

Set-top Videoconferencing System and Integrator's Codec**Advantages of Conferencing with HD1000**

- Custom integration design and extensive set of APIs
- Provides exceptional video quality using the H.264 video standard
- Incorporates HDSimulcast™ technology for advanced streaming capabilities
- HD DualStream™, using H.239, allow users to send data and video simultaneously
- Web-based manager makes the HD1000 easy to control and administer
- Emblaze VCON Media Xchange Manager® management for advanced videoconferencing functions
- Encryption support with H.235 encryption standard (AES)

Emblaze-VCON's HD1000 is a high quality videoconferencing engine for integration into a custom multimedia room environment. When combined with external audio mixers, video switches and touch-screen control devices, virtually any rich media communication solution can be created. The HD1000 produces TV-quality video with extremely low latency and IP conferencing data rates up to 2 Mbps. With an embedded MCU and streaming capabilities, as well as a suite of integration APIs, the HD1000 can be used to create any custom application in an array of industries such as healthcare, large education facilities and corporate boardrooms. The high-quality, lifelike video and crisp, clear audio guarantee that meeting participants are experiencing the best videoconferencing quality available.

Advanced Features

The HD1000EX's embedded MCU can connect up to 4 sites. Participants can dial into a multipoint videoconference, or the MCU administrator can set up a dial-out conference, instantly connecting all parties. With chair control, the conference administrator can ensure the conference runs smoothly. Using Emblaze-VCON's HD DualStream technology, participants can share data and video simultaneously during a multipoint conference, as well as view data and video sent by a remote site on a single monitor.

The HD1000 incorporates multiple ways of streaming live videoconferences both over the corporate network and over the Internet, during a point-to-point or multipoint conference. Additionally, users can participate in high-bandwidth videoconferences, while streaming those conferences over the Internet at a lower and more appropriate bandwidth. These streaming capabilities can be accessed via the HD1000 web manager, allowing the network administrator to begin and end streaming.

Integration APIs

The HD1000 serial and IP-based APIs allow for easy integration into a variety of applications. The types of functions exposed via the HD1000 serial and IP-based APIs are:

- | | |
|-------------------|---------------------------------|
| Call initiation | Network QoS parameters |
| Call termination | System reboot |
| Call parameters | Multicast settings |
| System parameters | Debugging messages |
| Streaming control | Embedded MCU control (HD1000EX) |



Integrators can use the HD1000 to create custom applications in an array of industries such as healthcare, large education facilities, and corporate boardrooms.

What's in the box?

- g HD1000 codec
- g Power cable
- g Audio and video cables
- g LAN cable
- g RS-232 serial cable
- g IR remote control
- g Microphone
- g User's guide

Emblaze-VCON Ltd. Headquarters
Beit Rakefet
1 Emblaze Square
POB 2220
Ra'anana 43662
Israel
Tel: +972-9-7627800
Fax: +972-9-7627801

Emblaze-VCON, Inc., Americas
2 University Plaza, Suite 201
Hackensack, NJ 07601
USA
Tel: +1-201-883-1220
Fax: +1-201-883-1229

Emblaze-VCON China Representative Office
Unit 1321, Tower B. COFCO Plaza
No. 8 Jianguomennei Avenue
Beijing, 10005
China
Tel: +86-10-6526-9791
Fax: +86-10-6526-9790

Emblaze-VCON GmbH Germany
Schmellerstr. 23
D-80337 Munchen
Germany
Tel: +49-89-76757142
Fax: +49-89-76757143

Emblaze-VCON UK
London House, 42 Brook St.
London, W1K 5DB
United Kingdom
Tel: +44 (0)117 302 6795
Fax: +44 (0)117 302 6794

Video Specifications

Transmission Speed

64 Kbps - 2Mbps*

Video Standards

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

Video Inputs

Main camera
S-video (2nd camera)
Composite/RCA/Phono (2nd camera)
Composite/RCA/Phono (DVD/VCR)

Video Outputs

S-video (main monitor)
Composite/RCA/Phono (main monitor/VCR/DVD)
Composite/RCA/Phono (2nd monitor)
XGA, D-type 15 (main/2nd monitor)

Video Formats & Resolution

Interlaced CIF (352 x 576 pixels)
Interlaced SIF (352 x 480 pixels)
CIF (352 x 288 pixels)
SIF (352 x 240 pixels)
QCIF (176 x 144 pixels)
4CIF (H.263) (704 x 576 pixels)**

Video Frame Rate

Up to 15 frames/sec: 64Kbps to 384Kbps
Up to 30 frames/sec: 384Kbps and higher
Up to 60 fields/sec: 1 Mbps and higher

Supported Cameras

Canon VC-C4
Canon VC-C501
Sony D100
Sony EVI-D30/31

Audio Specifications

Audio Standards

G.711, G.723.1, G.728, G.729, G.722

Audio Inputs

Microphone omni (mini stereo)
Line-level RCA, L/R (VCR)
Line-level RCA for Aux mono input

Audio Outputs

Line-level RCA, L/R (TV)
Line-level RCA, L/R (VCR recording)

Audio Features

Full duplex echo cancellation
Automatic noise suppression (ANS)
Gain control
Microphone and VCR input audio mixing
Ability to turn off internal echo canceller
DTMF tone generation

* Up to 4Mbps on Ex

** Receiving only

*** Available only on EX

Data Specifications

Data Sharing

Utilizes desktop/laptop presentations utility

Data Ports

RS-232 data port (for Serial API or PTZ camera control)

Data Video Resolution

XGA (1024 x 768)
SVGA (800 x 600)
VGA (640 x 480)
up to 4CIF for PAL/NTSC monitors

HD DualStream™

H.239 support
1 live video source + 1 data source
Supported in MCU mode
Supported for both video and data streaming

HD Simulcast™

Multicast Streaming Video
Multicast to Broadcast Viewer, Quicktime, and other multicast viewers with integrated SDP listeners

Unicast Streaming Video

Data rate downspeeding
Unicast to Quicktime viewers
Multi-unicast:
Up to 15 unicast streams at 384 Kbps during multicast session
Up to 10 unicast streams at 384 Kbps during 384 Kbps + multicast

Emblaze-VCON Interactive Multicast

Participate in any Emblaze-VCON Interactive Multicast session
Uses bandwidth-efficient IP multicast

Networking Specifications

Standards Supported

ITU-T: H.323 v4
Annex Q (FECC)

Networking

Integrated 10/100 Ethernet NIC
DHCP
WINS
DNS
FTP
HTTP with DAA
Telnet

Software Upgrades

Via LAN
Notification of upgrade availability

Directory Services

1000+ local number directory

H.323 QoS Features

DiffServ
IP Precedence
Firewall port sync
NAT IP address mask
Port pinholing
Adaptive Bandwidth Adjustment
Packet ordering
Packet duplication control
Jitter correction
Lip sync correction
Overhead prediction

Embedded MCU Specifications***

4 participants @ 384 Kbps/part.
3 participants @ 768 Kbps/part.
Voice-activated switching
Speed matching
Dial-in or dial-out
Cascading up to 10 sites
H.243 chair control

Other Specifications

Security

Encryption using H.235 (AES)
MTU-allows to set the MTU packet size to match the need of the network.
(Default setting is 1200 bytes)

Browser-based Management

DAA (Digest Access Authentication)
Dial/Hang-up
Start/stop streaming
Phone Book management
IP address
Gatekeeper registration
LAN configuration
Call status
View streaming
Camera control
Diagnostics

Control

Internal IR receiver
External IR receiver (automatically disables the internal receiver)

Physical Dimensions

4.4 cm x 32.7 cm x 19.4 cm
(1.73 in x 12.87 in x 7.63 in)
2.350 kg (5.2 lb)

Language Support

English, French, German, Italian, Spanish (Spain & Latin America), Portuguese (Portugal & Brazil), Chinese (Simplified & Traditional), Japanese, Russian, Swedish, Finnish, Turkish, Korean

