



## Technical Specifications

### Nortel IP Phone 1535

IP videophone with innovative new communications features for a personal video endpoint

*Nortel's IP Phone 1535 is a standards-based Session Initiation Protocol (SIP) deskset for enterprises or organizations looking for a cost-effective personal video endpoint. Key features include an integrated color video camera coupled with a high-resolution, pixel-based, color display.*

*Incorporating a number of advanced communication capabilities, the IP Phone 1535 includes an integrated web browser, a POP3-based or IMAP-based e-mail client, and supports personalization such as customized ringtones and backgrounds.*

*The IP Phone 1535 is ideal for environments where a desktop or laptop PC may not be available or suitable, yet IP telephony and video conferencing is desired. The IP Phone 1535 may also provide benefit to users requiring a simplified always-on operation, flexible deployment with Wi-Fi connectivity, and casual web browsing or e-mail access.*



Nortel IP Phone 1535

#### Key features and benefits include:

- › Featured SIP-based videophone (single user login) with an advanced user interface featuring dedicated video function keys to simplify the interactive experience
- › Eight dedicated telephony-related icon-labeled keys (Send/Handsfree, Goodbye/Release, Video Start, Video Stop, Record, Video Mode, Favorites, Messages) and two context-sensitive soft-label keys for item selection
- › Enhanced navigation/input options with four-way navigation cluster for menu operations and two key “mouse” click (right/left) for web-browsing
- › Integrated multimedia for simple, easy-to-use video conferencing, personal audio recorder (up to 20 second recordings), still image capture (high/low resolution with camera timer) and video capture (up to 20 second recordings)
- › Integrated applications including a web browser, e-mail browser (for user to view inbox/outbox or create/send e-mail messages), calendar with alarms, Video Supervision for remote video monitoring and galleries (image, sound and video libraries)
- › “T9” (Text on 9 keys) dialpad support for predictive text entry<sup>1</sup>

<sup>1</sup> Enhanced Text Entry capabilities available for English, French, German, Portuguese and Spanish languages



- › Integrated Directory/Phonebook for up to 300 contacts (stored in the local directory/phonebook)
- › Call history for the last 20 items for Missed, Received and Dialed calls
- › Customized Personalization Options including ringtone support (select from up to 50 local Polyphonic Ringtones), menu color and background image (for idle screen)
- › Support for Picture Caller ID<sup>2</sup> and enhanced display name support (for Caller ID and Call Logs)
- › Video standards interoperability support with Video Fast Update (for multi-party video conferencing server environments), H.264 SDP negotiation/interoperability (RFC3984), and interoperability with leading third-party H.263/H.264 SIP video conferencing endpoints and conferencing systems<sup>3</sup>
- › Memory Card slots for expandability and data input/storage with Subscriber Identity Module (SIM) Reader Slot (used to copy user directory/phonebook information from a SIM card) and Secure Digital (SD)/MultiMedia Card (MMC) slot<sup>4</sup> (used for external storage and uploading of images or sounds)
- › Flexible connectivity options with traditional LAN wired Ethernet (10/100 Base-T Fast Ethernet) or Wireless LAN access with an integrated IEEE 802.11b/g (Wi-Fi) radio

<sup>2</sup> Supported with MCS 5100 Rls 3.5 and 4.0 systems

<sup>3</sup> Includes interoperability with the TANDBERG Media Processing System (MPS) and MXP Video Conferencing Systems Family

<sup>4</sup> Support for up to 1GB SD/MMC card size

<sup>5</sup> Planned general availability - December 2007

## Technical specifications

### Platform support

- Nortel Multimedia Communication Server 5100 Rls 3.5 and 4.0
- Nortel Communication Server 2000<sup>5</sup> Rls SN09U and SN10

### Display

- High resolution, graphical, fully-backlit, 16-bit color (65,535 colors) Liquid Crystal Display (LCD) using TFT (Thin Film Transistor) technology
  - Quarter Video Graphics Array (QVGA) Resolution
  - Approximately 3.5" / 89mm diagonal
  - 2.80" x 2.09" / 71mm x 53mm (W x H)
  - 320 pixels x 240 pixels (W x H)
- Configurable backlight timer extends the quality of the display experience with a user-defined time setting (ten seconds to one hour)

### Camera

- Image sensor: 1/4.5-inch Complementary Metal-Oxide Semiconductor (CMOS)
- Pixel resolution: 300K - VGA (Video Graphics Array)
- Captures still (JPG format) or video images (up to 15fps)

### Processor and memory

- CPU: Intel PXA 270 processor @ 416 MHz
- SDRAM: 64 MB (Synchronous Dynamic Random Access Memory)
- Flash: 128 MB (NAND Memory)

### IP Phone footstand/display adjustment

- Desktop footstand attachment (optional) raises the IP phone to an optimal angle for video camera usage
- Desktop viewing adjustments with full range tilt display (0 to 60 degrees)

### Fixed and soft label keys

- Eight – Telephony-related keys (Send/Handsfree, Goodbye/Release, Video Start, Video Stop, Record, Video Mode, Favorites, Messages)
- Two – Context-sensitive soft keys

### Navigation cluster

- Four-way navigation cluster (left, right, up, down arrows) plus right/left click keys (for web browsing)



### IP Phone 1535 Main Menu

- **Messages** – Access to e-mail options and related account configuration
- **Call History** – Access to missed, dialed (outgoing) and received (incoming) calls history
- **Services** – Access to web browser, voice mail and video supervision (remote monitoring)
- **Images & Sounds** – Access to the multimedia tools including image, audio and video galleries
- **Settings** – Access to configuration parameters for connection profile, audio, video, phone, VoIP and system
- **Organizer** – Access to IP Phone 1535 local phonebook and calendar/alarm

### Enhanced text entry capabilities

- “T9” (Text on 9 keys) dialpad support for predictive English, French, German, Portuguese or Spanish text entry

### Card slots

- Subscriber Identity Module (SIM) Reader Slot
- Secure Digital (SD) / MultiMedia Card (MMC) slot for external device storage (Support for up to 1GB SD/MMC card size)

### Administration

- Static and Dynamic Host Control Protocol (DHCP factory default)
- File Transfer Protocol (FTP)

### Dimensions and weight (approximate)

- Size (W x D x H)
  - 7.48in x 4.88in x 7.48in / 190mm x 124mm x 190mm - without desktop footstand (Display fully raised – 60 degrees)
  - 7.48in x 6.01in x 7.76in / 190mm x 156mm x 197mm - with desktop footstand (Display fully raised – 60 degrees)

- Weight (phone, desktop footstand, handset and handset cord)
  - 2.06 lbs / 0.94kg

**Color**

- Silver metallic finish

**Connectivity/data rates**

- Wired connection
  - Integrated 10/100 Base-T Fast Ethernet (auto-negotiation)
- Wireless connection
  - Integrated IEEE 802.11b/g Wi-Fi radio with Wired Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), Wi-Fi Protected Access - Pre-Shared Key (WPA-PSK) and Wi-Fi Protected Access 2 – Pre-Shared Key (WPA2-PSK) support

**Power**

- Universal AC power supply input: 100V-240V AC, 50-60Hz at 0.22A delivering 5V DC at 3A
- Country-specific power cord with IEC-620 connector

Note: Remote powering of the IP Phone 1535 via IEEE 802.3af Power over Ethernet (PoE) is not supported.

**Protocol support**

- Transport:
  - User Datagram Protocol (UDP) - RFC 768

- Transmission Control Protocol (TCP) - RFC 793
- Simple Traversal of UDP through NAT (STUN) - RFC 3489

• TCP/IP:

- Dynamic Host Control Protocol (DHCP) - RFC 2131/RFC 2132
- Domain Name System (DNS) - RFC 1034 / RFC 1035
- Hypertext Transfer Protocol (HTTP) - RFC 2616
- File Transfer Protocol (FTP) - RFC 959
- Trivial File Transfer Protocol (TFTP) - RFC 783

• Signaling:

- Session Initiation Protocol (SIP) - RFC 3261
- Session Description Protocol (SDP) - RFC 2327
- Dual-Tone Multifrequency (DTMF) Digits - Telephony Tones & Signals - RFC 2833

• Voice / Video:

- Real-time Transport Protocol (RTP) - RFC 1889
- Real-time Transport Control Protocol (RTCP) - RFC 1890
- RTP Payload Format for H.264 Video - RFC 3984

• E-mail:

- Simple Mail Transfer Protocol (SMTP) - RFC 821
- Post Office Protocol - Version 3 (POP3) - RFC 1939
- Internet Message Access Protocol (IMAP) - partial support

**Audio and video quality of service**

• Audio:

- G.711 u-law, G.711 a-law, G.723, G.729 and Adaptive Multi-Rate Narrow-Band (AMR-NB)

• Video:

- H.263 (RFC 2190) and H.264
- QCIF (Quarter Common Intermediate Format) video formats

**File format support**

• Image file formats

- JPG (Joint Photographic Experts Group) - JFIF:1.01
- PNG (Portable Network Graphics) - PNG version 1.2
- GIF (Graphics Interchange Format) GIF87a, GIF89 (Does not support animated gif)

• Audio file formats

- MIDI (Musical Instrument Digital Interface) - Standard MIDI Files 1.0

**IP Phone 1535 Interface and Features**



- WAV (Waveform audio format) - CCITT u-law format, 8000Hz, 16bit Sampling, 1998 Windows PCM format, 8000Hz, 16bit Sampling
- IMY (iMelody Ringtone Format) - iMelody version v1.0, v1.1, v1.2
- Video file formats
  - 3GP (Third Generation Partnership Project) movie file format
  - 3GPP (Third Generation Partnership Project) TS.26.140 version 6 format

#### Menu language support

- English (US)
- French (Canadian)
- Spanish (LA)
- Korean
- Portuguese
- German

#### Operating temperature

- +0°C to +40°C / +32°F to +104°F

#### Relative humidity

- 5% to 95% (non-condensing)

#### Storage temperature

- -20°C to +65°C / -4°F to +149°F

#### EMC

- United States: FCC CFR 47 Part 15 Class B
- Canada: ICES-003 Class B
- European Union:
  - EN 55022:1998 + A1 & A2 (Class B)
  - EN 55024:1998 + A1 & A2
  - EN 61000-3-2
  - EN 61000-3-3
- China CCC
- Brazil Anatel Requirements
- Mexico (COFETEL)

#### Safety

- United States: UL 60950-1 1st Edition
- Canada: CSA 60950-1-03
- European Union: EN 60950-1
- International: IEC 60950-1
- China CCC
- Mexico NOM Approvals

#### Wireless regulatory identification/compliance (for Wi-Fi radio)

- United States: FCC Part 15 Wireless Certification
  - FCC ID: AB6IP1535
  - FCC Registration No.: US:AB6IP16BIP1535

- Canada: IC RSS 210 Wireless Certification
  - Canada IC No.: IC:332E-IP1535
- European Union:
  - EN 300 328 V1.6.1
  - EN 301 489-1 V1.6.1
  - EN 301 489-17 V1.2.1
- China CCC
- Brazil Anatel Requirements
- Mexico (COFETEL)

#### US/Canada/EU Countries

- United States/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68 and Industry Canada CS-03 Part V
- Compliant at general availability to the Reduction of Hazardous Substances - RoHS (6 of 6) requirement as part of the European Union Environmental Directive (EUED)
- Complies with CE Marking Requirements; this device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC
- American Disabilities Act (ADA) compliant dialpad

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