

# TANDBERG

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 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**

- 720p30 HD embedded multiSite with individual transcoding\*
- Collaborate on virtually anything with 4 video
- HD Collaboration with 1080p30 and UXGA\*\*
- Limitless integration possibilities
- 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 4 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<sup>™</sup>, recording and streaming, 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:

/ideoconferencing codec, wireless rails, LAN cable, power cable remote control, rack mounting

#### 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

#### VIDEO INPUTS (5 INPUTS)

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

1920 x 1080@30 fps (1080p30) 1920 x 1080@25 fps (1080p25) 1280 x 720@60 fps (720p60) 1280 x 720@50 fps (720p50) 640 x 480@60 fps (480p60)

1920 x 1080@60 fps (1080p60) 1920 x 1080@50 fps (1080p50)

800 x 600@60 fps (SVGA) 1024 x 768@60, 70, 75, 85 fps (XGA) 1280 v 1024@60 75 fps (SXGA

#### 2 X DVI-I INPUTS, SUPPORTED FORMATS:

Analog (VGA): 1024 x 768@60, 70, 75, 85 fps (XGA)

1280 x 1024@60, 75 fps (SXGA) Digital (DVI-D): 1920 x 1080@60 fps (1080p60)

1920 x 1080@50 fps (1080p50) 1920 x 1080@30 fps (1080p30)

1920 x 1080@25 fps (1080p25)

1280 x 720@60 fps (720p60) 1280 x 720@50 fps (720p50) 640 x 480@60 fps (480p60)

800 x 600@60 fps (SVGA) 1024 x 768@60, 70, 75, 85 fps (XGA) 1280 x 1024@60, 75 fps (SXGA)

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@60fps (1080p60) 1280 x 720@60fps (720p60) 1366 x 768@60fps (WXGA) 1280 x 768@60fps (WXGA) 1024 x 768@60fns (XGA) 1024 x 766@001ps (AGA) 1280 x 1024@60fps (SXGA) 640 x 480@60fps (VGA) 800 x 600@60fps (SVGA)

#### 1 X COMPOSITE OUTPUT (BNC CONNECTOR), SUPPORTED FORMATS:

VESA Monitor Power Management

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

176 x 144@30fps (QCIF) 352 x 288@30fps (CIF) 512 x 288@30fps (w288p) 576 x 448@30fps (448p) 768 x 448@30fps (w448p) 704 x 576@30fps (4CIF) 1024 x 576@30fps (w576p) 640 x 480@30fps (VGA) 800 x 600@30fps (SVGA) 1024 x 768@30fps (XGA 1280 x 1024@30fps (SXGA) 1280 x 720@30fps (HD720p30) 1920 x 1080@30fps (HD1080p30)\*\*

#### 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 lavouts in MultiSite CP (Takes out SelfView) H.323/SIP/VoIP in the same conference Best Impression (Automatic CP Lavouts) H.264, Encryption, Dual Stream from any site IP Downspeeding Dial in/Dial out Conference rates up to 10 Mbps

#### **PROTOCOLS**

SIP

#### **EMBEDDED ENCRYPTION**

H.323/SIP point-to-po 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

#### 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

#### PRECISIONHD 1080P CAMERA

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): 1920x 1080@60fps (HDMI only)

1920x 1080@50fps (HDMI only) 1920x 1080@30fps

1920x1080@25fps 1280x720@60fps 1280x720@50fps

1280x720@30fps 1280x 720@25fps

Automatic or manual focus/brightness/white balance Far-end camera control

Daisy-chain support (Visca protocol camera)

Dual HDMI and HD-SDI out nut

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 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

Auto-sensing power supply 100–240 VAC, 50/60 Hz 175 watts max, for codec and main camera

Missed Calls with Date and Time

#### 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)

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 (POH) > 69 000 hours Useful Life Cycle > 6 years ISO 9001 certificate is available upon request

#### **TANDBERG**

# Codec

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