

## Cisco DX80



### Product Overview

Discover a delightful new approach to working that is simple to use and offers an uncompromised collaboration experience. The Cisco DX80 brings everything you need to be productive in one sleek integrated device. All you need is one screen on the desk. Experience best in class HD video and expanded collaboration capabilities such as extensive UC features, Android applications and email.

- Dedicated, always-on 1080p High-Definition video communication system
- Fully-featured IP Phone that registers to Cisco UCM call control
- High-quality audio system for speakerphone
- 23-inch 16:9 screen provides an engaging experience for video calls and running apps
- Multi-touch capacitive touchscreen provides elegant and powerful user interface
- Security Enhanced Android operating system combined with Cisco's end-to-end security features gives peace of mind to network administrators
- Cisco Extension Mobility supports multiple profiles allowing hot-desking and shared workspaces
- Many options to personalize your experience and maximize productivity; from wallpapers, widgets, and screen layouts to the ability to use a variety of Bluetooth and USB accessories
- Self-provisioning device is simple for users to take out of the box and start using quickly
- Native Cisco AnyConnect VPN makes connecting to the workplace from the home office a snap

**Table 1.** Features and Benefits

Feature	Benefit
<b>Design features</b>	<ul style="list-style-type: none"> <li>• Install in minutes: The DX80 is an integrated device with all on-screen controls. Just plug the power cable and Ethernet (or use Wi-Fi). With self-provisioning your device will register itself. Authenticate to complete the setup.</li> <li>• In-person video: With a large 23-inch screen, best of class video and audio capabilities the DX80 allows for life-like experiences.</li> <li>• Intelligent Audio: With a set of microphone arrays the DX80 is capable of greatly attenuating sound disturbances in your environment and ensures the best sound quality to the other person on the call.</li> <li>• Top-notch monitor: The DX80 can be used as an external monitor and be plugged to a laptop. It has high contrast LED panel with wide viewing angle and a full touch surface.</li> <li>• All controls on screen: Calls can easily be placed from the screen itself. There is no need for an external device. Options are also accessible while on a call to ensure the participants can stay engaged during a conversation.</li> <li>• Document camera: The camera located on top of the DX80 can be tilted down to allow sharing of physical content and drawings.</li> <li>• Inclinable screen: As it is also a tablet capable of running applications, the DX80 accommodates users who want to sit and use the DX80 comfortably at their desk. The device can be pulled easily towards the user and reclines to a 40° angle to the table.</li> </ul>
<b>Application features</b>	<ul style="list-style-type: none"> <li>• Share multimedia and presentation at the touch of a button: While on a call the DX80 allows to see the laptop screen and share it instantly in full HD with the on-screen control bar.</li> <li>• Easy swap between computer and DX interface: Swap between the monitor mode and the DX80 interface by a simple press of the "source" button.</li> <li>• Intelligent Proximity: The DX80 supports the Intelligent Proximity for mobile voice. Contacts on the mobile can be seen from within the DX80 interface and voice calls can be handoff from the mobile to the DX80.</li> <li>• WebEx and Jabber integrated: The DX80 already comes with a Cisco Collaboration applications installed for instant messaging and Web conferencing.</li> <li>• Compatible with Google Android applications: The DX80 can run any Android application on its large touch screen. Users can for example access their emails and calendar.</li> </ul>
<b>Performance features</b>	<ul style="list-style-type: none"> <li>• The system offers simultaneous HD video and content sharing.</li> <li>• RGB input is compatible with all modern PC and Mac computers.</li> <li>• Audio is communicated through full-duplex, full-band audio (CD quality).</li> <li>• Provisioning and self-configuration are easy with Cisco UCM.</li> </ul>

**Table 2.** Product Specifications

Feature	Benefit
<b>Components</b>	<p>Fully integrated unit including:</p> <ul style="list-style-type: none"> <li>• Codec</li> <li>• Camera</li> <li>• Display</li> <li>• Microphones and loudspeaker</li> </ul> <p>HDMI and USB 2 meter long cable Ethernet 2,9 meters long cable Power adapter</p>
<b>Display</b>	<ul style="list-style-type: none"> <li>• 23-inch (0.58m) LCD monitor</li> <li>• Resolution: 1920 x 1080 (16:9)</li> <li>• High contrast IPS LED panel</li> <li>• Contrast ratio: 1000:1 (typ.)</li> <li>• Viewing angle: +/-178 deg (typ.)</li> <li>• Response time: 5ms (typ.)</li> <li>• Brightness: 215 cd/m<sup>2</sup> (typ.)</li> <li>• Color depth: 16.7 million colors</li> <li>• Color gamut 72% (of NTSC)</li> <li>• 10 point multi-touch surface</li> </ul>

Feature	Benefit
<b>Supported PC input resolutions</b>	Up to 1080p
<b>Ergonomic design</b>	<ul style="list-style-type: none"> <li>• The stand is retractable in the upright position for easy transportation</li> <li>• The screen can be tilted from an angle of 11° to 50° from the vertical</li> <li>• Camera can be tilted from an angle of -5° to 70° from the display</li> <li>• The connector lid can be fully lifted and will lock to the back of the unit with magnets</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>• Loudspeaker mounted on the front panel and user facing</li> <li>• 4 digital microphones mounted in 2 arrays</li> </ul>
<b>Front camera</b>	<p>63° horizontal field of view  38° vertical field of view  Resolution: 1080p30  F 2.2  Instant Focus based on face detection  Privacy shutter</p>
<b>Operating system</b>	Android OS 4.1.1 (Jellybean)
<b>Processor</b>	TI OMAP 4470 1.5GHz dual-core ARM Cortex-A9 processor
<b>Storage</b>	8-GB eMMC NAND Flash memory (embedded multimedia card; nonvolatile)
<b>Memory</b>	2-GB RAM; Low Power Double Data Rate Synchronous Dynamic Random-Access Memory (LPDDR2 SDRAM)
<b>Ports and slots</b>	<ul style="list-style-type: none"> <li>• High-Definition Multimedia Interface (HDMI) type A port for PC or Mac video input</li> <li>• High-Definition Multimedia Interface (HDMI) type A port output (reserved for future use)</li> <li>• High-speed USB 2.0 ports: <ul style="list-style-type: none"> <li>◦ Three standard type A ports (for keyboard, mouse, thumb drive and memory stick, and headset connectivity)</li> <li>◦ One standard type B port (reserved for future use)</li> <li>◦ One Micro-B USB port with native RS232, serial port, intended for service only</li> <li>◦ Maximum of 500 mA power output at 5V or 2.5W for each USB port</li> </ul> </li> <li>• Micro Secure Digital Standard Capacity (HDSC) slot for nonvolatile storage of applications or file expansion up to 32GB (standard-definition [SD] card speed Class 4 or later recommended)</li> </ul>
<b>Physical buttons</b>	<ul style="list-style-type: none"> <li>• Cap sense "source" button to swap between HDMI input and the DX80 interface. Button is lit when HDMI input is connected.</li> <li>• Volume up/down</li> <li>• Mute</li> </ul>
<b>Visual indicator</b>	<ul style="list-style-type: none"> <li>• Camera LED indicator (incoming calls, camera activation)</li> <li>• Microphone LED indicator (mute)</li> <li>• Power button LED indicator (power on, sleeping, message waiting, error)</li> <li>• Source button (monitor mode)</li> </ul>
<b>Physical dimensions (HxWxD)</b>	20,2 x 22,2 x 3,5 in. (51.2 x 56. 5 x 8.9 cm)
<b>Weight</b>	15,65 lb (7.1 kg)
<b>Power</b>	<p>Rated: 60 W maximum  Low Power Standby mode  Integrated EnergyWise support</p>
<b>Physical security</b>	Compatible with Kensington Security Slot
<b>Connectivity</b>	
<b>Ethernet</b>	<ul style="list-style-type: none"> <li>• Internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network (IEEE802.3i/802.3u/802.3ab) through an RJ-45 interface with single LAN connectivity for both the phone and a co-located PC.</li> <li>• The system administrator can designate separate VLANs (IEEE 802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic.</li> </ul>
<b>Desktop Wi-Fi</b>	As an alternative to wired Ethernet, the DX80 supports a Wi-Fi radio with integrated antenna enabling connectivity to a Wi-Fi access-point infrastructure, thereby saving on the labor costs of pulling Ethernet cables to every work location.

Feature	Benefit
<b>Network features</b>	<ul style="list-style-type: none"> <li>• Cisco Discovery Protocol</li> <li>• Cisco Peer-to-Peer Distribution Protocol (PPDP)</li> <li>• LLDP-MED</li> <li>• Session Initiation Protocol (SIP) for signaling</li> <li>• Session Description Protocol (SDP)</li> <li>• User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol [RTP] streams)</li> <li>• Dynamic Host Configuration Protocol (DHCP) client or static configuration</li> <li>• Transparent secure roaming</li> <li>• Gratuitous Address Resolution Protocol (GARP)</li> <li>• Switch auto-negotiation</li> <li>• Domain Name System (DNS)</li> <li>• Web proxy (configured manually or by auto-configuration Protected Access Credential [PAC] files)</li> <li>• NT LAN Manager (NTLM) and Kerberos authentication</li> <li>• Trivial File Transfer Protocol (TFTP)</li> <li>• Secure Hypertext Transfer Protocol (HTTPS)</li> <li>• Wi-Fi management</li> <li>• IPv4 configuration</li> <li>• IPv6 configuration</li> <li>• Virtual Local Area Network (VLAN)</li> <li>• Real-Time Control Protocol (RTCP) (provides quality of service [QoS] data [such as jitter, latency, and round-trip delay] <ul style="list-style-type: none"> <li>• on RTP streams in order to provide a better video experience)</li> </ul> </li> <li>• Secure Real-Time Transport Protocol (SRTP)</li> <li>• Software port speed (manual or auto-configuration, including disablement)</li> <li>• PC port speed (manual or auto-configuration, including disablement)</li> </ul>
<b>Bluetooth</b>	<p>Bluetooth 3.0 Enhanced Data Rate (EDR) Class 2 technology (up to 30-ft [10m] range)</p> <ul style="list-style-type: none"> <li>• Human Interface Device (HID) keyboard and mouse support for adding additional input accessories</li> <li>• Hands-Free Profile (HFP) for untethered headset connections and voice communications</li> <li>• Phone Book Access Profile (PBAP), which enables the exchange of phone book objects between devices</li> <li>• Advanced Audio Distribution Profile (A2DP) for streaming audio</li> <li>• Object Push Profile (OPP) for generic file exchange</li> </ul>
<b>Accessories</b>	
<b>Cisco VESA adapter and wall mount</b>	The DX80 supports a 100x100 mm VESA mounting. This option includes the VESA adapter as well as a fixed and flat wall mount holder.
<b>Firmware</b>	
<b>Version</b>	10.2.1 firmware
<b>Call platform support; provisioning and management</b>	<ul style="list-style-type: none"> <li>• Minimum supported: Cisco UCM Version 8.5.1, 8.6.1, 8.6.2</li> <li>• Recommended: Cisco UCM Version 9.1.2, 10.0.1 and later</li> <li>• Cisco Hosted Collaboration Solution (HCS)</li> <li>• Cisco Business Edition 6000 Version 9.1 or later</li> </ul>
<b>Upgrading process</b>	<ul style="list-style-type: none"> <li>• Software upgrade of the device through Cisco UCM</li> <li>• Support for online firmware upgrades using TFTP</li> <li>• HTTP firmware management</li> </ul>
<b>Temperature range</b>	
<b>Operating temperature</b>	<ul style="list-style-type: none"> <li>• 32 to 104°F (0 to 40°C)</li> </ul>
<b>Relative humidity</b>	<ul style="list-style-type: none"> <li>• 10 to 90% (non condensing)</li> </ul>
<b>Storage temperature</b>	<ul style="list-style-type: none"> <li>• -4 to 140°F (-20 to +60°C)</li> </ul>

Feature	Benefit
<b>Approvals and compliance</b>	
	<ul style="list-style-type: none"> <li>• Directive 2006/95/EC (Low-Voltage Directive) - Standard EN 60950-1</li> <li>• Directive 2004/108/EC (EMC Directive) - Standard EN 55022, Class B - Standard EN 55024 - Standard EN 61000-3-2/-3-3</li> <li>• Compliance with ETSI EN 301 489, ETSI EN 300 328, ETSI EN 301 893</li> <li>• Directive 2011/65/EU (RoHS), Directive 2009/125/EC (ErP), Directive 2002/96/EC (WEEE)</li> <li>• Approved according to UL 60950-1 and CNA/CSA C22.2 No. 60950-1-07</li> <li>• Compliance with FCC CFR 47 Part 15 Class B</li> <li>• Compliance with CFR 47 Part 15.247, CFR 47 Part 15.407, 47 CFR Part 2.1093 FCC Applicable KDB's</li> </ul>

**Table 3.** Video and Audio Specifications

Feature	Specifications
<b>Video standards</b>	H.264 and AVC (H.264/MPEG-4 Part 10 Advanced Video Coding)
<b>Minimum bandwidth for resolution and frame rate (30 fps)</b>	<ul style="list-style-type: none"> <li>• CIF 352 x 288 (4:3) 64-299 kbps</li> <li>• VGA 640 x 480 (4:3) 400-1500 kbps</li> <li>• 360p (640 x 360) 300-599 kbps</li> <li>• 480p (848 x 480) 600-799 kbps</li> <li>• 576p (1024 x 576) 800-1299 kbps</li> <li>• 600p (1024 x 600) 800-3000 kbps</li> <li>• 720p (1280 x 720) 1300-1999 kbps</li> <li>• 1080p (1920 x 1080) 2000-4000 kbps</li> </ul>
<b>Frame or picture format</b>	<ul style="list-style-type: none"> <li>• CIF (352 x 288 pixels)</li> <li>• VGA (640 x 480 pixels)</li> <li>• 240p (432 x 240 pixels)</li> <li>• 360p (640 x 360 pixels)</li> <li>• 480p (848 x 480 pixels)</li> <li>• WSVGA (1024 x 600 pixels)</li> <li>• HD 720p (1280 x 720 pixels)</li> <li>• HD1080p (1920 x 1080 pixels)</li> </ul>
<b>Video features</b>	<ul style="list-style-type: none"> <li>• On-screen layout control for video and presentation.</li> <li>• Selfview</li> </ul>
<b>Supported HDMI input resolutions</b>	<p>Supports formats up to maximum 1920 x 1080 @ 60 fps (HD1080p60), including:</p> <ul style="list-style-type: none"> <li>• 640 x 480 @ 60 fps</li> <li>• 1280 x 720 @ 60 fps</li> <li>• 1920 x 1080 @30 fps</li> <li>• 1920 x 1080 @60 fps</li> </ul> <p>High-definition inputs use progressive video formats</p>
<b>Audio standards</b>	<ul style="list-style-type: none"> <li>• Narrowband audio compression codecs: G.711a, G.711u, G.729a, G.729ab, and Internet Low Bitrate Codec (iLBC)</li> <li>• Wideband and full-band audio compression codecs: G.722, Internet Speech Audio Codec (iSAC), and AAC-LD (MP4A-LATM) audio compression codecs.</li> </ul>
<b>Audio features</b>	<ul style="list-style-type: none"> <li>• Loudspeaker frequency range: 70Hz - 20kHz</li> <li>• Microphones frequency range: 100z - 20kHz</li> <li>• Up to 48kHz sampling rate</li> <li>• Automatic static noise reduction</li> <li>• Configurable directive microphone</li> <li>• Acoustic echo cancellers</li> <li>• Automatic Gain Control (AGC)</li> <li>• Active lip synchronization</li> </ul>
<b>Dual stream</b>	<ul style="list-style-type: none"> <li>• Binary Floor Control Protocol (BFCP) (SIP) dual stream</li> <li>• Supports resolutions up to 1080p (1920 x 1080)</li> </ul>

**Table 4.** Software Features

Feature	Specifications
<b>Android core features</b>	<ul style="list-style-type: none"> <li>• Fully customizable Cisco Launcher and App Tray “Home Screen” enables you to place your own application shortcuts, widgets, and folders</li> <li>• Home screen supports up to five separate screen views or pages with a 12 x 9 icon grid</li> <li>• Landscape-orientated applications are supported</li> <li>• On-screen keyboard is supported</li> </ul>
<b>Android bundled applications and widgets</b>	<ul style="list-style-type: none"> <li>• Calculator</li> <li>• Calendar</li> <li>• Camera</li> <li>• Clock</li> <li>• Contacts</li> <li>• Direct Dial</li> <li>• Email               <ul style="list-style-type: none"> <li>◦ Internet Message Access Protocol (IMAP)</li> <li>◦ Post Office Protocol 3 (POP3)</li> <li>◦ Microsoft Exchange ActiveSync</li> </ul> </li> <li>• Favorites</li> <li>• Gallery</li> <li>• Phone features (for example, Forward All, Privacy, Do Not Disturb, Mobility, and Self-View)</li> <li>• Wallpapers (including Live Wallpapers)</li> <li>• Web browser</li> </ul>
<b>Google bundled applications</b>	<ul style="list-style-type: none"> <li>• Google Play (enabled by administrator through Cisco UCM; includes country-approved Google mobile services applications)</li> <li>• Gmail</li> <li>• Google settings</li> <li>• Maps</li> <li>• Play Books</li> <li>• Play Magazines</li> <li>• Play Movies</li> <li>• Play Music</li> <li>• Google Now</li> </ul>
<b>Cisco bundled applications</b>	<ul style="list-style-type: none"> <li>• Cisco AnyConnect<sup>®</sup> Secure Mobility Client (VPN)</li> <li>• Cisco Jabber IM (which offers chat and presence capabilities)</li> <li>• Cisco WebEx</li> <li>• Quick Contact Badge (allows you to easily collaborate with your contacts to place a call, send an email message, send an instant message (IM), or start a WebEx<sup>®</sup> meeting)</li> <li>• Visual Voicemail</li> </ul>
<b>Intelligent Proximity for Mobile Voice</b>	<ul style="list-style-type: none"> <li>• Contact synchronization with Bluetooth-paired, Android or iOS mobile device that supports PBAP</li> <li>• Call history synchronization to view placed or missed calls from mobile device on the DX80</li> <li>• Audio path routing sends audio through the DX80 for a mobile device-connected call</li> </ul>
<b>Configuration modes</b>	<ul style="list-style-type: none"> <li>• Enhanced, fully-functional mode that enables all aspects of the phone including applications and accounts</li> <li>• Simple mode that hides applications, accounts and provides only voice and video call capabilities</li> <li>• Public mode based on Simple mode with restrictions on user settings modifications.</li> </ul>
<b>Application deployment options and management</b>	<ul style="list-style-type: none"> <li>• The administrator can disable any and all applications from being downloaded on the Cisco DX650/70/80. Specifically, the administrator can configure the DX650/70/80 to prohibit the installation of any third-party Android applications.</li> <li>• Google Play access can be administratively disabled (default). Applications from “unknown sources” can be administratively disabled (default):               <ul style="list-style-type: none"> <li>◦ The administrator can optionally install applications using Cisco Unified Communications Manager with the APK file.</li> <li>◦ Company Photo Directory (ability to set up and link photo directory URL image location associated with respective user)</li> <li>◦ Company Photo Directory (ability to set up and link photo directory URL image location associated with respective user).</li> </ul> </li> </ul>

Feature	Specifications
<b>Built-in training and setup assistance</b>	<ul style="list-style-type: none"> <li>• Setup Assistant wizard (helps configure email, Jabber IM, WebEx, and Voice Mail account settings)</li> </ul>
<b>Third party application development</b>	<p>Cisco Collaboration application programming interfaces (APIs) through a Software Developer Kit (SDK) <a href="https://developer.cisco.com/site/collaboration/endpoints/dx600/overview/">https://developer.cisco.com/site/collaboration/endpoints/dx600/overview/</a></p>
<b>Language support</b>	<ul style="list-style-type: none"> <li>• Arabic, Egypt (ar_EG)</li> <li>• Bulgarian, Bulgaria (bg_BG)</li> <li>• Catalan, Spain (ca_ES)</li> <li>• Chinese, PRC (zh_CN)</li> <li>• Chinese, Taiwan (zh_TW)</li> <li>• Croatian, Croatia (hr_HR)</li> <li>• Czech, Czech Republic (cs_CZ)</li> <li>• Danish, Denmark (da_DK)</li> <li>• Dutch, Netherlands (nl_NL)</li> <li>• English, Britain (en_GB)</li> <li>• English, United States (en_US)</li> <li>• Finnish, Finland (fi_FI)</li> <li>• French, France (fr_FR)</li> <li>• German, Germany (de_DE)</li> <li>• Greek, Greece (el_GR)</li> <li>• Hebrew, Israel (he_IL)</li> <li>• Hungarian, Hungary (hu_HU)</li> <li>• Italian, Italy (it_IT)</li> <li>• Japanese (ja_JP)</li> <li>• Korean (ko_KR)</li> <li>• Latvian, Latvia (lv_LV)</li> <li>• Lithuanian, Lithuania (lt_LT)</li> <li>• Norwegian bokmål, Norway (nb_NO)</li> <li>• Polish (pl_PL)</li> <li>• Portuguese, Brazil (pt_BR)</li> <li>• Portuguese, Portugal (pt_PT)</li> <li>• Romanian, Romania (ro_RO)</li> <li>• Russian (ru_RU)</li> <li>• Serbian, Republic of Serbia (sr_RS)</li> <li>• Slovak, Slovakia (sk_SK)</li> <li>• Slovenian, Slovenia (sl_SI)</li> <li>• Spanish, Spain (es_ES)</li> <li>• Swedish, Sweden (sv_SE)</li> <li>• Thai, Thailand (th_TH)</li> <li>• Turkish, Turkey (tr_TR)</li> </ul>
<b>Calling feature support</b>	<ul style="list-style-type: none"> <li>• + Dialing (ITU E.164)</li> <li>• Abbreviated dialing</li> <li>• Adjustable ringing and volume levels</li> <li>• Adjustable display brightness</li> <li>• Auto-answer</li> <li>• Auto-detection of headset</li> <li>• Barge (cBarge)</li> <li>• Callback</li> <li>• Call Chaperone</li> <li>• Call forward</li> <li>• Call forward notification</li> <li>• Call history lists</li> <li>• Call park (including Directed Call Park and Assisted Directed Call Park)</li> <li>• Call pickup</li> <li>• Call timer</li> <li>• Call waiting</li> </ul>

Feature	Specifications
	<ul style="list-style-type: none"> <li>• Caller ID</li> <li>• Corporate directory</li> <li>• Conference (ad hoc)</li> <li>• Direct transfer</li> <li>• Divert (iDivert)</li> <li>• Do Not Disturb (DND)</li> <li>• Extension Mobility service</li> <li>• Fast-dial service</li> <li>• Forced access codes and client matter codes</li> <li>• Group call pickup</li> <li>• Hold (and Resume)</li> <li>• Intercom</li> <li>• International call logging</li> <li>• Join (ad hoc)</li> <li>• Last-number redial (LNR)</li> <li>• Malicious-caller ID</li> <li>• Message-waiting indicator (MWI)</li> <li>• Meet-me conference</li> <li>• Mobility (Mobile Connect and Mobile Voice Access)</li> <li>• Music on hold (MoH)</li> <li>• Mute (audio and video)</li> <li>• Network profiles (automatic)</li> <li>• On- and off-network distinctive ringing</li> <li>• Personal directory</li> <li>• Pickup</li> <li>• Predialing before sending</li> <li>• Privacy</li> <li>• Private Line Automated Ringdown (PLAR)</li> <li>• Ring tone per line appearance</li> <li>• Self-View (video call)</li> <li>• Service URL</li> <li>• Shared line(s)</li> <li>• Silent Monitoring and Recording</li> <li>• Time and date display</li> <li>• Transfer (ad hoc)</li> <li>• Visual Voicemail</li> <li>• Voicemail</li> </ul>
<b>Emergency services</b>	Emergency Calling Service dialing
<b>Accessibility features</b>	<p>Additional accessibility features for the vision impaired, blind, and the hearing and mobility impaired include user-defined and customizable:</p> <ul style="list-style-type: none"> <li>• Display font size and screen brightness settings</li> <li>• Touchscreen customizable touch and hold delay</li> <li>• Talkback audio prompts and spoken password</li> <li>• Support for Explore by Touch features</li> </ul>
<b>Security features</b>	
<b>Hardware (Sat)</b>	<ul style="list-style-type: none"> <li>• Secure boot</li> <li>• Secure credential storage</li> <li>• Device authentication</li> <li>• File authentication and encryption</li> <li>• Image authentication and encryption</li> <li>• Signaling authentication</li> <li>• Random bit generation</li> <li>• Hardware cryptographic acceleration</li> <li>• Encrypted configuration files</li> <li>• Encrypted file system</li> </ul>



Feature	Specifications
<b>Certificate management</b>	<ul style="list-style-type: none"> <li>• Certificate Authority Proxy Function (CAPF) support for additional security</li> <li>• Manufacturer-Installed Certificates (MIC)</li> <li>• Locally Significant Certificates (LSC)</li> <li>• X.509 Digital Certificates (DER encoded binary); both DER and Base-64 formats are acceptable for the client and server certificates; certificates with a key size of 1024, 2048, and 4096 are supported</li> </ul>
<b>Network</b>	<ul style="list-style-type: none"> <li>• Wired: 802.1x supplicant options for network authentication use: <ul style="list-style-type: none"> <li>◦ Extensible Authentication Protocol: Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling</li> <li>◦ (EAP-FAST)</li> <li>◦ Extensible Authentication Protocol: EAP Transport Layer Security (EAP-TLS)</li> </ul> </li> <li>• Wireless: <ul style="list-style-type: none"> <li>◦ (refer to Table 5)</li> </ul> </li> <li>• Wireless: Wi-Fi Protected Access 2 (WPA2) (EAP-FAST)</li> <li>• Wireless Equivalent Privacy (WEP)</li> <li>• EAP-TLS</li> <li>• Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC)</li> </ul>
<b>Media and data signaling</b>	<ul style="list-style-type: none"> <li>• TLS</li> <li>• SRTP</li> <li>• HTTPS for clients</li> </ul>
<b>Enterprise access</b>	<ul style="list-style-type: none"> <li>• Cisco AnyConnect Secure Mobility Client</li> <li>• Web Proxy (manual configuration or auto-configuration of Protected</li> <li>• Access Credential [PAC] files)</li> <li>• NTLM and Kerberos authentication</li> </ul>
<b>Device management</b>	<ul style="list-style-type: none"> <li>• Remote wipe</li> <li>• ActiveSync remote wipe (email, contacts, calendar, etc.)</li> <li>• Self-service wipe</li> <li>• Wipe after unsuccessful login attempts</li> <li>• Factory reset</li> </ul>
<b>Policy management</b>	<ul style="list-style-type: none"> <li>• Password complexity</li> <li>• Disable USB</li> <li>• Disable Speakerphone</li> <li>• Disable Headset</li> <li>• Secure Digital I/O (SDIO) enable/disable</li> <li>• Bluetooth</li> <li>• Wi-Fi</li> <li>• Access to Android market</li> <li>• Screen Lock and Automatic Lock (PIN or password) device</li> <li>• Android Debug Bridge (ADB)</li> </ul>
<b>Diagnostics</b>	<ul style="list-style-type: none"> <li>• The integrated Cisco Collaboration Problem Report Tool can send information directly to your system administrator when you experience problems with your phone or application (requires a configured email account)</li> </ul>

**Table 5.** Wi-Fi Features and Specifications

Feature	Specifications
<b>Protocol</b>	IEEE 802.11a, 802.11b, 802.11g, and 802.11n
<b>Frequency band and operating channels</b>	<ul style="list-style-type: none"> <li>• 2.412 - 2.472 GHz (channels 1 - 13)</li> <li>• 5.180 - 5.240 GHz (channels 36 - 48)</li> <li>• 5.260 - 5.320 GHz (channels 52 - 64)</li> <li>• 5.500 - 5.700 GHz (channels 100 - 140)</li> <li>• 5.745 - 5.825 GHz (channels 149 - 165)</li> </ul> <p>IEEE 802.11d is used to identify available channels</p>

Feature	Specifications			
<b>Non overlapping channels</b>	<ul style="list-style-type: none"> <li>• 2.4 GHz (20 MHz channels): up to 3 channels</li> <li>• 5 GHz (20 MHz channels): up to 24 channels</li> <li>• 5 GHz (40 MHz channels): up to 9 channels</li> </ul>			
<b>Operating modes</b>	<ul style="list-style-type: none"> <li>• Auto (default), preference to strongest RSSI for 2.4 GHz or 5 GHz</li> <li>• 2.4 GHz only</li> <li>• 5 GHz only</li> </ul>			
<b>Data rates</b>	<ul style="list-style-type: none"> <li>• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>• 802.11b: 1, 2, 5.5, 11 Mbps</li> <li>• 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>• 802.11n: HT MCS 0, MCS 1, MCS 2, MCS 3, MCS 4, MCS 5, MCS 6, MCS 7</li> </ul>			
<b>2.4GHz receiver sensitivity</b>	<table border="0"> <tr> <td style="vertical-align: top;">           IEEE 802.11b:           <ul style="list-style-type: none"> <li>• 1 Mbps: -95 dBm</li> <li>• 2 Mbps: -93 dBm</li> <li>• 5.5 Mbps: -90 dBm</li> <li>• 11 Mbps: -86 dBm</li> </ul> </td> <td style="vertical-align: top;">           IEEE 802.11g:           <ul style="list-style-type: none"> <li>• 6 Mbps: -89 dBm</li> <li>• 9 Mbps: -89 dBm</li> <li>• 12 Mbps: -87 dBm</li> <li>• 18 Mbps: -85 dBm</li> <li>• 24 Mbps: -81 dBm</li> <li>• 36 Mbps: -78 dBm</li> <li>• 48 Mbps: -74 dBm</li> <li>• 54 Mbps: -72 dBm</li> </ul> </td> <td style="vertical-align: top;">           IEEE 802.11n HT20:           <ul style="list-style-type: none"> <li>• MCS 0: -88 dBm</li> <li>• MCS 1: -86 dBm</li> <li>• MCS 2: -84 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -73 dBm</li> <li>• MCS 6: -71 dBm</li> <li>• MCS 7: -69 dBm</li> </ul> </td> </tr> </table>	IEEE 802.11b: <ul style="list-style-type: none"> <li>• 1 Mbps: -95 dBm</li> <li>• 2 Mbps: -93 dBm</li> <li>• 5.5 Mbps: -90 dBm</li> <li>• 11 Mbps: -86 dBm</li> </ul>	IEEE 802.11g: <ul style="list-style-type: none"> <li>• 6 Mbps: -89 dBm</li> <li>• 9 Mbps: -89 dBm</li> <li>• 12 Mbps: -87 dBm</li> <li>• 18 Mbps: -85 dBm</li> <li>• 24 Mbps: -81 dBm</li> <li>• 36 Mbps: -78 dBm</li> <li>• 48 Mbps: -74 dBm</li> <li>• 54 Mbps: -72 dBm</li> </ul>	IEEE 802.11n HT20: <ul style="list-style-type: none"> <li>• MCS 0: -88 dBm</li> <li>• MCS 1: -86 dBm</li> <li>• MCS 2: -84 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -73 dBm</li> <li>• MCS 6: -71 dBm</li> <li>• MCS 7: -69 dBm</li> </ul>
IEEE 802.11b: <ul style="list-style-type: none"> <li>• 1 Mbps: -95 dBm</li> <li>• 2 Mbps: -93 dBm</li> <li>• 5.5 Mbps: -90 dBm</li> <li>• 11 Mbps: -86 dBm</li> </ul>	IEEE 802.11g: <ul style="list-style-type: none"> <li>• 6 Mbps: -89 dBm</li> <li>• 9 Mbps: -89 dBm</li> <li>• 12 Mbps: -87 dBm</li> <li>• 18 Mbps: -85 dBm</li> <li>• 24 Mbps: -81 dBm</li> <li>• 36 Mbps: -78 dBm</li> <li>• 48 Mbps: -74 dBm</li> <li>• 54 Mbps: -72 dBm</li> </ul>	IEEE 802.11n HT20: <ul style="list-style-type: none"> <li>• MCS 0: -88 dBm</li> <li>• MCS 1: -86 dBm</li> <li>• MCS 2: -84 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -73 dBm</li> <li>• MCS 6: -71 dBm</li> <li>• MCS 7: -69 dBm</li> </ul>		
<b>5GHz receiver sensitivity</b>	<table border="0"> <tr> <td style="vertical-align: top;">           IEEE 802.11a:           <ul style="list-style-type: none"> <li>• 6 Mbps: -91 dBm</li> <li>• 9 Mbps: -91 dBm</li> <li>• 12 Mbps: -90 dBm</li> <li>• 18 Mbps: -88 dBm</li> <li>• 24 Mbps: -85 dBm</li> <li>• 36 Mbps: -81 dBm</li> <li>• 48 Mbps: -77 dBm</li> <li>• 54 Mbps: -76 dBm</li> </ul> </td> <td style="vertical-align: top;">           IEEE 802.11n HT20:           <ul style="list-style-type: none"> <li>• MCS 0: -91 dBm</li> <li>• MCS 1: -89 dBm</li> <li>• MCS 2: -86 dBm</li> <li>• MCS 3: -84 dBm</li> <li>• MCS 4: -81 dBm</li> <li>• MCS 5: -76 dBm</li> <li>• MCS 6: -74 dBm</li> <li>• MCS 7: -72 dBm</li> </ul> </td> <td style="vertical-align: top;">           IEEE 802.11n HT40:           <ul style="list-style-type: none"> <li>• MCS 0: -90 dBm</li> <li>• MCS 1: -87 dBm</li> <li>• MCS 2: -85 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -74 dBm</li> <li>• MCS 6: -72 dBm</li> <li>• MCS 7: -70 dBm</li> </ul> </td> </tr> </table>	IEEE 802.11a: <ul style="list-style-type: none"> <li>• 6 Mbps: -91 dBm</li> <li>• 9 Mbps: -91 dBm</li> <li>• 12 Mbps: -90 dBm</li> <li>• 18 Mbps: -88 dBm</li> <li>• 24 Mbps: -85 dBm</li> <li>• 36 Mbps: -81 dBm</li> <li>• 48 Mbps: -77 dBm</li> <li>• 54 Mbps: -76 dBm</li> </ul>	IEEE 802.11n HT20: <ul style="list-style-type: none"> <li>• MCS 0: -91 dBm</li> <li>• MCS 1: -89 dBm</li> <li>• MCS 2: -86 dBm</li> <li>• MCS 3: -84 dBm</li> <li>• MCS 4: -81 dBm</li> <li>• MCS 5: -76 dBm</li> <li>• MCS 6: -74 dBm</li> <li>• MCS 7: -72 dBm</li> </ul>	IEEE 802.11n HT40: <ul style="list-style-type: none"> <li>• MCS 0: -90 dBm</li> <li>• MCS 1: -87 dBm</li> <li>• MCS 2: -85 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -74 dBm</li> <li>• MCS 6: -72 dBm</li> <li>• MCS 7: -70 dBm</li> </ul>
IEEE 802.11a: <ul style="list-style-type: none"> <li>• 6 Mbps: -91 dBm</li> <li>• 9 Mbps: -91 dBm</li> <li>• 12 Mbps: -90 dBm</li> <li>• 18 Mbps: -88 dBm</li> <li>• 24 Mbps: -85 dBm</li> <li>• 36 Mbps: -81 dBm</li> <li>• 48 Mbps: -77 dBm</li> <li>• 54 Mbps: -76 dBm</li> </ul>	IEEE 802.11n HT20: <ul style="list-style-type: none"> <li>• MCS 0: -91 dBm</li> <li>• MCS 1: -89 dBm</li> <li>• MCS 2: -86 dBm</li> <li>• MCS 3: -84 dBm</li> <li>• MCS 4: -81 dBm</li> <li>• MCS 5: -76 dBm</li> <li>• MCS 6: -74 dBm</li> <li>• MCS 7: -72 dBm</li> </ul>	IEEE 802.11n HT40: <ul style="list-style-type: none"> <li>• MCS 0: -90 dBm</li> <li>• MCS 1: -87 dBm</li> <li>• MCS 2: -85 dBm</li> <li>• MCS 3: -81 dBm</li> <li>• MCS 4: -78 dBm</li> <li>• MCS 5: -74 dBm</li> <li>• MCS 6: -72 dBm</li> <li>• MCS 7: -70 dBm</li> </ul>		
<b>Transmitter output power</b>	<table border="0"> <tr> <td style="vertical-align: top;">           2.4 GHz:           <ul style="list-style-type: none"> <li>• 802.11b: up to 16 dBm</li> <li>• 802.11g: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> </ul> </td> <td style="vertical-align: top;">           5 GHz:           <ul style="list-style-type: none"> <li>• 802.11a: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> <li>• 802.11n HT40: up to 15 dBm</li> </ul> </td> </tr> </table>	2.4 GHz: <ul style="list-style-type: none"> <li>• 802.11b: up to 16 dBm</li> <li>• 802.11g: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> </ul>	5 GHz: <ul style="list-style-type: none"> <li>• 802.11a: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> <li>• 802.11n HT40: up to 15 dBm</li> </ul>	
2.4 GHz: <ul style="list-style-type: none"> <li>• 802.11b: up to 16 dBm</li> <li>• 802.11g: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> </ul>	5 GHz: <ul style="list-style-type: none"> <li>• 802.11a: up to 16 dBm</li> <li>• 802.11n HT20: up to 15 dBm</li> <li>• 802.11n HT40: up to 15 dBm</li> </ul>			
<b>Antenna</b>	<ul style="list-style-type: none"> <li>• 2.4 GHz: 4.6 dBi peak gain</li> <li>• 5 GHz: 7.0 dBi peak gain</li> </ul>			
<b>Access point support</b>	<ul style="list-style-type: none"> <li>• Cisco Unified Access Points           <ul style="list-style-type: none"> <li>◦ Minimum: 7.0.240.0</li> <li>◦ Recommended: 7.4.121.0, 7.6.110.0 or later</li> </ul> </li> <li>• Cisco Autonomous Access Points           <ul style="list-style-type: none"> <li>◦ Minimum: 12.4(21a)JY</li> <li>◦ Recommended: 12.4(25d)JA2 or later</li> </ul> </li> </ul>			
<b>Wireless security</b>	<table border="0"> <tr> <td style="vertical-align: top;">           Authentication:           <ul style="list-style-type: none"> <li>• Wi-Fi Protected Access (WPA) Versions 1 and 2 Personal and Enterprise</li> <li>• Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling (EAP-FAST)</li> <li>• Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol Version 2 (PEAP-MSCHAPv2)</li> <li>• Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC)</li> <li>• Extensible Authentication Protocol - Transport Layer Security (EAP-TLS)</li> </ul> </td> <td style="vertical-align: top;">           Encryption:           <ul style="list-style-type: none"> <li>• 40-bit and 128-bit static Wired Equivalent Privacy (WEP)</li> <li>• Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC)</li> <li>• Advanced Encryption Standard (AES)</li> </ul> </td> </tr> </table>	Authentication: <ul style="list-style-type: none"> <li>• Wi-Fi Protected Access (WPA) Versions 1 and 2 Personal and Enterprise</li> <li>• Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling (EAP-FAST)</li> <li>• Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol Version 2 (PEAP-MSCHAPv2)</li> <li>• Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC)</li> <li>• Extensible Authentication Protocol - Transport Layer Security (EAP-TLS)</li> </ul>	Encryption: <ul style="list-style-type: none"> <li>• 40-bit and 128-bit static Wired Equivalent Privacy (WEP)</li> <li>• Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC)</li> <li>• Advanced Encryption Standard (AES)</li> </ul>	
Authentication: <ul style="list-style-type: none"> <li>• Wi-Fi Protected Access (WPA) Versions 1 and 2 Personal and Enterprise</li> <li>• Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling (EAP-FAST)</li> <li>• Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol Version 2 (PEAP-MSCHAPv2)</li> <li>• Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC)</li> <li>• Extensible Authentication Protocol - Transport Layer Security (EAP-TLS)</li> </ul>	Encryption: <ul style="list-style-type: none"> <li>• 40-bit and 128-bit static Wired Equivalent Privacy (WEP)</li> <li>• Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC)</li> <li>• Advanced Encryption Standard (AES)</li> </ul>			
<b>Fast secure roaming</b>	Cisco Centralized Key Management (CCKM)			

Feature	Specifications
<b>QoS</b>	<ul style="list-style-type: none"> <li>• IEEE 802.11e and Wi-Fi Multimedia (WMM)</li> <li>• Enhanced Distributed Channel Access (EDCA)</li> <li>• QoS Basic Service Set (QBSS)</li> </ul>
<b>Radar detection</b>	Dynamic frequency selection (DFS) and transmit power control (TPC) according to IEEE 802.11h

## Licensing

Phone licensing depends on the call-control platform and its policies. For the Cisco Unified Communications Manager, the Cisco DX80 requires a minimum-level Enhanced IP User Connect License (UCL). There are no special licenses plus phone bundles for tier 2 distributors. The DX80 is not supported on third-party call-control systems.

## Warranty Information

The DX Series endpoints are covered by Cisco's 1-Year Limited Hardware Warranty. Find warranty information on Cisco.com at the [Product Warranties](#) page.

## Ordering Information

Help customers understand all the components or parts they need to purchase in order to install and use the product. This section also provides a direct link to the Cisco Ordering Tool and lists part numbers for customer convenience.

To place an order, visit the [Cisco Ordering Home Page](#). To download software, visit the [Cisco Software Center](#).

**Table 6.** Ordering Information

Product Name	Part Number
<b>Cisco DX80</b>	CP-DX80-K9=

**Table 7.** Spare Parts

Product Name	Part Number
<b>Spare HDMI/USB grey cable for Cisco DX80</b>	CAB-COMBO-2M=
<b>Spare Ethernet grey cable for Cisco DX80</b>	CAB-GREY-2.9M=

**Table 8.** Local Power Options: Cube and Regional Cords

Product Name	Part Number
<b>Power transformer for the DX70 and DX80 series</b>	CP-PWR-CUBE-5=

**Table 9.** Accessories

Product Name	Part Number
<b>Cisco VESA adapter and wall mounting option</b>	CP-DX80-VESA=

## Cisco Services

Cisco Services make networks, applications, and the people who use them work better together.

Today, the network is a strategic platform in a world that demands better integration between people, information, and ideas. The network works better when services, together with products, create solutions aligned with business needs and opportunities.

---

The unique Cisco Lifecycle approach to services defines the requisite activities at each phase of the network lifecycle to help ensure service excellence. With a collaborative delivery methodology that joins the forces of Cisco, our skilled network of partners, and our customers, we achieve the best results.

### For More Information

For more information about the Cisco DX80, visit <http://www.cisco.com/go/dx> or contact your local account representative.




---

Americas Headquarters  
Cisco Systems, Inc.  
San Jose, CA

Asia Pacific Headquarters  
Cisco Systems (USA) Pte. Ltd.  
Singapore

Europe Headquarters  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

 Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)