



TANDBERG 990 MXP

For medium- to small-sized meeting rooms, and shared office environments. Provides high bandwidth capabilities for excellent quality point-to-point and multipoint calls in a flexible set-top system.



Add a PC card for the greater portability of wireless LAN connectivity.

DESIGN FEATURES

- Designed for medium to small meeting rooms and shared office environments
- Elegantly designed all-in-one set-top unit that fits easily on any standard television monitor
- Integrated wide angle view camera with extensive zoom, pan and tilt
- Optional cart and monitors

APPLICATION FEATURES

- Join up to 4 video sites and 3 audio sites with 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 either DuoVideo or H.239 on single or dual monitor setup

PERFORMANCE FEATURES

- Choice of network: IP up to 2 Mbps, optionally with ISDN up to 512 kbps
- PC card slot for wireless LAN connection
- Highest level of standards-based embedded encryption (AES) is included
- True CD-quality audio
- Protection against network interruptions in point-to-point and multipoint calls with automatic Downspeeding and IPLR
- Superior video quality incorporating the H.264 standard

UNIT DELIVERED COMPLETE WITH:

Wireless remote control, Integrated Camera, microphone, and cables

BANDWIDTH

H.320 up to 512 kbps
H.323 up to 2 Mbps

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 (POP)
Intelligent Video Management

VIDEO INPUTS (4INPUTS)

Built-in 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/SXGA: PC

VIDEO OUTPUTS (4 OUTPUTS)

1 x MiniDin, S-video: main monitor
1 x RCA / Phono, composite: main monitor or VCR
1 x RCA / Phono, composite: dual monitor or VCR
1 x DVI/XGA: main or second monitor

SXGA INPUT / XGA OUTPUT

Input: 640 x 480 – 1280 x 1024
Output: 640 x 480 – 1024 x 768
Extended Display Identification Data (EDID)
VESA Monitor Power Management

VIDEO FORMAT

NTSC, PAL, VGA, SVGA, XGA or SXGA

LIVE VIDEO RESOLUTIONS

NATIVE NTSC:

4SiF (704 x 480 pixels), Digital Clarity
Interlaced SiF (352 x 480 pixels), Natural Video
SiF (352 x 240 pixels)

NATIVE PAL:

4CiF (704 x 576 pixels), Digital Clarity
Interlaced CiF (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)

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, MPEG4 AAC-LD

AUDIO FEATURES

CD-Quality 20KHz Mono and Stereo
Telephone add-on via MultiSite
Two separate acoustic echo cancellers
Audio mixer
Automatic Gain Control (AGC)
Automatic Noise Reduction
Audio level meters
VCR ducking

AUDIO INPUTS (4 INPUTS)

2 x microphone, 24V phantom powered, XLR connector
1 x RCA / Phono, Line Level: auxiliary (or VCR Stereo L)
1 x RCA / Phono, Line Level: VCR/DVD (Stereo R)

AUDIO OUTPUTS (2 OUTPUTS)

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

FRAME RATES – POINT-TO-POINT & MULTISITE

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

MULTISITE FEATURES

Audio and Video Transcoding
Video rate matching from 56 kbps - maximum conference rate
Secondary conference rate
CP4 and Voice Switched
Best Impression
H.264, Encryption, Digital Clarity
DuoVideo and H.239 mixed and from any site
Telephony
ISDN & IP Downspeeding and IPLR
MULTISITE (H.243) CASCADING ON ISDN AND IP
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

IP AND BRI

Conference rates up to 2 Mbps
Up to 4 video and 3 audio sites
4 sites @ 768 kbps (+telephone calls)
Mix ISDN-BRI and IP up to maximum conference rate

DUOVIDEO / H.239

Available on all networks

NETWORK FEATURES

Auto H.320 / H.323 dialing
Downspeeding
Programmable network profiles
Intelligent Call Management
Maximum call length timer
Automatic SPID and line number configuration (National
ISDN, GR-2941-CORE)
SoftMux
H.331 Broadcast Mode
IP Address Conflict Warning

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 DuoVideo, H.239 and MultiSite

H.323 NETWORK FEATURES

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)
Automatic support for private and public IP addresses
using NAT
H.245 DTMF tones

SECURITY FEATURES

Management via HTTPS
IP Administration Password
Menu Administration Password
Dialing Access code
Streaming password
H.243 MCU Password
VNC password
SNMP security alerts
Disable IP services

NETWORK INTERFACES

4 x ISDN BRI (RJ-45), S-interface
1 x LAN / Ethernet (RJ-45) 10/100 Mbit (LAN / DSL /
cable modem)
1 x PC card slot (PCMCIA) for wireless LAN
1 x USB

WIRELESS LAN SUPPORT

Compliant with IEEE 802.11b, up to 11 Mbit
Support for 64 / 128 bit encryption (WEP)
Infrastructure or ad-hoc mode

ETHERNET / INTERNET / INTRANET CONNECTIVITY

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

OTHER MAJOR ITU STANDARDS SUPPORTED

H.231, H.233, H.234, H.235, H.235 v2&v3, H.239, H.241,
H.243, H.281, BONDING (ISO 13871), H.320, H.323,
H.331, MPEG4 AAC-LD (20KHz audio)

W.A.V.E. (WIDE ANGLE VIEW) II CAMERA

10 x zoom 1/4" CCD +15° / -20° tilt
+ / -95°pan
61° vertical field of view
96° total vertical field of view
77° horizontal field of view
267° total horizontal field of view
460 (PAL) / 470 (NTSC) TV lines
Min. Illumination 2 Lux (F1.8)
Auto or manual focus / brightness / white balance
Far-end camera control
15 near and far-end camera pre-sets
Voice-activated camera positioning

PRESENTATIONS AND COLLABORATION

Natural Presenter Package including:
PC Presenter
PC SoftPresenter
Digital Clarity
DuoVideo and H.239
Advanced Video Layouts
T.120 Microsoft® NetMeeting® support via RS-232
(9-pin D-sub)
Streaming compatible with Cisco IP/TV,
Apple QuickTime®, RealPlayer® v8 etc.

CLOSED CAPTIONING/TEXT CHAT

T.140 standards-based

SYSTEM MANAGEMENT

Support for the TANDBERG Management Suite
Total management via embedded web server, SNMP,
Telnet, XML, SOAP and FTP
Remote software upload: during a call over all networks,
via webserver or via FTP server
1 x RS-232 for local software upgrades, local control
and diagnostics
Onscreen Menu on TV and/or VGA monitors

DIRECTORY SERVICES

Support for Local, Global and Dynamic Server Directories
Unlimited entries using Server directory* supporting
LDAP and H.350
400 number global directory
100 number local directory
16 dedicated MultiSite entries

11 SELECTABLE MENU LANGUAGES

Chinese, English, French, German, Italian, Japanese,
Norwegian, Portuguese, Russian, Spanish and Swedish

CUSTOMIZED WELCOME SCREEN AND COMPANY LOGO

POWER

Auto-sensing power supply
100 – 250 VAC, 50 – 60 Hz
40 watts max.

UNIT DIMENSIONS

Height: 5.1" / 13.0cm
Width: 14.9" / 38.0cm
Depth: 7.9" / 20.0cm
Weight: 5.0lbs / 2.3kg

** Requires TANDBERG Management Suite 9.0 or newer*

System features vary depending on network selection and software package. All specifications subject to change without notice.

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