

High-quality set-top

# VEGA® X5

#### Highest Quality

Crystal clear audio and superior video quality at 4 Mbps

#### Enhances Collaboration

Built-in MCU connects up to 9 sites with Continuous Presence in mixed mode ISDN, IP-H.323 and IP-SIP

#### Convenient

Fully featured set-top solution with embedded XGA ports and support for 3 monitors



Vega® X5 is a high-performance system at the cutting-edge of set-top technology. It is ideal for medium and large-sized videoconferencing sessions that require enhanced audio and video quality. The integrated Multipoint Conferencing Unit (MCU) connects up to 9 sites in mixed mode (ISDN and IP), with convenient Dial-out and Dial-in (Meet Me) configuration.

#### Supports multiple connectivity

Available in several versions: for connections up to 768 kbps over ISDN BRI and 4 Mbps over IP; as well as connections up to 2 Mbps over ISDN PRI or over leased lines (X.21, V.35, RS449, RS366, G.703).

#### Simultaneous Dual-Stream video

Convenient XGA input and output ports provide one-step PC plug-in for simultaneous dual-stream video and live PC presentations with enhanced images.

#### Easy to configure

Flexible, simple architecture enables easy re-configuration of the system. Ready to upgrade simply by adding different cards. Change the channel aggregator card and upgrade from BRI to PRI in one easy step!

#### Patented Voice Tracking and Wideband audio

Voice Tracking technology enables the camera to automatically track and frame the person who is speaking. The first system to support both 14-kHz (ITU and ISO) wideband audio codecs adopted in videoconferencing.

#### Customizable Graphic User Interface

The user is able to choose layouts and colours from a variety of alternatives.

## Technical Specifications

### Supported Standards

• ITU-T H.320	ISDN, leased networks
• ITU-T H.323	IP networks
• IETF-SIP (RFC3261)	IP networks
• PPPoE	
• Video	H.261, H.263+, H.264 H.239, H.241
• Audio	G.711, G.728, G.722, G.722.1 G.722.1 Annex C (v11), MPEG4 AAC-LD
• Data	T.120
• LDAP	H.350
• MCU compatibility	H.243, H.231

### Transmission

• Bit rate	56 kbps ÷ 768 kbps over ISDN BRI <sup>1</sup> 56 kbps ÷ 2 Mbps over ISDN PRI <sup>**2</sup> 64 kbps ÷ 4 Mbps over IP (H323/SIP) 64 kbps ÷ 4 Mbps over IP (H323/SIP) option Asymmetric rates 56 kbps ÷ 2 Mbps over V.35/Leased <sup>2</sup>
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<sup>1</sup> Up to 384 kbps with sw option, up to 768 kbps with hw option  
<sup>2</sup> With hw option

<sup>\*\*</sup>in North America ISDN PRI/T1 at 1544 kbps (ANSI T1 recommendations)  
• Simultaneous video motion coding and PC presentations from the XGA input

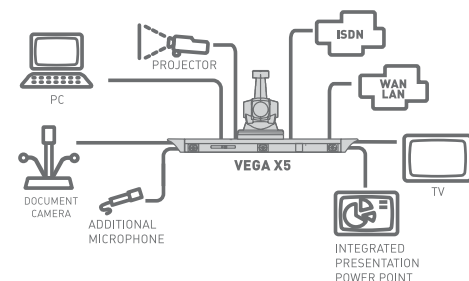
### Video

• Frame rate	15 frames per second @ 56 kbps -128 kbps 30 frames per second @ 168 kbps - 4 Mbps
• Video resolution	4CIF 704 x 576 pixels FCIF 352 x 288 pixels QCIF 176 x 144 pixels 4CIF 704 x 576 pixels for still images (H.261 Annex D) 4SIF 704 x 480 pixels SIF 352 x 240 pixels QSIF 176 x 120 pixels 4SIF 704 x 480 pixels for still images (H.261 Annex D) Up to 1024 x 768 pixels over XGA in H.263
• Remote camera control	H.281 (H.320 - H.323)

### Audio

Audio	Band	Bit rate
G.711	300 ÷ 3400 Hz	48/56/64 kbps
G.728	50 ÷ 3400 Hz	16 kbps
G.722	50 ÷ 7000 Hz	48/56/64 kbps
G.722.1	50 ÷ 7000 Hz	24/32 kbps
G.722.1 Annex C	50 ÷ 14000 Hz	24/32/48 kbps
AAC-LD	50 ÷ 14000 Hz	48/56/64 kbps

- Echo cancellation Full-duplex
- Adaptive post filtering
- Automatic Gain Control (AGC)
- Automatic Noise Suppression



### Audio Tracking

• Tracking	Enhanced Voice Tracking
• Coverage	max. 6 m, recommended 3 m
• Location	±60° horizontal, ±25° vertical

### Hi-Band Digital Microphone Pod

• Range	360°
• Response	50 ÷ 14000 Hz
• Microphones	3
• Mute button	
• Up to 2 pods in a daisy-chain configuration	

### Built-in Camera

• Resolution	752 x 582 pixels
• Presets	122 presets
• H. angle of view	6.6 to 65 degrees
• Zoom	40x (10x optical + 4x digital)

### Supported Monitor

• Format	PAL, NTSC, HighDef
• Single, Dual monitor, HighDef	
• PIP and PAP function	
• 16:9	
• Dual Monitor Emulation	

### Network Interfaces

• Basic version	
Ethernet	
2-Port 10/100BASE-T full-duplex with integrated switch Ethernet	2 RJ-45
• Optional ISDN	
1/3/6 BRI with integrated channel aggregator	1/3/6 RJ-45
or 1 E1/T1 PRI with integrated channel aggregator	1 RJ-45
or Leased networks	
X.21/V.35/RS366/RS449	44 pin Hi/Den
or G.703	1 RJ-45

### Network Protocols

- TELNET, HTTP, SNMP, DNS, DHCP, RTP/RTCP, TCP/UDP, ARP

### Network Features

- Differentiated Service (DIFFSERV), IP Precedence, IP Type of Service (ToS), Auto Gatekeeper Discovery, Clever Packets Management (AeCPM)

### Audio/Video Interfaces

• Video inputs		
Main camera		Integrated Y/C, not accessible
VCR		Composite (RCA)
Doc. Cam. 1		S-video (Mini-DIN)
Doc. Cam. 2		S-video (Mini-DIN)
Doc. Cam. 3		Composite (RCA)
XGA In		DVI-I
• Video outputs		
Monitor 1		Composite (RCA)
		S-video (Mini-DIN)
Monitor 2		S-video (Mini-DIN)
		with monitor detect
VCR		Composite (RCA)
XGA Out		DVI-I
• Audio inputs		
Connection	Level	Connector
2xPod mic. 360°	Dig.	RJ-11 6/6
Aux. mic.	Line	Stereo jack 3.5 mm
Audio In	Line	RCA
VCR	Line	2 RCA (L/R)
• Audio outputs		
Connection	Level	Connector
Monitor 1	Line	2 RCA (L/R)
VCR	Line	2 RCA (L/R)

### HighDef (XGA)

• Input	VGA, SVGA, XGA, WXGA, SXGA
• Output	VGA, SVGA, XGA, WXGA, SXGA

### Auxiliary Interfaces

• Data RS232	Mini-DIN 8-pin with DB9 adapter
• Diagnostics RS232	Mini-DIN 8-pin
• VISA RS232	Mini-DIN 8-pin supports Canon or Sony, aux PTZ camera
• PC card	1 PCMCIA, type II for Wi-Fi card

### Closed Captioning/Text Chat

- T.140 text chat, available from Web

### User Interface

- Multilingual on-screen graphic user interface
- User selectable languages: Italian, English, French, Spanish, German, Portuguese, Norwegian, Swedish, Russian, Czechoslovakian, Hungarian, Polish, Finnish, Simplified Chinese, Traditional Chinese, Japanese, Korean
- Infrared remote control for full function control
- Contextual help
- Diagnostics and management functions
- Call progress monitoring
- Supports AMX™ or Crestron™
- Customizable Graphic User Interface
- Web streaming function: UNICAST and MULTICAST compatible with QuickTime™

### Multipoint Function (option)

- Integrated MCU H.320, H.323 and SIP mixed mode  
up to 8 participants  
up to 9 participants (v11)
- Compatible with analog and mobile networks
- Video coding H.261, H.263+, H.264 (v11)
- Audio coding G.711, G.722, G.722.1, G.728
- Chair control H.243
- Dial-In/Dial-Out capabilities
- Continuous Presence
- Encryption
- H.239 Dual-video from any site

### Encryption

- AES encryption standard H.233, H.234, H.235
- NIST (National Institute of Standards & Technology) certified

### Web Management

All the configuration, call, diagnostics and management functions are accessible using the following web browsers: Microsoft® Internet Explorer™, Netscape Navigator™

### Remote Diagnostics and Management

	Local	Web Browser	SNMP
Self test	Yes	Yes	Yes
Diagnostics	Yes	Yes	Yes
Configuration	Yes	Yes	Yes
Call	Yes	Yes	Yes
Error tracking	Yes	Yes	Yes

### Integrated Presentation

- Supported applications Microsoft® PowerPoint®
- Multimedia support T.120

### Power Supply

- 100-240 Vac 50-60 Hz 1.5 A Max

### Dimensions

• VEGA X5	
Width	54 cm (21.25")
Height	22.5 cm (8.85")
Depth	23 cm (9.05")

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