*Overview*

## Models

| | |
|---|---|
| HP 3500B IP Phone | JC505A |
| HP 3500 IP Phone | JC504A |
| HP 3501 IP Phone | JC506A |
| HP 3502 IP Phone | JC507A |
| HP 3503 IP Phone | JC508A |

## Key features

- Wide phone portfolio for all business needs
- Lower energy use and cost-effective operation
- Gigabit Ethernet connectivity for high performance
- Productivity-enhancing IPPBX feature functionality
- Exceptional sound quality with wideband audio

## Product overview

The full-featured, SIP-based HP 350x IP Phone Series meets the diverse communications needs of organizations of all sizes with a full range of call-handling features and functionality that encourages collaboration and increases productivity. All phones support digital labeling, PoE, four-way navigation controls, and are available with high-resolution backlit and color TFT displays. In addition, they deliver rich, full body, wideband voice clarity with full-duplex speakerphones, as well as offer intuitive interfaces, Gigabit Ethernet support, and environmentally friendly power-save options. Ideal for common areas and everyday desktop business use, the phones are the perfect solution for knowledge workers, departmental administrators, and teleconference participants with intensive communication requirements. Optional accessories include wall mounts, AC power adapters, and deskstands.

## Features and benefits

Management

- **Nine definable ring tones**: offer a choice of ring tones, which are used when alerting users of new incoming calls and can be configured via the Web provisioning interface; provides customers with a choice to further personalize the phone to meet their own needs
- **Browser-based management**: Web-based management on the VCX server eases configuration tasks and makes advanced features easier to master; customization capabilities allow users to accomplish a variety of setup procedures themselves
- **Support for 10 different languages**: all 350x series IP phones have user interface localization capabilities with the support of the following interface languages: Chinese (Simplified), Dutch, English (US), French (European), German, Italian, Korean, Portuguese (Brazilian), Spanish (Latin), and Russian
- **VCX IP phone license support**: all 350x series IP phones require a software keycode license (sold separately) to activate; 350x phones will work with legacy VCX 7.x , 8.x, and 9.0 IP phone licenses, along with 9.5+ IP phone licenses, as long as VCX system is running software version 9.5 and later; all IP phone licenses are managed from the VCX administrator Web provisioning interface
- **Country-specific tones**: VCX Connect solution allows administrators and users to configure phones for a certain country, which specifies the tones used by the phone; the country configuration for the phone is on a per-user basis via Web provisioning

Connectivity

- **Gigabit Ethernet connectivity**: to reduce cabling costs and eliminate the need for a standalone switch port, 350x series IP

*Overview*

phone models offer two switched Gigabit Ethernet ports, except for the 3500B model, which supports 10/100 connectivity; the second port is used as a PC pass-through port that supports handling and passing of IEEE 802.1x EAP packets; this helps ensure that the desktop phone is an integral part of a high-performance network and is ready for future connectivity needs

- **Optional connectivity accessories**: include ergonomically designed wall mounts that fit the form factor of the 350x phone design, AC power adapters, and replacement phone stands
- **IEEE 802.3af Power over Ethernet** (PoE) **support**: all 350x series IP phones support IEEE 802.3af Power over Ethernet (PoE) and help reduce the total cost of ownership

Investment protection

- **Green technology**: all 350x series IP phones support configurable energy conservation options that include both a screen-save capability and a deep sleep power-save mode; user- and administrator-configurable power-save options reduce energy use by up to 50% relative to peak usage requirements
- **Energy Star 2.0 power adapters**: optional 350x series IP phone power adapters are designed to be Energy Star 2.0 compliant to make them more efficient than conventional adapters

Ease of use

- **Context-sensitive soft keys**: 3503 model phones have five interactive and context-sensitive soft keys, while the remaining models have four, facilitating efficient management of the most demanding communication needs; this enables easy access to the user directory, call logs, speed dials, and feature lists from the LCD soft keys; all phones use either icon- or text-driven menu selections for universal understanding of feature options

Flexibility

- **A phone portfolio for all business needs**: 350x series phones offer a comprehensive suite of devices designed for the most demanding and varied range of work environments and users; easy-to-use features make these phones ideal for common areas and everyday desktop business use, as well as for knowledge workers, departmental administrators, and teleconference participants with intensive communication requirements
- **Customizable system-wide background image**: options such as customizable background images on the 3503 IP phone provide enterprise administrators with the flexibility to upload a company-wide corporate image
- **Three-page button-mapping features**: one-touch call handling, enabled by programmable feature buttons accessible by a unique three-page scrolling feature on the 3502 and 3503 IP phones, provides the scalability and flexibility to map three times the number of features as available buttons.
- **Flexible date and time display**: allows administrators or users to configure date and time displays on the phones using the Web provisioning interface, which provides displays based on user preference or location preference

Technical features

- **Phone mobility and roaming**: allows system administrator to determine whether end users can move their stations; phones/soft clients can be locked to a physical switch port (using MAC address) or to a specific IP subnet; end users can move their phones to any location that has IP access to the user's telephony server, regardless of geographic location; hot desking is supported with VCX when logging into a different VCX region or branch that is configured for Global Directory
- **Full-duplex speaker phones**: all 350x series IP phones feature full-duplex speakers, which provide a more superb "real" communication experience, even with the entry-level phones

User productivity

- **Productivity-enhancing functionality**: a broad range of functions, combined with HP VCX IP telephony, offer organizations exceptional scalability and reliability; these capabilities include SIP-based messaging, conferencing, presence, multiline support, shared call/bridged line appearance, busy lamp field, flexible button mappings, soft keys, dedicated menu buttons for one-touch access, and a myriad of other Voice over IP (VoIP) functions that enhance communications and collaboration

## Overview

### Voice functionality

- **Hearing aid compatibility**: all HP 350x series IP phones comply with FCC Part 68 (CFR 47), hearing aid compatibility (HAC), to support hearing aids that contain sensitive tele-coils
- **Adaptive jitter buffer**: all 350x series IP phones offer adaptive jitter buffers to help resolve VoIP packet delay, delay jitter, packet loss, and occasional clock drifts caused by the complexity of voice and data networks
- **Exceptional sound clarity**: the 350x series IP phones deliver superior voice quality over the network; all users experience rich, high-fidelity audio—a particularly important benefit in a multisite networking environment; clear, high-quality audio performance is provided by the wideband audio codecs G.722 and G722.2 used on most models
- **Superior speaker mode audio**: standard headset connections, handset-lifter friendly designs, wideband-ready handsets, dedicated handset-headset changeover buttons and full-duplex speakerphones with echo cancellation, and noise reduction further enhance the experience of hands-free communications
- **Multiple codec support**: all 350x IP phone models support the following range of audio codecs: G.711, G.729a/b (models 3500, 3500B), G.722, G722.2, G.711, and G.729a/b (all other models); all models require system software support

### Phone characteristics

- **RJ-9 headset jack**: allows for industry-standard RJ-9 compatible wired and wireless headsets and handset lifters to be connected for easy call handling and convenience
- **Four-way cursor control with select key**: all 350x series IP phones feature four-way navigation buttons with a select button that allows for quick and easy feature menu navigation, phone configuration and call handling; the navigation select key can be used to put calls on and off hold
- **Interactive LCD displays**: all 350x series IP phones offer icon- and text-driven menus
- **Linux operating system**: all 350x series IP phones are implemented on a robust security-hardened Linux operating system
- **Backlit MUTE button**: all 350x series IP phones feature a backlit, dedicated MUTE button, which provides easy audio control
- **New contemporary look and feel**: a newly designed, energy-efficient family of devices, the HP 350x IP series phones are a new product offering from HP that replaces the current 310x IP Phones Series

### Warranty and support

- **Warranty**: one-year limited lifetime hardware warranty; 90-day limited software warranty; 90 days of telephone technical support

*Technical Specifications*

**HP 3500B IP Phone** (JC505A)

| | | |
|---|---|---|
| Ports | 2 RJ-45 auto-sensing 10/100 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3af PoE); Duplex: half or full | |
| | 2 RJ-9 (headset and handset) | |
| Physical characteristics | Dimensions | 8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height) |
| | Weight | 2.91 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material |
| | Full configuration weight | 2.13 lb. (0.97 kg) |
| Mounting | Rests on a multiangle deskstand or wall mount | |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C); Ambient Temperature |
| | Operating relative humidity | 5% to 95%, non-condensing |
| | Non-operating/Storage temperature | -40°F to 158°F (-40°C to 70°C) |
| Electrical characteristics | Voltage | 100-240 VAC |
| | Current | 0.5 A |
| | Idle power | 2.4 W |
| | Maximum power rating | 2.8 W |
| | Power output | 25 W |
| | Frequency | 50 / 60 Hz |
| | Notes | Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. |
| Phone characteristics | Max. calls (lines) supported | 2 |
| | Programmable lighted buttons | 2 (not lighted) |
| | Fixed feature buttons | 10 |
| | Soft keys | 4 (see *Notes) |
| | Four-way navigation control | Yes |
| | Display type | Grayscale |
| | Display backlit | No |
| | Number of display lines | 4 |
| | Display size | 3.5 in. (85 mm x 28 mm) |
| | Display pixel resolution | 192 x 64 |
| | Desk stand | Multiposition (35 and 55 degree) |
| | Platforms Supported | VCX |
| | Default ringtones | 9 |

*Technical Specifications*

| Emissions | VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001 | |
|---|---|---|
| Immunity | Generic | ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3 |
| | EN | EN 55024:1998+ A1:2001 + A2:2003 |
| | ESD | EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD |
| | Radiated | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m |
| | EFT/Burst | EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line) |
| | Surge | EN 61000-4-5:2006 AC :2 kV/4 kV |
| | Conducted | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5 |
| | Power frequency magnetic field | EN 61000-4-8:2001 1 A/m, 50 or 60 Hz |
| | Voltage dips and interruptions | EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period |
| | Harmonics | EN 61000-3-2:2006 class A |
| | Flicker | EN 61000-3-3:1995 +A1:2001+A2:2005 |
| Management | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones | |
| Notes | For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. | |
| Services | 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. | |
| Standards and protocols (applies to all products in series) | **Device management**<br>Web UI<br><br>**General protocols**<br>IEEE 802.1D MAC Bridges<br>IEEE 802.1p Priority<br>IEEE 802.1Q VLANs<br>IEEE 802.3 Type 10BASE-T<br>IEEE 802.3ab 1000BASE-T<br>IEEE 802.3af Power over Ethernet<br>RFC 768 UDP<br>RFC 791 IP<br>RFC 792 ICMP<br>RFC 793 TCP<br>RFC 826 ARP<br>RFC 854 TELNET<br>RFC 894 IP over Ethernet | |

*Technical Specifications*

RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1042 IP Datagrams
RFC 1349 Type of Service
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor Extensions
RFC 1534 DHCP/BOOTP Interoperation
RFC 1541 DHCP
RFC 1542 BOOTP Extensions
RFC 2131 DHCP
RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 3261 Session Initiation Protocol (SIP)

IP multicast
RFC 2236 IGMPv2

**HP 3500 IP Phone** (JC504A)

| | | |
|---|---|---|
| Ports | | 2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only |
| | | 2 RJ-9 (headset and handset) |
| Physical characteristics | Dimensions | 8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height) |
| | Weight | 2.91 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material |
| | Full configuration weight | 2.13 lb. (0.97 kg) |
| Mounting | | Rests on a multiangle deskstand or wall mount |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C); Ambient Temperature |
| | Operating relative humidity | 5% to 95%, non-condensing |
| | Non-operating/Storage temperature | -40°F to 158°F (-40°C to 70°C) |
| Electrical characteristics | Voltage | 100-240 VAC |
| | Current | 0.5 A |
| | Idle power | 4.4 W |
| | Maximum power rating | 6.4 W |
| | Power output | 25 W |
| | Frequency | 50 / 60 Hz |
| | Notes | Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. |
| Phone characteristics | Max. calls (lines) supported | 2 |

*Technical Specifications*

|  |  |  |
|---|---|---|
| | Programmable lighted buttons | 2 (not lighted) |
| | Fixed feature buttons | 10 |
| | Soft keys | 4 (see *Notes) |
| | Four-way navigation control | Yes |
| | Display type | Grayscale |
| | Display backlit | No |
| | Number of display lines | 4 |
| | Display size | 3.5 in. (85 mm x 28 mm) |
| | Display pixel resolution | 192 x 64 |
| | Desk stand | Multiposition (35 and 55 degree) |
| | Platforms Supported | VCX |
| | Default ringtones | 9 |
| **Emissions** | | VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001 |
| **Immunity** | Generic | ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3 |
| | EN | EN 55024:1998+ A1:2001 + A2:2003 |
| | ESD | EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD |
| | Radiated | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m |
| | EFT/Burst | EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line) |
| | Surge | EN 61000-4-5:2006 AC :2 kV/4 kV |
| | Conducted | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5 |
| | Power frequency magnetic field | EN 61000-4-8:2001 1 A/m, 50 or 60 Hz |
| | Voltage dips and interruptions | EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period |
| | Harmonics | EN 61000-3-2:2006 class A |
| | Flicker | EN 61000-3-3:1995 +A1:2001+A2:2005 |
| **Management** | | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones |
| **Notes** | | For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. |
| **Services** | | 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. |

*Technical Specifications*

| Standards and protocols (applies to all products in series) | Device management |
| --- | --- |
| | Web UI |

General protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.3 Type 10BASE-T
IEEE 802.3ab 1000BASE-T
IEEE 802.3af Power over Ethernet
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 894 IP over Ethernet
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1042 IP Datagrams
RFC 1349 Type of Service
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor Extensions
RFC 1534 DHCP/BOOTP Interoperation
RFC 1541 DHCP
RFC 1542 BOOTP Extensions
RFC 2131 DHCP
RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 3261 Session Initiation Protocol (SIP)

IP multicast
RFC 2236 IGMPv2

**HP 3501 IP Phone** (JC506A)

| Ports | 2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only | |
| --- | --- | --- |
| | 2 RJ-9 (headset and handset) | |
| Physical characteristics | Dimensions | 8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height) |
| | Weight | 2.91 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material |
| | Full configuration weight | 2.13 lb. (0.97 kg) |
| Mounting | Rests on a multiangle deskstand or wall mount | |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C); Ambient Temperature |
| | Operating relative humidity | 5% to 95%, non-condensing |
| | Non-operating/Storage temperature | -40°F to 158°F (-40°C to 70°C) |

## Technical Specifications

| Electrical characteristics | Voltage | 100-240 VAC |
|---|---|---|
| | Current | 0.5 A |
| | Idle power | 5.7 W |
| | Maximum power rating | 8.1 W |
| | Power output | 25 W |
| | Frequency | 50 / 60 Hz |
| | Notes | Idle power is the actual power consumption of the device with no ports connected.<br>Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. |
| Phone characteristics | Max. calls (lines) supported | 2 |
| | Programmable lighted buttons | 2 (not lighted) |
| | Fixed feature buttons | 10 |
| | Soft keys | 4 |
| | Four-way navigation control | Yes |
| | Display type | Backlit Grayscale |
| | Display backlit | Yes |
| | Number of display lines | 4 |
| | Display size | 3.5 in. (85 mm x 28 mm) |
| | Display pixel resolution | 192 x 64 |
| | Desk stand | Multiposition (35 and 55 degree) |
| | Platforms Supported | VCX |
| | Default ringtones | 9 |
| Emissions | | VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001 |
| Immunity | Generic | ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3 |
| | EN | EN 55024:1998+ A1:2001 + A2:2003 |
| | ESD | EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD |
| | Radiated | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m |
| | EFT/Burst | EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line) |
| | Surge | EN 61000-4-5:2006 AC :2 kV/4 kV |

*Technical Specifications*

| | | |
|---|---|---|
| | Conducted | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5 |
| | Power frequency magnetic field | EN 61000-4-8:2001 1 A/m, 50 or 60 Hz |
| | Voltage dips and interruptions | EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period |
| | Harmonics | EN 61000-3-2:2006 class A |
| | Flicker | EN 61000-3-3:1995 +A1:2001+A2:2005 |
| **Management** | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones | |
| **Notes** | For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. | |
| **Services** | 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. | |

**Standards and protocols**
(applies to all products in series)

**Device management**
Web UI

**General protocols**
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.3 Type 10BASE-T
IEEE 802.3ab 1000BASE-T
IEEE 802.3af Power over Ethernet
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 894 IP over Ethernet
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1042 IP Datagrams
RFC 1349 Type of Service
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor Extensions
RFC 1534 DHCP/BOOTP Interoperation
RFC 1541 DHCP
RFC 1542 BOOTP Extensions
RFC 2131 DHCP
RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 3261 Session Initiation Protocol (SIP)

**IP multicast**
RFC 2236 IGMPv2

*Technical Specifications*

### HP 3502 IP Phone (JC507A)

| | | |
|---|---|---|
| Ports | 2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only | |
| | 2 RJ-9 (headset and handset) | |
| Physical characteristics | Dimensions | 9.7(d) x 8.4(w) x 3.7(h) in. (24.64 x 21.34 x 9.4 cm) (NAU height) |
| | Weight | 3.7 lb. (1.68 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material |
| | Full configuration weight | 2.6 lb. (1.18 kg) |
| Mounting | Rests on a multiangle deskstand or wall mount | |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C); Ambient Temperature |
| | Operating relative humidity | 5% to 95%, non-condensing |
| | Non-operating/Storage temperature | -40°F to 158°F (-40°C to 70°C) |
| Electrical characteristics | Voltage | 100-240 VAC |
| | Current | 0.5 A |
| | Idle power | 5.8 W |
| | Maximum power rating | 9.1 W |
| | Power output | 25 W |
| | Frequency | 50 / 60 Hz |
| | Notes | Idle power is the actual power consumption of the device with no ports connected.<br>Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. |
| Phone characteristics | Max. calls (lines) supported | 6 |
| | Programmable lighted buttons | 15 (on 3 screens) |
| | Fixed feature buttons | 11 |
| | Soft keys | 4 |
| | Four-way navigation control | Yes |
| | Display type | Backlit Grayscale |
| | Display backlit | Yes |
| | Number of display lines | 8 |
| | Display size | 4.3 in. (95 mm x 52 mm) |
| | Display pixel resolution | 240 x 128 |
| | Desk stand | Multiposition (35 and 55 degree) |
| | Platforms Supported | VCX |
| | Default ringtones | 9 |

*Technical Specifications*

| | | |
|---|---|---|
| Emissions | VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001 | |
| Immunity | Generic | ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3 |
| | EN | EN 55024:1998+ A1:2001 + A2:2003 |
| | ESD | EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD |
| | Radiated | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m |
| | EFT/Burst | EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line) |
| | Surge | EN 61000-4-5:2006 AC :2 kV/4 kV |
| | Conducted | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5 |
| | Power frequency magnetic field | EN 61000-4-8:2001 1 A/m, 50 or 60 Hz |
| | Voltage dips and interruptions | EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period |
| | Harmonics | EN 61000-3-2:2006 class A |
| | Flicker | EN 61000-3-3:1995 +A1:2001+A2:2005 |
| Management | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones | |
| Notes | For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. | |
| Services | 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. | |
| Standards and protocols (applies to all products in series) | Device management<br>Web UI<br><br>General protocols<br>IEEE 802.1D MAC Bridges<br>IEEE 802.1p Priority<br>IEEE 802.1Q VLANs<br>IEEE 802.3 Type 10BASE-T<br>IEEE 802.3ab 1000BASE-T<br>IEEE 802.3af Power over Ethernet<br>RFC 768 UDP<br>RFC 791 IP<br>RFC 792 ICMP<br>RFC 793 TCP<br>RFC 826 ARP<br>RFC 854 TELNET<br>RFC 894 IP over Ethernet | |

*Technical Specifications*

RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1042 IP Datagrams
RFC 1349 Type of Service
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor Extensions
RFC 1534 DHCP/BOOTP Interoperation
RFC 1541 DHCP
RFC 1542 BOOTP Extensions
RFC 2131 DHCP
RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 3261 Session Initiation Protocol (SIP)

IP multicast
RFC 2236 IGMPv2

**HP 3503 IP Phone** (JC508A)

| | | |
|---|---|---|
| Ports | 2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only | |
| | 2 RJ-9 (headset and handset) | |
| Physical characteristics | Dimensions | 10.6(d) x 8.9(w) x 3.6(h) in. (26.92 x 22.61 x 9.14 cm) (NAU height) |
| | Weight | 3.7 lb. (1.68 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material |
| | Full configuration weight | 2.66 lb. (1.21 kg) |
| Mounting | Rests on a multiangle deskstand or wall mount | |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C); Ambient Temperature |
| | Operating relative humidity | 5% to 95%, non-condensing |
| | Non-operating/Storage temperature | -40°F to 158°F (-40°C to 70°C) |
| Electrical characteristics | Voltage | 100-240 VAC |
| | Current | 0.5 A |
| | Idle power | 5.3 W |
| | Maximum power rating | 10.6 W |
| | Power output | 25 W |
| | Frequency | 50 / 60 Hz |
| | Notes | Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. |
| Phone characteristics | Max. calls (lines) supported | 8 |

*Technical Specifications*

|  |  |  |
|---|---|---|
|  | Programmable lighted buttons | 21 (on 3 screens) |
|  | Fixed feature buttons | 11 |
|  | Soft keys | 3 |
|  | Four-way navigation control | Yes |
|  | Display type | Backlit, Graphical Color, Anti-glare |
|  | Display backlit | Yes |
|  | Number of display lines | 10 |
|  | Display size | 5 in. (110.6 mm x 67.4 mm) |
|  | Display pixel resolution | 800 x 480 |
|  | Desk stand | Multiposition (35 and 55 degree) |
|  | Platforms Supported | VCX |
|  | Default ringtones | 9 |
| Emissions |  | VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001 |
| Immunity | Generic | ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3 |
|  | EN | EN 55024:1998+ A1:2001 + A2:2003 |
|  | ESD | EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD |
|  | Radiated | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m |
|  | EFT/Burst | EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line) |
|  | Surge | EN 61000-4-5:2006 AC :2 kV/4 kV |
|  | Conducted | AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5 |
|  | Power frequency magnetic field | EN 61000-4-8:2001 1 A/m, 50 or 60 Hz |
|  | Voltage dips and interruptions | EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period |
|  | Harmonics | EN 61000-3-2:2006 class A |
|  | Flicker | EN 61000-3-3:1995 +A1:2001+A2:2005 |
| Management |  | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones |
| Notes |  | For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. Wideband audio (G.722) handset, wideband audio (G.722) speakerphone, and adaptive jitter buffer; QoS: IP-ToS, IEEE 802.1p, DHCP, and Option 184. |

*Technical Specifications*

| | |
|---|---|
| Services | 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. |
| Standards and protocols (applies to all products in series) | **Device management**<br>Web UI<br><br>**General protocols**<br>IEEE 802.1D MAC Bridges<br>IEEE 802.1p Priority<br>IEEE 802.1Q VLANs<br>IEEE 802.3 Type 10BASE-T<br>IEEE 802.3ab 1000BASE-T<br>IEEE 802.3af Power over Ethernet<br>RFC 768 UDP<br>RFC 791 IP<br>RFC 792 ICMP<br>RFC 793 TCP<br>RFC 826 ARP<br>RFC 854 TELNET<br>RFC 894 IP over Ethernet<br>RFC 950 Internet Standard Subnetting Procedure<br>RFC 951 BOOTP<br>RFC 1042 IP Datagrams<br>RFC 1349 Type of Service<br>RFC 1531 Dynamic Host Configuration Protocol<br>RFC 1533 DHCP Options and BOOTP Vendor Extensions<br>RFC 1534 DHCP/BOOTP Interoperation<br>RFC 1541 DHCP<br>RFC 1542 BOOTP Extensions<br>RFC 2131 DHCP<br>RFC 2132 DHCP Options and BOOTP Vendor Extensions<br>RFC 3261 Session Initiation Protocol (SIP)<br><br>**IP multicast**<br>RFC 2236 IGMPv2 |

*Technical Specifications*

Features

**Phone licenses**
Phone licenses are required to operate all HP IP phones on VCX platforms.

**Minimum system software**
VCX 9.5 or later system software is required for all 350x series IP phones.

**Phone packaging content**
Includes a telephone, desktop mount, Quick Install Guide, phone handset, 2.5 m handset cord, 2 m Ethernet cable, registration card, limited warranty statement, and the compliance and safety manual.

**Power savings**
Power savings (in screen-saver or deep sleep power-save modes): Percentages are based on peak usage calculations by IP phone models
3500B IP phone: 15%
3500 IP phone: 31%
3501 IP phone: 30%
3502 IP phone: 40%
3503 IP phone: 50%

**Silence Suppression**
Supported with G.729b codec only

*Accessories*

| HP 350x IP Phone Series accessories | IP Telephony | |
|---|---|---|
| | HP 350x Series IP Phone AC Power Adapter | JC509A |
| | NEW HP 350x Series IP Phone Wall Mount | JC510A |
| | NEW HP 350x Series IP Phone Stand | JC511A |

## Accessory Product Details

NOTE: Details are not available for all accessories. The following specifications were available at the time of publication.

| HP 350x Series IP Phone AC Power Adapter (JC509A) | Environment | Operating temperature | 0°F to 40°F (-17.8°C to 4.4°C) |
|---|---|---|---|
| | | Operating relative humidity | 5% to 95%, noncondensing |
| | Electrical characteristics | Voltage | 100-240 VAC |
| | | DC voltage | 48 |
| | | Power output | 25 W |
| | | Frequency | 50/60 Hz |
| | | Notes | Maximum ripple noise: 300mV |
| | Emissions | | VCCI Class B; ICES-003 (Canada); AS/NZS CISPR 22; FCC Part 15, Class B; EN 55022 (CISPR 22) Class B with FTP Cabling; Anatel |
| | Management | | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones |
| | Notes | | Certifications: TUV-GS, CE, UL, CUL, FCC, C-TICK, AS/NZS 60950-1 Cert, K-MARK, SABS, S-MARK, PSE, CCC, NOM, CB; EMC: CE, RE:Class B; surge level 3 Safeguard output: over voltage safeguard, over current safeguard, short circuit safeguard Energy Saving: CEC, ENERGY STAR 2.0, CoC, Australia MEPS, Korea MEPS |
| | Services | | 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. |
| | Standards and protocols | | Device management<br>Web UI<br><br>General protocols<br>IEEE 802.1p Priority<br>IEEE 802.3af Power over Ethernet<br>RFC 1541 DHCP |

| HP 350x Series IP Phone Wall Mount (JC510A) | Emissions | VCCI Class B; ICES-003 (Canada); AS/NZS CISPR 22; FCC Part 15, Class B; EN 55022 (CISPR 22) Class B with FTP Cabling; Anatel |
|---|---|---|
| | Management | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones |
| | Services | 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. |
| | Standards and protocols | Device management<br>Web UI<br><br>General protocols<br>IEEE 802.1p Priority<br>IEEE 802.3af Power over Ethernet<br>RFC 1541 DHCP |

## Accessory Product Details

| | | |
|---|---|---|
| HP 350x Series IP Phone Stand (JC511A) | Emissions | VCCI Class B; ICES-003 (Canada); AS/NZS CISPR 22; FCC Part 15, Class B; EN 55022 (CISPR 22) Class B with FTP Cabling; Anatel |
| | Management | IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones |
| | Services | 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. |
| | Standards and protocols | **Device management**<br>Web UI<br><br>**General protocols**<br>IEEE 802.1p Priority<br>IEEE 802.3af Power over Ethernet<br>RFC 1541 DHCP |

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