

Cisco DX70



Product Overview

The Cisco DX70 offers uncompromised collaboration for every desk. Experience best in class HD video and expanded collaboration capabilities such as UC features, Android applications and email all within a single integrated device. Now is the time for simple to use Collaboration experience at a price so affordable you can empower every office and home office desktop.

- 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 and media playback
- 14-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

Features and Benefits

Table 1. Features and Benefits

Feature	Benefit
Design features	<ul style="list-style-type: none"> • Install in minutes: The DX70 is an integrated device with all on-screen controls. Just plug in the power cable and Ethernet cable (or use Wi-Fi). With self-provisioning your device will register itself. Authenticate to complete the setup. • High-Definition Video: With a 1920x1080 14-inch screen, an 8MP camera, and best of class video compression, the DX70 provides engaging experiences. • High-performance audio and acoustics system, Excellent for multi-media playback. • Touchscreen interface: The multi-touch capacitive touchscreen overlay provides an elegant and efficient user interface. • 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. • Document camera: The camera housing on top of the DX70 can be tilted down to allow sharing of physical content and drawings. • Inclinable screen: As it is also a tablet capable of running applications, the DX70 accommodates users who want to sit and use the device comfortably at their desk. The screen angle is easily adjusted by the user and provides a useable range of between 20-degrees and 85-degrees above the desktop.
Application features	<ul style="list-style-type: none"> • Share multimedia and presentation at the touch of a button: While on a call the DX70 allows the user to see their laptop or desktop PC/Mac screen and share it instantly to other participants on the call. • Easy swap between computer and DX interface: Swap between the monitor mode and the DX70 interface by a simple press of the "Source" button. • Intelligent Proximity: Allows calls to/from the user's mobile device to be made using the DX70's audio hardware and call control, as well as sync of Contacts and Call History from the mobile device to the DX70. • WebEx and Jabber integrated: The DX70 comes with Cisco Collaboration applications pre-installed for Instant Messaging, Presence and Web Conferencing. • Compatible with Google Android applications: The DX70 can run any Android application on its large touch screen.
Performance features	<ul style="list-style-type: none"> • The system offers simultaneous HD video and content sharing. • RGB input is compatible with all modern PC and Mac computers. • Audio is communicated through full-duplex, wide-band audio. • Provisioning and self-configuration are easy with Cisco UCM. • The system is natively supported by Cisco UCM version 8.6 or later.

Product Specifications

Table 2. Product Specifications

Feature	Benefit
Components	<p>Fully integrated unit including:</p> <ul style="list-style-type: none"> • Codec • Camera • Display • Microphones and speaker <p>Included: Screen cleaning cloth, 2.9m Ethernet cable, and Power Supply unit</p>
Display	<ul style="list-style-type: none"> • 14-inch LCD monitor • Resolution: 1920 x 1080 (16:9) • AHVA display technology • Contrast ratio: 700:1 (typ.) • Viewing cone: 89/89/89/89 • Response time: 25ms • Brightness: 300 cd/m2 (5 points avg.) • 10-point multi-touch surface with capacitive sensing
Supported PC input resolutions	Up to 1080p

Feature	Benefit
Ergonomic design	<ul style="list-style-type: none"> The foot stand is fully retractable for easy transportation The unit can be easily tilted from an angle of 5° to 70° from the vertical Camera can be tilted from an angle of -5° to 70° from the display The main I/O panel includes a flip cover to obscure connections
Audio	<ul style="list-style-type: none"> Audio system playback: frequency range: 100Hz - 15kHz, +/-3dB* Audio system playback: Max level: 90dB at 1w/1m* Optimally tuned and located analog omni-directional microphone <p>*Specification based on direct measurement of the acoustic sub-system</p>
Front camera	<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>
Operating system	Android OS 4.1.1 (Jellybean)
Processor	TI OMAP 4470 1.5GHz dual-core ARM Cortex-A9 processor
Storage	8-GB eMMC NAND Flash memory (embedded multimedia card; nonvolatile)
Memory	2-GB RAM; Low Power Double Data Rate Synchronous Dynamic Random-Access Memory (LPDDR2 SDRAM)
Ports and slots	<ul style="list-style-type: none"> High-Definition Multimedia Interface (HDMI) type A port for PC or Mac video input High-Definition Multimedia Interface (HDMI) type A port output (supports Mirror Mode output) High-speed USB 2.0 ports: <ul style="list-style-type: none"> Three standard type A ports (for keyboard, mouse, headset, external camera, thumb drive and memory stick connectivity) Side-mounted USB port provides high-current (2A) charging. The two rear-mounted ports each provide 500mA charging One Micro-B USB port (serial port for diagnostic/service use) 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) One 3.5mm analog headphone/headset jack
Physical buttons	<ul style="list-style-type: none"> Cap sense "source" button to swap between HDMI input and the DX70 interface. Button is lit when HDMI input is connected. Cap-sense Audio Volume up/down Cap-sense Audio Mute Power/Reset/Sleep button
Visual indicator	<ul style="list-style-type: none"> Camera LED indicator (incoming calls, camera activation) Microphone LED indicator (mute) Power button LED indicator (power on, sleeping, message waiting, error) "Source" button (lights when HDMI IN source present)
Physical dimensions (HxWxD)	14.84" x 13.91" x 2.45" (377.1mm x 353.1mm x 62.3mm)
Weight	7.5 lbs. (3.4 kg)
Power	Rated: 3.5A at 12V maximum Low Power Standby mode Integrated EnergyWise support
Physical security	Kensington Security Lock Slot
Connectivity	
Ethernet	<ul style="list-style-type: none"> Internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network (IEEE802.3u/802.3u/802.3ab) through an RJ-45 interface with single LAN connectivity for both the phone and a co-located PC/Mac. 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.
Desktop Wi-Fi Ethernet	<ul style="list-style-type: none"> As an alternative to wired Ethernet, the DX70 supports connection to the network via 802.11a/b/g/n Wi-Fi

Feature	Benefit
Network features	<ul style="list-style-type: none"> • Cisco Discovery Protocol • Cisco Peer-to-Peer Distribution Protocol (PPDP) • Session Initiation Protocol (SIP) for signaling • Session Description Protocol (SDP) • User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol [RTP] streams) • Dynamic Host Configuration Protocol (DHCP) client or static configuration • Transparent secure roaming • Gratuitous Address Resolution Protocol (GARP) • Switch auto-negotiation • Domain Name System (DNS) • Web proxy (configured manually or by auto-configuration Protected Access Credential [PAC] files) • NT LAN Manager (NTLM) and Kerberos authentication • Trivial File Transfer Protocol (TFTP) • Secure Hypertext Transfer Protocol (HTTPS) • Wi-Fi management • IPv4 configuration • IPv6 configuration • Virtual Local Area Network (VLAN) • Real-Time Control Protocol (RTCP) (provides quality of service [QoS] data [such as jitter, latency, and round-trip delay] on RTP streams in order to provide a better video experience) • Secure Real-Time Transport Protocol (SRTP) • Software port speed (manual or auto-configuration, including disablement) • PC port speed (manual or auto-configuration, including disablement)
Bluetooth	<p>Bluetooth 3.0 Enhanced Data Rate (EDR) Class 2 technology (up to 30-ft [10m] range)</p> <ul style="list-style-type: none"> • Human Interface Device (HID) keyboard and mouse support for adding additional input accessories • Hands-Free Profile (HFP) for untethered headset connections and voice communications • Phone Book Access Profile (PBAP), which enables the exchange of phone book objects between devices • Advanced Audio Distribution Profile (A2DP) for streaming audio • Object Push Profile (OPP) for generic file exchange
Accessories	
Cisco VESA mounting adapter	This optional mounting adapter replaces the DX70's foot stand and provides mounting points in the two VESA standards (75x75mm and 100x100mm)
Firmware	
Version	Synergy 10.2.1 (at the time of this datasheet)
Call platform support; provisioning and management	<ul style="list-style-type: none"> • Cisco UCM Version 8.6.2, 9.0(1), 9.1(2), 10.0(1) and later • Cisco Hosted Collaboration Solution (HCS) Version 8.6.2 or later • Cisco Business Edition 6000 Version 9.1 or later
Upgrading process	<ul style="list-style-type: none"> • Software upgrade of the device through Cisco UCM • Support for online firmware upgrades using TFTP • HTTP firmware management
Temperature range	
Operating temperature	<ul style="list-style-type: none"> • 32 to 104°F (0 to 40°C)
Relative humidity	<ul style="list-style-type: none"> • 10 to 90% (non condensing)
Storage temperature	<ul style="list-style-type: none"> • -4 to 140°F (-20 to +60°C)
Approvals and compliance	
	<ul style="list-style-type: none"> • Directive 2006/95/EC (Low-Voltage Directive) - Standard EN 60950-1 • Directive 2004/108/EC (EMC Directive) - Standard EN 55022, Class B - Standard EN 55024 - Standard EN 61000-3-2/-3-3 • Compliance with ETSI EN 301 489, ETSI EN 300 328, ETSI EN 301 893 • Directive 2011/65/EU (RoHS), Directive 2009/125/EC (ErP), Directive 2002/96/EC (WEEE) • Approved according to UL 60950-1 and CNA/CSA C22.2 No. 60950-1-07 • Compliance with FCC CFR 47 Part 15 Class B • Compliance with CFR 47 Part 15.247, CFR 47 Part 15.407, 47 CFR Part 2.1093 FCC Applicable KDB's

Table 3. Video and Audio Specifications

Feature	Specifications
Video standards	H.264 and AVC (H.264/MPEG-4 Part 10 Advanced Video Coding)
Minimum bandwidth for resolution and frame rate	<p>Main video at 30 frames per second</p> <ul style="list-style-type: none"> • CIF (352 x 288 pixels) - 17kbps • VGA (640 x 480 pixels) - 400kbps • 240p (432 x 240 pixels) - 17 kbps • 360p (640 x 360 pixels) - 300kbps • 480p (848 x 480 pixels) - 600kbps • WSVGA (1024 x 600 pixels) - 800kbps • HD 720p (1280 x 720 pixels) - 1300kbps • HD1080p (1920 x 1080 pixels) - 2000kbps <p>Content channel at 5 frames per second</p> <ul style="list-style-type: none"> • CIF (352 x 288 pixels) - 17kbps • VGA (640 x 480 pixels) - 200kbps • 240p (432 x 240 pixels) - 17 kbps • 360p (640 x 360 pixels) - 150kbps • 480p (848 x 480 pixels) - 200kbps • WSVGA (1024 x 600 pixels) - 300kbps • HD 720p (1280 x 720 pixels) - 500kbps • HD1080p (1920 x 1080 pixels) - 700kbps
Frame or picture format	<ul style="list-style-type: none"> • CIF (352 x 288 pixels) • VGA (640 x 480 pixels) • 240p (432 x 240 pixels) • 360p (640 x 360 pixels) • 480p (848 x 480 pixels) • WSVGA (1024 x 600 pixels) • HD 720p (1280 x 720 pixels) • HD1080p (1920 x 1080 pixels)
Video features	<ul style="list-style-type: none"> • On-screen layout control for video and presentation • Self-View
Supported HDMI input resolutions	<p>Supports formats up to maximum 1920 x 1080 @ 60 fps (HD1080p60), including:</p> <ul style="list-style-type: none"> • 640 x 480 @ 60 fps • 1280 x 720 @ 60 fps • 1920 x 1080 @30 fps • 1920 x 1080 @60 fps (available in Synergy release post 10.2.1) <p>High-definition inputs use progressive video formats</p>
Audio standards	<ul style="list-style-type: none"> • Narrowband audio compression codecs: G.711a, G.711u, G.729a, G.729ab, and Internet Low Bitrate Codec (iLBC) • Wideband audio compression codecs: G.722, Internet Speech Audio Codec (iSAC), iLBC, and AAC-LD audio compression codecs.
In-Call Audio features	<ul style="list-style-type: none"> • Up to 16kHz sampling rate • 100 Hz - 15 kHz loudspeaker frequency response • Automatic static noise reduction • Acoustic echo cancellers • Automatic Gain Control (AGC) • Active lip synchronization
Dual stream	<ul style="list-style-type: none"> • Binary Floor Control Protocol (BFCP) (SIP) dual stream • Supports resolutions up to 1080p (1920 x 1080)

Table 4. Software Features

Feature	Specifications
Android core features	<ul style="list-style-type: none"> Fully customizable Cisco Launcher and App Tray "Home Screen" enables you to place your own application shortcuts, widgets, and folders Home screen supports up to five separate screen views or pages, each with a 6 x 5 icon grid Landscape-orientated applications are supported On-screen keyboard is supported
Android bundled applications and widgets	<ul style="list-style-type: none"> Calculator Calendar Camera Clock Contacts Direct Dial Email <ul style="list-style-type: none"> Internet Message Access Protocol (IMAP) Post Office Protocol 3 (POP3) Microsoft Exchange ActiveSync Favorites Gallery Phone features (for example, Forward All, Privacy, Do Not Disturb, Mobility, and Self-View) Wallpapers (including Live Wallpapers) Web browser
Google bundled applications	<ul style="list-style-type: none"> Google Play (enabled by administrator through Cisco UCM; includes country-approved Google mobile services applications) Gmail Google settings Maps Play Books Play Magazines Play Movies Play Music Google Now
Cisco bundled applications	<ul style="list-style-type: none"> Cisco AnyConnect[®] Secure Mobility Client (VPN) Cisco Jabber IM (which offers chat and presence capabilities) Cisco WebEx 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[®] meeting) Visual Voicemail
Intelligent proximity	<ul style="list-style-type: none"> Contact synchronization with Bluetooth-paired, Android or iOS mobile device that supports PBAP Call history synchronization to view placed or missed calls from mobile device on the DX70 Audio path routing sends audio through the DX70 for a mobile device-connected call
Configuration modes	<ul style="list-style-type: none"> Enhanced, fully-functional mode that enables all aspects of the phone including applications and accounts Simple mode that hides applications, accounts and provides only voice and video call capabilities` Public mode based on Simple mode with restrictions on user settings modifications.
Application deployment options and management	<ul style="list-style-type: none"> 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. Google Play access can be administratively disabled (default). Applications from "unknown sources" can be administratively disabled (default): <ul style="list-style-type: none"> The administrator can optionally install applications using Cisco Unified Communications Manager with the APK file. Company Photo Directory (ability to set up and link photo directory URL image location associated with respective user) Company Photo Directory (ability to set up and link photo directory URL image location associated with respective user).

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

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

Feature	Specifications
Certificate management	<ul style="list-style-type: none"> • Certificate Authority Proxy Function (CAPF) support for additional security • Manufacturer-Installed Certificates (MIC) • Locally Significant Certificates (LSC) • 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
Network	<ul style="list-style-type: none"> • Wired: 802.1x supplicant options for network authentication use: <ul style="list-style-type: none"> ◦ Extensible Authentication Protocol: Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling ◦ (EAP-FAST) ◦ Extensible Authentication Protocol: EAP Transport Layer Security (EAP-TLS) ◦ Extensible Authentication Protocol: EAP Message Digest Algorithm 5 (EAP-MD5) • Wireless: <ul style="list-style-type: none"> ◦ (refer to Table 5) • Wireless: Wi-Fi Protected Access 2 (WPA2) (EAP-FAST) • Wireless Equivalent Privacy (WEP) • EAP-TLS • Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC)
Media and data signaling	<ul style="list-style-type: none"> • TLS • SRTP • HTTPS for clients
Enterprise access	<ul style="list-style-type: none"> • Cisco AnyConnect Secure Mobility Client • Web Proxy (manual configuration or auto-configuration of Protected) • Access Credential [PAC] files • NTLM and Kerberos authentication
Device management	<ul style="list-style-type: none"> • Remote wipe • ActiveSync remote wipe (email, contacts, calendar, etc.) • Self-service wipe • Wipe after unsuccessful login attempts • Factory reset
Policy management	<ul style="list-style-type: none"> • Password complexity • Disable USB • Disable Speakerphone • Disable Headset • Secure Digital I/O (SDIO) enable/disable • Bluetooth • Wi-Fi • Access to Android market • Screen Lock and Automatic Lock (PIN or password) device • Android Debug Bridge (ADB)
Diagnostics	<ul style="list-style-type: none"> • 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) • Log Server

Table 5. Wi-Fi Features and Specifications

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

Feature	Specifications			
Non-overlapping channels	<ul style="list-style-type: none"> 2.4 GHz (20 MHz channels): up to 3 channels 5 GHz (20 MHz channels): up to 24 channels 5 GHz (40 MHz channels): up to 9 channels 			
Operating modes	<ul style="list-style-type: none"> Auto (default), preference to strongest RSSI for 2.4 GHz or 5 GHz 2.4 GHz only 5 GHz only 			
Data rates	<ul style="list-style-type: none"> 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: HT MCS 0, MCS 1, MCS 2, MCS 3, MCS 4, MCS 5, MCS 6, MCS 7 			
2.4 GHz receiver sensitivity	<table border="1"> <tr> <td> IEEE 802.11b: <ul style="list-style-type: none"> 1 Mbps: -95 dBm 2 Mbps: -93 dBm 5.5 Mbps: -90 dBm 11 Mbps: -86 dBm </td> <td> IEEE 802.11g: <ul style="list-style-type: none"> 6 Mbps: -89 dBm 9 Mbps: -89 dBm 12 Mbps: -87 dBm 18 Mbps: -85 dBm 24 Mbps: -81 dBm 36 Mbps: -78 dBm 48 Mbps: -74 dBm 54 Mbps: -72 dBm </td> <td> IEEE 802.11n HT20: <ul style="list-style-type: none"> MCS 0: -88 dBm MCS 1: -86 dBm MCS 2: -84 dBm MCS 3: -81 dBm MCS 4: -78 dBm MCS 5: -73 dBm MCS 6: -71 dBm MCS 7: -69 dBm </td> </tr> </table>	IEEE 802.11b: <ul style="list-style-type: none"> 1 Mbps: -95 dBm 2 Mbps: -93 dBm 5.5 Mbps: -90 dBm 11 Mbps: -86 dBm 	IEEE 802.11g: <ul style="list-style-type: none"> 6 Mbps: -89 dBm 9 Mbps: -89 dBm 12 Mbps: -87 dBm 18 Mbps: -85 dBm 24 Mbps: -81 dBm 36 Mbps: -78 dBm 48 Mbps: -74 dBm 54 Mbps: -72 dBm 	IEEE 802.11n HT20: <ul style="list-style-type: none"> MCS 0: -88 dBm MCS 1: -86 dBm MCS 2: -84 dBm MCS 3: -81 dBm MCS 4: -78 dBm MCS 5: -73 dBm MCS 6: -71 dBm MCS 7: -69 dBm
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5 GHz receiver sensitivity	<table border="1"> <tr> <td> IEEE 802.11a: <ul style="list-style-type: none"> 6 Mbps: -91 dBm 9 Mbps: -91 dBm 12 Mbps: -90 dBm 18 Mbps: -88 dBm 24 Mbps: -85 dBm 36 Mbps: -81 dBm 48 Mbps: -77 dBm 54 Mbps: -76 dBm </td> <td> IEEE 802.11n HT20: <ul style="list-style-type: none"> MCS 0: -91 dBm MCS 1: -89 dBm MCS 2: -86 dBm MCS 3: -84 dBm MCS 4: -81 dBm MCS 5: -76 dBm MCS 6: -74 dBm MCS 7: -72 dBm </td> <td> IEEE 802.11n HT40: <ul style="list-style-type: none"> MCS 0: -90 dBm MCS 1: -87 dBm MCS 2: -85 dBm MCS 3: -81 dBm MCS 4: -78 dBm MCS 5: -74 dBm MCS 6: -72 dBm MCS 7: -70 dBm </td> </tr> </table>	IEEE 802.11a: <ul style="list-style-type: none"> 6 Mbps: -91 dBm 9 Mbps: -91 dBm 12 Mbps: -90 dBm 18 Mbps: -88 dBm 24 Mbps: -85 dBm 36 Mbps: -81 dBm 48 Mbps: -77 dBm 54 Mbps: -76 dBm 	IEEE 802.11n HT20: <ul style="list-style-type: none"> MCS 0: -91 dBm MCS 1: -89 dBm MCS 2: -86 dBm MCS 3: -84 dBm MCS 4: -81 dBm MCS 5: -76 dBm MCS 6: -74 dBm MCS 7: -72 dBm 	IEEE 802.11n HT40: <ul style="list-style-type: none"> MCS 0: -90 dBm MCS 1: -87 dBm MCS 2: -85 dBm MCS 3: -81 dBm MCS 4: -78 dBm MCS 5: -74 dBm MCS 6: -72 dBm MCS 7: -70 dBm
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Transmitter output power	<table border="1"> <tr> <td> 2.4 GHz: <ul style="list-style-type: none"> 802.11b: up to 16 dBm 802.11g: up to 16 dBm 802.11n HT20: up to 16 dBm </td> <td> 5 GHz: <ul style="list-style-type: none"> 802.11a: up to 16 dBm 802.11n HT20: up to 15 dBm 802.11n HT40: up to 15 dBm </td> </tr> </table>	2.4 GHz: <ul style="list-style-type: none"> 802.11b: up to 16 dBm 802.11g: up to 16 dBm 802.11n HT20: up to 16 dBm 	5 GHz: <ul style="list-style-type: none"> 802.11a: up to 16 dBm 802.11n HT20: up to 15 dBm 802.11n HT40: up to 15 dBm 	
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Antenna	<ul style="list-style-type: none"> 2.4 GHz: 2.6 dBi peak gain 5 GHz: 4.0 dBi peak gain 			
Access point support	<ul style="list-style-type: none"> Cisco Unified Access Points <ul style="list-style-type: none"> Minimum: 7.0.240.0 Recommended: 7.4.121.0, 7.6.110.0 or later Cisco Autonomous Access Points <ul style="list-style-type: none"> Minimum: 12.4(21a)JY Recommended: 12.4(25d)JA2 or later 			
Wireless security	<table border="1"> <tr> <td> Authentication: <ul style="list-style-type: none"> Wi-Fi Protected Access (WPA) Versions 1 and 2 Personal and Enterprise Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling (EAP-FAST) Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol Version 2 (PEAP-MSCHAPv2) Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC) Extensible Authentication Protocol - Transport Layer Security (EAP-TLS) </td> <td> Encryption: <ul style="list-style-type: none"> 40-bit and 128-bit static Wired Equivalent Privacy (WEP) Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC) Advanced Encryption Standard (AES) </td> </tr> </table>	Authentication: <ul style="list-style-type: none"> Wi-Fi Protected Access (WPA) Versions 1 and 2 Personal and Enterprise Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling (EAP-FAST) Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol Version 2 (PEAP-MSCHAPv2) Protected Extensible Authentication Protocol - Generic Token Card (PEAP-GTC) Extensible Authentication Protocol - Transport Layer Security (EAP-TLS) 	Encryption: <ul style="list-style-type: none"> 40-bit and 128-bit static Wired Equivalent Privacy (WEP) Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC) Advanced Encryption Standard (AES) 	
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Fast secure roaming	<ul style="list-style-type: none"> Cisco Centralized Key Management (CCKM) 			

Feature	Specifications
QoS	<ul style="list-style-type: none"> • IEEE 802.11e and Wi-Fi Multimedia (WMM) • Enhanced Distributed Channel Access (EDCA) • QoS Basic Service Set (QBSS)
Radar detection	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 DX70 requires four Device License Units (DLUs) or a minimum-level Enhanced IP User Connect License (UCL) for Cisco UCM Version 8.6.2 and later. There are no special licenses plus phone bundles for tier 2 distributors. The DX70 is not supported on third-party call-control systems.

Warranty Information

Find warranty information on Cisco.com at the [Product Warranties](#) page.

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 DX70, visit <http://www.cisco.com/go/dx> or contact your local account representative.



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