# Product External Specification
# For
# Wireless N Router

Model Name: DIR-615 Rev. B2

Document Revision: 1.2

# Revision History



| Rev. | Date | Author | Reason for Changes |
|---|---|---|---|
| 0.9 | May 25, 2007 | Hans Liu | • Initial Draft |
| 1.0 | June 15, 2007 | Hans Liu | • Add Block Diagram |
| 1.1 | Aug. 24, 2007 | Hans Liu | • Move ALGs to background |
| 1.2 | Sep. 27, 2007 | Hans Liu | • Correct some wording mistake |
| | | | • |

# Contents

## 1.0 Scope

## 1.1 Document

Ideal networking solution for home and small business environment requires high degree of convenience and flexibility in functionality, configuration and maintenance. Home users and network administrators have been struggling to maintain multiple devices in order to support functionalities required while at the same time ensuring that a secure environment is provided.

The DIR-615 is the product upgraded to latest draft 802.11n technology while staying compatible with 802.11b & 802.11g networks. It upgrades your network to the next generation of wireless technology and makes your wireless connectivity faster and wider to meet the blooming demand to multimedia application. User can enjoy the higher performance of wireless networking while streaming for more and more digital multimedia devices even at bigger home.

TheDIR-615 is a SOHO-class network security solution for home, broadband telecommuter and small SOHO.

## 1.2 Product Feature

- **WAN Interface:**

  One 10/100 Mbps Fast Ethernet port for xDSL/Cable connection

- **LAN Interface:**

  Four ports 10/100 Mbps Fast Ethernet switch

- **Wireless Interface:**

  Follow IEEE 802.11n Draft 2.0 specification

  Compatible with IEEE 802.11g specification

  Compatible with IEEE 802.11b specification

- **Functions support:**

  WAN type support:

  Static IP

  Dynamic IP

  PPPoE

  PPTP

  L2TP

  Bigpond

  Network Address Translation

  IGMP (Internet Group Management Protocol) support

  VPN pass through:

  PPTP

  L2TP

  IPSec

  WPS (Wi-Fi Protected Setup)

  Push Button
  PIN

  Wireless Security:

  64/128 bits WEP

WPA

WPA2

Firewall:

DOS prevention

Stateful Packet Inspection

IP/MAC Address Filtering

One DMZ support.

Port Forwarding

Port Triggering / Special Applications support

WLAN Partition

DHCP Server.

DNS Relay

Web-based configuration and management

Remote Management

Extensive logging of gateway events

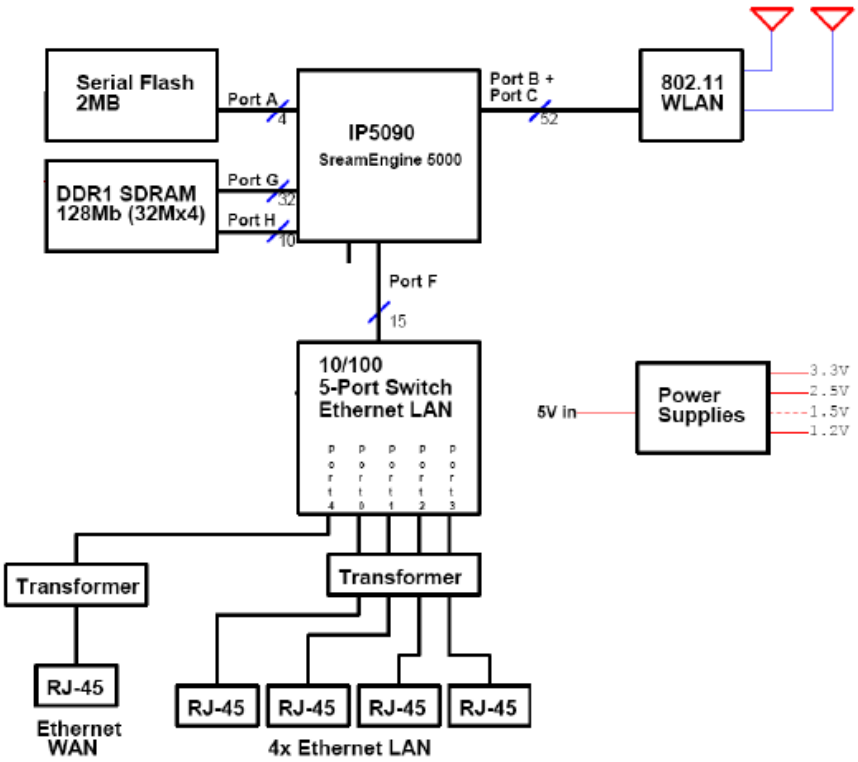
UPnP support

## 2.0 Requirements

The following sections identify the detailed requirements of the DIR-615 Wireless Broadband Router.

## 2.1 Hardware Specification

### 2.1.1 Block Diagram

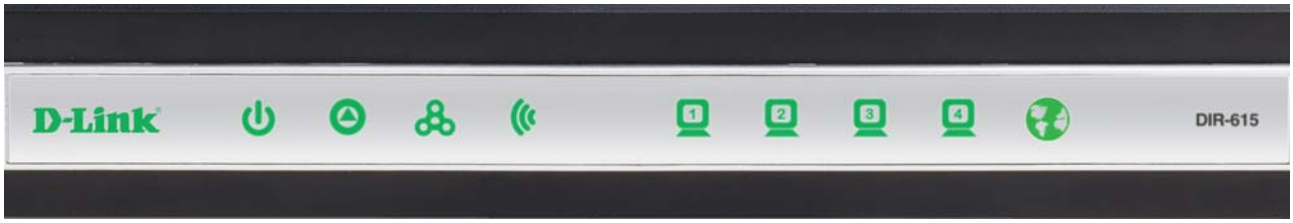



### 2.1.2 Hardware Interface

| | Feature | Detailed Description |
|---|---|---|
| 2.1.2.1 | WAN Interface (Internet) | • One 10/100 Mbps Fast Ethernet port<br>• Complies IEEE 802.3u specification<br>• Support IEEE 802.3x Flow Control<br>• Support Auto Negotiation<br>• Support Auto MDI/MDIX |
| 2.1.2.2 | LAN Interface | • Four 10/100 Mbps Fast Ethernet port<br>• Complies IEEE 802.3u specification<br>• Support IEEE 802.3x Flow Control<br>• Support Auto Negotiation<br>• Support Auto MDI/MDIX |
| 2.1.2.3 | WLAN Interface | • Follow IEEE 802.11n Draft 2.0 specification<br>• Compatible with IEEE 802.11g specification<br>• Compatible with IEEE 802.11b specification<br>• Two detachable external 2dBi Omni-direction Antennas |
| 2.1.2.4 | Reset Button | • 1 Push button for reset the device to default setting. |
| 2.1.2.5 | Power Receptor | • 1 Receptor for the supplied power adapter. |


### 2.1.3 LED Indicators

| | LED Indicator | Color | Status | Description |
|---|---|---|---|---|
| 2.1.3.1 | D-Link Logo | Green | Solid Green | • The device is power on |
| | | | Light off | • The device is power off |
| | Power | Green | Solid Green | • The device is power on |
| | | | Light off | • The device is power off |
| | Status | Green | Blinking Green | • System is operating properly |
| | | | Light off | • System is defective |
| | WAN (Internet) | Green | Solid Green | • The link is established |
| | | | Blinking Green | • Data transmission |
| | | | Light off | • The link is not established |
| | WLAN | Green | Solid Green | • The link is up |
| | | | Blinking Green | • Data transmission |
| | | | Light off | • The link is not established |
| | LAN | Green | Solid Green | • The link is established |
| | | | Blinking Green | • Data transmission |
| | | | Light off | • The link is down |
| | Internet Connection Status | Green | Solid Green | • Internet is connected |
| | | Red | Solid Red | • Internet is disconnected |



### 2.1.4 IEEE 802.3 Section

| | Feature | Detailed Description |
|---|---|---|
| 2.1.4.1 | 10/100 BASE-TX Fast Ethernet | • IEEE 802.3u compliance<br>• IEEE 802.3x Flow Control support<br>• Support Full/Half Duplex operations<br>• Support Auto Negotiation<br>• Support Auto MDI/MDIX |

### 2.1.5 IEEE 802.11b Section

| | Feature | Detailed Description |
|---|---|---|
| 2.1.5.1 | Standard | • IEEE 802.11b |
| 2.1.5.2 | Radio and Modulation Schemes | • DQPSK, DBPSK, DSSS, and CCK |
| 2.1.5.3 | Operating Frequency | • 2400 ~ 2497MHz ISM band |
| 2.1.5.4 | Channel Numbers | • 11 channels for United States<br>13 channels for Europe Countries<br>14 channels for Japan |
| 2.1.5.5 | Data Rate | • 11, 5.5, 2, and 1 Mbps |
| 2.5.5.6 | Media Access Protocol | • CSMA/CA with ACK |
| 2.1.5.7 | Transmitter Output Power | • Typical 19 dBm (+/-2dB) at 11, 5.5, 2, and 1Mbps at room temperature 25 degree C |
| 2.1.5.8 | Effective Isotropic Radiated Power | • 18.0 dBm (typical) |
| 2.1.5.9 | Receiver Sensitivity | • Typical Sensitivity at Which Frame (1000-byte PDUs) Error Rate = 8% at room temperature.<br>• –86dBm for 11Mbps @ 8% PER<br>• –87dBm for 5.5Mbps @ 8% PER<br>• –88dBm for 2Mbps @ 8% PER<br>• –90dBm for 1Mbps @ 8% PER |

### 2.1.6 IEEE 802.11g Section

| | Feature | Detailed Description |
|---|---|---|
| 2.1.6.1 | Standard | • IEEE 802.11g |
| 2.1.6.2 | Radio and Modulation Schemes | • BPSK, QPSK, 16QAM, 64QAM, and OFDM |
| 2.1.6.3 | Operating Frequency | • 2400 ~ 2497MHz ISM band |
| 2.1.6.4 | Channel Numbers | • 11 channels for United States<br>13 channels for Europe Countries<br>14 channels for Japan |
| 2.1.6.5 | Data Rate | • 54, 48, 36, 24, 18, 12, 9, and 6 Mbps |
| 2.1.6.6 | Media Access Protocol | • CSMA/CA with ACK |
| 2.1.6.7 | Transmitter Output Power | • Typical 17 dBm (+/-2dB) at 6 to 18 Mbps at room temperature 25 degree C<br>• Typical 16 dBm (+/-2dB) at 24 to 36 Mbps at room temperature 25 degree C<br>• Typical 15 dBm (+/-2dB) at 48 to 54 Mbps at room temperature 25 degree C |
| 2.1.6.8 | Effective Isotropic Radiated Power | • 16.0 (typical) |
| 2.1.6.9 | Receiver Sensitivity | • Error Rate = 10% at room temperature.<br>• –82dBm at 6Mbps<br>• –81dBm at 9Mbps |

| | Feature | Detailed Description |
|---|---|---|
| | | • –79dBm at 12Mbps<br>• –77dBm at 18Mbps<br>• –74dBm at 24Mbps<br>• –70dBm at 36Mbps<br>• –66dBm at 48Mbps<br>• –65dBm at 54Mbps |

**2.1.7 IEEE 802.11n Section**

| | Feature | Detailed Description |
|---|---|---|
| 2.1.7.1 | Standard | • IEEE 802.11n draft 2.0 |
| 2.1.7.2 | Radio and Modulation Schemes | • BPSK, QPSK, 16QAM, 64QAM with OFDM |
| 2.1.7.3 | Operating Frequency | • 2400 ~ 2483.5MHz ISM band |
| 2.1.7.4 | Channel Numbers | • 11 channels for United States<br>13 channels for Europe Countries<br>14 channels for Japan |
| 2.1.7.5 | Data Rate | • 300, 270, 240, 180, 120, 90, 60 and 30 Mbps |
| 2.1.7.6 | Media Access Protocol | • CSMA/CA with ACK |
| 2.1.7.7 | Transmitter Output Power | • Typical RF Output Power at each RF chain, Data Rate and at temperture 25 degree C (telerance +/- 2dB)<br><br>• 17 dBm at MCS-0 ~ MCS-4, and MCS-8 ~ MCS-12<br>• 15 dBm at MCS-5, and MCS-13<br>• 12 dBm at MCS-6, and MCS-14<br>• 6 dBm at MCS-7, and MCS-15 |
| 2.1.7.8 | Effective Isotropic Radiated Power | • 17.0 dBm at MCS-6 (CH0&2)(20MHZ) (typical) |
| 2.1.7.9 | Receiver Sensitivity | • Typical Sensitivity at Which Frame (1000-byte PDUs) Error Rate = 10 %<br><br>• Legace mode<br>-82dBm at BPSK, coding rate 1/2 (MCS-0)<br>-81dBm at QPSK, coding rate 1/2 (MCS-1)<br>-79dBm at QPSK, coding rate 3/4 (MCS-2)<br>-77dBm at 16-QAM, coding rate 1/2 (MCS-3)<br>-74dBm at 16-QAM, coding rate 3/4 (MCS-4)<br>-70dBm at 64-QAM, coding rate 2/3 (MCS-5)<br>-66dBm at 64-QAM, coding rate 3/4 (MCS-6)<br>-65dBm at 64-QAM, coding rate 5/6 (MCS-7)<br><br>• N mode HT20(MHZ)<br>-80dBm at BPSK, coding rate 1/2 (MCS-0)<br>-77dBm at QPSK, coding rate 1/2 (MCS-1)<br>-75dBm at QPSK, coding rate 3/4 (MCS-2)<br>-72dBm at 16-QAM, coding rate 1/2 (MCS-3)<br>-68dBm at 16-QAM, coding rate 3/4 (MCS-4)<br>-64dBm at 64-QAM, coding rate 2/3 (MCS-5)<br>-63dBm at 64-QAM, coding rate 3/4 (MCS-6)<br><br>• N mode HT40(MHZ)<br>-77dBm at BPSK, coding rate 1/2 (MCS-8)<br>-74dBm at QPSK, coding rate 1/2 (MCS-9)<br>-72dBm at QPSK, coding rate 3/4 (MCS-10)<br>-69dBm at 16-QAM, coding rate 1/2 (MCS-11)<br>-65dBm at 16-QAM, coding rate 3/4 (MCS-12)<br>-61dBm at 64-QAM, coding rate 2/3 (MCS-13) |

| | Feature | Detailed Description |
|---|---|---|
| | | -60dBm at 64-QAM, coding rate 3/4 (MCS-14)<br>-59dBm at 64-QAM, coding rate 5/6 (MCS-15) |

## 2.2 Firmware Specification

### 2.2.1 Function Table

| SETUP | ADVANCED | TOOLS | STATUS | SUPPORT |
|---|---|---|---|---|
| Internet | Virtual Server | Admin | Device Info | Menu |
| Wireless Settings | Port Forwarding | Time | Logs | |
| Network Settings | Application Rules | Syslog | Statistics | |
| | Network Filter | Email Settings | Internet Sessions | |
| | Access Control | System | Wireless | |
| | Website Filter | Firmware | | |
| | Inbound Filter | Dynamic DNS | | |
| | Firewall Settings | System Check | | |
| | Advanced Wireless | Schedules | | |
| | WI-FI Protected Setup | | | |
| | Advanced Network | | | |

The Web-based Configuration Interface supports browsers that certify the W3C standard.

This web-based configuration interface includes the following functions:

- **Setup**
  Setup allows you to configure parameters for Internet connection, wire networking and wireless networking by Setup Wizard or manually configuration.
- **Advanced (Advanced Function Configuration)**
  Advanced Function Configuration allows you to configure advanced features such as port forwarding, virtual server, QoS Engine, firewall setting ….etc.
- **Tools**
  Tools provides administrators to manage the router.
- **Status**
  Status allows you to display the router information and status.
- **Support**
  To provide an online user manual that facilitates the setup.

### 2.2.2 Setup

| | Feature | Detailed Description |
|---|---|---|
| 2.2.2.1 | Internet Setup | • To set up Internet connection by using either Internet Connection Setup Wizard or Manual Internet Connection Setup. |
| | | • **Static IP Address**<br>Select this option if your ISP (Internet Service Provider) has provided you with an IP address, Subnet Mask, Default Gateway, and a DNS server address. Enter this information in the appropriate fields.<br><br>• **Dynamic IP Address**<br>Select this option if your ISP (Internet Service Provider) provides you an IP address automatically. Cable modem providers typically use dynamic assignment of IP Address.<br><br>• **PPPoE**<br>Select this option if your ISP requires you to use a PPPoE (Point to Point Protocol over Ethernet) connection. DSL providers typically use this option. Select Dynamic PPPoE to obtain an IP address automatically for your PPPoE connection (used by majority of PPPoE connections). Select Static PPPoE to use a static IP address for your PPPoE connection.<br><br>• **PPTP**<br>Select this option if your ISP uses a PPTP (Point to Point Tunneling Protocol) connection and has assigned you a username and password in order to access the Internet. Select Dynamic PPTP to obtain an IP address automatically for your PPTP connection. Select Static PPTP to use a static IP address for your PPTP connection.<br><br>• **L2TP**<br>Select this option if your ISP uses a L2TP (Layer 2 Tunneling Protocol) connection and has assigned you a username and password in order to access the Internet. Select Dynamic L2TP to obtain an IP address automatically for your L2TP connection. Select Static L2TP to use a static IP address for your L2TP connection.<br><br>• **BigPond**<br>Select this option if your ISP is BigPond. |
| 2.2.2.3 | Wireless Settings | • The wireless section is used to configure the wireless settings for the router. |
| | | • **Wireless Network Settings**<br>This sections allows admins to setup the wireless network settings such as SSID, Wireless Channel, 802.11 Mode, Transmission Rate, Channel Width, and Visibility Status.<br><br>• **Wireless Security Mode**<br>To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server. |
| 2.2.2.4 | Network Settings | • To configure the internal network settings of the router and also to configure the built-in DHCP Server to assign IP addresses to the computers on the local area network. |
| | | • **Router Setting**<br>The IP address that is configured here is the IP address that you use to access the Web-based management interface. |

| | Feature | Detailed Description |
|---|---|---|
| | | • **DHCP Server Setting**<br>Use this section to configure the built-in DHCP server to assign IP address to the computers on your network.<br><br>• **Add DHCP Reservation (24 Rules)**<br>This section allows users to enter the "Computer Name", "IP Address" and "MAC Address" manually for the PC that you desire to have the router to statically assign the same IP to or choose the PC from the drop down menu which shows current DHCP clients.<br><br>• **DHCP Client List**<br>Dynamic DHCP client computers connected to the unit will have their information displayed in the Dynamic DHCP Client Table. The table will show the Host Name, IP Address, MAC Address, and Expired Time of the DHCP lease for each client computer.<br><br>• **Number of Dynamic DHCP Clients**<br>Show dynamic DHCP clients who are currently connecting the router. |

**2.2.3 Advanced Function Configuration**

| | Feature | Detailed Description |
|---|---|---|
| 2.2.3.1 | Virtual Server | • The Virtual Server option gives Internet users access to services on the LAN. This feature is useful for hosting online services such as FTP, Web, or game servers. For each Virtual Server, admins define a public port on the router for redirection to an internal LAN IP Address and LAN port.<br>• **Support 24 Virtual Server List** |
| 2.2.3.2 | Port Forwarding | • Multiple connections are required by some applications, such as internet games, video conferencing, Internet telephony, and others. These applications have difficulties working through NAT (Network Address Translation). This function is used to open multiple ports or a range of ports in the router and redirect data through those ports to a single PC on the internal network.<br>• **Support 24 Port Forwarding Rules** |
| 2.2.3.3 | Application Rules | • An application rule is used to open single or multiple ports on the router when the router senses data sent to the Internet on a "trigger" port or port range. An application rule applies to all computers on the internal network.<br>• **Support 24 Application Rules** |
| 2.2.3.4 | Network 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.<br>• **Support 24 MAC Filtering Rules** |
| 2.2.3.5 | Access Control | • The Access Control section allows you to control access in and out of devices on the network. Use this feature as Parental Controls to only grant access to approved sites, limit web access based on time or dates, and/or block access from applications such as peer-to-peer utilities or games.<br>• **Support 24 Access Control List** |
| 2.2.3.6 | Website Filter | • Website Filter is a function for admins to add the Web sites to be used for Access Control.<br>• **Support 40 Website Filtering Rules** |
| 2.2.3.7 | Inbound Filter | • Inbound Filters can be used for limiting access to a server on the network to a system or group of systems. Filter rules can be used with Virtual Server, Gaming, or Remote Administration features. |

| | Feature | Detailed Description |
|---|---|---|
| | | • **Support 24 Inbound Filtering Rules** |
| 2.2.3.8 | Firewall Settings | • The router provides a tight firewall by virtue of the way NAT works. Unless configuring the router to the contrary, the NAT does not respond to unsolicited incoming requests on any port, thereby making the LAN invisible to Internet cyberattackers. |
| | | • **Firewall Setting**<br>This section allows admins to enable SPI ("stateful packet inspection" also known as "dynamic packet filtering") which helps to prevent cyberattacks by tracking more state per session. It validates that the traffic passing through that session conforms to the protocol. When the protocol is TCP, SPI checks that packet sequence numbers are within the valid range for the session, discarding those packets that do not have valid sequence numbers.<br><br>• **NAT Endpoint Filtering**<br>The NAT Endpoint Filtering options control how the router's NAT manages incoming connection requests to ports that are already being used.<br>• **Anti-Spoof Checking**<br>This mechanism protects against activity from spoofed or forged IP addresses, mainly by blocking packets appearing on interfaces and in directions which are logically not possible.<br><br>• **DMZ Host**<br>DMZ means "Demilitarized Zone." If an application has trouble working from behind the router, admins can expose one computer to the Internet and run the application on that computer. When a LAN host is configured as a DMZ host, it becomes the destination for all incoming packets that do not match some other incoming session or rule. If any other ingress rule is in place, that will be used instead of sending packets to the DMZ host; so, an active session, virtual server, active port trigger, or port forwarding rule will take priority over sending a packet to the DMZ host. |
| 2.2.3.9 | Advanced Wireless | • Advanced Wireless Setup provides administrators to configure detail wireless perimeters. |
| 2.2.3.10 | Wi-Fi Protected Setup | • Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. |
| | | • **Wi-Fi Protected Setup**<br>This section allows admins to enable and disable WPS.<br><br>• **PIN Settings**<br>A PIN is a unique number that can be used to add the router to an existing network or to create a new network. The default PIN may be printed on the bottom of the router. For extra security, a new PIN can be generated.<br><br>• **Add Wireless Station**<br>This Wizard helps you add wireless devices to the wireless network. It will either display the wireless network settings to guide you through manual configuration, prompt you to enter the PIN for the device, or ask you to press the configuration button on the device. If the device supports Wi-Fi Protected Setup and has a configuration button, you can add it to the network by pressing the configuration button on the device and then the on the router within 60 seconds. The status LED on the router will flash three times if the device has been successfully added to the network. |
| 2.2.3.11 | Advanced Network | • Provide advanced network settings such as UPnP, WAN Ping, WAN Speed, and Multicast stream Enablers. |
| | | • **UPnP**<br>This section allows admins to enable or disable UPnP which helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option |

| | Feature | Detailed Description |
|---|---|---|
| | | enabled as long as the LAN has other UPnP applications.<br><br>• **WAN Ping**<br>If admins enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address.<br><br>• **WAN Port Speed**<br>The WAN speed is usually detected automatically. However, admins can select the speed manually.<br><br>• **Multicast Stream**<br>The router uses the IGMP protocol to support efficient multicasting -- transmission of identical content, such as multimedia, from a source to a number of recipients. This section allows admins to enable or disable multicast stream support. |

**2.2.4 Tools**

| | Feature | Detailed Description |
|---|---|---|
| 2.2.4.1 | Admin | • The Admin option is used to set a password for access to the Web-based management and enable Remote Management that allows admins to manage the router from anywhere on the Internet. |
| | | • **Admin Password**<br>Enter a password for the user "admin", who will have full access to the Web-based management interface.<br><br>• **User Password**<br>Enter a password for the user "user", who will have read-only access to the Web-based management interface.<br><br>• **System Name**<br>The name of the router can be changed here.<br><br>• **Administration**<br>Enabling Remote Management allows you to manage the router from anywhere on the Internet. Disabling Remote Management allows you to manage the router only from computers on your LAN. |
| 2.2.4.2 | Time | • The Time Configuration option allows admins to configure, update, and maintain the correct time on the router's internal system clock. |
| | | • **Time Configuration**<br>From this section admins can set the time zone that users are in and daylight saving can also be configured to automatically adjust the time when needed.<br><br>• **Automatic Time Configuration**<br>This section allows admins to setup the time configuration through NTP.<br><br>• **Set The Date and Time Manually**<br>This section allows admins to setup the time configuration manually or copy the setting from PC. |
| 2.2.4.3 | Syslog | • This section allows admins to archive the log files to a Syslog Server. |
| 2.2.4.4 | Email Settings | • The Email feature can be used to send the system log files, router alert messages, and firmware update notification to a email address. |
| | | • **Enable**<br>This section allows admins to enable or disable the email setting. |

| | Feature | Detailed Description |
|---|---|---|
| | | • **Email Setting**<br>This section is used to setup the email SMTP server.<br><br>• **Email log when FULL or on Schedule**<br>This section allows admins to setup a schedule for emailing the log. |
| 2.2.4.5 | System | • This section allows admins to manage the router's configuration settings, reboot the router, and restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that have created. |
| 2.2.4.6 | Firmware | • The Firmware Upgrade section can be used to update to the latest firmware code to improve functionality and performance. |
| | | • **Firmware Information**<br>Here are displayed the version numbers of the firmware currently installed in your router and the most recent upgrade that is available.<br><br>• **Firmware Upgrade**<br>This section allows admins to upgrade the firmware by uploading it from their local hard drive.<br><br>• **Firmware Upgrade Notification Options**<br>This section enables the router to atuomatically check whether an new firmware is released and send the information by email to admins. |
| 2.2.4.7 | Dynamic DNS | • Clients can enter a host name to connect to the servers within the LAN, no matter what the IP address is. |
| 2.2.4.8 | System Check | • An Internet utility function called Ping that sends a series of short messages to a target computer and reports the results of quality of a connection. |
| | | • **Ping Test**<br>This useful diagnostic utility can be used to check if a computer is on the Internet. It sends ping packets and listens for replies from the specific host. Enter in a host name or the IP address that you want to ping (Packet Internet Groper) and click **"**Ping."<br><br>• **Ping Result**<br>The status of your Ping attempt will be displayed in the Ping Result box. |
| 2.2.4.9 | Schedules | • Schedules can be created for use with enforcing rules and applied to all access control rules. |

**2.2.5 Status**

| | Feature | Detailed Description |
|---|---|---|
| 2.2.5.1 | Device Info | • All of your Internet and network connection details are displayed on the Device Info page. The firmware version is also displayed here. |
| 2.2.5.2 | Logs | • The router automatically logs (records) events of possible interest in its internal memory. If there is not enough internal memory for all events, logs of older events are deleted, but logs of the latest events are retained. The Logs option allows you to view the router logs. You can define what types of events you want to view and the level of events to view. This router also has external Syslog Server support so you can send the log files to a computer on your network that is running a Syslog utility. |
| 2.2.5.3 | Statistics | • The Statistics page displays all of the LAN, WAN, and Wireless packet transmit and receive statistics. |
| 2.2.5.4 | Internet Sessions | • The Internet Sessions page displays full details of active Internet sessions through your router. An Internet session is a conversation between a program or application on a LAN-side computer and a program or application on a WAN-side computer. |

| | Feature | Detailed Description |
|---|---|---|
| 2.2.5.5 | Wireless | • The wireless section allows you to view the wireless clients that are connected to your wireless router. |

### 2.2.6 Support

| | Feature | Detailed Description |
|---|---|---|
| 2.2.6.1 | Support | • Manual |

### 2.2.7 Background-Running Function

| | Feature | Detailed Description |
|---|---|---|
| 2.2.7.1 | ALG | • **Application Level Gateway (ALG)**<br>Some protocols and applications require special handling of the IP payload to make them work with network address translation (NAT). ALGs for common applications are enabled by default. |
| 2.2.7.2 | XML-Agent | • **XML-Agent**<br>Support Yahoo Widget, Vista SideBar Gadget and Apple Dashboard Widget. |

## 2.3 Setup Utility Specification

| | Feature | Detailed Description |
|---|---|---|
| 2.3.1 | DCC | • D-Link Click'n Connect (DCC) utility for DEU<br>• 16 Languages Support |
| 2.3.2 | QRS | • Quick Router Setup (QRS) utility for DUS and DI<br>• 24 Languages Support |

## 2.4 Electrical Characteristic

| | Feature | Detailed Description |
|---|---|---|
| 2.4.1 | Power Input | • DC 5V |
| 2.4.2 | Power Consumption | • 2.5A |

## 2.5 Mechanical Requirements

| | Feature | Detailed Description |
|---|---|---|
| 2.5.1 | Length | • 193 mm (7.6 inches) |
| 2.5.2 | Width | • 116.8 mm (4.6 inches) |
| 2.5.3 | Height | • 30.5 mm (1.2 inches) |
| 2.5.4 | Weight | • 904 grams (0.7 lb) |

## 2.6 Compatibility Requirements

This device passes the following compatibility requirements.

| | Feature | Detailed Description |
|---|---|---|
| 2.6.1 | WHQL | • Meet applicable WHQL certification requirements. |
| 2.6.2 | Wi-Fi | • Meet applicable Wi-Fi 802.11b, g, n certification requirements. |
| 2.6.3 | Centrino IOT | • Meet applicable Work with Intel Centrino certification requirements. |

## 2.7 Environmental Requirements

| | Feature | Detailed Description |
|---|---|---|
| 2.7.1 | Operating Temperature Conditions | • The product is capable of continuous reliable operation when operating in ambient temperature of 0 ℃ to +40℃. |
| 2.7.2 | Non-Operating Temperature Conditions | • Neither subassemblies is damaged nor the operational performance be degraded when restored to the operating temperature after exposing to storage temperature in the range of -20 ℃ to +65 ℃. |
| 2.7.3 | Operating Humidity conditions | • The product is capable of continuous reliable operation when subjected to relative humidity in the range of 10% and 90% non-condensing. |
| 2.7.4 | Non-Operating Humidity Conditions | • The product is not be damaged nor the performance be degraded after exposure to relative humidity ranging from 5% to 95% non-condensing |