



## TANDBERG Codec C40

The TANDBERG C40 provides all the power required to transform any conference room to a HD video collaboration room. Designed for the integrator, the C40 is the ideal solution for everyday video conferencing and collaboration. 1080p HD video, and multisite features combine to make the C40 ideal for a variety of applications.



Also available as an integrator package with a PrecisionHD™ 1080p camera and one microphone.

#### DESIGN FEATURES

- The next generation HD video collaboration codec for every team room
- 1U high, rackmountable, with rack-mounting solution included
- Professional-grade connectors
- Unmatched quality and flexibility
- Standards-compliant 1080p solution — compatible with standards-based video without losing features

#### APPLICATION FEATURES

- Individual Transcoding embedded MultiSite™
- HD collaboration with resolutions up to WXGA at full framerate
- Ideal for team-based collaboration and industry applications

#### PERFORMANCE FEATURES

- Optimal definition up to 1080p
- H.323/SIP up to 6 Mbps point-to-point
- Connect up to 3 HD sources and 2 microphones directly into the interface
- Full duplex audio with high-quality stereo sound
- Full APIs
- Takes advantage of the TANDBERG Total Solution Management, transcoded HD MultiSite™, recording and streaming, firewall traversal

GET THE MOST FROM YOUR INVESTMENT. WITH **PROFESSIONAL SERVICES**, TANDBERG EXPERTS SUPPORT TANDBERG C40 DEPLOYMENT AND TRAINING. VISIT [WWW.TANDBERG.COM](http://WWW.TANDBERG.COM)

#### UNIT DELIVERED COMPLETE WITH:

Videoconferencing codec, wireless remote control, rack mounting ears, LAN cable, power cable

#### BANDWIDTH

H.323/SIP up to 6 Mbps point-to-point/10 Mbps in MultiSite\*\*  
720p30 from 768kbps  
720p60 from 1152kbps  
1080p30 from 1472kbps

#### FIREWALL TRAVERSAL

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

#### VIDEO STANDARDS

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

#### VIDEO FEATURES

Native 16:9 Widescreen  
Intelligent Video Management  
Local Auto Layout

#### VIDEO INPUTS (4 INPUTS)

##### 2X HDMI INPUTS, SUPPORTED FORMATS:

1920 x 1080@60, 59.94 Hz (1080p60)  
1920 x 1080@50 Hz (1080p50)  
1920 x 1080@30, 29.97 Hz (1080p30)  
1920 x 1080@25 Hz (1080p25)  
1920 x 1080@24, 23.97 Hz (1080p24)  
1280 x 720@60, 59.94 Hz (720p60)  
1280 x 720@50 Hz (720p50)  
720 x 480@60, 59.94 Hz (480p60)  
640 x 480@60 Hz (480p60)  
1600 x 1200@50, 60 Hz (UXGA)  
1280 x 1024@60, 75 Hz (SXGA)  
1024 x 768@60, 70, 75, 85 Hz (XGA)  
800 x 600@56, 60, 72, 75, 85 Hz (SVGA)  
1920 x 1200@50, 60 Hz (WUXGA)  
1680 x 1050@60 Hz (WSXGA+)  
1440 x 900@60 Hz (WXGA+)  
1280 x 768@60 Hz (WXGA)

##### 1X DVI-I INPUT, SUPPORTED FORMATS:

Analog (VGA):  
1920 x 1080@60 Hz (1080p)  
1280 x 720@60 Hz (720p)  
1600 x 1200@60 Hz (UXGA)  
1280 x 1024@60, 75 Hz (SXGA)  
1280 x 960@60 Hz  
1024 x 768@60, 70, 75, 85 Hz (XGA)  
1920 x 1200@50 Hz (WUXGA)  
1680 x 1050@60 Hz (WSXGA+)  
1440 x 900@60 Hz (WXGA+)  
1280 x 800@60 Hz (WXGA)  
1280 x 768@60 Hz (WXGA)

##### Analog (YPbPr):

1920 x 1080@60 Hz (1080p60)  
1920 x 1080@50 Hz (1080p50)  
1920 x 1080@30 Hz (1080p30)  
1920 x 1080@25 Hz (1080p25)  
1280 x 720@60 Hz (720p60)  
1280 x 720@50 Hz (720p50)  
1280 x 720@30 Hz (720p30)  
720 x 576@50 Hz (576p50)  
720 x 480@60 Hz (w480p60)

##### Digital (DVI-D):

Same as HDMI, ref. above.

##### 1X S-VIDEO / COMPOSITE INPUT (BNC CONNECTORS):

PAL/NTSC

Extended Display Identification Data (EDID)

#### VIDEO OUTPUTS (2 OUTPUTS)

##### 1X HDMI OUTPUT, 1X DVI-I OUTPUT, SUPPORTED FORMATS:

1920 x 1080@60 Hz (1080p60)  
1280 x 720@60 Hz (720p60)  
1600 x 1200@60 Hz (UXGA)  
1280 x 1024@60 Hz (SXGA)  
1024 x 768@60 Hz (XGA)  
800 x 600@60 Hz (SVGA)  
640 x 480@60 Hz (VGA)  
1920 x 1200@60 Hz (WUXGA)  
1360 x 768@60 Hz  
1366 x 768@60 Hz  
1280 x 768@60 Hz (WXGA)

#### VESA Monitor Power Management

Extended Display Identification Data (EDID)

#### LIVE VIDEO RESOLUTIONS (ENCODE/DECODE)

176 x 144@30 fps (QCIF)  
352 x 288@30 fps (CIF)  
512 x 288@30 fps (w288p)  
576 x 448@30 fps (448p)  
768 x 448@30 fps (w448p)  
704 x 576@30 fps (4CIF)  
1024 x 576@30 fps (w576p)  
1280 x 720@30 fps (720p30)  
1920 x 1080@30 fps (1080p30)\*\*  
512 x 288@60 fps (w288p60)  
768 x 448@60 fps (w448p60)  
1024 x 576@60 fps (w576p60)  
1280 x 720@60 fps (720p60)\*\*  
640 x 480@30 fps (VGA)  
800 x 600@30 fps (SVGA)  
1024 x 768@30 fps (XGA)  
1280 x 768@30 fps (WXGA)

#### AUDIO STANDARDS

G.711, G.722, G.722.1, 64 kbps & 128 kbps MPEG4 AAC-LD, AAC-LD Stereo

#### AUDIO FEATURES

CD-Quality 20KHz Mono and Stereo  
Two separate acoustic echo cancellers  
2-port Audio mixer  
Automatic Gain Control (AGC)  
Automatic Noise Reduction  
Active lip synchronization

#### AUDIO INPUTS (5 INPUTS)

2 x microphone, 48V phantom powered, XLR connector each with separate echo cancellers and noise reduction, all microphones can be set for balanced line level  
2 x RCA/Phono, Line Level: Stereo PC input, configurable to 2 x RCA/Phono, Line Level: Mono auxiliary/DVD input  
1 x HDMI, digital: Stereo PC/DVD inputs

#### AUDIO OUTPUTS (3 OUTPUTS)

2 x RCA/Phono, line level, stereo main audio, configurable to S/PDIF or 2 x RCA/Phono, line level, mono to recording device  
1 x HDMI, digital, stereo main audio

#### DUAL STREAM

H.239 (H.323) dual stream  
BFCP (SIP) dual stream  
Support for resolutions up to WXGAp30, Independent of the Main Stream Resolution

#### MULTISITE FEATURES

4-way SIP/H.323 MultiSite. Resolution up to w576p30  
Full individual audio and video transcoding  
Individual layouts in MultiSite CP (Takes out SelfView)  
H.323/SIP/VoIP in the same conference  
Support for Presentation (H.239/BFCP) from any participant at resolutions up to WXGAp30  
Best Impression (Automatic CP Layouts)  
H.264, Encryption, Dual Stream from any site  
IP Downsampling  
Dial in/Dial out  
Conference rates up to 10 Mbps

#### PROTOCOLS

H.323  
SIP

#### EMBEDDED ENCRYPTION

H.323/SIP point-to-point  
Standards-based: H.235 v2 & v3 and AES  
Automatic key generation and exchange  
Supported in Dual Stream

#### IP NETWORK FEATURES

DNS lookup for service configuration  
Differentiated Services (QoS)  
IP adaptive bandwidth management (including flow control)  
Auto gatekeeper discovery  
Dynamic playout and lip-sync buffering  
H.245 DTMF tones in H.323  
Date and Time support via NTP  
Packet Loss based Downsampling  
URI Dialing  
TCP/IP  
DHCP  
802.1x Network authentication  
ClearPath

#### SECURITY FEATURES

Management via HTTPS and SSH  
IP Administration Password  
Menu Administration Password  
Disable IP services  
Network Settings protection

#### NETWORK INTERFACES

1 x LAN/Ethernet (RJ-45) 10/100/1000 Mbit

#### OTHER INTERFACES

USB device for future usage  
Additional 1 x LAN/Ethernet (RJ-45) interface for future usage

#### PRECISIONHD 1080P CAMERA

1/3" CMOS  
12 x zoom / 4 x zoom  
+15°/-25° tilt, +/- 90° pan  
43.5° vertical field of view  
72° horizontal field of view  
Focus distance 0.3m-infinity  
1920 x 1080 pixels progressive @ 60fps (12 x version)  
1920 x 1080 pixels progressive @ 30fps (4 x version)  
Other formats supported (configurable through Dip-switch):  
1920x1080@60fps (HDMI only)\*  
1920x1080@50fps (HDMI only)\*  
1920x1080@30fps  
1920x1080@25fps  
1280x720@60fps\*  
1280x720@50fps\*  
1280x720@30fps  
1280x720@25fps  
Automatic or manual focus/brightness/white balance  
Far-end camera control  
Daisy-chain support (Visca protocol camera)\*  
Dual HDMI and HD-SDI output  
Upside-down mounting with automatic flipping of picture

#### SYSTEM MANAGEMENT

Support for the TANDBERG Management Suite  
Total management via embedded SNMP, Telnet, SSH, XML, SOAP  
Remote software upload: via web server, SCP, HTTP, HTTPS  
1 x RS-232 for local control and diagnostics  
Remote control and on-screen menu system

#### DIRECTORY SERVICES

Support for Local directories (My Contacts)  
Corporate Directory  
Unlimited entries using Server directory supporting LDAP and H.350  
Unlimited number for Corporate directory (through TMS)  
200 number local directory  
Received Calls  
Placed Calls  
Missed Calls with Date and Time

#### POWER

Auto-sensing power supply  
100–240 VAC, 50/60 Hz  
175 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)

#### APPROVALS

Directive 2006/95/EC (Low-Voltage Directive) — Standard EN 60950-1  
Directive 2004/108/EC (EMC Directive) — Standard EN 55022, Class B — Standard EN 55024 — Standard EN 61000-3-2/-3-3  
Approved according to UL 60950-1 and CSA 60950-1-07  
Complies with FCC15B Class B

#### DIMENSIONS

Length: 17.4"/44.2 cm  
Height: 1.7"/4.4 cm  
Depth: 10.9"/27.8 cm  
Weight: 8.8 lbs/4 kg

\*not supported on 4x zoom camera

\*\*requires option

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

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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 Codec C40

#### 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  
tandberg@tandberg.com

1212 Avenue of the Americas,  
24<sup>th</sup> Floor  
New York, NY USA 10036  
Tel: +1 212 692 6500  
Fax: +1 212 692 6501  
Video: +1 212 692 6535  
tandberg@tandberg.com

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