



VersActive® Pro

Professional Quality Transcoders



VA-GR/E & VA-MD/E
(front view)

License-free

Applications

- Cost-effective, multichannel transcoding
- Simultaneous HD and SD transcoding for local/regional channel conversion requirements
- Converting providers' content (MPEG-2>4, 4>2) to accommodate varying broadcast inputs and set-top architectures
- Bit rate changing to reduce IPTV stream bandwidth and accommodate downstream end devices
- Creating multiple MBR output rates from multiple inputs

Key Features

License-free = Hassle-free

- Transcode what you want, when you want

Exceptionally Priced

- Why pay more?

Professional Video Quality

- High quality video at minimal bit rates

Product Line Overview

Input

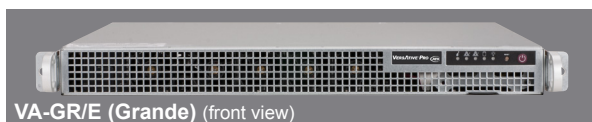
- Video: MPEG-2 or H.264, up to 1080p
- Audio: AAC-LC, AC-3 2.0/5.1, MPEG-1 L2/3, HE-AAC v1, E-AC3

Output

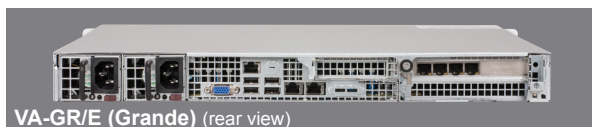
- Video: MPEG-2 or H.264, up to 1080p
- Audio: AAC-LC, MPEG-1 L2/3, AC-3 2.0/5.1, HE-AAC v1, E-AC3
- Protocol: UDP

Other Features

- Video: Up/downscale, cropping, frame rate conversion, deinterlacing
- Audio: Sample rate conversion, configurable audio delay
- Multiple publishing destinations per output stream
- Multiple output port streaming
- Output port mirroring
- CBR/VBR output
- Configurable GOP (H.264)
- Bit rate and session monitoring
- Management: HTTP GUI
- Closed Captioning (EIA-608 & EIA-708), Teletext and SCTE 35 pass through
- Low latency
- Private PID pass through
- PSI monitoring
- SNMP-based monitoring, ie. SNMP traps
- DVB® subtitle overlay
- VLAN segmentation
- NTP time management
- User access management
- HD/SD simulcast output from one single input program (MBR output from single input program)



VA-GR/E (Grande) (front view)



VA-GR/E (Grande) (rear view)



VA-MD/E (Mondo) (front view)



VA-MD/E (Mondo) (rear view)

Specifications

System Platform

	VA-GR/E	VA-MD/E
MECHANICAL & ENVIRONMENTAL		
FORM FACTOR	1RU (19" Rack Mount)	2RU (19" Rack Mount)
DIMENSIONS	1.75"H x 19.0"W x 16.9"D (4.45H x 48.26W x 42.9D cm)	3.5"H x 19.0"W x 28.5"D (8.89H x 48.26W x 72.4D cm)
WEIGHT	25.4 lbs (11.5 kg)	83.8 lbs (38.0 kg)
OPERATING TEMPERATURE/HUMIDITY	+10°C to +35°C (+50°F to +95°F) / 8-90% (Non-condensing)	
CONTROL & MANAGEMENT		
FRONT PANEL BUTTONS	Power ON/OFF	Power ON/OFF (x4), ID (x4)
FRONT PANEL LEDs	Power, Hard Drive Activity, Network Activity, Info	Power (x4), Hard Drive Activity (x4), Network Activity (x4), Info (x4)
DEVICE MANAGEMENT	Local/Remote Access via Integrated Web Server, HTTP Web GUI	
DEVICE MANAGEMENT INTERFACE	ETH RJ45, Static IP	ETH RJ45, Static IP (x4)
POWER SUPPLY		
POWERING	Redundant AC Power Supply 2x 400W, 100-240 VAC, 50-60 Hz	Redundant AC Power Supply 2x 1600W, 100-140 / 180-240 VAC, 50-60 Hz
POWERING CONNECTOR	2x IEC (C14 Inlet)	2x IEC (C14 Inlet)
PHYSICAL INTERFACES		
LAN (IP) INTERFACES	6x Gbps ETH RJ45 for IP Traffic and Management, 1x IPMI RJ45	6x Gbps ETH RJ45 (x4), 1x IPMI RJ45 (x4)
VIDEO MONITOR INTERFACE	VGA, DE-15 Female	VGA, DE-15 Female (x4)
USB INTERFACES	4x USB 2.0, Type A (on rear)	2x USB 3.0, Type A (on rear) (x4)
IP TRANSPORT I/O CHARACTERISTICS		
PHYSICAL PORT ADDRESS	Static IP Address	
TRANSPORT LAYER PROTOCOL (IN)	UDP	
TRANSPORT LAYER PROTOCOL (OUT)	UDP	
TRANSPORT STREAM SUPPORT (IN)	MPTS, SPTS	
TRANSPORT STREAM SUPPORT (OUT)	SPTS	
ADDRESSING	Multicast and Unicast	

Specifications

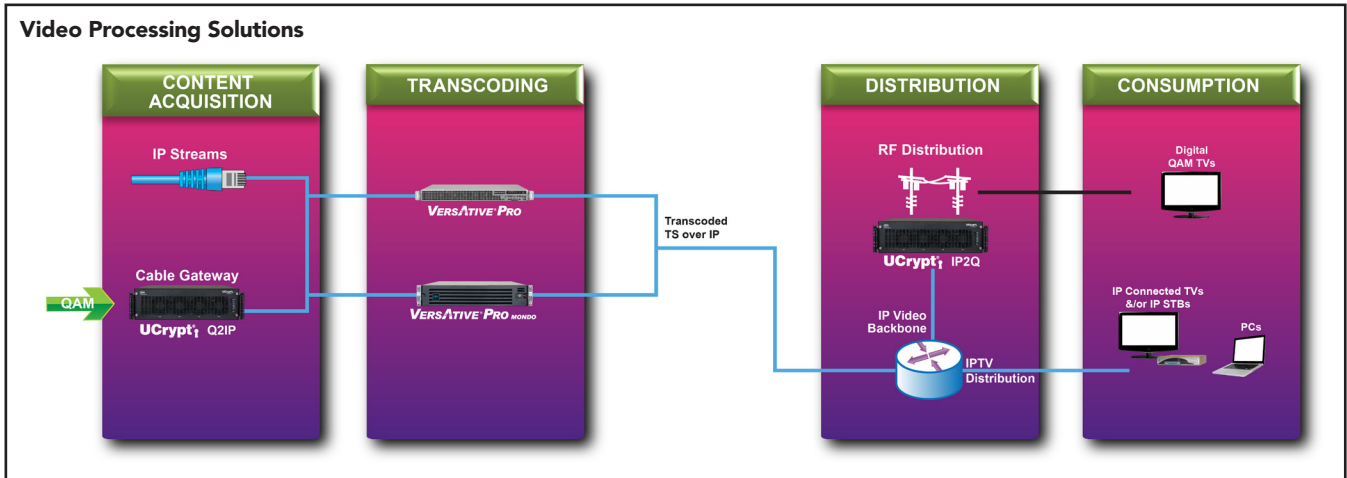
Transcoding

	VA-GR/E	VA-MD/E
VIDEO	Up/Downscaling, Cropping, Frame Rate Conversion, Deinterlacing	
AUDIO	Sample Rate Conversion, Audio Pass Through	
VIDEO OUTPUT		
ENCODING FORMAT	MPEG-2 MP@ML / MP@HL and H.264 High Profile @L4.0	
CHROMA FORMAT	4:2:0	
RESOLUTIONS	128 x 96 to 1920 x 1080	
ENCODING BIT RATE	80-18200 kbps	
FRAME RATES	1 / 4 / 5 / 6 / 8 / 10 / 12 / 15 / 23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60 fps	
AUDIO OUTPUT		
ENCODING STANDARD	MPEG-1-L2/3, AAC-LC, AC-3 2.0/5.1, HE-AAC v1, E-AC3	
SAMPLE RATE	32 / 44.1 / 48 kHz	
AUDIO BIT RATE	192, 256, 384 kbps (MPEG-1 L2)	
	32-256 kbps (MPEG-1 L3)	
	24-448 kbps (AC-3 2.0/5.1, AAC-LC, HE-AAC v1)	
	16-448 kbps (E-AC3)	
AUDIO DELAY	+/- 1000mS	

Ordering Information

Part Number	Description
VA-GR/E	VersActivePro Grande Enhanced, Redundant AC Power Supply
VA-MD/E	VersActivePro Mondo Enhanced, Redundant AC Power Supply
VA-GR/E-DE	VersActivePro Grande Enhanced, Dolby Enabler
VA-MD/E-DE	VersActivePro Mondo Enhanced, Dolby Enabler

Video Processing Solutions



Application Diagram

Specifications

Appendix: VersActive[®]Pro Processing Capacity

PART NUMBER	PROCESSING CAPACITY	INPUT BITRATE (Mbps)	OUTPUT BITRATE (Mbps)	1080i (29.97 fps)	1080i (29.97 fps) to 720p (29.97 fps)	1080i (29.97 fps) to 480i (29.97 fps)	720p (29.97 fps)	720p (29.97 fps) to 480i (29.97 fps)	480i (29.97 fps)
				NTSC					
VA-MD/E	MPEG-2 to MPEG-2	18	15	48	44		84		
	MPEG-2 to MPEG-2 (SD)	18	4			92			
	MPEG-2 (SD) to MPEG-2 (SD)	6+	6						160
	MPEG-2 to H.264	18	5	36	36		60		
	MPEG-2 to H.264 (SD)	18	2			92		152	
	MPEG-2 (SD) to H.264 (SD)	6+	2						204
	H.264 to MPEG-2	5	15	40	56		76		
	H.264 to MPEG-2 (SD)	5	6			76		88	
	H.264 (SD) to MPEG-2 (SD)	2	6						148
	H.264 to H.264	5	5	36	36		60		
	H.264 to H.264 (SD)	5	2			84			
	H.264 (SD) to H.264 (SD)	2	2						200
VA-GR/E	MPEG-2 to MPEG-2	18	15	12	11		21		
	MPEG-2 to MPEG-2 (SD)	18	4			23			
	MPEG-2 (SD) to MPEG-2 (SD)	6+	6						40
	MPEG-2 to H.264	18	5	9	9		15		
	MPEG-2 to H.264 (SD)	18	2			23		38	
	MPEG-2 (SD) to H.264 (SD)	6+	2						51
	H.264 to MPEG-2	5	15	10	14		19		
	H.264 to MPEG-2 (SD)	5	6			19		22	
	H.264 (SD) to MPEG-2 (SD)	2	6						37
	H.264 to H.264	5	5	9	9		15		
	H.264 to H.264 (SD)	5	2			21			
	H.264 (SD) to H.264 (SD)	2	2						50

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