Datasheet

Cisco Board Pro G2

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webex by CISCO

Table 1. Cisco Board Pro G2 features and benefits

FEATURE	BENEFITS
Intelligent video meetings	• Dual 4K camera featuring two 48 MP image sensors with 112 and 70-degree horizontal field of view allows for close and distant participants to be captured and framed with clarity. • Optimal framing at 1080p resolution up to 7 meters from the device • Computing engine features an NVIDIA AI chipset for advanced image, audio and language processing • Simple meeting-join experience on Cisco Rooms offering Webex Meetings and advanced third-party interoperability with Microsoft Teams (CVI, WebRTC), Zoom (SIP), and Google Meet (WebRTC). • Native support for the Microsoft Teams Rooms experience with the option to join full-featured Webex meetings and events • AI noise removal helps to keep the meeting attention on the active speaker by eliminating background noise. • Provides AI camera views: Frames for multi-participant framing, intelligent speaker view, optimized group view, and advanced manual camera controls • Supports meeting zone to define virtual meeting perimeters in order to capture and frame only meeting participants in open spaces and glass-walled rooms • AI virtual lens extension allows to extend the camera reach and frame the active speaker at high quality at the end of a long, narrow table • A beamforming microphone array automatically detects the active speaker and ensures that high quality audio is delivered to the far end • Extension with IP, USB, and analog microphones and audio systems • USB-C passthrough allows for computers to use the Cisco Board Pro G2 with any video client installed on the computer • Enjoy crystal-clear, spatial audio experience from the integrated speakers
Premium presentations	• Direct wireless sharing through Webex, Miracast, Apple AirPlay (only in native Webex Meetings), and Microsoft Teams Cast (only in MTR mode) • HDMI and USB-C input for 4K presentations (HDMI input supports HDCP) • 2x HDMI out to extend or duplicate content on external displays • Connection with an external PTZ camera to solve intelligent presenter tracking • Touch-redirect with Board Pro transforms your PC into a board-sized tablet • Pointing and live annotation on shared content in Webex Meetings elevates presentations
Digital whiteboarding	• Support for the native Webex Whiteboard and Microsoft Whiteboard (only in MTR) experiences, and secure web apps to run directly on Board Pro G2, like Office 365, Trello, Miro and Mural with the option to share and annotate on the content during meetings or local brainstorming • Write and draw with two board pens, use fingers to pinch and swipe • Access and interact with Embedded Apps, like Mural, Miro, and Slido (available in Webex Meetings) • Set up a Cisco Room device and the Board Pro G2 to work in companion mode (on Cisco Rooms)

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Smart integrations	• Presence detection and People count via smart sensors, enabling analytics for better resource planning. • Tracks temperature, humidity, noise and air quality in the rooms when paired with Cisco Room Navigator. Access the information through full stack APIs. • Easily control room peripherals such as lights, room dividers, and curtains directly from the Room Navigator control unit through customizable APIs • Automatic power save allows Board Pro to enter a low-power standby state upon inactivity. • Board Pro can be easily controlled using the touch screen or with the Cisco Room Navigator • Cisco AI Assistant: for Cisco devices and Control Hub unlocks intelligent generative AI for device users • Advanced device management, troubleshooting, monitoring, configurations, and workspace analytics in Control Hub • A powerful web engine provides the ability to connect to a web-based backend to automatically display information when Board Pro is not in use. • Content displayed in signage mode can be either static or interactive, giving users the option to interact with the content displayed. • Integration with Cisco Spaces allows to display interactive 3D floor maps
Performance features	• Native screen resolution up to 4kp60 • Main video resolution up to 1080p30 (supports 60 fps when a second camera is connected) • Content sharing resolution up to 4kp15 • Up to 20 Mbps bandwidth rate for video content • Full Application Programming Interfaces (APIs) • Cisco Media Assure packet loss protection • Flexibility to register on-premises or to the cloud through Webex • Hardware is optimized to run on a cloud platform for great experiences in shared rooms and spaces, with easy access to hosted conferences • Supports Wi-Fi 6E for increased bandwidth and performance
Design features	• Combines sleek form factor, durable materials and human-centric design for ease of use and longevity. • Flexible mounting options (included wall mount or add the optional wall stand, floor stand, or floor stand with wheel-stand upgrade kit)) • Two active pens with magnetic attachment to the touch screen

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Table 3. Product specifications for Cisco Board Pro G2

SPECIFICATION	DESCRIPTION
Embedded encryption	• H.323 and SIP point to point • Standards-based: H.235 v3 and Advanced Encryption Standard (AES-128 or 256) • Automatic key generation and exchange • Support for end-to-end encryption in Webex meetings and calls
IPv6 network support	• Single-call stack support for both H.323 and SIP • Dual-stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ • Support for both static and automatic IP configuration, stateless address auto configuration, and DHCPv6
Security features	• Secure management using HTTPS and SSH protocols • End-to-end encryption for calls and meetings on Webex • Standards-based media encryption on all back-ends (Secure Real-time Transport Protocol [SRTP], using AES-128-GCM or AES-256-GCM) • WPA3™ and WPA3-Enterprise with CCMP128 Wi-Fi® security • Password protection to access administration available on Room Navigator controller • Network settings protection
Certificate management	• The device comes with a manufacturer installed certificate (MIC) signed by Cisco's manufacturing CA which can be used for Certificate Authority Proxy Function (CAPF) for secure onboarding to Cisco UCM • Option for users to install certificates with matching private keys for services such as IEEE802.1x, wifi, HTTPS server and SIP-TLS • Support for all regular certificate types and key sizes. The device comes with a pre-installed list of CAs (Certificate Authorities) that is vetted by Cisco and updated regularly. You can add or remove certificates from this list if desired. The CA list is used for outbound HTTPS and other TLS connections.
Power	• Electrical rating: – Cisco Board Pro 55 G2: 3.0-1.5 A 100-240 V 50/60 Hz, Class I – Cisco Board Pro 75 G2: 4.0-2.0 A 100-240 V 50/60 Hz, Class I • Networked standby power: 8 W typical • Standby power: 1 W typical (coming with future SW release) • Setting up Office Hours on the device allows to switch off features like signage outside of ordinary office hours, to optimize power consumption and extend screen lifetime. Outside office hours the device won't wake up even if it detects motion in the room.

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SPECIFICATION	DESCRIPTION
Other ports and connectivity	• USB 3.0 type A port with 1.5A charging capability - for external USB microphones, DSP, keyboard, or headset • MicroUSB port • Factory reset pinhole • Bluetooth® 5.2 and Bluetooth® Low Energy **
Operating, storage and transport temperature and humidity	• Operating temperature: 0°C to 40°C (32°F to 104°F) ambient temperature • Operating humidity: 20% to 90% Relative Humidity (RH non-condensing) • Storage and transportation temperature (-20C to +60C) • Storage and transportation humidity (10% - 90% RH non-condensing)
Multipoint support	5-way embedded SIP/H.323 conferencing capability with MultiSite option

MultiSite features	• Adaptive SIP/H.323 MultiSite:
	  - 3-way resolution up to 1080 at 30 fps plus content up to 4K at 15 fps
	  - 4-way resolution up to 720 at 30 fps plus content up to 4K at 15 fps
	  - 5-way resolution up to 720 at 30 fps plus content up to 4K at 10 fps
	• Full individual audio and video transcoding
	• H.323, SIP, and VoIP in the same conference
	• Support for presentation (H.239, BFCP) from any participant at resolutions up to 4kp15
	• Best impression (automatic continuous presence layouts)
	• Encryption and dual stream from any situation

Approvals and regulatory compliance	• Directive 2014/30/EU (EMC Directive) - Class A - for non-radio • Directive 2014/53/EU (Radio Equipment Directive) - for radio • Directive 2014/35/EU (Low Voltage Directive) - for non-radio • Directive 2011/65/EU (RoHS) • Directive 2012/19/EU (WEEE) • NRTL approved (product safety) • FCC listed (radio equipment) • FCC CFR 47 Part 15B (EMC) - Class A • FCC CFR 47 Part 15C (RF) • FCC CFR 47 Part 15E (RF) The list above reflects the regulations applicable at the time of publishing this document. For an updated list of regulations applicable, see the Product Approval Status Database for approval documents per country.

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Sustainability	• Circular design principles applied for product architecture, materials, and packaging • Reduced amount of foam, single-use plastics and non-recyclable materials in the boxes • Removal of paper copy of the installation guide from the package (except for wall-stand model) • 65% Post-Consumer Recycled (PCR) plastic used in the mechanical parts originating from end-of-life devices and old electronics • The video system is modular and upgradeable. It's manufactured with more sustainable, consciously chosen materials and is designed for easy repair, refurbishing, and recycling to extend the lifecycle of the product. • Smart energy consumption and option to enable Office Hours to optimize energy usage and extend the lifecycle of the touch screen. • Carbon Emission Insights widget in Control Hub allows to track and optimize the carbon footprint of your deployment • Cisco's takeback and reuse program enables you to return your end-of-use devices for free, via a simple, secure, and sustainable process.

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Platform support

Table 2. Platform support

PRODUCT FAMILY	PLATFORM SUPPORTED
Cisco Board Pro G2	• Activation and connection to Webex • Native registration with Cisco Unified Communications Manager (UCM) (12.5(1) or later) or Cisco Expressway™ • Third-party H.323 gatekeepers and standards-based SIP proxies • Third-party video meeting platforms via video interoperability: Microsoft Teams (CVI, WebRTC), Google Meet (WebRTC), Zoom (SIP, via Zoom Conference Room Connector). • Microsoft Teams Rooms on Android (with the option to join full-featured Webex meetings and events).

Product specifications

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SPECIFICATION	DESCRIPTION
Software compatibility	• RoomOS 11.15 or later • Microsoft Teams Rooms on Android

Default components of the Cisco Board Pro G2	• Fully integrated main unit is delivered with:
	  • Multi-touch 55- or 75-inch 4K LCD display
	  • 2 x 48 MP cameras – wide and main field of view
	  • 14-element beamforming microphone array
	  • Integrated multi-channel speakers and woofer
	• 2 active pens
	• Wall mount kit (when wall stand or floor stand is selected, the wall mount kit is no longer included)
	• Power cord according to country specified in order
	• Lifting handles

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SPECIFICATION	DESCRIPTION
Optional hardware components	• Cisco Table Microphone Pro • Cisco Table Microphone (3.5mm mini jack) • Cisco Ceiling Microphone (3.5mm mini jack) • Cisco Room Navigator for Table • Cisco Room Navigator for Wall • Network, HDMI and presentation cables • Cisco Active Optical USB-C Cable, 9m • Wall stand, 55-inch version • Wall stand, 75-inch version • Floor stand, 55-inch version • Floor stand, 75-inch version • Wheel kit for floor stand, 55-inch version • Wheel kit for floor stand, 75-inch version • Cisco PTZ 4K Camera
Display	55-inch/75-inch LCD monitor • Resolution: 4k UHD (3840x2160) /16:9) • Display type: IPS LCD. • Display size in inches: 55” or 75” • Luminance: Typ 350 cd/m2 • Viewing angle: +/- 89 degrees (all directions) • Number of colors: 1.07 billion (10bit) • Contrast: 1:1000 • Response Time: 8ms
User interface	• In-cell projected capacitive touch • Optically bonded cover glass • Multi-touch • Active stylus-enabled • Stylus-finger differentiation
Bandwidth	• Up to 20 Mbps bandwidth rate for video content • 720p30 from 768 kbps • 720p60 from 1152 kbps • 1080p30 from 1472 kbps • 1080p60 from 2560 kbps
Firewall traversal	• Cisco Expressway technology • H.460.18, H.460.19 firewall traversal

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Video standards	• H.264 AVC, H.265 HEVC, H.263, AV1
Encode and decode / Supported resolution	• Screen: 4kp60 • Main video: Full HD 1080p30 and encoding 60 fps when a secondary camera is connected • Main video in Webex meetings (when bandwidth is set at 20 Mbps): rendering up to 4x 1080p video streams decoding a total of 4K pixels • Content sharing: 4kp15
Cameras	Dual 4k integrated camera system with two 48 MP image sensors • Automatic best view and speaker tracking • Automatic brightness and white balance • Frames multi-participant framing • Meeting zone support • 5x digital zoom • AI virtual lens extension uses software intelligence to extend camera reach in longer rooms while preserving quality (coming soon) Main camera lens: • 70° horizontal field of view, 55° vertical field of view • f/1.85 fixed aperture • 48 MP image sensor, 30 fps • Focus distance: 0.8m to infinity • 1/1.3” CMOS, Quad Bayer • Auto focus lens (VCM) Wide-angle camera lens: • 112° horizontal field of view, 94° vertical field of view • f/2.8 fixed aperture • 48 MP image sensor, 30 fps • 1/1.3” CMOS, Quad Bayer • Fixed-focus lens
Video inputs	• USB-C DisplayPort Alternate Mode up to 3840 x 2160p60 (4kp60) • HDMI 2.0 type A input supports formats up to 3840 x 2160p60 (4kp60) • HDMI input is compatible with HDCP

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SPECIFICATION	DESCRIPTION
Video outputs	• 2x HDMI 2.0 type A up to 3840 x 2160p60 (4kp60) for screen mirroring or extension on external displays
Wireless sharing	• Webex app (up to 3840 x 2160 at 7.5 fps, including up to 1920 x 1080 at 30 fps) • Miracast (up to 1920 x 1080 at 60 fps) – Not available on Non radio version and requires Board Pro G2 to be on Ethernet network connection • Apple AirPlay: – Bluetooth® discovery (not on non-radio version) and Bonjour service discovery – Screen mirroring up to 1920 x 1080 at 60 fps – Extended desktop (Mac only) - up to 1920 x 1080 at 60 fps – Video streaming up to 3840 x 2160 at 30 fps • Microsoft Teams Cast (up to 1920 x 1080 at 15 fps) - Available only on Microsoft Teams Rooms
Network	• 1x Ethernet (RJ-45) 10/100/1000 Mbps for LAN (external network) • 1x Ethernet (RJ-45) 10/100/1000 Mbps PoE (802.3af) port with a power budget of 15.4W enabled for Cisco Room Navigator direct pairing • 1x Ethernet (RJ-45) 10/100/1000 Mbps for external camera control • Wi-Fi 6/6E support. Wi-Fi 802.11a/b/g/n/ac/ax (2.4, 5 and 6 GHz) - not available in non-radio versions • 2x2 Multiple Input Multiple Output (MIMO) **Note:** Due to compliance regulations, it is required to enable 802.11d in the access point for the product to operate properly within 5725 MHz – 5875 MHz. A Wi-Fi connection can be used as a flexible option. Ethernet connection is always preferred for high performance. • IPv4 Dynamic Host Configuration Protocol (DHCP)/static • IPv6 (both static and stateless address auto-configuration) • Network Time Protocol (NTP) • HTTP(S) proxy support (for signaling, not media) • Inspecting TLS proxy supported • Cisco Discovery Protocol (CDP) • 802.1X network authentication (passphrase or X.509 client certificate) • 802.1Q virtual LAN • 802.1p (Quality of Service [QoS] and Class of Service [CoS])

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SPECIFICATION	DESCRIPTION
Sensors	• Presence detection powered by ultrasound technology embedded into the video device. Support for people count to track real-time occupancy and support space allocation • General noise, ambient noise, and room acoustics (RT60) tracking with built-in sensors • Environmental sensors measuring temperature, humidity, and air quality included in the Room Navigator control panel (please consult the Cisco Room Navigator datasheet for more information)
Companion mode	• Supported when running Cisco Rooms, one Cisco Room Series device and one Board Pro can work together in companion mode over IP as a combined system. • Users can initiate meetings using the Room Series device and use the Board Pro G2 for digital whiteboarding. Shared content is shown on both devices, and the whiteboards are shared to the room device automatically in video calls. • Learn more about how to setup a Room device and a Board Pro in companion mode, and which are the recommended room setups for an optimal meeting experience.
Audio standards	• Audio codecs: G.711, G.722, G.722.1, G.729, AAC-LD, and Opus • Audio interop: AES67
Audio features	• Acoustic Echo Cancellation (AEC) • Active Lip Synchronization • AI-Powered Noise Removal • Automatic Gain Control (AGC) • Beamforming Microphones • De-Reverberation • Full Duplex • Full-Band Audio • Noise Reduction • Spatial Audio • Ultrasound Technology • Test microphone feature available in the RoomOS device settings allows users to record a sound sample and play it back to test speech pickup quality and noise removal settings

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Table 3. Product specifications for Cisco Board Pro G2

SPECIFICATION	DESCRIPTION
Audio inputs	• 2x analog microphone inputs • 1x HDMI input • 1x USB-C • 1x USB-A • 1x Ethernet for audio over IP - default connectivity with up to 3x Cisco IP conferencing microphones. Further microphone extension with AV integrator license provides support for up to 8x Cisco IP mics or third-party networked microphone streams via AES67. Please note that connecting multiple IP microphones over Ethernet requires a PoE compatible switch, eg. CBS250, CBS350 and C1200. • Bluetooth® - Not available on No-Radio model**
Audio outputs	• 1x analog line out (stereo 3.5mm minijack) • 1x USB-C output • 1x USB-A output • 1x Ethernet for audio over IP & AES67 audio streams • Bluetooth® - Not available on No-Radio model**
Microphone and loudspeaker system	• 14-element beamforming microphone array for crystal clear speech pickup and speaker tracking. Note: The internal microphone array is optimized for up to 4 meters (13 ft) from the device in small and medium-sized meeting rooms and collaboration spaces. In meeting rooms where the furthest participants are seated more than 4 meters from the device, we recommend extending audio pickup by adding external table or ceiling microphones to ensure the best audio experience. Note that room acoustics and background noise level also impact the speech pickup distance and quality in the meeting space. Consult Cisco Workspaces for guidance on best practices. • Multi-channel loudspeaker system with high-quality full-range drivers and separate force-cancelling woofers • Loudspeaker system frequency response: 75 Hz to 20 kHz [+/- 3dB] • Max Output Sound Pressure Level: 94dB

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Speaker tracking	• Built-in microphone array for sophisticated speaker tracking • Best overview functionality auto-detects people in the room and frames them for the best group view. When someone starts to talk, the system uses audio triangulation to detect the active speaker and selects the best framing to show an optimized, prominent view of the speaker • For an optimal speaker tracking and framing experience at 1080p resolution, it is recommended that the furthest in-room participant is located within less than 7 meters from the video device.
Presenter tracking	• Requires connecting the Board Pro G2 with the Cisco PTZ 4K Camera via Ethernet and HDMI • Camera dynamically follows the local presenter within a defined zone and helps ensure an optimized view • AI-powered face and upper-body detection capability
USB Passthrough / BYOD	Ability to provide the following over one USB-C cable to a connected computer: • USB 2.0 type C connectivity • Extension of display (3840x2160 @60fps) - computer must support DisplayPort Alternate Mode • Touch forwarding capabilities on supported operating systems • Use Cisco Board Pro G2 camera, microphone, and speakers with any software client • Laptop charging (60W maximum) • Power output: 20V@3A (60W), 15V@3A (45W), 12V@3A (36W), 9V@3A (27W), 5V@3A (15W)
Video stream layouts	• Supporting available Webex video stream layouts and meeting features, including focus, grid, prominent, stack and overlay. For more information, please consult the Webex Help Center. • Available in Webex Meetings, People Focus provides an intelligent video layout option that removed excess floor and ceiling space, while optimizing the layout based on where people are sitting in the room, for a more equitable view of every participant in the meeting.

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Web engine	• The device is powered by RoomOS that features a Chromium-based web engine to support digital signage, WebRTC, interactive or non-interactive web-based applications added to the home screen/ touch controller user interface, embedded apps in Webex Meetings, embedded web views, enterprise content management tools, and more • The web engine supports most features expected from modern desktop browser engines, including HTML5, EcmaScript 6, CSS3, web fonts, multi-touch, SVG, canvas, iFrames, web sockets, web assembly, standard video codecs, and more. Note: The web engine is mainly designed and optimized to run lightweight web applications. More advanced, full-scale web content can result in lower web app performance on the device, therefore in these scenarios we recommend running such web apps by connecting a PC with the video device via USB passthrough and interacting with the apps via touch redirect. For more information, please consult the RoomOS WebEngine Developer Guide.
Language support	• Arabic, Czech, Danish, German, US English, UK English, Catalonian, Spanish, Latin-American Spanish, Finnish, French, Canadian French, Hebrew, Hungarian, Italian, Japanese, Korean, Dutch, Norwegian, Polish, Brazilian Portuguese, Portuguese, Russian, Swedish, Turkish, Ukrainian, Chinese (Simplified), Traditional Chinese

System management	• For cloud deployments, the device is managed in the Control Hub, providing a single pane of glass of system status, activation, configuration, metrics, workspace insights, and troubleshooting
	• For on-premises deployments, management via Cisco Unified Communications Manager or Expressway supported
	  • Registration on Cisco Unified Communications Manager (CUCM) requires CUCM version 12.5(1) or later
	  • Native registration with Cisco Expressway
	  • Webex
	  • Third-party H.323 Gatekeepers and standards-based SIP proxies

Protocols	• H.323 • SIP • Webex • WebRTC

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