



# TANDBERG 770 MXP

For offices and small meeting rooms. Provides all the essential functionality for visual communications. This compact unit conveniently transforms any standard TV into an interactive meeting place, providing users with an outstanding business tool.



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

- 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 768 kbps, optionally with ISDN up to 128 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, Built-in camera, microphone, and cables

#### BANDWIDTH

H.320 up to 128 kbps  
H.323 up to 768kbps

#### 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 (4 INPUTS)

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: dual monitor or 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 (DIGITAL CLARITY):

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  
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

30 frames per second @ 168 kbps and above  
60 fields per second @ 336 kbps and above

#### 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 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

#### 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  
Dialling Access code  
Streaming password  
H243 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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of TANDBERG in the U.S. and other countries.*

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of RealNetworks, Inc.*

*QuickTime is a registered trademark of Apple Computer,  
Inc., registered in the U.S. and other countries.*

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or trademarks of Microsoft Corporation in the United  
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*All other trademarks are property of their respective owners.*

## TANDBERG

# 770

MPX

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July 2004



# TANDBERG 880 MXP

For medium- to small-sized meeting rooms as well as shared office environments. Incorporates the features and functions of larger systems in a portable, high performance set-top unit.



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 1152 kbps, optionally with ISDN up to 384 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, Built-in camera, microphone, and cables

#### BANDWIDTH

H.320 up to 384 kbps  
H.323 up to 1.1 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 (4 INPUTS)

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 1.1 Mbps  
Up to 4 video and 3 audio sites  
4 sites @ 384 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

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## TANDBERG

# 880

MPX

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July 2004



# 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  
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IP Address Conflict Warning

#### EMBEDDED ENCRYPTION

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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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RealPlayer is a trademark or a registered trademark of RealNetworks, Inc.

QuickTime is a registered trademark of Apple Computer, Inc., registered in the U.S. and other countries.

Microsoft and NetMeeting are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

All other trademarks are property of their respective owners.

## TANDBERG

# 990

## MPX

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