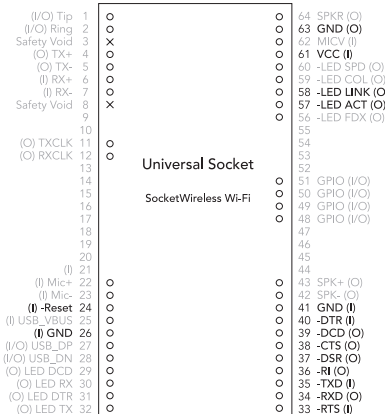
Developer's Kit. The Developer's Kit allows you to plug in the communications device and use it for testing, programming and evaluation. The kit includes one development board with RS-232 DB-25 connector, universal power supply, antenna and RS-232 cable.

Specifications

Wireless Specifications
Network Interface: IEEE 802.11b/g
Frequency Range: 2.400 to 2.484 GHz
Data Rate: Up to 54M bps
Maximum Transmit Power: 15 dBm
Receiver Sensitivity: -82 dBm
Security: 64/128 bit WEP, WPA-PSK, WPA2, & WPA2-PSK
Mode: Ad Hoc, Infrastructure
Antenna Connector: UFL

Serial Interface
Data Format: Serial, asynchronous, 3.3V-level signals
Data Rate: Software selectable (1200 bps – 921.6K bps)

Power Requirements
3.3VDC or 5VDC

Power Usage
3.3VDC; 57mA idle, 180mA typical, 260mA maximum
5VDC; 56mA idle, 193mA typical, 260mA maximum

IP Protocols Supported
ARP, DHCP client, DNS client, FTP client, ICMP (ping), POP3 client, SMTP client, TCP, & UDP client, Telnet server

Physical Description
2.541" L × 1.045" W × 0.680" H; 0.6 oz.
(6.45 cm × 2.65 cm × 1.7 cm; 0.017 kg.)

Operating Environment
Temperature Range: -30° to +70° C

Approvals
Safety: UL 60950-1, cUL 60950-1, EN 60950-1, IEC 60950-1
EMC: FCC Part 15 Subpart C, Canada, RSS-210, EN 300 328, EN 301 489-17
RoHS Compliant

Universal Socket

SocketWireless Wi-Fi

Pin	Signal	Pin	Signal
1	(I/O) Tip	64	SPKR (O)
2	(I/O) Ring	63	GND (O)
3	Safety Void	62	MICV (I)
4	(O) TX+	61	VCC (I)
5	(O) TX-	60	-LED SPD (O)
6	(I) RX+	59	-LED COL (O)
7	(I) RX-	58	-LED LINK (O)
8	Safety Void	57	-LED ACT (O)
9		56	-LED FDX (O)
10		55	
11	(O) TXCLK	54	
12	(O) RXCLK	53	
13		52	
14		51	GPIO (I/O)
15		50	GPIO (I/O)
16		49	GPIO (I/O)
17		48	GPIO (I/O)
18		47	
19		46	
20		45	
21	(I)	44	
22	(I) Mic+	43	SPK+ (O)
23	(I) Mic-	42	SPK- (O)
24	(I) -Reset	41	GND (I)
25	(I) USB_VBUS	40	-DTR (I)
26	(I) GND	39	-DCD (O)
27	(I/O) USB_DP	38	-CTS (O)
28	(I/O) USB_DN	37	-DSR (O)
29	(O) LED DCD	36	-RI (O)
30	(O) LED RX	35	-TXD (I)
31	(O) LED DTR	34	-RXD (O)
32	(O) LED TX	33	-RTS (I)

Ordering Information

Product	Description	Region
MT810SWM-IP	802.11b/g Device Server, 5V	Regional
MT810SWM-L-IP	802.11b/g Device Server, 3.3V	Regional

Made in Mounds View, MN, U.S.A.

Features and specifications are subject to change without notice.

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