Manual abstract:

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. FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. 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, and (2) this device must accept any interference received, including interference that may cause undesired operation. IMPORTANT NOTE: FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user. European Union Notice: Radio products with the CE marking comply with the R&TTE Directive (1999/5/EC), the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms: EN 60950 Product Safety EN 300 328 Technical requirement for radio equipment EN 301 489-1/-17 General EMC requirements for radio equipment Trademark recognition All product names used in this manual are the properties of their respective owners and are acknowledged. Cesky [Czech] Dansk [Danish] Deutsch [German] Eesti [Estonian] English Español [Spanish] [Greek] Français [French] Italiano [Italian] Latviski [Latvian] Lietuvi [Lithuanian] TRENDnet tímto prohlasuje, ze tento TEW-690AP je ve shod se základními pozadavky a dalsími píslusnými ustanoveními smrnice 1999/5/ES. Undertegnede TRENDnet erklærer herved, at følgende udstyr TEW-690AP overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Hiermit erklärt TRENDnet , dass sich das Gerät TEW-690AP in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet. Käesolevaga kinnitab TRENDnet seadme TEW-690AP vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele. Hereby, TRENDnet, declares that this TEW-690AP is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. Por medio de la presente TRENDnet declara que el TEW-690AP cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. TRENDnet TEW-690AP 1999/5/.

Par la présente TRENDnet déclare que l'appareil TEW-690AP est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE. Con la presente TRENDnet dichiara che questo TEW-690AP è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE. Ar so TRENDnet deklar, ka TEW-690AP atbilst Direktvas 1999/5/EK btiskajm prasbm un citiem ar to saisttajiem noteikumiem. Siuo TRENDnet deklaruoja, kad sis TEW-690AP atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas. Nederlands [Dutch] Malti [Maltese] Magyar [Hungarian] Polski [Polish] Português [Portuguese] Slovensko [Slovenian] Slovensky [Slovak] Suomi [Finnish] Svenska [Swedish] Hierbij verklaart TRENDnet dat het toestel TEW-690AP in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Hawnhekk, TRENDnet jiddikjara li dan TEW-690AP jikkonforma mal-tiijiet essenzjali u ma provvedimenti orajn relevanti li hemm fid-Dirrettiva 1999/5/EC. Alulírott, TRENDnet nyilatkozom, hogy a TEW-690AP megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak. Niniejszym TRENDnet owiadcza, e TEW-690AP jest zgodny z zasadniczymi wymogami oraz pozostalymi stosownymi postanowieniami Dyrektywy 1999/5/EC. TRENDnet declara que este TEW-690AP está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE. TRENDnet izjavlja, da je ta TEW-690AP v skladu z bistvenimi zahtevami in ostalimi relevantnimi dolocili direktive 1999/5/ES.

TRENDnet týmto vyhlasuje, ze TEW-690AP spa základné poziadavky a vsetky príslusné ustanovenia Smernice 1999/5/ES. TRENDnet] vakuuttaa täten että TEW-690AP tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. Härmed intygar TRENDnet att denna TEW-690AP står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG. European Union Notice: Radio products with the CE marking comply with the R&TTE Directive (1999/5/EC), the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms: EN 60950 Product Safety EN 300 328 Technical requirement for radio equipment EN 301 489-1/-17 General EMC requirements for radio equipment Trademark recognition All product names used in this manual are the properties of their respective owners and are acknowledged. Contents Getting Started .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... 7 Package Contents ...

.....

.....

.....

.....
.....
.....
.....

.....
.....
.....
.....

.....29 Administrator.
.....
.....
.....

.....
.....
.....
.....

.....
.....
.....
.....

.....
.....
.....
.....

.....
.. 29 System Management ...
.....
.....

.....
.....
.....
.....

.....
.....
.....
.....

.....
.....
.....
..... 29 Upload Firmware ..

.....
.....
.....
.....

.....
.....
.....
.....

.....
.....
.....
.....

.....
.....

MINIMUM SYSTEM REQUIREMENTS Installation Requirements · · · · Web Browser: Internet Explorer (6 or higher) A computer with a network adapter or wireless adapter properly installed.

A router with an available network LAN port. An available DHCP Server routers usually have a built-in DHCP server. Introduction TRENDnet's 450Mbps Wireless N Access Point, model TEW-690AP, supports Access Point, Wireless Distribution System (WDS), and Repeater mode functionality. Advanced Multiple Input Multiple Output (MIMO) antenna technology with three spatial streams per antenna, generates a maximum theoretical wireless throughput of 450Mbps and exceptional wireless coverage. A Gigabit Ethernet port maintains high performance wired connections. Wi-Fi Protected Setup (WPS) integrates other WPS supported devices at the touch of a button. Advanced features include 4 SSIDs per wireless band, different encryption for each SSID, WMM Quality of Service data prioritization, WPA2-RADIUS encryption, and a convenient on/off power switch. FEATURES · · · · · · · · · · · · · · · · · · High performance 450Mbps wireless n access point 1 x 10/100/1000Mbps Auto-MDIX Gigabit LAN port 1 x WPS button 1 x Reset button On/off power switch (EU Version) Diagnostic LEDs Wi-Fi compliant with IEEE 802.11n standard Backwards compatible with IEEE 802.11g/b devices Features Wireless Distribution System (WDS) and Repeater modes for wireless network expansion Supports 64/128-bit WEP, WPA/WPA2-PSK, and WPA/WPA2-RADIUS wireless security Mac filter feature for added security Wi-Fi Multimedia (WMM) Quality of Service (QoS) dat Plug in the power adapter of the TEW-690AP and plug in the device that you will be connecting together.

Verify the Power & Ethernet LEDs are light. EU Version please make sure the power switch is on the On position 5. Your computer will detect TEW-690AP and the Device List screen appears on your monitor. Click Configure button to continue (default TEW-690AP IP Address is 192.168. 10.100). 6. Enter password for the Access Point. The default password is "admin".

Click Login button to continue. Page 13 7. To attain an IP address automatically, you can select "Dynamic IP address configuration"; to change IP address, you can select "Static IP address configuration" and click Next button to continue. 8. The default IP address is 192.168.10.100, you can choose to obtain network setting automatically, or set the IP address manually. After setting, click Configure to continue. 9.

Use Push Button Method, click Connect button to continue. You also need to enable WPS function of the wireless client device to make connection. Page 14 10. Use Push Button Method, click Connect button to continue. You also need to enable WPS function of the wireless client device to make connection. Use PIN Method and enter your wireless client PIN number on Wireless Device PIN, and then click Connect button to make wireless connection. 11. To set TEW-690AP security, select Manual setup and click Next button 12. Enter SSID of TEW-690AP, click Next button. Page 15 13.

Choice Wireless Mode. 14. To disable Security Mode, select None and click Next button. 15. To use WEP security, select WEP and click Next button. Select 64-bit or 128-bit WEP key length, and enter your WEP key. For 64-bit encryption, enter 10 hexadecimal characters, For 128-bit encryption, enter 26 hexadecimal characters. Click Next to continue the setting. 16. To use WPA or WPA2 security, select WPA or WPA2 and click Next button.

Select WPA Mode: WPA Only, WPA2 Only, WPA or WPA2, and set Pre-Shared Key by entering 8 ~ 63 characters. Click Next to continue the setting. Page 16 17. Confirm your new settings. It is recommended that you save or print your wireless settings with the Save or Print buttons. Once finished, click Configure to continue. 18. Congratulations you have configured you TEW-690AP. Page 17 Using the Configuration Menu Whenever you want to configure your TEW-690AP, you can access the Configuration Menu by opening the Web-browser and typing in the IP Address of the TEW-690AP. Open the Web browser.

Type in the current IP Address of the AP (i.e. http://192.168.10.100). If you have changed the default IP Address assigned to the TEW-690AP (192.168.10.100), make sure to enter the correct IP Address.

Type admin in the User Name field. The Password is admin. Click Login In. When you log into the unit the initial screen you will see is the status page that provides system information and network configurations . Page 18 Network LAN SETTING These are the settings of the LAN (Local Area Network) interface for the Access Point.

The Access Point's local network (LAN) settings are configured based on the IP Address and Subnet Mask assigned in this section. The IP address is also used to access this Web-based management interface. LAN Connection Type Choose "Static IP (fixed IP)" if your router does not support DHCP or if for any other reason you need to assign a fixed address to the AP. In this case, you must also configure the following fields. IP Address The IP address of the AP on the local area network.

Assign any unused IP address in the range of IP addresses available for the LAN. For example, 192.168.10.100. Subnet Mask The subnet mask of the local area network. Default Gateway The IP address of the router on the local area network. Choose "DHCP (Auto Config)" if your router supports DHCP and you want the router to assign an IP address to the AP. Page 19 Wireless The wireless section is used to configure the wireless settings for your Access Point. Note that changes made in this section may also need to be duplicated on wireless clients that you want to connect to your wireless network.

To protect your privacy, use the wireless security mode to configure the wireless security features. The Wireless tab provides the following configuration options: Basic, Advanced, MAC Filter, Security, WPS and Station List. ACCESS POINT Page 20 Repeater Mode Support Repeater Mode Support allows you to "repeat" a wireless signal from an existing access point. Select the radio button to enable or disable "Repeater Mode Support". @@(Optional)" field. @@@@@@@@@@@@@@@@@@This name is also referred to as the SSID. @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@Each access point will be configured with the remote access point's MAC address and vice versa. Make sure all access points are configured with the same SSID, channel and wireless encryption settings. WDS configuration option enabled Page 23 Operating Mode If you have both wireless g and wireless n client devices included on your wireless network at the same time, you should choose Mixed Mode. And if you only have wireless n client devices on your wireless network, you can choose Green Field to enjoy high throughput.

Channel Bandwidth The "20/40" MHz option is usually best. The other option is available for special circumstances. 20/40 Coexistence When Disable is chosen, your network will operate under 20/40 mode. Guard Interval Using "Auto" option can increase throughput. However, it can also increase error rate in some installations, due to increased sensitivity to radio-frequency reflections.

Select the option that works best for your installation. MCS The Modulation and Coding Scheme (MCS) is a value that determines the modulation, coding and number of spatial channels. This parameter represents transmission rate. By default (Auto) the fastest possible transmission rate will be selected. You have the option of selecting the speed if necessary.

Fix MCS rate for HT rate 0-15 Reserve Direction Grant (RDG) Disable or enable reserve direction grant. Default is enabled. Extension Channel When 20/40 channel bandwidth has been chosen, you should select extension channel to get higher throughput. Page 24 ADVANCED Beacon Interval Beacons are packets sent by a wireless Access Point to synchronize wireless devices. Specify a Beacon Period value between 20 and 1000. The default value is set to 100 milliseconds. Data Beacon Rate (DTIM) A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages. When the wireless Access Point has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Wireless clients detect the beacons and awaken to receive the broadcast and multicast messages. The default value is 1.

Valid settings are between 1 and 255. Fragment Threshold This setting should remain at its default value of 2346. Setting the Fragmentation value too low may result in poor performance. RTS Threshold This setting should remain at its default value of 2347. If you encounter inconsistent data flow, only minor modifications to the value are recommended. Short Preamble Use to synchronize communication timing between devices on a network. Disable by default. Short Slot Enable or disable short slot. Default is enabled. Page 25 MAC FILTER The MAC address filter section can be used to filter network access by machines based on the unique MAC addresses of their network adapter(s).

It is most useful to prevent unauthorized wireless devices from connecting to your network. A MAC address is a unique ID assigned by the manufacturer of the network adapter. Policy Three policies can be selected - Disable, Allow All & Reject All. MAC Address Add MAC Address to follow Policy setting Page 26 SECURITY SSID choice Choose the SSID which need to implement security. Security Mode You can disable security mode, or you can choose following modes to enable security Disable, WEP-OPEN,WEP-SHARED ,WEP-AUTO, WPA, WPA-PSK, WPA2, WPA2-PSK, WPA-PSK/WPA2-PSK,WPA/WPA2 Page 27 WPS You can setup security easily by choosing PIN or PBC method to do Wi-Fi Protected Setup.

WPS mode Two WPS modes can be selected PIN & PBC. If PIN is selected, you should enter PIN code of your wireless client device to get wireless connection with this AP. Page 28 Wireless Station List You can monitor stations which associated to this AP. Administrator This Administrator section is used to set password for access to the Web-based management, also provide function of firmware upgrade. The Administrator tab provides the following configuration options: Management, Upload Firmware, settings, Management and Status.

SYSTEM MANAGEMENT At this page, you can configure administrator account and password. Page 29 UPLOAD FIRMWARE By assigning firmware location, you can upload firmware at this page. SETTINGS MANAGEMENT You can save system settings by exporting them to a configuration file, restore them by importing the file, or reset them to factory default. Page 30 STATUS You can check system information and network configurations on this page. Page 31 Glossary A Access Control List ACL. This is a database of network devices that are allowed to access resources on the network. Access Point AP. Device that allows wireless clients to connect to it and access the network Ad-hoc network Peer-to-Peer network between wireless clients Address Resolution Protocol ARP. Used to map MAC addresses to IP addresses so that conversions can be made in both directions. Advanced Encryption Standard AES.

Government encryption standard Alphanumeric Characters A-Z and 0-9 Antenna Used to transmit and receive RF signals. ASCII American Standard Code for Information Interchange. This system of characters is most commonly used for text files Attenuation The loss in strength of digital and analog signals. The loss is greater when the signal is being transmitted over long distances. Authentication To provide credentials, like a Password, in order to verify that the person or device is really who they are claiming to be Automatic Private IP Addressing APIPA. An IP address that that a Windows computer will assign itself when it is configured to obtain an IP address automatically but no DHCP server is available on the network B Backward Compatible The ability for new devices to communicate and interact with older legacy devices to guarantee interoperability Bandwidth The maximum amount of bytes or bits per second that can be transmitted to and from a network device Beacon A data frame by which one of the stations in a Wi-Fi network periodically broadcasts network control data to other wireless stations. Bit rate The amount of bits that pass in given amount of time Bit/sec Bits per second BOOTP Bootstrap Protocol. Allows for computers to be booted up and given an IP address with no user intervention Broadcast Page 32 Transmitting data in all directions at once Browser A program that allows you to access resources on the web and provides them to you graphically C CAT 5 Category 5. Used for 10/100 Mbps or 1Gbps Ethernet connections Client A program or user that requests data from a server Collision When do two devices on the same Ethernet network try and transmit data at the exact same time. Cookie Information that is stored on the hard drive of your computer that holds your preferences to the site that gave your computer the cookie D Data Information that has been translated into binary so that it can be processed or moved to another device Data-Link layer The second layer of the OSI model.

Controls the movement of data on the physical link of a network dBd Decibels related to dipole antenna dBi Decibels relative to isotropic radiator dBm Decibels relative to one milliwatt Decrypt To unscramble an encrypted message back into plain text Default A predetermined value or setting that is used by a program when no user input has been entered for this value or setting DHCP Dynamic Host Configuration Protocol: Used to automatically assign IP addresses from a predefined pool of addresses to computers or devices that request them Digital certificate: An electronic method of providing credentials to a server in order to have access to it or a network Direct Sequence Spread Spectrum DSSS: Modulation technique used by 802.

11b wireless devices DNS Domain Name System: Translates Domain Names to IP addresses Domain name A name that is associated with an IP address Download To send a request from one computer to another and have the file transmitted back to the requesting computer Duplex Sending and Receiving data transmissions at the same time Page 33 Dynamic IP address IP address that is assigned by a DHCP server and that may change. Cable Internet providers usually use this method to assign IP addresses to their customers. E EAP Extensible Authentication Protocol Encryption Converting data into cyphertext so that it cannot be easily read Ethernet The most widely used technology for Local Area Networks. F File server A computer on a network that stores data so that the other computers on the network can all access it File sharing Allowing data from computers on a network to be accessed by other computers on the network with different levels of access rights Firewall A device that protects resources of the Local Area Network from unauthorized users outside of the local network Firmware Programming that is inserted into a hardware device that tells it how to function Fragmentation Breaking up data into smaller pieces to make it easier to store FTP File Transfer Protocol.

Easiest way to transfer files between computers on the Internet Full-duplex Sending and Receiving data at the same time G Gain The amount an amplifier boosts the wireless signal Gateway A device that connects your network to another, like the internet Gbps Gigabits per second Gigabit Ethernet Transmission technology that provides a data rate of 1 billion bits per second GUI Graphical user interface H Half-duplex Data cannot be transmitted and received at the same time Hashing Transforming a string of characters into a shorter string with a predefined length Hexadecimal Characters 0-9 and A-F Hop The action of data packets being transmitted from one AP to another Page 34 Host Computer on a network HTTP Hypertext Transfer Protocol is used to transfer files from HTTP servers (web servers) to HTTP clients (web browsers) HTTPS HTTP over SSL is used to encrypt and decrypt HTTP transmissions Hub A networking device that connects multiple devices together I ICMP Internet Control Message Protocol IEEE Institute of Electrical and Electronics Engineers IGMP Internet Group Management Protocol is used to make sure that computers can report their multicast group membership to adjacent APs IIS Internet Information Server is a WEB server and FTP server provided by Microsoft Infrastructure In terms of a wireless network, this is when wireless clients use an Access Point to gain access to the network Internet A system of worldwide networks which use TCP/IP to allow for resources to be accessed from computers around the world Internet Explorer A World Wide Web browser created and provided by Microsoft Internet Protocol The method of transferring data from one computer to another on the Internet Internet Protocol Security IPsec provides security at the packet processing layer of network communication Internet Service Provider An ISP provides access to the Internet to individuals or companies Intranet A private network Intrusion Detection A type of security that scans a network to detect attacks coming from inside and outside of the network IP Internet Protocol IP address A 32-bit number, when talking about Internet Protocol Version 4, that identifies each computer that transmits data on the Internet or on an Intranet IPsec Internet Protocol Security IPX Internetwork Packet Exchange is a networking protocol developed by Novel to enable their Netware clients and servers to communicate ISP Page 35 Internet Service Provider J Java A programming language used to create programs and applets for web pages K Kbps Kilobits per second Kbyte Kilobyte L LAN Local Area Network Latency The amount of time that it takes a packet to get from the one point to another on a network. Also referred to as delay LED Light Emitting Diode Legacy Older devices or technology Local Area Network A group of computers in a building that usually access files from a server LPR/LPD "Line Printer Requestor"/"Line Printer Daemon". A TCP/IP protocol for transmitting streams of printer data. L2TP Layer 2 Tunneling Protocol M MAC address A unique hardware ID assigned to every Ethernet adapter by the manufacturer. Mbps Megabits per second MDI Medium Dependent Interface is an Ethernet port for a connection to a straight-through cable MDIX Medium Dependent Interface Crossover, is an Ethernet port for a connection to a crossover cable MIB Management Information Base is a set of objects that can be managed by using SNMP Modem A device that Modulates digital signals from a computer to an analog signal in order to transmit the signal over phone lines.

It also Demodulates the analog signals coming from the phone lines to digital signals for your computer MPPE Microsoft Point-to-Point Encryption is used to secure data transmissions over PPTP connections MTU Maximum Transmission Unit is the largest packet that can be transmitted on a packet-based network like the Internet Multicast Page 36 Sending data from one device to many devices on a network N NAT Network Address Translation allows many private IP addresses to connect to the Internet, or another network, through one IP address NetBEUI NetBIOS Extended User Interface is a Local Area Network communication protocol. This is an updated version of NetBIOS NetBIOS Network Basic Input/Output System Netmask Determines what portion of an IP address designates the Network and which part designates the Host Network Interface Card A card installed in a computer or built onto the motherboard that allows the computer to connect to a network Network Layer The third layer of the OSI model which handles the routing of traffic on a network Network Time Protocol Used to synchronize the time of all the computers in a network NIC Network Interface Card NTP Network Time Protocol O OFDM Orthogonal Frequency-Division Multiplexing is the modulation technique for both 802.11a and 802.wireless g OSI Open Systems Interconnection is the reference model for how data should travel between two devices on a network OSPF Open Shortest Path First is a routing protocol that is used more than RIP in larger scale networks because only changes to the routing table are sent to all the other APs in the network as opposed to sending the entire routing table at a regular interval, which is how RIP functions P Password A sequence of characters that is used to authenticate requests to resources on a network Personal Area Network The interconnection of networking devices within a range of 10 meters Physical layer The first layer of the OSI model. Provides the hardware means of transmitting electrical signals on a data carrier Ping A utility program that verifies that a given Internet address exists and can receive messages.

The utility sends a control packet to the given address and waits for a response. PoE Power over Ethernet is the means of transmitting electricity over the unused pairs in a category 5 Ethernet cable Page 37 Port A logical channel endpoint in a network. A computer might have only one physical channel (its Ethernet channel) but can have multiple ports (logical channels) each identified by a number. PPP Point-to-Point Protocol is used for two computers to communicate with each over a serial interface, like a phone line PPPoE Point-to-Point Protocol over Ethernet is used to connect multiple computers to a remote server over Ethernet PPTP Point-to-Point Tunneling Protocol is used for creating VPN tunnels over the Internet between two networks Preamble Used to synchronize communication timing between devices on a network Q QoS Quality of Service R RADIUS Remote Authentication Dial-In User Service allows for remote users to dial into a central server and be authenticated in order to access resources on a network Reboot To restart a computer and reload it's operating software or firmware from nonvolatile storage. Rendezvous Apple's version of UPnP, which allows for devices on a network to discover each other and be connected without the need to configure any settings Repeater Retransmits the signal of an Access Point in order to extend it's coverage RIP Routing Information Protocol is used to synchronize the routing table of all the APs on a network RJ-11 The most commonly used connection method for telephones RJ-45 The most commonly used connection method for Ethernet RS-232C The interface for serial communication between computers and other related devices RSA Algorithm used for encryption and authentication S Server A computer on a network that provides services and resources to other computers on the network Session key An encryption and decryption key that is generated for every communication session between two computers Session layer The fifth layer of the OSI model which coordinates the connection and communication between applications on both ends Simple Mail Transfer Protocol Page 38 Used for sending and receiving email Simple Network Management Protocol Governs the management and monitoring of network devices SIP Session Initiation Protocol.

A standard protocol for initiating a user session that involves multimedia content, such as voice or chat. SMTP Simple Mail Transfer Protocol SNMP Simple Network Management Protocol SOHO Small Office/Home Office SPI Stateful Packet Inspection SSH Secure Shell is a command line interface that allows for secure connections to remote computers SSID Service Set Identifier is a name for a wireless network Stateful inspection A feature of a firewall that monitors outgoing and incoming traffic to make sure that only valid responses to outgoing requests are allowed to pass though the firewall Subnet mask Determines what portion of an IP address designates the Network and which part designates the Host Syslog System Logger -- a distributed logging interface for collecting in one place the logs from different sources. Originally written for UNIX, it is now available for other operating systems, including Windows. T TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TCP Raw A TCP/IP protocol for transmitting streams of printer data. TFTP Trivial File Transfer Protocol is a utility used for transferring files that is simpler to use than FTP but with less features Throughput The amount of data that can be transferred in a given time period Traceroute A utility displays the routes between you computer and specific destination U UDP User Datagram Protocol Unicast Communication between a single sender and receiver Universal Plug and Play Page 39 A standard that allows network devices to discover each other and configure themselves to be a part of the network Upgrade To install a more recent version of a software or firmware product Upload To send a request from one computer to another and have a file transmitted from the requesting computer to the other UPnP Universal Plug and Play URL Uniform Resource Locator is a unique address for files accessible on the Internet USB Universal Serial Bus UTP Unshielded Twisted Pair V Virtual Private Network VPN: A secure tunnel over the Internet to connect remote offices or users to their company's network VLAN Virtual LAN Voice over IP Sending voice information over the Internet as opposed to the PSTN VoIP Voice over IP W Wake on LAN Allows you to power up a computer though it's Network Interface Card WAN Wide Area Network WCN Windows Connect Now. A Microsoft method for configuring and bootstrapping wireless networking hardware (access points) and wireless clients, including PCs and other devices. WDS Wireless Distribution System. A system that enables the interconnection of access points wirelessly. Web browser A utility that allows you to view content and interact with all of the information on the World Wide Web WEP Wired Equivalent Privacy is security for wireless networks that is supposed to be comparable to that of a wired network Wi-Fi Wireless Fidelity Wi-Fi Protected Access An updated version of security for wireless networks that provides authentication as well as encryption Wide Area Network The larger network that your LAN is connected to, which may be the Internet itself, or a regional Page 40 or corporate network Wireless ISP A company that provides a broadband Internet connection over a wireless connection Wireless LAN Connecting to a Local Area Network over one of the 802.11 wireless standards WISP Wireless Internet Service Provider WLAN Wireless Local Area Network WPA Wi-Fi Protected Access.

A Wi-Fi security enhancement that provides improved data encryption, relative to WEP. X xDSL A generic term for the family of digital subscriber line (DSL) technologies, such as ADSL, HDSL, RADSL, and SDSL. Y Yagi antenna A directional antenna used to concentrate wireless signals on a specific location 802.11 A family of specifications for wireless local area networks (WLANs) developed by a working group of the Institute of Electrical and Electronics Engineers (IEEE). Page 41 Specifications Hardware Standards Interface LED Indicator Buttons Power Power Consumption Dimensions (LxWxH) Weight Temperature Humidity Certifications Wireless Frequency Antenna Data Rate (auto fallback) Output Power IEEE 802.

3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.11b, IEEE 802.11g, and IEEE 802.

11n 1 x 10/100/1000Mbps Auto-MDIX Gigabit LAN port Wireless, LAN, WPS, Power Reset button restores factory default settings WPS button enables WPS function On/off power (EU version) 12V DC, 1A power adapter 4.5 Watts (max) 120 x 84 x 24 mm (4.7 x 3.3 x 1.0 in.) 160 g (5.6 oz.) Operating: 0° ~ 40° C (32° ~ 104° F) Storage: -20° ~ 60° C (-4° ~ 140° F) Max. 90% (non-condensing) CE, FCC 2.412 ~ 2.

472 GHz 3 x 2dBi detachable antennas 802.

*11b: up to 11Mbps 802.11g:up to 54Mbps 802.11n: up to 450Mbps 802.11b: 18dBm (typical) 802.11g: 15dBm (typical) 802.11n : 15dBm (typical) 802.11b: -84dBm (typical) 802.11g: -72dBm (typical) 802.11n: -69dBm (typical) 64/128-bit WEP , WPA/WPA2-PSK, WPA/WPA2-RADIUS 1~11 (FCC), 1~13 (ETSI) Receiving Sensitivity Encryption Channels *Maximum wireless signal rates are referenced from IEEE 802.*

11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials and other conditions. Page 42 Limited Warranty TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase. @@@@@All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned.

TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies. @@There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees. WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACE. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF TRENDNET'S PRODUCTS. TRENDNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, Page 43 FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE. Governing Law: This Limited Warranty shall be governed by the laws of the state of California. Some TRENDnet products include software code written by third party developers. These codes are subject to the GNU General Public License ("GPL") or GNU Lesser General Public License ("LGPL"). Go to http://www.trendnet.com/gpl or http://www.trendnet.com Download section and look for the desired TRENDnet product to access to the GPL Code or LGPL Code.

These codes are distributed WITHOUT WARRANTY and are subject to the copyrights of the developers. TRENDnet does not provide technical support for these codes. Please go to http://www.gnu.org/licenses/gpl.

txt or http://www.gnu.org/licenses/lgpl.txt for specific terms of each license. PWP05202009v2 Page 44 Page 45 .