TELETRONICS INTERNATIONAL INC.

TT™900

User Manual

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Disclaimers

Statement of Conditions

We may make improvements or changes in the product described in this documentation at any time. The information regarding the product in this manual is subject to change without notice.

We assume no responsibility for errors contained herein or for direct, indirect, special, incidental or consequential damages with the furnishing, performance or use of this manual or equipment supplied with it, even if the suppliers have been advised about the possibility of such damages.

Electronic Emission Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1)This device may not cause harmful interference.

(2)This device must accept any interference received, including interference that may cause undesired operation.

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment usage generates radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The equipment is for home or office use.

IMPORTANT NOTE

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the antenna and your body and must not be co-located or operating in conjunction with any other antenna or transmitter.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Introduction

The TT900 is Teletronics's answer to the ever growing demand for higher bandwidth and security in a wireless network environment. It is based on a brand new redesigned platform that not only offers faster performance and capacity but also supports all current pre IEEE 802.11i wireless security standards. The TT900 is housed in a weather-proof NEMA 4 enclosure, supports high power 802.11 b/g radio, industrial grade construction, multiple antenna options, surge protection on the radio and PoE (Power Over Ethernet) adaptor, and RoHS compliance.

TT5800 Product Photos

TT900 Enclosure (Die Cast Aluminum NEMA 4 Box)

Product Features

- Compact size for small enterprise or system integrate service market
- Compliant with IEEE 802.11b/g specifications
- Supports 64/128-bit WEP, WPA and IEEE802.1x
- Intelligent firmware upgrade via Web browser
- Built-in Web-based utility for easy configuration from any Web browser
- Support POE (IEEE 802.3af) function
- Supports wireless bridging and MAC address filtering
- Provide 10/100M, auto sensing MDI/MDI-X Ethernet port
- EzManager Support

Product Specifications

Main Chips

- CPU: Ubicom IP3023
- Radio: Supports 802.11b/g Atheros AR5414

Mechanical

- Chassis Dimension (W x D x L): 7.5” x 2.75”x 9”

Board Specifications

Specification	Description
Network Standard	IEEE 802.11 b/g, IEEE 802.3, IEEE802.3x
Ethernet	10/100BaseT Ethernet, Auto MDI/MDI-X
Network Architecture	Infrastructure; Ad-Hoc
MAC	CSMA/CA
Status Indicators	POWER, Wireless LAN(RF),Ethernet LAN, Receives Signal Strength(RSS)
Push Button	Reset to Default Button

Radio Specifications

Specification	Description
Chipset	MAC/BB Processor Atheros AR5414
Power Consumption	IEEE 802.11b TX: ~1100 mA RX: ~600 mA IEEE 802.11g TX: ~1100 mA RX: ~600 mA
Antenna Connector	SMA connector
Output Power	IEEE 802.11b: • 23dBm (± 1.5dB) @ 1Mbps • 22dBm (± 1.5dB) @ 2Mbps • 21dBm (± 1.5dB) @ 5.5Mbps • 20dBm (± 1.5dB) @ 11Mbps IEEE 802.11g: • 23dBm (±1.5dB) @ 54Mbps • 22dBm (±1.5dB) @ 48Mbps • 21dBm (±1.5dB) @ 36Mbps • 20dBm (±1.5dB) @ 1~24 Mbps
Receiver Sensitivity	IEEE 802.11b/g Sensitivity @ 8% Packet Error Rate • 54Mbps:-72dBm • 6Mbps:-92dBm
Modulation	IEEE 802.11b (DSSS) • 5.5/11 Mbps (CCK) • 2 Mbps (DQPSK) • 1 Mbps (DBPSK) IEEE 802.11g (OFDM/DSSS) • 48/54 Mbps (QAM-64) • 24/36 Mbps (QAM-16) • 12/18 Mbps (QPSK) • 6/9 Mbps (BPSK) • 5.5/11Mbps (CCK) • 2Mbps (DQPSK) • 1Mbps (DBPSK)
Operating Frequency	• USA(FCC): 902 MHz ~ 928 MHz

LED Definition (Optional)

Item	Specification	
Power	ON (Red)	Power on
	Off	No power
RF(WLAN)	On (Yellow)	Connected
	Off	Not connected
	Blinking(Green)	Connected and transmitting
LAN	On (Green)	Connected
	Off	Not connected
	Blinking(Green)	Connected and transmitting
Received Signal Strength Indicator (RSSI)	Blinking left to right	Not connected (Scanning for AP)
	On	Connected, indicating Received Signal Strength.

Software Specification

Item	Specification
Bridge Features	• Universal Bridging • MAC Address Cloning • RTS Threshold/Fragmentation Threshold • Infrastructure or Ad-Hoc Mode • Non-IP Traffic Bridging
Security Features	• 64-Bit/128-Bit WEP Encryption • WPA Personal Using TKIP or AES • WPA Enterprise Using TKIP or AES • 802.1x Authenticator • Cisco LEAP Support • MAC Address Filter
Management Features	• Web Access (Username/Password Protected) • Static IP • Automatic Device Discovery & Configuration • SNMP v1, DHCP and PPPoE (Ethernet or Wireless) • Firmware Upgrade via Web Browser • Transmit Power Adjustment

External AC Power Adapter

Item	Specification
Input Voltage	110-240VAC
Line Frequency	50/60Hz
Power Output to M/B	48VDC, 1A

Environmental

Item	Specification
Operating Temperature	-20 C to 70 C (-4 F to 158 F), 10 to 90% (non-condensing)
Storage Temperature	-25 C to 80 C (-13 F to 176 F), 10 to 90% (non-condensing)

Standards / Regulatory Compliance

- CE, FCC

Product Kit Part Listing

1. TT900 802.11b/g PCBA (1)
2. IEEE 802.11b/g mini-PCI radio card (1)
3. Power over Ethernet Injector (1)
4. 48VDC Power Adapter (1)
5. Ethernet Cable (2)
6. Waterproof RJ-45 Connector (1)
7. Mounting Hardware (1)
8. User Manual

Note: If any item listed above is damaged or missing, please contact your dealer immediately.

System Requirements

- Any desktop or laptop with an Ethernet interface
- TCP/IP protocol suite installed
- Standard CAT5 Ethernet cables with RJ45 connectors
- Internet Explorer 5.0 or later / Firefox 1.0 or higher

Note:□
□
Professional must install this device.□
□
End-user cannot set the functionality by hardware or software from one to another directly.□
End-user can adjust output power through a drop down menu, but cannot adjust the output power over the □ applicati on.□
The EUT will be settled output power not greater than the application by Manufacturer.□
Installation of this device should be accomplished only by a qualified wireless LAN system installer who is:□
• Knowledgeable of the use. Installation and configuration procedures and associated networking components.□
• Knowledgeable of each system component's equipment User and Installation Guide.□
• Knowledgeable of the installation procedures, safety, and code requirements for the site's antenna, antenna □ mast, antenna cabling, and installation. TELETRONICS highly recommends that the antenna installation be □ performed by a qualified antenna installation professional.□
The intended use is generally not for the general public. It is generally for industry/commercial use.□
The device cannot be sold retail, to the general public or by mall order. It must be sold to dealers or have strict □ marketing control.□
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