Actiontec®

802.11n and 802.11ac Wi-Fi Router

Model # C3000A

User Manual

0535-00xx-000

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Introduction

1

Congratulations for purchasing the C3000A 802.11n and 802.11ac Wi-Fi Router. The Router is a single platform device that supports universal WAN access, FTTN, FTTdp, FTTB, or FTTP. With support for advanced 802.11ac 4x4 WiFi, the Router enables blazing fast HD video streaming, with multi-channel HD video throughput. The Router also offers an unprecedented level of security, helping protect your network resources. It has also been designed to deliver unparalleled WiFi performance, using dual-band WiFi supporting speeds up to 2.3 Gbps.

Package Contents

- Black Power adapter
- Yellow cable (Ethernet, 6 ft.)
- White cable (Ethernet, 10 ft.)
- Green cable (RJ14, 12 ft.)
- Quick Start Guide
- Installation Guide
- Wall-mount template
- Vertical stand

Minimum System Requirements

- Active ADSL2+ service
- Computer with an 10 Mbps or 10/100/1000 Mbps Ethernet connection
- Microsoft Windows 10, 8, 7; Mac OS OS X+
- TCP/IP network protocol installed on each computer

Features

- ADSL2+, VDSL2, and WAN Ethernet in a single CPE
- Dual Band WiFi delivering up to 2.3 Gbps with 802.11ac 4x4 5GHz and 802.11n 3x3 2.4GHz
- Optimized for IPTV and Video over WiFi

Getting to Know the Router

This section contains a quick description of the Router's lights, ports, and other features. The Router has several indicator lights (LEDs) and a button on its front panel, and a series of ports and switches on its rear panel.

Front Panel

The front panel of the Router features 13 LEDs and a WPS (Wireless Protected Setup) button.

Power

The Power LED illuminates green when the Router is properly connected to a WAN Internet connection.

DSL 1/DSL2

The DSL LEDs illuminate green when the Router is properly connected to a DSL Internet connection.

Internet

The Internet LED illuminates green when the Router is properly connected to a WAN Internet connection.

Ethernet

The Ethernet LED illuminates green when the Router is properly connected to a WAN Ethernet connection.

Ethernet 1/2/3/4

The Ethernet LEDs illuminate green when the Router is properly connected to a LAN Ethernet connection.

USB

The USB LED illuminates green when the Router is properly connected to a USB connection.

Wi-Fi 2.4G/5G

The Wi-Fi LEDs illuminate green when the Router's wireless network is operating and properly configured in each band.

WPS Button

The WPS button is used when connecting a wireless device to the Router's wireless network using WPS.

Rear Panel

The rear panel of the Router features 8 ports, and a Reset button.

Power Port

The Power port is used to connect the Power cord (Model No. CDS024T-W120U by Adapter Tech) to the Router.

Reset Button

Depressing the Reset button for 10 seconds will restore the Router's factory default settings. The reset process will start after releasing the button.

WARNING! Do not unplug the Power cord from the Router during the reset process. Doing so may result in permanent damage to the Router.

WAN Ethernet Port

The WAN Ethernet port is used to connect the Router to a WAN connection via an Ethernet cable.

LAN Ethernet Ports (4)

The LAN Ethernet ports are used to connect computers to the Router via Ethernet cable. The Ethernet ports are 10/100/1000 Mbps auto-sensing ports, and either a straight-through or crossover Ethernet cable can be used when connecting to the ports.

USB Port

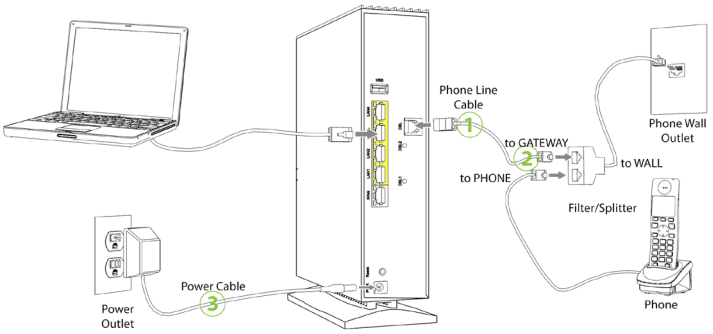
The USB port is used to connect the Router to a USB device.

DSL Port (Single & Bonded)

The DSL port is used to connect the Router to a DSL wall outlet via DSL cable.

Connecting the Router

There are many variables involved when connecting the Router, depending on the type of Internet service available. The figure below shows the possible connections available for the Router.



Connecting a Computer to the Router

To connect a computer to the Router to access the Router's graphical user interface (GUI):

1. Get the Router and black Power cord from the box.
2. Plug the black Power cord in the black port on the back of the Router and then into a power outlet.
3. Plug the yellow Ethernet cable from the box into one of the four yellow Ethernet ports on the back of the Router.
4. Make sure the computer is powered on, then plug the other end of the yellow Ethernet cable into an Ethernet port on the computer.

5. Make sure that the LED on the LAN port into which the Ethernet cable is plugged glows steadily green. This may take a few moments.

6. The computer should either be configured with a statically defined IP address and DNS address, or instructed to automatically obtain an IP address using the Network DHCP server. The Router is set up, by default, with an active DHCP server, and it is recommended to leave this setting as is.

Accessing the Home Screen

2

This chapter gives a short overview of the *Home* screen of the Router's graphical user interface (GUI).

Accessing the Home Screen

To access the *Home* screen:

1. Open a Web browser on computer connected, via Ethernet cable, to one of the Router's LAN ports. In the **Address** text box, type:
   http://192.168.0.1
   then press Enter on the keyboard.
2. The Router's *Home* screen appears.

The Router's GUI is now accessible.

Icon Bar

At the top of the *Home* screen is the Icon Bar. Here, you can quickly access the other four main sections of the Router's GUI by clicking on the appropriate icon: **Status** (see chapter 3 for more details); **Wireless Setup** (see chapter 4 for more details); **Firewall** (see chapter 5 for more details); **Advanced Setup** (see chapter 6 for more details). Clicking **Home** in any other screen generates the *Home* screen.

Connection Status

The bottom of the *Home* screen consists of connection and device information relating to the Router. There are no configurable options here.

Checking the Router's Status

3

This chapter explains the options available on the *Status* screens, which display information about the Router's network connections.

Accessing the Status Screens

To access the Router's *Status* screens:

1. Open a Web browser. In the Address text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.

2. The Router's Main screen appears. Click the **Status** icon.

3. The *Connection Status* screen appears. "Connection Status" is under the "Internet Service" group.

From here, all the *Status* screens can be accessed from the menu on the left.

Connection Status

Clicking **Connection Status** from any *Status* screen generates the *Connection Status* (see figure above). Information concerning devices connected to the Router's network, whether wired or wireless, is displayed here, along with the connected device's IP address, MAC address, and (if applicable) IPv6 address.

Line 1/Line 2 Status

Click **Line 1 Status** from any *Status* screen to generate the Line *1 Status* screen. This screen displays the Router's DSL connection parameters for DSL Line 1 port. Clicking ***Line 2 Status*** genreates the *Line 2 Status* screen, which displays the connection parameters for the Router's DSL Line 2 port.

WAN Ethernet

Click **WAN Ethernet Status** from any *Status* screen to generate the *WAN Ethernet Status* screen. This screen displays the Router's WAN (wide area network) parameters.

Routing Table

Click **Routing Table** from any *Status* screen to generate the *Routing Table* screen. This screen displays the Router's routes.

Firewall Status

Click **Firewall Status** from any *Status* screen to generate the *Firewall Status* screen. This screen displays parameters concerning the Router's firewall.

NAT Table

Click **NAT Table** from any *Status* screen to generate the *NAT Table* screen. This screen displays the Router's WAN (wide area network) parameters.

Wireless Status

Click **Wireless Status** from any *Status* screen to generate the *Wireless Status* screen. This screen displays the Router's wireless network parameters.

Advanced Wireless Status

Click **Advanced Wireless** from the bottom of the *Wireless Status* screen to generate the *Advanced Wireless Statistics* screen. This screen displays the Router's additional wireless network parameters.

Wireless Monitor

Click **Modemstatus Wireless Monitor** from the bottom of the *Wireless Status* screen to generate the *Wireless Monitor* screen. This screen displays parameters for the clients connected to the Router's wireless network.

Modem Utilization

Click **Modem Utilization** from any *Status* screen to generate the *Modem Utilization* screen. This screen displays statistics related to the Router's modem operation.

LAN Status

Click **LAN Status** from any *Status* screen to generate the *LAN Status* screen. This screen displays the Router's LAN (local area network) parameters.

ARP Table

Click **ARP Table** from any *Status* screen to generate the *ARP Table* screen. This screen displays the Router's ARP (address resolution protocol) table.

Network Devices

Click **Network Device Table** (underneath System Monitor) from any *Status* screen to generate the *Network - Devices* screen. This screen allows the user to scan the Router's networks for new devices at a selected time interval.

Interface Statistics

Click **Interface Statistics** from any *Status* screen to generate the *Estimated Interface Statistics* screen. This screen displays various statistics and parameters relating to the Router's connection interfaces.

Multicast Statistics

Click **Multicast Statistics** from any *Status* screen to generate the *Multicast Statistics screen*. This screen displays the Router's multicast statistics.

System Log

Click **System Log** from any *Status* screen to generate the *System Log* screen. This screen displays the Router's system log, which keeps track of all events that occur on the Router.

Configuring Wireless Settings

4

This chapter explains the options provided in the Wireless Setup section of the Router's firmware, including basic and advanced settings, and WPS.

Accessing Wireless Settings

To access the **Wireless Settings** screens:

1. Open a Web browser. In the Address text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.

2. The Router's main screen appears. Enter the user name and password, then click **Wireless Setup** from the row of icons at the top of the screen.

3. The *Basic Settings* screen appears, with a menu of other wireless options listed on the left side of the screen.

Basic Settings

Click **Basic Settings** from any *Wireless Settings* screen to generate the *Basic Settings* screen, as shown in the figure above. This screen displays a series of settings relating to the basic functionality of the Router's wireless network, including SSID (network name), frequency, and security.

Changing the Wireless Network Name (SSID)

To change the name of the Router's wireless network, enter the new name in the **SSID Name** text box in the Basic Settings screen, then click **Apply.**

Changing the Wireless Key/Passphrase

To change the passphrase for the Router's wireless SSID, at the Security Key Type, Use **Custom Key/Passphrase**, enter the desired **Wireless Key/Passphrase** in the text box, then click **Apply**.

Enabling SSID Guest Option

Enabling this option in the *Basic Settings* screen allows guest users to access the Router's wireless Internet connection, while preventing these users from accessing other wireless devices, including network printers or other unsecured network devices. To enable, click **Enable** button next to **SSID Guest**, then click **Apply.**

Advanced Settings

Click **Advanced Settings** from any *Wireless Settings* screen to generate the *Advanced Settings* screen. This screen displays a series of settings relating to the advanced capabilities of the Router's wireless network, including compatibility mode, channel width, and WMM power save.

WPS (Wi-Fi Protected Setup)

Click **WPS** from any *Wireless Settings* screen to generate the *WPS (Wi-Fi Protected Setup)* screen, which allows the user to configure WPS by following the onscreen instructions.

MAC Address Control

Click **MAC Address Control** from any *Wireless Settings* screen to generate the *Wireless MAC Authentication* screen, which allows the user to configure allow or deny access to the Router's wireless network using the MAC address of the wireless device. (Note: this feature only works if Band Steering is DISABLED.) Follow the onscreen instructions to configure.

WDS

Click **WDS** from any *Wireless Settings* screen to generate the *WDS Wireless Distribution System* screen, which allows the user to configure the Router to allow wireless interconnection of access points via a wireless connection. Follow the onscreen instructions to configure.

Band Steering

Click **Band Steering** from any *Wireless Settings* screen to generate the *Band Steering Configuration* screen, which allows the user to configure the Router to automatically connect 2.4GHz and 5GHz wireless devices to the appropriate wireless network bandwidth. Also, this screen can be used to assign a certain wireless network and/or bandwidth to a particular wireless device. Follow the onscreen instructions to configure.

Configuring Firewall Settings

5

This chapter explains the options provided in the **Firewall** section of the Router's firmware, including setting up port forwarding and static NAT.

Accessing Firewall Settings

To access the Firewall screens:

1. Open a Web browser. In the Address text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.

The Router's *Home* screen appears. Click the **Firewall** icon.

2. The *Firewall* screen appears, with a menu of other wireless options listed on the left side of the screen.

Firewall

Click **General** from any *Firewall Settings* screen to display the *Firewall* screen, as shown in the figure above. To configure basic settings of the Router's firewall, follow the onscreen instructions.

IPv6 Firewall

Click **IPv6 Firewall** from any *Firewall Settings* screen to generate the *IPv6 Firewall* screen. To set up, follow the onscreen instructions.

Port Forwarding

Click **Port Forwarding** from any *Firewall* screen to generate the *Port Forwarding* screen.

Activating port forwarding allows the network to be exposed to the Internet in certain limited and controlled ways, enabling some applications to work from the local network (game, voice, and chat applications, for example), as well as allowing Internet access to servers in the local network. This screen allows you to configure the port forwarding settings of the Router. If changes are made in this screen, click **Apply** at the bottom of the screen to save them.

Port forwarding settings should only be adjusted by experienced technical users who are extremely familiar with networking concepts.

Applications

Click **Applications** from any *Firewall* screen to generate the *Applications* screen. This screen allows the user to designate certain applications to be forwarded, circumventing the usual firewall security settings. If changes are made in this screen, click **Apply** at the bottom of the screen to save them.

DMZ Hosting

Click **DMZ Hosting** from any *Firewall* screen to generate the *DMZ Hosting* screen. The DMZ host feature allows one device on the network to operate outside the firewall to use an Internet service that otherwise would be blocked, or to expose a networked device to all services without restriction or security. To activate, click in the **Enable** radio button, then type the **device's IP address** in the appropriate text boxes.

> **Caution!** A DMZ host is not protected by the firewall and may be vulnerable to attack. Designating a DMZ host may also put other computers in the local network at risk. When designating a DMZ host, consider the security implications and protect it if necessary.

IPv6 DMZ Hosting

Click **IPv6 DMZ Hosting** from any *Firewall* screen to generate the I*Pv6 DMZ Hosting* screen. The DMZ host feature allows one device on the network to operate outside the firewall to use an Internet service that otherwise would be blocked, or to expose a networked device to all services without restriction or security. To activate, follow the onscreen instructions.

> **Caution!** A DMZ host is not protected by the firewall and may be vulnerable to attack. Designating a DMZ host may also put other computers in the local network at risk. When designating a DMZ host, consider the security implications and protect it if necessary.

UPnP

Click **UPnP** from any *Firewall* screen to generate the *UPnP* screen, which activates UPnP (Universal Plug and Play). To activate, set the preferred UPnP options, then click **Apply**.

Advanced Setup

6

This chapter explains the options available with the *Advanced Setup* screens, which configure some of the more complex settings on the Router.

Accessing the Advanced Setup Screens

To access the Router's *Advanced Setup* screens:

1. Open a Web browser. In the **Address** text box, type:
   http://192.168.0.1
   then press Enter on the keyboard.

2. The Router's *Main* screen appears. Click the **Advanced Setup** icon.

3. A **WARNING** screen appears. Technicians can click **PROCEED** to configure the Advanced Settings of the Router.

4. The *Services Blocking* screen appears.

From here, all the *Advanced Setup* screens can be accessed from the menu on the left.

Services Blocking

Click **Services Blocking** from any *Advanced Setup* screen to generate the *Services Blocking* screen (see the figure, above). This feature allows the user to block certain services from accessing the Router's network(s). Follow the onscreen instructions to configure.

Website Blocking

Click **Website Blocking** from any *Advanced Setup* screen to generate the *Website Blocking* screen. This feature allows the user to block certain websites from accessing the Router's network(s). Follow the onscreen instructions to configure.

Scheduling Access

Click **Scheduling Access** from any *Advanced Setup* screen to generate the *Scheduling Access* screen. This feature allows the user to schedule access to the Router's network(s) for certain devices. Follow the onscreen instructions to configure.

Parental Controls

Click **Parental Controls** from any *Advanced Setup* screen to generate the *Parental Controls* Configuration screen. This feature allows the user to allow or prevent access to certain websites for devices on the Router's network. Follow the onscreen instructions to configure.

WAN IP Addressing

Click **WAN IP Addressing** from any **Advanced Setup** screen to generate the *WAN IP Address* screen. This feature allows the user to set the protocol used by the ISP for Internet access. Follow the onscreen instructions to configure.

IPv6 WAN Settings

Click **IPv6 WAN Settings** from any *Advanced Setup* screen to generate the *IPv6 WAN Settings* screen. This feature allows the user to set the IPv6 protocol used by the ISP for Internet access. Follow the onscreen instructions to configure.

> **WARNING**: This setting should be configured by experienced network technicians only, since any changes could affect the Router's IPv6 service.

How to Set the T3200 to RFC1483 Transparent Bridge

From the *WAN IP Address* screen, select **RFC 1483 Transparent Bridging** and click Apply. The Router will allow the WAN IP address to pass-through to the device connected to LAN Port 1 Only.

IPv6 LAN Settings

Click **IPv6 LAN Settings** from any *Advanced Setup* screen to generate the *IPv6 LAN Settings* screen. This feature allows the user to set the **IPv6 LAN IP settings** on the Router. Follow the onscreen instructions to configure.

DHCP Reservation

Click **DHCP Reservation** from any *Advanced Setup* screen to generate the *DHCP Reservation* screen. This feature allows the user to lease a permanent DHCP-allocated address to a client on the Router's network. Follow the onscreen instructions to configure.

Dynamic DNS

Click **Dynamic DNS** from any *Advanced Setup* screen to generate the *Dynamic DNS* screen. This feature allows the user to associate the WAN IP address of the Router with a host name. Follow the onscreen instructions to configure.

DNS Host Mapping

Click **DNS Host Mapping** from any *Advanced Setup* screen to generate the *DNS Host Mapping* screen. This feature allows the user to create a static host name for a specified IP address. Follow the onscreen instructions to configure.

IP QoS Upstream Settings

Log in as root to generate the *IP QoS Upstream Settings* screen. This feature allows the user to prioritize certain types of upstream data traffic over standard upstream data traffic. Follow the onscreen instructions to configure.

IP QoS Downstream Settings

Log in as root to generate the *IP QoS Downstream Settings* screen. This feature allows the user to prioritize certain types of downstream data traffic over standard downstream data traffic. Follow the onscreen instructions to configure.

IPv6 QoS

Log in as root to generate the *IPv6 QoS Settings* screen. This feature allows the user to prioritize certain types of IPv6 data traffic over standard IPv6 data traffic. Follow the onscreen instructions to configure.

Remote GUI

Log in as root to generate the *Remote GUI* screen. This feature allows the user to access the Router's graphical user interface from a remote location. Follow the onscreen instructions to configure.

Remote Telnet

Log in as root to generate the *Remote Telnet* screen. This feature allows the user to access the Router from a remote location via telnet. Follow the onscreen instructions to configure.

Dynamic Routing

Click **Dynamic Routing** from any *Advanced Setup* screen to generate the *Dynamic Routing (RIP)* screen. This feature allows the user to set up the Router on the network behind a modem using dynamic routing. Follow the onscreen instructions to configure.

Admin Password

Click **Admin Password** from any *Advanced Setup* screen to generate the *Admin Password* screen. This feature allows the user to change the password for accessing the Router's graphical user interface. Follow the onscreen instructions to configure.

Storage Device Info

Click **Storage Device** Info from any *Advanced Setup* screen to generate the *Storage Service* screen. This feature allows storage devices connected to the Router to be easily accessed. Any storage devices connected to the Router will be listed in the table at the bottom of the screen.

Samba Configuration

Click **Samba Configuration** from any *Advanced Setup* screen to generate the *Samba Configuration* screen. This feature allows the user to set up a Samba environment. Follow the onscreen instructions to configure.

Reboot

Click **Reboot** from any *Advanced Setup* screen to generate the *Reboot* screen. Reboot the Router by clicking Reboot.

Restore Defaults

Click **Restore Defaults** from any *Advanced Setup* screen to generate the *Restore Defaults* screen. To restore certain settings on the Router, click the appropriate Restore button.

Upgrade Firmware

Click **Upgrade Firmware** from any *Advanced Setup* screen to generate the *Upgrade Firmware* screen. To upgrade the Router's firmware, follow the onscreen instructions.

Check for New Firmware Link

Click **Check for new firmware** link from any *Advanced Setup* screen to generate the *Upgrade firmware from Internet* screen. To upgrade the Router's firmware from the Internet automatically, click **Upgrade**.

LAN IP Settings

Click **LAN IP Settings** from any *Advanced Setup* screen to generate the *LAN IP and DHCP Settings* screen. This feature allows the user to set LAN IP and DHCP server settings on the Router. Follow the onscreen instructions to configure.

How to Manually Set the T3200 for Static IP

From the *WAN IP Address* screen, select **RFC 1483 via Static IP**. Enter the IP address to be assigned to the Router, the subnet mask and the IP Address of the Default Router. Click Apply.

Speed Test

Click **Speed Test** from any *Advanced Setup* screen to generate the *Speed Test* screen. This screen allows the user to perform a speed test on the Router's Internet (or WAN) connection. Enter the URL for a server at a speed test site, then click Test.

Ping Test

Click **Ping Test** from any *Advanced Setup* screen to generate the *Ping Test* screen. To perform a ping test on the Router, follow the onscreen instructions.

Tcpdump Debug

Click **Tcpdump Debug** from any *Advanced Setup* screen to generate the *Tcpdump Debug* screen. This screen allows the user to copy the packet capture file to a USB flash drive connected to the Router, along with the CFE and wireless configuration files, for debugging purposes. Follow the onscreen instructions to complete.

Iperf Test

Click **Iperf Test** from any *Advanced Setup* screen to generate the *Iperf Test* screen. To perform an iperf test on the Router, follow the onscreen instructions.

IPv6 Ping Test

Click **IPv6 Ping Test** from any *Advanced Setup* screen to generate the *IPv6 PingTest* screen. To perform an IPv6 ping test on the Router, follow the onscreen instructions.

Traceroute

Click **Traceroute** from any *Advanced Setup* screen to generate the *Traceroute* screen. To perform an route trace on the Router, follow the onscreen instructions.

IPv6 Traceroute

Click **IPv6 Traceroute** from any *Advanced Setup* screen to generate the *IPv6 Traceroute* screen. To perform an IPv6 route trace on the Router, follow the onscreen instructions.

Time Zone

Click **Time Zone** from any *Advanced Setup* screen to generate the *Time Zone* screen. Use this screen to set the time zone on the Router.

Language Settings

Click **Language Settings** from any *Advanced Setup* screen to generate the *Language Settings* screen. Use this screen to set the language on the Router's graphical user interface.

DNS Cache

Click **DNS Cache** from any *Advanced Setup* screen to generate the *DNS Cache* screen. Use this screen to set up a DNS cache on the Router.

IGMP Setting

Click **IGMP Setting** from any *Advanced Setup* screen to generate the *IGMP Configuration* screen. Use this screen to set up IGMP processes on the Router.

Upgrade History

Click **Upgrade History** from any Advanced Setup screen to generate the *Upgrade History* screen. This screen displays a list of firmware upgrades applied to the Router.

ALG

Click **ALG** from any Advanced Setup screen to generate the *Firewall - ALG / Pass-Through* screen. This screen allows the user to configure ALG settings on the Router.

Tool Box

Click **Tool Box** from any Advanced Setup screen to generate the *Tool Box* screen. This screen allows the user to configure traffic and port mirroring on the Router.

DLNA

Click **DLNA** from any Advanced Setup screen to generate the *DLNA* screen. This screen allows the user to configure DLNA settings on the Router.

xDSL Diagnostics

Click **xDSL Diagnostics** from any Advanced Setup screen to generate the *xDSL Diagnostics* screen. This screen allows the user to select a type of diagnostics on the Router.

Print Server

Click **Print Server** from any Advanced Setup screen to generate the *Print Server* screen. This screen allows the user to select and configure a print server for the Router's network.

Specifications

A

General

Model Number(s)

C3000A 802.11n and 802.11ac Wi-Fi Router

Standards

IEEE 802.3 (10BaseT)
IEEE 802.3u (100BaseTX)
IEEE 802.11 b, g, n, ac (Wireless)
G.dmt
G.lite
t1.413
RFC 1483, 2364, 2516

Protocol

LAN - CSMA/CD
WAN - PPP, DHCP, Static IP

WAN

VDSL2 interface

LAN

10/100/1000 RJ-45 switched ports

Speed

LAN Ethernet: 10/100/1000 Mbps auto-sensing
Wireless: 802.11a, b, g, n, ac; 900 Mbps optimal (see Wireless Operating Range for details)

Cabling Type

Ethernet 10BaseT: UTP/STP Category 3 or 5
Ethernet100BaseTX: UTP/STP Category 5

Wireless Operating Range

Indoors

Up to 91M (300 ft.) @ 300 Mbps

Outdoors

Up to 457M (1500 ft.) @ 300 Mbps

Topology

Star (Ethernet)

LED Indicators

Power, DSL 1, DSL 2, Internet, Ethernet, Ethernet 1, Ethernet 2, Ethernet 3, Ethernet 4, USB, WiFi 2.4G, WiFi 5G, and WPS Push Button

Power Adapter

Model No.: CDS024T-W120U
Input: 120 VAC, 50/60Hz, 0.58A
Output: 12.0V === 2.0A
Manufacturer: Adapter Tech

Environmental

Power

External, 12V DC, 2A

Certifications

FCC Part 15 Class B, Class C and E, FCC Part 68, UL

Operating Temperature

0º C to 45º C (32ºF to 113ºF)

Storage Temperature

-20ºC to 70ºC (-4ºF to 158ºF)

Operating Humidity

10% to 85% non-condensing

Storage Humidity

5% to 90% non-condensing

Notices

Warranty

This product has a one-year Limited Hardware Warranty and 90-day free software updates from date of purchase.

Local Law

This Limited Warranty Statement gives the customer specific legal rights. The customer may also have other rights, which vary from state to state in the United States, and from country to country elsewhere in the world.

To the extent that this Limited Warranty Statement is inconsistent with local law, this Statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this Warranty Statement may not apply to the customer.

Go to **http://www.actiontec.com/products/warranty.php** for more information.

Important Safety Instructions

Basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury, including the following:

- Do not use this product near water – for example, near a bathtub, kitchen sink, laundry tub, or swimming pool, or in a wet basement; only clean with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus including amplifiers that produce heat.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord indicated in this manual.

Coaxial Cable

If applicable, the coaxial cable screen shield needs to be connected to the Earth at the building entrance per ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, “Grounding of Outer Conductive Shield of a Coaxial Cable,” or in accordance with local regulation.

FCC Class B Equipment

This 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 generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee 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 and correct the interference by implementing one or more of the following measures:

- Reorient or relocate the device;
- Increase the separation between the equipment and receiver;
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Actiontec Electronics, Inc, may void the user’s authority to operate the equipment.

Declaration of Conformity for Products Marked With the FCC Logo

This device complies with part 15 of the FCC. 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 of the device.

Important Note on Wi-Fi

If applicable, this equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The radio has been found to be compliant to the requirements set forth in CFR 47 Sections 2.1091, 15.247 (b) (4),15.407 addressing RF Exposure from radio frequency devices as defined in Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. The equipment should be installed more than 30 cm (~12 in.) from your body or nearby persons.

For product available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

The maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comp with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Contact Info

For questions regarding your product or the FCC declaration, contact:

Actiontec Electronics, Inc
3301 Olcott Street, Santa Clara, CA 95054, United States
Tel: (408) 752-7700
Fax: (408) 541-9003

FCC Part 68 User Manual Information

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the ACTA registration number and ringer equivalence number (REN.) If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right the file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact:

Company Name:	Actiontec Electronics, Inc.
Address:	3301 Olcott St., Santa Clara, CA 95054
TEL:	(408) 752-7700
FAX:	(408) 541-9003

If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

This equipment uses the following USOC jacks: RJ14

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightening strikes and other electrical surges.