



TANDBERG 6000 MXP Codec

The TANDBERG 6000 MXP Codec is the integrator's codec of choice. With its standard rack mountable dimensions, this codec incorporates all the legendary power of the TANDBERG 6000 MXP video system and is ideal for customized integrations and specialized rooms.



A 6000 MXP Integrator Package is available and provides all the necessary components needed to simplify integration

PROTECT YOUR TECHNOLOGY INVESTMENT WITH TANDBERG'S PORTFOLIO OF **CONSTANT CARE SERVICES**. VISIT WWW.TANDBERG.NET

DESIGN FEATURES

- Designed for custom integrations
- 19" rack-mountable codec
- All the outstanding power and functionality of the TANDBERG 6000 MXP video system
- Expandability for future applications
- Dual DVI/XGA with VESA Power Management
- Total management via serial port, embedded web server, SNMP, Telnet, SSH, XML, HTTP/HTTPS, FTP and on screen menu
- Integrator Package available that includes: 6000 MXP Codec, PrecisionHD Camera, microphones, trackers and cables

APPLICATION FEATURES

- Join up to 6 video and 5 audio sites with optional embedded MultiSite functionality
- Best possible call for each MultiSite participant with rate matching and transcoding
- Powerful live presentations through one-step PC plug-in or LAN connection
- View presentations and presenter simultaneously with DuoVideo and H.239 Dual Stream
- TANDBERG Expressway™ Technology
- URI Dialing

PERFORMANCE FEATURES

- Choice of Network: up to 2 Mbps ISDN or external network (H.320)/ 4 Mbps IP (H.323 or SIP)/ 6 Mbps in MultiSite
- Superior video quality incorporating the H.264 standard
- True CD-quality audio
- Highest level of embedded encryption as well as IEEE 802.1x and H.235 authentication for security
- Protection against network interruptions in point-to-point and multipoint calls with automatic Down-speeding and IPLR

UNIT DELIVERED COMPLETE WITH:

Videoconferencing codec, wireless remote control

BANDWIDTH

H.320 up to 2 Mbps
H.323 up to 4 Mbps point-to-point
SIP up to 4 Mbps
Up to 6 Mbps total MultiSite bandwidth

FIREWALL TRAVERSAL

TANDBERG Expressway™ Technology
Auto NAT
H.460.18, H.460.19 Firewall Traversal

VIDEO STANDARDS

H.261, H.263, H.263+, H.263++ (Natural Video), H.264

VIDEO FEATURES

Native 16:9 Widescreen
Advanced Screen Layouts
Picture in Picture (PIP)
Picture outside Picture & Large POP
Side by Side
PC Zoom
Intelligent Video Management
Simultaneous videoconference & local PC mode
Local Auto Layout

VIDEO INPUTS (6 INPUTS)

1 x HD Main Camera or 1 x MiniDin, S-video: main camera
1 x MiniDin, S-video: auxiliary/document camera
1 x RCA/Phono, composite: document camera/aux
1 x RCA/Phono, composite: VCR
1 x DVI-I: PC
Input: 800 x 600 (@ 60, 72, 75, 85 Hz), 1024 x 768
(@ 60, 70, 75 Hz), 1280 x 720 (HD720P) (@ 50, 60 Hz),
1280 x 1024 @ 60 Hz
Extended Display Identification Data (EDID)

VIDEO OUTPUTS (6 OUTPUTS)

1 x MiniDin, S-video: main monitor
1 x MiniDin, S-video: dual monitor
1 x RCA/Phono, composite: main monitor or VCR
1 x RCA/Phono, composite: dual monitor or VCR
2 x DVI-I/XGA: main and dual monitor
XGA Output
800 x 600 @ 75 Hz, 1024 x 768 @ 60 Hz, 1280 x 768
(WXGA) @ 60 Hz, 1280 x 720 (HD720p) @ 60 Hz
VESA Monitor Power Management

VIDEO FORMAT

NTSC, PAL, VGA, SVGA, XGA, W-XGA, SXGA and HD720p

LIVE VIDEO RESOLUTIONS

NATIVE NTSC:

400p (528 x 400 pixels)
4SIF (704 x 480 pixels), Digital Clarity
Interlaced SIF (iSIF 352 x 480 pixels), Natural Video
SIF (352 x 240 pixels)

NATIVE PAL:

448p (576 x 448 pixels)
4CIF (704 x 576 pixels), Digital Clarity
Interlaced CIF (iCIF 352 x 576 pixels), Natural Video
CIF (352 x 288 pixels)
QCIF (176 x 144 pixels)
SQCIF (128 x 96 pixels) decode only

NATIVE PC RESOLUTIONS:

XGA (1024 x 768)
SVGA (800 x 600 pixels)
VGA (640 x 480 pixels)

WIDE RESOLUTIONS:

w288p (512 x 288 pixels)
w448p (768 x 448 pixels)
w576p (1024 x 576 pixels)
w720p (1280 x 720 pixels)

STILL IMAGE TRANSFER

CIF, SIF, 4CIF (H.261 Annex D), 4SIF, VGA, SVGA, XGA

AUDIO STANDARDS

G.711, G.722, G.722.1, G.728, 64 bit & 128 bit MPEG4 AAC-LD

AUDIO FEATURES

CD-Quality 20KHz Mono and Stereo
Telephone add-on via MultiSite
Four separate acoustic echo cancellers
Audio mixer
Automatic Gain Control (AGC)
Automatic Noise Reduction
Audio level meters
VCR ducking
Optional Stereo Package
Packet loss management
Active lip synchronization
GSM/Blackberry interference audio feature

AUDIO INPUTS (4 INPUTS)

3 x microphone, 24V phantom powered, XLR connector, each
with separate echo cancellers, the third microphone can
be set for line level
1 x RCA/Phono, Line Level: separate echo canceller
1 x RCA/Phono, Line Level: auxiliary (or VCR/DVD Stereo L)
1 x RCA/Phono, Line Level: VCR/DVD (Stereo R)

AUDIO OUTPUTS (3 OUTPUTS)

1 x RCA/Phono, S/PDIF (mono/stereo) or Analogue Line
Level: main audio or Analogue Stereo L
1 x RCA/Phono, Line Level: auxiliary
(or Analogue Stereo R or VCR Stereo L)
1 x RCA/Phono, Line Level: VCR (mono or Stereo R)

FRAME RATES

30 frames per second @ 168 kbps and above
60 fields per second @ 336 kbps and above (Point-to-point)

DUAL STREAM

DuoVideo
H.239 dual stream
Dynamic bandwidth adjustment (H.323)
Available on H.323 & H.320
Available in MultiSite from any site

NETWORK FEATURES

Auto H.320/H.323 dialing
SIP
Downspeeding
Programmable network profiles
Intelligent Call Management
HO on ISDN-PRI Facility
Maximum call length timer
Automatic SPID and line number configuration
(National ISDN, GR-2941-CORE)
SoftMux
NATO standard KG194/KIV-7 encryptor support
H.331 Broadcast Mode
URI Dialing

MULTISITE FEATURES

H.323/H.320/SIP/Telephony/VoIP in the same conference
Audio and Video Transcoding
Video rate matching from 56 kbps — maximum conference rate
CP4, CP 5 + 1 and Voice Switched
Best Impression (Automatic CP Layouts)
H.264, Encryption, Digital Clarity
Dual Stream from any site
ISDN & IP Downspeeding and IPLR
MultiSite (H.243) Cascading on H.320 & H.323
Unicode H.243 Terminal Names
Dial in/Dial out
Chair control for host system
Snapshot of ongoing conference (JPEG)
Snapshot of ongoing DuoVideo/H.239 presentation (JPEG)
Separate welcome page for encrypted conferences
Conference rates up to 6 Mbps
Up to 6 video and 5 audio sites
4 sites @ 2 Mbps, 6 sites @ 768 kbps (+telephone calls)
Mix ISDN (BRI or PRI), or Serial Interface (V.35) with IP
up to maximum conference rate

EMBEDDED ENCRYPTION

H.320 and H.323 point-to-point and multipoint calls
Standards-based: H.233, H.234, H.235 v2&v3, DES and AES
NIST-validated AES
NIST-validated DES
Automatic key generation and exchange
Supported in Dual Stream & MultiSite

IP NETWORK FEATURES

IEEE 802.1x/EAP Network Authentication
H.235 Gatekeeper Authentication
DNS lookup for service configuration
Differentiated Services (DiffServ)
Resource Reservation Protocol (RSVP)
IP precedence
IP type of service (ToS)
IP adaptive bandwidth management (including flow control)
Auto gatekeeper discovery
Dynamic playout and lip-sync buffering
Intelligent Packet Loss Recovery (IPLR)
H.245 DTMF tones in H.323
Cisco CallManager integration using ECS
IP Address Conflict Warning
Date and Time support via NTP
Call Services

IPv6 NETWORK SUPPORT

Dual Stack IPv4 and IPv6 simultaneous support
Net service support on IPv6: Telnet, SSH, HTTP, HTTPS,
ftp, SNMP, DNS, NTP, DHCP
Media support on IPv6: H.323, SIP, Streaming

SECURITY FEATURES

Management via HTTPS and SSH
IP Administration Password
Menu Administration Password
Dialing Access code
Streaming password
H.243 MCU Password
VNC password
SNMP security alerts
Disable IP services
MD-5 Challenge
Network Settings protection
SIP Authentication via NTLM
SIP Authentication via Digest

NETWORK INTERFACES

6 x ISDN BRI (RJ-45), S-Interface
1 x E1/T1 G.703 (RJ-45) for ISDN PRI or
Leased E1/T1 mode: Manual or Auto (Data Triggered)
1 x E1/T1 G.703 (RJ-45) for future usage
1 x LAN/Ethernet (RJ-45) 10/100 Mbit
(LAN/DSL/cable modem)
1 x X.21/V.35/RS-449 with RS-366 dialing, RS-366 Adtran
IMUX, Leased Line, Data Triggered, and Manual
1 x USB for future usage

ETHERNET/INTERNET/INTRANET CONNECTIVITY

TCP/IP, DHCP, ARP, FTP, Telnet, HTTP, HTTPS, SOAP and XML,
MD-5 Challenge
SNMP Enterprise Management
Internal web server
Internal streaming server

OTHER MAJOR STANDARDS SUPPORTED

H.231, H.233, H.234, H.235 v2&v3, H.239, H.241, H.243,
H.281, BONDING (ISO 13871), H.320, H.323, H.331
RFC 3261, RFC 2237, RFC 3264, RC 3311, RFC 3550, RFC
2032, RFC 2190, RFC 2429, RFC 3407

PRECISION HD CAMERA

7 x zoom 1/3" CMOS +10°/-20° tilt +/- 90° pan
42° vertical field of view
72° total vertical field of view
70° horizontal field of view
250° total horizontal field of view
Focus distance 0.3m-infinity
1280 x 720 pixels progressive @ 30fps
Automatic or manual focus/brightness/whitebalance
Far-end camera control
15 near and far-end camera presets
Voice-activated camera positioning
Daisy-chain support (Visca protocol camera)

CLOSED CAPTIONING/TEXT CHAT

T.140 text chat available from RS-232, Telnet,
Web and User Interface

PRESENTATIONS AND COLLABORATION

Natural Presenter Package including:
PC Presenter (DVI-I, SXGA In)
PC SoftPresenter
Digital Clarity & Native Formats
Advanced Video Layouts
Streaming compatible with Cisco IP/TV,
Apple QuickTime®, RealPlayer® v8 etc.

SYSTEM MANAGEMENT

Support for the TANDBERG Management Suite
Total management via embedded web server, SNMP,
Telnet, SSH, XML, SOAP and FTP
Remote software upload: via web server, ftp server or ISDN
1 x RS-232 local control and diagnostics
Remote control and on-screen menu system
External Services from TMS

DIRECTORY SERVICES

Support for Local Directories (My Contacts),
Corporate Directory and Global Directory
Unlimited entries using Server directory* supporting
LDAP and H.350
Unlimited number for Corporate directory (through TMS)
400 number global directory
200 number local directory
16 dedicated MultiSite entries
Received Calls
Directories in Local Languages
Placed Calls
Missed Calls with Date and Time

16 SELECTABLE MENU LANGUAGES

Arabic, Simplified Chinese, Traditional Chinese, English,
French, German, Italian, Japanese, Korean, Norwegian,
Portuguese, Russian, Spanish, Suomi, Swedish and Thai
Chinese, Korean and Japanese Input Method Editor
Import Custom Language through TMS

CUSTOMIZED WELCOME SCREEN AND COMPANY LOGO

Picture JPEG (logo.jpg): Recommended maximum size
is 704x576 for Welcome Screen and 352x288 for
Encryption Required Screen.

POWER

Auto-sensing power supply
100-250 VAC, 50-60 Hz
65 watts max. for codec and main camera

OPERATING TEMPERATURE AND HUMIDITY

0° C to 35° C (32° F to 95° F) ambient temperature
10% to 90% Relative Humidity (RH)

STORAGE AND TRANSPORT TEMPERATURE

-20° C to 60° C (-4° F to 140° F) at RH 10-90%
(non-condensing)

DIRECTORY SERVICES

Directive 73/23/EEC (Low Voltage Directive)
– Standard EN 60950
Directive 89/336/EEC (EMC Directive)
– Standard EN 55022, Class B
– Standard EN 55024
– Standard EN 61000-3-2/-3-3
Directive 1999/5/EEC (R&TTE Directive)
– Standard TBR3
– Standard TBR4
Approved according to UL 60950 and CAN/CSA C22.2 No.60950
Complies with FCC15B Class B

DIMENSIONS

Length: 20"/52cm
Height: 1.8"/4.4cm
Depth: 18"/45cm
Weight: 8.8 lbs/4 kg

*Requires TANDBERG Management Suite 9.0 or newer

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

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purposes only, actual products may differ.

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MTBF PRODUCT RELIABILITY/MTBF

The predicted reliability is expressed in the expected
random Mean Time Between Failures (MTBF) for the
electronic components based on the Power On Hours:
Power On Hours (POH) > 69 000 hours
Useful Life Cycle > 6 years
ISO 9001 certificate is available upon request

TANDBERG

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TANDBERG WORLD HEADQUARTERS

Philip Pedersens vei 20
1366 Lysaker, Norway
Tel: +47 67 125 125
Fax: +47 67 125 234
Video: +47 67 126 126
E-mail: tandberg@tandberg.net

200 Park Avenue, Suite 2005
New York, NY U.S.A. 10166
Tel: +1 212 692 6500
Tel: +1 800 538 2884 (toll free in the U.S.)
Fax: +1 212 692 6501
Video: +1 212 692 6535
E-mail: tandberg@tandbergusa.com

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