

DATA SHEET

VS-2002-ENC, VS-2004-ENC

2- AND 4-PORT HDMI OVER IP H.264 ENCODERS

24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT BLACKBOX.COM



OVERVIEW

2- AND 4-PORT HDMI OVER IP H.264 ENCODERS (VS-2002-ENC, VS-2004-ENC) DATA SHEET

INTRODUCTION

The VS-2002-ENC or VS-2004-ENC is a 2- or 4-port live streaming media encoder that interfaces with HDMI signals for delivering media over IP networks. The VS-2002-ENC or VS-2004-ENC can be used with the VS-2001-DEC Decoder to deliver an A/V signal over a LAN or WAN.

The Encoder also works with a third-party decoder such as a set-top box, VLC, or Kodi media player on PCs to provide complete end-to-end streaming systems. It features two or four HDMI inputs and one Ethernet output for simplified integration into AV systems.

FEATURES

- HAS TWO OR FOUR STANDARD HDMI 1.4 INPUTS
- SUPPORTS RESOLUTIONS FROM COMMON STANDARD DEFINITION, THROUGH ALL RESOLUTIONS INCLUDING 1080P60, UP TO AND INCLUDING 1920 X 1200 AT 60 HZ
- USES STANDARDS-BASED HIGH-PROFILE H.264/MPEG-4 AVC VIDEO COMPRESSION IN REAL TIME
- FEATURES ADJUSTABLE VIDEO BANDWIDTH TARGETS FROM 1 MBPS THROUGH 10 MBPS
- OFFERS ASSIGNABLE PROGRAM NUMBER AND CHANNEL NAME INSERTED IN AN ENCODED STREAM
- OUTPUT RESOLUTION CAN TRACK INPUT RESOLUTION, OR BE FIXED AT A STATIC SIZE

FEATURES (CONTINUED)

- SUPPORTS AUDIO INPUT AS A COMPONENT OF HDMI INPUT
- OPERATES AT LPCM, AC3, MPEG1 LAYER 2
- SUPPORTS ANALOG AUDIO AND/OR COMPOSITE VIDEO FOR CLOSED CAPTIONS. CC REQUIRES USE OF A COMPATIBLE COMPOSITE CABLE
- OUTPUT HAS ONE STANDARD 10/100/1000BASE-T ETHERNET PORT
- COMMON COMMUNICATIONS PROTOCOLS/METHODS SUPPORTED INCLUDE TCP/IP, ARP, DHCP, ICMP (PING), IGMP, HTTP, RTP, UDP, RTMP, AND HLS
- OUTPUT STREAM CAN BE SET TO RTP, UDP, USING EITHER UNICAST OR MULTICAST ADDRESSING; OR TO RTMP OR HLS UNICAST
- SUPPORTS UP TO FOUR SIMULTANEOUS HLS SESSIONS PER VIDEO INPUT
- UDP/RTP VIDEO STREAM CAN BE DECODED BY ANY NUMBER OF ETHERNET ATTACHED RECEIVING DEVICES, INCLUDING PC/MAC, VLC, IP SET-TOP BOX, IPSTB-ENABLED TELEVISION, OR CUSTOM APPLIANCE
- OUTPUTS AUDIO IN MP2, AC3 OR AAC FORMAT
- MANAGE THE UNIT VIA A MAESTRO WEB GUI BROWSER
- SUPPORTS POWER-OVER-ETHERNET (POE), ALLOWING FOR VS-2002-ENC OR VS-2004-ENC TO BE POWERED BY AN APPROPRIATE SWITCH OR POWER INJECTOR
- UPGRADE THE SOFTWARE THROUGH THE MAESTRO WEB MANAGEMENT APPLICATION



SPECIFICATIONS

2- AND 4-PORT HDMI OVER IP H.264 ENCODERS (VS-2002-ENC, VS-2004-ENC) DATA SHEET



VS-2002-ENC



VS-2002-ENC

WHAT'S INCLUDED WITH THE VS-2002-ENC

- (1) HDMI OVER IP H.264 ENCODER, 2-PORT (VS-2002-ENC)
- (1) POWER ADAPTER (12 VDC, 1 A)

WHAT'S INCLUDED WITH THE VS-2004-ENC

- (1) HDMI OVER IP H.264 ENCODER, 4-PORT (VS-2004-ENC)
- (1) POWER ADAPTER (12 VDC, 1 A)

HDMI OVER IP H.264 ENCODER, 2-PORT AND 4-PORT (VS-2002-ENC, VS-2004-ENC) SPECIFICATIONS

VIDEO	
INPUT VIDEO PORT	(2) or (4) HDMI, Type A, 19-pin, female
INPUT VIDEO TYPE	HDMI 1.4 with HDCP 2.2
SUPPORTED INPUT VIDEO RESOLUTIONS	720 x 480i/p at 60 Hz, 1280 x 720i/p at 60 Hz, 1920 x 1080i/p at 60 Hz, 720 x 576i/p at 50 Hz, 1920 x 1080i/p at 50 Hz, 1280 x 720p at 30 Hz, 1920 x 1080p at 25 Hz, 1920 x 1080p at 24 Hz
INPUT VIDEO SIGNAL	0.5 – 1.2 V p-p
INPUT DDC SIGNAL	5 V p-p (TTL)
VIDEO ENCODING BIT RATE	1 Mbps to 10 Mbps (configurable)
OUTPUT VIDEO PORT	(1) LAN (PoE), 10/100/1000BASE-T
OUTPUT VIDEO TYPE	H.264/MPEG-4 AVC, HLS (low/high data rate)
OUTPUT VIDEO RESOLUTIONS	720 x 480i/p at 60 Hz, 1280 x 720i/p at 60 Hz, 1920 x 1080i/p at 60 Hz, 720 x 576i/p at 50 Hz, 1920 x 1080i/p at 50 Hz, 1280 x 720p at 30 Hz, 1920 x 1080p at 25 Hz, 1920 x 1080p at 24 Hz Audio: Encoding: LPCM, AAC; Sampling Rate: 48 kHz; Bitrate: 1.6 Mbps (LPCM), < or = 240 kbps (AAC) Delivery: Encapsulation Format: MPEG-2 transport stream Transmission Format: TS over UDP, TS over RTP Transmission Method: unicast, multicast, RTP over RTSP Session Control: RTSP (SETUP, TEARDOWN, OPTIONS, PLAY, DESCRIBE)
AUDIO	
INPUT AUDIO PORT	(2) or (4) HDMI Type A, 19-pin, female, (4) 3.5-mm mini-jack (analog audio)
SAMPLING RATE	48 kHz
OUTPUT CONNECTORS	(1) 3.5-mm 3-pin Phoenix connector, (1) RJ-45
SUPPORTED OUTPUT	Unbalanced stereo audio; Encoding: stereo LPCM/AAC; Sampling Rate: 48 kHz; Bit rate: 1.6 Mbps (LPCM), ≤ 240 kbps (AAC)
OUTPUT AUDIO PORT	(1) LAN (PoE), 10/100/1000BASE-T

SPECIFICATIONS

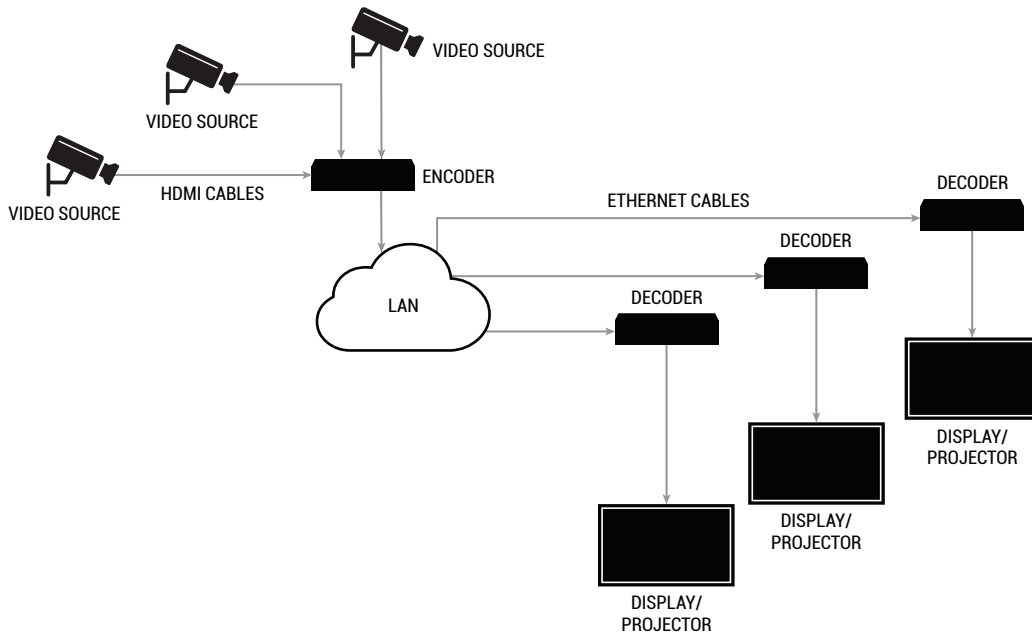
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HDMI OVER IP H.264 ENCODER, 2-PORT AND 4-PORT (VS-2002-ENC, VS-2004-ENC) SPECIFICATIONS (CONTINUED)	
CONTROL	
CONTROL CONNECTORS	(1) RJ-45, 10/100/1000BASE-T Ethernet port; (1) RS-232, to control peripheral equipment
CONTROL METHOD	Web UI; Telnet CLI
GENERAL	
OPERATING TEMPERATURE	32 to 113° F (0 to 45° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C)
OPERATING HUMIDITY	10 to 90%, noncondensing
STORAGE HUMIDITY	10 to 90%, noncondensing
POWER	12 VDC, 1 A
POWER CONSUMPTION	12 W (max.)
PRODUCT DIMENSIONS	VS-2002-ENC, VS-2004-ENC: 4.41" H x 7.09" W x 1.34" D (11.2 x 18 x 3.4 cm)
CERTIFICATION	CE, FCC



APPLICATION DIAGRAM

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ORDERING INFORMATION

ITEM	CODE
HDMI over IP H.264	
Encoder, 2-Port	VS-2002-ENC
Encoder, 4-Port	VS-2004-ENC

NOTES _____

DISCLAIMER

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Every day, our customers trust us to design, integrate, and maintain reliable control room solutions for broadcasting, post-production, stadiums & arenas, medical, air traffic control, oil & gas, government & military, and utility industries. Leave the tech to us and our comprehensive technology solutions will deliver secure connections, fast-response times, real-time collaboration and more.

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