



TANDBERG Codec C90

TANDBERG Codec C90是市面上功能最強、最具彈性的網真和協同引擎，讓您從容進行點對點1080p 高清晰視訊通訊、高清晰協同作業和高清晰內建多點視訊會議。此外，還提供比同級產品更多種的輸出入連接孔，提供無限可能的整合能力。



此外，亦可選購包含一具PrecisionHD™ 1080p攝影機及兩個麥克風的組合方案。

設計特色

- 市場上功能最強的編解碼器，提供頂級的視訊及音訊品質
- 高2U，可裝在機架上，隨機附贈機架安裝方案專業等級連接器
- 超越同級產品的品質及彈性
- 1080p相容標準解決方案，提供標準視訊功能，功能齊全

應用特色

- 多點視訊會議服務內建1080p30 高清晰獨立轉碼功能
- 在多達5個同步視訊連線輸入下，仍可進行任何協同作業
- 能以 1080p30 和 UXGA* 模式進行高傳真協同作業
- 無限的整合運用
- 適用於網真和協同工作室、會議室、會堂、教育及遠距醫療等應用。

功能特色

- 最佳解析度高達1080p
- 在H.323/SIP下，支援最高6 Mbps的點對點連線；支援總頻寬高達10Mbps的多點視訊會議
- 可直接連接高達12個高傳真信號源及8具麥克風
- 支援全雙工音訊，提供高品質立體聲音效
- 提供完整的各項API
- 可充分發揮TANDBERG全方位解決方案管理 (Total Solution-Management)、轉碼高傳真多點視訊會議 (Transcoded HD MultiSite™)、錄製和廣播、防火牆穿越等服務

讓您的視訊投資發揮最大的效益。TANDBERG專業人員秉持專業服務，提供TANDBERG CODEC C90的建置和訓練。詳情請上WWW.TANDBERG.TW。

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
Up to 10 Mbps total MultiSite bandwidth

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 (13 INPUTS)

4 X HDMI INPUTS, SUPPORTED FORMATS:

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)

4 X HD-SDI 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)
1280 x 720@30 fps (720p30)
1280 x 720@25 fps (720p25)

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)

2 X YPBPR INPUTS, SUPPORTED FORMATS:

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

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

PAL/NTSC
Extended Display Identification Data (EDID)

VIDEO OUTPUTS (5 OUTPUTS)

2 X HDMI OUTPUTS, 2 X DVI-I OUTPUTS, 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@60fps (XGA)
1280 x 1024@60fps (SXGA)
640 x 480@60fps (VGA)
800 x 600@60fps (SVGA)

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

PAL/NTSC
VESAs 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
Eight separate acoustic echo cancellers
8-port Audio mixer
Automatic Gain Control (AGC)
Automatic Noise Reduction
Active lip synchronization

AUDIO INPUTS (14 INPUTS)

8 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
2 x RCA/Phono, Line Level: Stereo auxiliary/DVD input
2 x HDMI, digital: Stereo PC/DVD inputs

AUDIO OUTPUTS (8 OUTPUTS)

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

DUAL STREAM

H.239 (H.323) dual stream
BFCP (SIP) dual stream
Available in MultiSite from any site
Support for resolutions up to 1080p30 in both main stream
and dual stream simultaneously

MULTISITE FEATURES

4-way High Definition SIP/H.323 MultiSite
Full individual audio and video transcoding up to 1080p30
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 and multipoint calls
Standards-based: H.235 v2 & v3 and AES
Automatic key generation and exchange
Supported in Dual Stream & MultiSite

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

SECURITY FEATURES

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

NETWORK INTERFACES

2*** x separate 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/whitebalance
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: 17.36" / 44.1 cm
Height: 3.67" / 9.3 cm
Depth: 11.8" / 30 cm
Weight: 11.22 lbs/ 5.1 kg

* not supported in version 1

** 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

TANDBERG

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