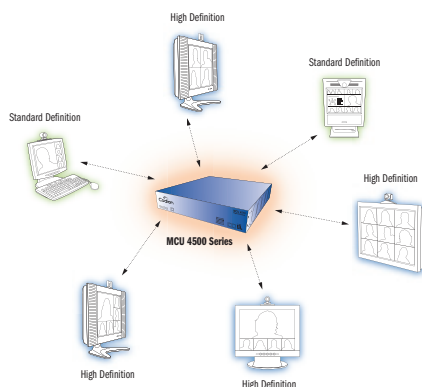




## TANDBERG Codian MCU 4500 Series

The TANDBERG Codian MCU 4500 Series is the industry's leading high-definition multimedia conferencing bridge. It delivers superior video and voice with an easy-to-use, versatile management interface. Compatible with all major vendors' endpoints, each model maintains its capacity and performance in every configuration, delivering the best experience for each participant, every time.



#### DESIGN FEATURES

- Standards-based and compatible with all major vendors' endpoints
- Easy-to-use, versatile, management interface
- Up to 40 video plus 40 voice ports
- Over 50 custom layouts
- Comprehensive wideband audio support
- Support for both SIP and H.323 endpoints
- PacketSafe™ technology minimizes effects of network packet loss
- Compact size: 2U tall and 19" rack mountable

#### APPLICATION FEATURES

- Enables transition from SD to HD using TANDBERG Codian ClearVision™
- Integrated with TANDBERG Management Suite (TMS)
- Offers full interoperability with ISDN networks using standalone TANDBERG Codian or third party ISDN Gateways
- Compatible with Microsoft Office Communication Server
- Fully integrated, with built-in gatekeeper and streaming server

#### PERFORMANCE FEATURES

- High Definition Continuous Presence on every port
- TANDBERG Codian Universal Port™ technology ensures each participant receives the best possible experience
- Constant high capacity
- Bandwidth per site up to 5 Mbps
- Video resolutions up to 720p at 30fps
- Future proofed for 1080p and 60fps
- Latency below 30ms

GET THE MOST FROM YOUR INVESTMENT. WITH **PROFESSIONAL SERVICES**, TANDBERG EXPERTS SUPPORT TANDBERG CODIAN MCU 4500 SERIES DEPLOYMENT AND TRAINING. VISIT [WWW.TANDBERG.COM](http://WWW.TANDBERG.COM)

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 — enables 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 — increases registrations with built-in H.323 gatekeeper from 25 to 100 or 300	

\*Maximum number of unicast streams is dependent on network topology. When using the WCO feature, the maximum number of unicast streams supported by the 4515 and 4520 is 50

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

#### PROTOCOLS

H.323, SIP, H.235 (AES), SRTP, TLS, H.239 (dual video), VNC™, BFCP, H.243 (chair control), FTP, RTP, RTSP, HTTP, HTTPS, DHCP, SNMP, NTP, NTLM (authentication)

#### 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 TRANSTRATING

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 30 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 and graphics  
 Uploadable multi-language support  
 Uniconference 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  
 Alternate gatekeepers

#### 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  
 SIP encryption  
 TLS certificate verification  
 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

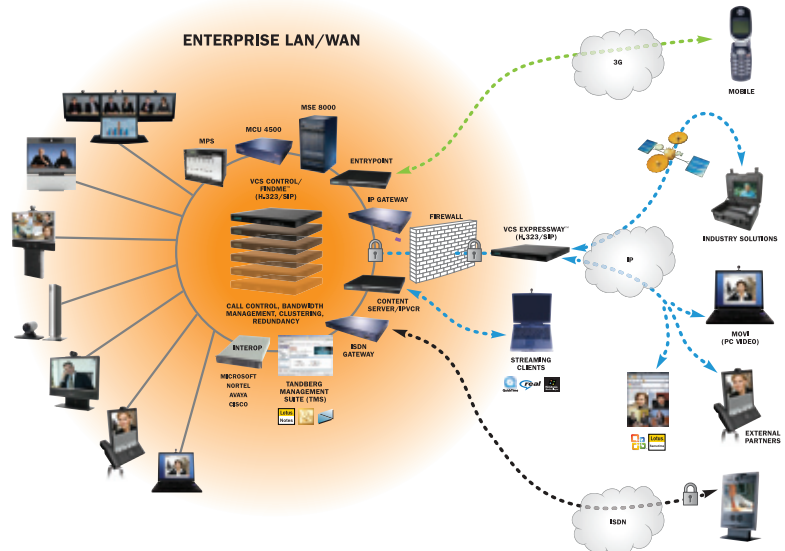
European safety: EN 60950-1:2001  
 USA safety: UL 60950-1 First Edition  
 Canada safety: CSA 60950-1-03  
 CB Scheme certificate, CE Marked  
 EMC:  
 EN55022 class A,  
 EN61000-3-2, EN61000-3-3,  
 EN55024: EN61000-4-2, -3, -4, -5, -6, -11,  
 FCC Part 15 class A,  
 VCCI class A,  
 AS/NZS 3548 (C-Tick),  
 CCC Approved: GB4943-2001, GB9254-1998,  
 YD/T993-1998  
 NAL Certificate (China)  
 RoHS compliant

All specifications subject to change without notice, system specifics may vary.

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# Codian MCU 4500 Series

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