

The Codian Difference

High Definition Performance

Crystal clear, full-motion, high definition video on every port. 720p H.264 at 30 frames per second continuous presence with perfect quality and limited only by the capabilities of the endpoint and network.

Multi-standard HD audio support and high resolution data conferencing.

Constant High Capacity

Codian Universal Port™ technology supports any codec, any speed, any resolution and any layout (including over 50 continuous presence layouts) on any port without loss of capacity or capability - greatly simplifying the planning, provisioning and scheduling of your conference.

Best Quality for Each Participant

Delivers a unique video stream for each participant resulting in the best possible audio and video quality for the available bandwidth and endpoint capabilities.

Codian ClearVision™

An innovative resolution and vision enhancement technology, delivering up to 4x resolution improvement on SD and ED video media, easing the transition to HD.

Investment Protection

Latest high performance architecture scales up to match future capabilities of new HD endpoints. Ready for 1080p full HD resolution video.

Seamless integration of HD with existing SD equipment and with next generation devices such as 3G, SIP and desktop video.

Standards-based and Compatible

Offers full interoperability with IP and ISDN networks (using the Codian ISDN Gateway), and proven compatibility with all major vendors.

Easy to Use, Easy to Manage

Schedule, manage and monitor individual conferences and independently select the continuous presence layout for each user using the web-based user interface. Video auto attendant supports both scheduled and on-demand conferences. XML API provides integration with scheduling and management applications.

Innovation and Quality

Includes the features of the proven Codian MCU 4200 Series: endpoint agnostic, Universal Port™ and Packet Safe™ technology, video firewall, web conferencing, streaming and built-in gatekeeper.

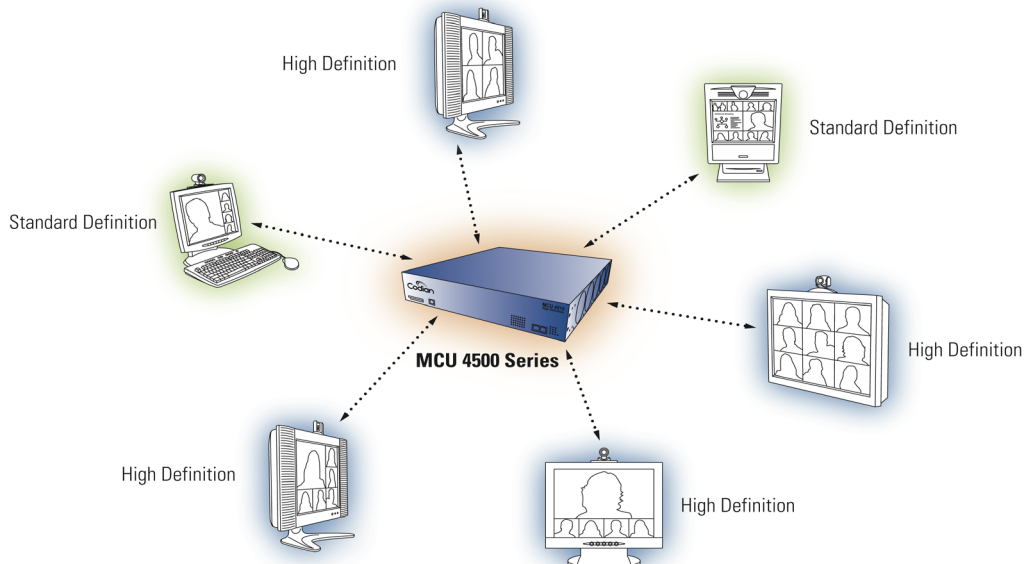
High Definition Without Compromise

The Codian MCU 4500 Series is the only conferencing bridge with the power to deliver a true high definition (HD) multimedia experience.

Without compromise or limits, this MCU supports the highest video resolution, speed, frame rate and codec of the latest HD endpoints. This includes full continuous presence for all conferences, including those with a mix of both HD and standard definition (SD).

The Codian MCU 4500 Series is ideal for applications which demand the ultimate audio and video quality, such as business meetings, telemedicine, distance learning and corporate training.

With Codian's infrastructure solutions you can conduct business better every day.



MCU 4500 Series Specifications

Model	Video Participants	Additional Voice Participants	Video Streaming Unicast / Multicast
MCU 4505	12	12	24 / unlimited
MCU 4510	20	20	40 / unlimited
MCU 4515	30	30	60 / unlimited
MCU 4520	40	40	80 / unlimited

VFO-4500	Video Firewall Option - allows MCU connection to additional networks (e.g. Internet)
WCO-4505 / WCO-4510 / WCO-4515 / WCO-4520	Web Conferencing Option - provides content streaming, annotation and chat capabilities
GKO-100 / GKO-300	Gatekeeper Option - increase from 25 to 100 or 300 registrations with built-in H.323 gatekeeper

High Definition Performance

720p 30 fps H.264 5 Mbps continuous presence • Future options will allow 1080p 30 fps and 720p 60fps • Comprehensive HD audio • HD dual video H.239

Video Standards

H.261, H.263, H.263+, H.263++, H.264

Video Resolution

From QCIF up to 720p (1280 x 720) including interlaced iCIF and iSIF • 4:3 and 16:9 aspect ratios

Frame Rates

30 frames or 60 fields per second

Audio Standards

G.711, G.722, G.723.1, G.729, MPEG-4 AAC-LC, MPEG-4 AAC-LD, Polycom® Siren14™ / G.722.1 Annex C

Protocols

H.323 v4, SIP, H.235 (AES), H.239 (dual video), VNC™, H.243 (chair control), FTP, RTP, RTSP, HTTP, DHCP, SNMP, NTP

Bandwidth

Up to 5 Mbps with both H.263 and H.264, for each site in all conference modes including advanced (symmetric) continuous presence

Universal Transcoding and Transrating

Combine HD and SD within the same conference • Automatic audio / video transcoding and transrating on all calls • Any bandwidth, any resolution, any video or audio codec can be used on any video call within the same conference • Each participant has their own personal encode • Extremely low latency; less than 80 ms

Streaming Video

Built-in streaming server • View using Windows Media Player™, RealPlayer™ or QuickTime™ • Streaming of slides (H.239 and VNC™) • Text chat • Unicast and multicast • UDP, TCP or HTTP • Independent choice of bandwidth and codec

Localization and Customization

Custom IVR / auto attendant audio prompts • Uploadable multi-language support • Unicode conference and site names

MCU Features

Dial in or dial out via web server • Standalone or using gatekeeper • Configurable audio and video auto attendant • Advanced continuous presence as standard on all ports • Automatic selection of best layout • Individual layout selection using remote control or web pages • Over 50 custom layouts • Widescreen (16:9) support • Active speaker selection using remote control or voice activated • Floor assignment through web page or management application • Far end camera control tunneling using remote control or web • Text identification of sites • On-screen text messaging to individual or all sites • Built-in conference scheduling and reservation • On-demand and ad hoc conferences • Dual video using H.239 • Presentation mode: add slides from PC using VNC™ • Preview of conference and individual camera on web pages • Web Conferencing Option - those without endpoints can still interact • Uploadable bitmaps for voice participants • Video association for IP and traditional PBXs

Audio Features

Wideband audio mixing • Built-in and uploadable auto attendant voice prompts • Automatic gain control, adjustable gain, power indication, individual audio mute using web pages

Built-in Web Server

Complete configuration, control and monitoring of the system and conferences

Built-in Gatekeeper

Resolution of E.164 numbers • Registration of conferences, endpoints and gateways • Up to 25 devices can register, options to extend this to 100 or 300 devices

System Management

XML management API • Management via embedded web server • RS-232 for local control and diagnostics • Syslog for diagnostics • Configurable event logs and full H.323 and SIP decoding • Configuration backup to network • Secure upgrades through Ethernet or CompactFlash • Call Detail Records • SNMP

Quality of Service

Configurable DSCP or TOS/IP precedence

Network Resilience

Codian Packet Safe™ technology provides intelligent downspeeding, packet pacing and packet loss concealment to ensure optimum video and audio quality • Dynamic jitter buffering

Security Features

Seven levels of access rights and privileges for users • Password-protected conferences • Secure non-PC hardware and operating system • AES encryption, 128 bit key, H.235 • Video Firewall Option using second Ethernet port

Interfaces

2 x RJ45 Ethernet, 10/100/1000 Mbps full/half duplex, manual or auto sensing • RJ45 serial port • CompactFlash socket • 39 status LEDs

Environmental Data

Operating temperature 0°C to 35°C ambient
Relative humidity below 95% (non condensing)

Physical Dimensions

Height 3.43", 87 mm (2U), Width 17.4", 442 mm
Depth 19.25", 489 mm, Weight 22 lbs, 15 kg
19" rack mountable (kit supplied) or standalone
Power 100-240 VAC, 50/60Hz
600W maximum power consumption

Approvals and Compliance

European safety: EN 60950-1:2001
USA safety: UL 60950-1 First Edition
Canada safety: CSA 60950-1-03
CB Scheme certificate, CE Marked
EMC: EN55022 class A, EN61000-3-2, EN61000-3-3, EN55024: EN61000-4-2, -3, -4, -5, -6, -11,
FCC Part 15 class A, VCCI class A, AS/NZS 3548 (C-Tick)
RoHS compliant



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