



TANDBERG Codec C60

The TANDBERG Codec C60 is the next generation, 1080p HD video collaboration engine. Designed with the integrator in mind, the C60 provides the flexibility to incorporate HD video and collaboration into many more team-based applications. Integrate into meeting rooms, boardrooms and special industry projects simply and easily.



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

DESIGN FEATURES

- The next generation HD video collaboration codec
- 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

- 720p30 HD embedded MultiSite with individual transcoding
- Collaborate with 3 simultaneous video inputs
- HD Collaboration with 1080p30 and UXGA**
- Limitless integration possibilities
- Ideal for team-based collaboration, boardrooms, meeting rooms and industry applications
- 7 video compositors (embedded)

PERFORMANCE FEATURES

- Optimal definition up to 1080p
- H.323/SIP up to 6 Mbps point-to-point
- Connect up to 5 HD sources and 4 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 and firewall traversal

GET THE MOST FROM YOUR INVESTMENT. WITH **PROFESSIONAL SERVICES**, TANDBERG EXPERTS SUPPORT TANDBERG C60 DEPLOYMENT AND TRAINING. VISIT WWW.TANDBERG.COM

UNIT DELIVERED COMPLETE WITH:

Videoconferencing codec, wireless remote control, rackmounting rails, LAN cable, power cable

BANDWIDTH

H.323/SIP up to 6 Mbps point-to-point

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
Advanced Screen Layouts
Intelligent Video Management
Local Auto Layout
7 embedded individual video compositors —
1 for every output and 1 for every encoder

VIDEO INPUTS (5 INPUTS)

2 X 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)

2 X DVI-I INPUTS, 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):

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)

1 X COMPOSITE INPUT (BNC CONNECTORS)

PAL/NTSC

Extended Display Identification Data (EDID)

VIDEO OUTPUTS (3 OUTPUTS)

1 X HDMI OUTPUT, 1 X 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)

1 X COMPOSITE OUTPUT (BNC CONNECTOR), SUPPORTED

FORMATS:

PAL/NTSC

VESA Monitor Power Management

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)
640 x 480@30 fps (VGA)
800 x 600@30 fps (SVGA)
1024 x 768@30 fps (XGA)
1280 x 1024@30 fps (SXGA)
1280 x 720@30 fps (720p30)
1920 x 1080@30 fps (1080p30)**
1280 x 768@30 fps (WXGA)
1440 x 900@30 fps (WXGA+)
1680 x 1050@30 fps (WSXGA+)
1600 x 1200@30 fps (UXGA)
512 x 288@60 fps (w288p60)
768 x 448@60 fps (w448p60)
1024 x 576@60 fps (w576p60)
1280 x 720@60 fps (720p60)

AUDIO STANDARDS

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

AUDIO FEATURES

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

AUDIO INPUTS (7 INPUTS)

4 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 1080p30 in both main stream and dual stream simultaneously

MULTISITE FEATURES

4-way 720p30 High Definition SIP/H.323 MultiSite
Full individual audio and video transcoding
Individual layouts in MultiSite CP (Takes out SelfView)
H.323/SIP/VoIP in the same conference
Best Impression (Automatic CP Layouts)
H.264, Encryption, Dual Stream from any site
IP Downspeeding
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 Downspeeding
URI Dialing
TCP/IP
DHCP
802.1x Network authentication

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 host for future usage
USB device for future usage
GPIO

PRECISIONHD 1080P CAMERA

1/3" CMOS
12 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
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 in version 1, available in future software version

** requires option

*** only one LAN/Ethernet interface supported in version 1

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

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