



HP V110 Wireless-N Router Series

Data sheet

Product overview

The HP V110 Wireless-N Router Series IEEE 802.11n wireless LAN (WLAN) routers are ideal first networking devices for building a small business data network with a secure connection to the Internet. This all-in-one solution combines 1) a router that connects a local network with the Internet, 2) a firewall to guard the network's Internet connection, 3) a four-port wired Fast Ethernet switch for local wired connections, and 4) an advanced IEEE 802.11n wireless access point for connecting wireless users who have backward compatibility with older 11b and 11g standards. You can use the routers in networks with up to 253 total wired and wireless users, including up to 32 wireless users. The series has three models. For environments with an Internet connection and a local cable modem, choose the HP V100 Cable/DSL Wireless-N Router. Also available are V110 routers that connect directly to ADSL Internet services: the ADSL-A router for DSL over POTS and the ADSL-B router for DSL over ISDN.

Key features

- Robust routing and security features
- WDS support for simplified network setup
- Advanced MIMO technology for enhanced range
- WPA/2, AES, TKIP, WEP security/encryption
- IEEE 802.1x/MAC address authentication/filtering



Features and benefits

Quality of Service (QoS)

- **IP (RIP 1 and 2) and static routing:** allow the router to be used in multinetwork environments
- **WiFi Multimedia (WMM), QoS, and VLAN support:** improves the user experience for audio, video, and voice applications
- **Internet Group Management Protocol (IGMP) snooping and query:** allow more efficient use of resources when supporting multicast-based applications like online streaming video and gaming
- **Wireless Distribution System (WDS):** expands network coverage easily using compatible WDS-enabled APs
- **Dynamic Domain Name Service (DNS):** enables Internet connections with dynamic IP addresses to network applications such as Web or FTP servers that normally require static IP addresses (requires subscription with Dynamic DNS providers)

Connectivity

- **Shared Internet access:**
 - **Wired and wireless user support:** enables up to 253 total (32 wireless) users to share a single cable/DSL or ADSL connection, making the most of your broadband service
 - **All-in-one device:** combines ADSL or cable modem, IEEE 802.11n access point, router, firewall, and 4-port switch in one box to allow easy and secure broadband access
- **High-speed wireless connectivity:**
 - **IEEE 802.11n 300 Mbps performance:** delivers connections significantly faster than IEEE 802.11g
 - **Backward compatible with IEEE 802.11b/g:** supports high speeds while protecting existing investments
 - **Multiple-Input Multiple-Output (MIMO):** advanced MIMO technology provides an enhanced wireless range and coverage area for improved roaming and ubiquity
 - **Packet bursting:** increases throughput by sending more frames in a given time period

Security

- **Wi-Fi Protected Access (WPA/WPA2) and Wired Equivalent Privacy (WEP):** supports advanced 128-bit WPA/WPA2 encryption and 40-/64- and 128-bit WEP encryption for legacy wireless clients
- **Multilevel wireless security:** provides additional wireless security with SSID Broadcast Disable and MAC filtering
- **Firewall:** full SPI firewall, access control rules, DoS protection, and other features help protect your network from the security risks of always-on broadband connections
- **Internet Protocol Security (IPSec):** enables secure site-to-site communication with up to five concurrent IPSec tunnels
- **Proxy Address Resolution Protocol (ARP):** allows secure setup of public servers behind router firewall

Ease of use

- **Setup wizards, preset defaults, and intuitive browser interface:** make setup and configuration easy
- **Easy one-button access to WPS and wireless connectivity enablement:** secures your wireless network with just one push of a button; reduces power consumption by turning off wireless connectivity when not needed

Warranty and support

- **3-year warranty:** with advance replacement and next-business-day delivery (available in most countries)
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

HP V110 Wireless-N Router Series

Specifications



HP V110 Cable/DSL Wireless-N Router (JE468A)



HP V110 ADSL-A Wireless-N Router (JE459A)



HP V110 ADSL-B Wireless-N Router (JE461A)

| | | | |
|--|---|--|--|
| Ports | 1 RJ-45 auto-sensing 10/100 WAN port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full 4 RJ-45 auto-sensing 10/100 LAN ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full | 1 RJ-11 ADSL2/2+ (ADSL Annex A, ADSL over POTS) port 4 RJ-45 auto-sensing 10/100 LAN ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full | 1 RJ-45 ADSL2/2+ (ADSL Annex B, ADSL over ISDN) port 4 RJ-45 auto-sensing 10/100 LAN ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full |
| Physical characteristics | | | |
| Dimensions | 6.3(d) x 7.0(w) x 1.6(h) in. (16 x 17.78 x 4.06 cm) | 6.3(d) x 7.0(w) x 1.6(h) in. (16 x 17.78 x 4.06 cm) | 6.3(d) x 7.0(w) x 1.6(h) in. (16 x 17.78 x 4.06 cm) |
| Weight | 0.66 lb. (0.3 kg) | 0.66 lb. (.3 kg) | 0.66 lb. (.3 kg) |
| Memory and processor | Infinion 6996i chip, 32 MB RAM/ROM capacity, 2 MB flash | Infinion 6996i chip, 32 MB RAM/ROM capacity, 2 MB flash | Infinion 6996i chip, 32 MB RAM/ROM capacity, 2 MB flash |
| Mounting | Desktop | Desktop | Desktop |
| Performance | | | |
| Routing table size | 10,000 entries | 10,000 entries | 10,000 entries |
| Environment | | | |
| Operating temperature | 32°F to 104°F (0°C to 40°C) | 39.2°F to 104°F (4°C to 40°C) | 32°F to 104°F (0°C to 40°C) |
| Operating relative humidity | 15% to 90%, non-condensing | 15% to 90%, non-condensing | 15% to 90%, non-condensing |
| Non-operating/Storage temperature | 32°F to 140°F (0°C to 60°C) | 32°F to 140°F (0°C to 60°C) | 32°F to 140°F (0°C to 60°C) |
| Non-operating/Storage relative humidity | 15% to 90%, non-condensing | 15% to 90%, non-condensing | 15% to 90%, non-condensing |
| Electrical characteristics | | | |
| Voltage | 100-240 VAC | 100-240 VAC | 100-240 VAC |
| DC Voltage | 12V | 12V | 12V |
| Current | 1 A | 1 A | 1 A |
| Frequency | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz |
| Number of internal antennas | 1 | 1 | 1 |
| Number of external antennas | 2 | 2 | 2 |
| Frequency band and Operating channels | 2.400 - 2.462 GHz (11 channels) | 2.400 - 2.462 GHz (11 channels) | 2.400 - 2.462 GHz (11 channels) |
| Safety | UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03 | UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03 | UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03 |
| Emissions | EN 55022 Class B; EN 55024; EN 301 489-1; EN 301 489-17; ICES-003; FCC Part 15, Subpart B; EN 300 328; RSS-Gen (Issue 2, 2007); RSS-210 (Issue 7, 2007); CFR 47; FCC part 15 subpart C | EN 55022 Class B; EN 55024; EN 301 489-1; EN 301 489-17; ICES-003; FCC Part 15, Subpart B; EN 300 328; RSS-Gen (Issue 2, 2007); RSS-210 (Issue 7, 2007); CFR 47; FCC part 15 subpart C | EN 55022 Class B; EN 55024; EN 301 489-1; EN 301 489-17; ICES-003; FCC Part 15, Subpart B; EN 300 328; RSS-Gen (Issue 2, 2007); RSS-210 (Issue 7, 2007); CFR 47; FCC part 15 subpart C |
| Management | Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB | Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB | Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB |
| Features | | ADSL Standards - ANSI T1.413 issue 2 - ITU G.992.1 (G.DMT) Annex A (ADSL over POTS) - ITU G.992.2 (G.lite) - ITU G.992.3 (ADSL2 DMT) - ITU G.992.4 (ADSL2 G.lite) - ITU G.992.5 (ADSL2+) | ADSL Standards - ANSI T1.413 issue 2 - ITU G.992.1 (G.DMT) Annex B (ADSL over ISDN) - ITU G.992.2 (G.lite) - ITU G.992.3 (ADSL2 DMT) - ITU G.992.4 (ADSL2 G.lite) - ITU G.992.5 (ADSL2+) |
| Notes | The HP V110 Cable/DSL Wireless-N Router (JE468A) was formerly sold as the 3Com Wireless 11n Cable/DSL Router (3CRWDR300-73) and may ship with this product labeling. Height listed is with antenna folded and includes rubber feet; height with antenna unfolded is 3.9 in (10.0 cm); depth listed includes antenna. | The HP V110 ADSL-A Wireless-N Router (JE459A) was formerly sold as the 3Com ADSL 11n Firewall Router Annex A (3CRWDR300A-73) and may ship with this product labeling. Height listed is with antenna folded and includes rubber feet; height with antenna unfolded is 3.9 in (10.0 cm); depth listed includes antenna. | The HP V110 ADSL-B Wireless-N Router (JE461A) was formerly sold as the 3Com ADSL 11n Firewall Router Annex B (3CRWDR300B-73) and may ship with this product labeling. Height listed is with antenna folded and includes rubber feet; height with antenna unfolded is 3.9 in (10.0 cm); depth listed includes antenna. |

HP V110 Wireless-N Router Series

Specifications (continued)

| | HP V110 Cable/DSL Wireless-N Router (JE468A) | HP V110 ADSL-A Wireless-N Router (JE459A) | HP V110 ADSL-B Wireless-N Router (JE461A) |
|-----------------|---|---|---|
| Services | <p>3-year, 4-hour onsite, 13x5 coverage for hardware (UW082E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW085E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW088E)</p> <p>3-year, 24x7 SW phone support, software updates (UW091E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UW083E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW086E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW089E)</p> <p>4-year, 24x7 SW phone support, software updates (UW092E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UW084E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW087E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW090E)</p> <p>5-year, 24x7 SW phone support, software updates (UW093E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW094E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW095E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW096E)</p> <p>Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p> | <p>3-year, 4-hour onsite, 13x5 coverage for hardware (UW082E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW085E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW088E)</p> <p>3-year, 24x7 SW phone support, software updates (UW091E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UW083E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW086E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW089E)</p> <p>4-year, 24x7 SW phone support, software updates (UW092E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UW084E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW087E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW090E)</p> <p>5-year, 24x7 SW phone support, software updates (UW093E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW094E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW095E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW096E)</p> <p>Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p> | <p>3-year, 4-hour onsite, 13x5 coverage for hardware (UW082E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UW085E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UW088E)</p> <p>3-year, 24x7 SW phone support, software updates (UW091E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UW083E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UW086E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW089E)</p> <p>4-year, 24x7 SW phone support, software updates (UW092E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UW084E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UW087E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW090E)</p> <p>5-year, 24x7 SW phone support, software updates (UW093E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW094E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW095E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW096E)</p> <p>Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p> |

Radio characteristics: IEEE 802.11b

| | | |
|----------------------|---------|---------|
| Data rate | 1 Mbps | 11 Mbps |
| Receiver sensitivity | -91 dBm | -82 dBm |
| Transmit power | 18 dBm | 18 dBm |

IEEE 802.11g

| | | |
|----------------------|---------|---------|
| Data rate | 6 Mbps | 54 Mbps |
| Receiver sensitivity | -86 dBm | -68 dBm |
| Transmit power | 18 dBm | 14 dBm |

IEEE 802.11n 2.4 GHz @ 20 MHz

| | | | | |
|----------------------|-----------|-----------|-----------|------------|
| Data rate | MCS0 Mbps | MCS7 Mbps | MCS8 Mbps | MCS15 Mbps |
| Receiver sensitivity | -80 dBm | -62 dBm | -83 dBm | -65 dBm |
| Transmit power | 18 dBm | 14 dBm | 18 dBm | 14 dBm |

IEEE 802.11n 2.4 GHz @ 40 MHz

| | | | | |
|----------------------|-----------|-----------|-----------|------------|
| Data rate | MCS0 Mbps | MCS7 Mbps | MCS8 Mbps | MCS15 Mbps |
| Receiver sensitivity | -77 dBm | -59 dBm | -80 dBm | -62 dBm |
| Transmit power | 18 dBm | 14 dBm | 18 dBm | 14 dBm |

Standards and protocols (applies to all products in series)

General protocols

RFC 768 UDP
 RFC 791 IP
 RFC 793 TCP
 RFC 1027 Proxy ARP
 RFC 1332 The PPP Internet Protocol Control Protocol (IPCP)
 RFC 1334 PPP Authentication Protocols (PAP)
 RFC 1531 Dynamic Host Configuration Protocol
 RFC 1570 PPP LCP Extensions

RFC 1631 NAT
 RFC 1661 The Point-to-Point Protocol (PPP)
 RFC 1877 PPP Internet Protocol Control Protocol Extensions for Name Server Addresses
 RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
 RFC 2153 PPP Vendor Extensions
 RFC 2516 A Method for Transmitting PPP Over Ethernet (PPPoE)
 RFC 2637 Point-to-Point Tunneling Protocol (PPTP)

RFC 2663 NAT Terminology and Considerations

HP V110 Wireless-N Router Series

Specifications (continued)

HP V110 Cable/DSL Wireless-N Router (JE468A)

HP V110 ADSL-A Wireless-N Router (JE459A)

HP V110 ADSL-B Wireless-N Router (JE461A)

HP V110 Cable/DSL Wireless-N Router (JE468A)

| MCS Index | 800 nS | | 400 nS | |
|-----------|--------------------|--------------------|--------------------|--------------------|
| | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) |
| 0 | 6.5 | 13.5 | 7.2 | 15 |
| 1 | 13 | 27 | 14.4 | 30 |
| 2 | 19.5 | 40.5 | 21.7 | 45 |
| 3 | 26 | 54 | 28.9 | 60 |
| 4 | 39 | 81 | 43.3 | 90 |
| 5 | 52 | 108 | 57.8 | 120 |
| 6 | 58.5 | 121.5 | 65 | 135 |
| 7 | 65 | 135 | 72.2 | 157.5 |
| 8 | 13 | 27 | 14.4 | 30 |
| 9 | 26 | 54 | 28.9 | 60 |
| 10 | 39 | 81 | 43.3 | 90 |
| 11 | 52 | 108 | 57.8 | 120 |
| 12 | 78 | 162 | 86.7 | 180 |
| 13 | 104 | 216 | 115.6 | 240 |
| 14 | 117 | 243 | 130 | 270 |
| 15 | 130 | 270 | 144.4 | 300 |

HP V110 ADSL-A Wireless-N Router (JE459A)

| MCS Index | 800 nS | | 400 nS | |
|-----------|--------------------|--------------------|--------------------|--------------------|
| | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) |
| 0 | 6.5 | 13.5 | 7.2 | 15 |
| 1 | 13 | 27 | 14.4 | 30 |
| 2 | 19.5 | 40.5 | 21.7 | 45 |
| 3 | 26 | 54 | 28.9 | 60 |
| 4 | 39 | 81 | 43.3 | 90 |
| 5 | 52 | 108 | 57.8 | 120 |
| 6 | 58.5 | 121.5 | 65 | 135 |
| 7 | 65 | 135 | 72.2 | 157.5 |
| 8 | 13 | 27 | 14.4 | 30 |
| 9 | 26 | 54 | 28.9 | 60 |
| 10 | 39 | 81 | 43.3 | 90 |
| 11 | 52 | 108 | 57.8 | 120 |
| 12 | 78 | 162 | 86.7 | 180 |
| 13 | 104 | 216 | 115.6 | 240 |
| 14 | 117 | 243 | 130 | 270 |
| 15 | 130 | 270 | 144.4 | 300 |

HP V110 Wireless-N Router Series

Specifications (continued)

HP V110 Cable/DSL Wireless-N Router (JE468A)

HP V110 ADSL-A Wireless-N Router (JE459A)

HP V110 ADSL-B Wireless-N Router (JE461A)

HP V110 ADSL-B Wireless-N Router (JE461A)

| MCS Index | 800 nS | | 400 nS | |
|-----------|--------------------|--------------------|--------------------|--------------------|
| | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) | 20 MHz Rate (Mbps) | 40 MHz Rate (Mbps) |
| 0 | 6.5 | 13.5 | 7.2 | 15 |
| 1 | 13 | 27 | 14.4 | 30 |
| 2 | 19.5 | 40.5 | 21.7 | 45 |
| 3 | 26 | 54 | 28.9 | 60 |
| 4 | 39 | 81 | 43.3 | 90 |
| 5 | 52 | 108 | 57.8 | 120 |
| 6 | 58.5 | 121.5 | 65 | 135 |
| 7 | 65 | 135 | 72.2 | 157.5 |
| 8 | 13 | 27 | 14.4 | 30 |
| 9 | 26 | 54 | 28.9 | 60 |
| 10 | 39 | 81 | 43.3 | 90 |
| 11 | 52 | 108 | 57.8 | 120 |
| 12 | 78 | 162 | 86.7 | 180 |
| 13 | 104 | 216 | 115.6 | 240 |
| 14 | 117 | 243 | 130 | 270 |
| 15 | 130 | 270 | 144.4 | 300 |

To learn more, visit www.hp.com/networking

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