

# All Logan VPU Products

VPU | Codensity Quadra G5



NETINT Technologies  
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	1st Generation VPU		
	Modules		Server
	ASIC VPU <b>T408</b>	ASIC VPU <b>T432</b>	ASIC G4 <b>Logan</b>
Performance			
ASIC Codensity chip	G4	G4 (4x)	G4, T408s (10x)
Price	\$300	\$1,200	starting at \$7,000
Form Factor	U.2	AIC, HHHL	1RU Server
Power Consumption	7W	27W	200W
Real-time Throughput Up to:	4Kp60 4x 1080p60	4Kp60 4x 4Kp60 16x 1080p60	4Kp60 10x 4Kp60 40x 1080p60
Latency	12.8 ms	12.8 ms	12.8 ms
Encode Codecs	H.264, HEVC		
Decode Codecs	H.264, HEVC, YUV		
Audio Engines	MP3, AAC-LC, HE-AAC		
Features			
Artificial Intelligence			
<b>New</b> Capped CRF	●	●	●
Cropping and Padding			
Scaling			
Video Overlay			
Audio decode / encode			
YUV / RGB Conversion			
Configurable tuning of quality/throughput			

# Logan Video Server

Transcoding | Codensity ASIC G4



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<b>CPU Options</b>	AMD EPYC™ 7232P Server Processor (8-core)
	AMD EPYC 7543P Server Processor (32-core)
	AMD EPYC 7713P Server Processor (64-core)
<b>Operating System</b>	Ubuntu 20.04.05 LTS <i>(as of May 2023)</i>
<b>Memory</b>	8x 16GB DDR4-3200
<b>Storage</b>	400GB M.2 SSD
<b>NVMe Support</b>	10x
<b>PCIe Expansion</b>	Up to 3x PCIe slots
<b>Network Options</b>	Dual 10GBase-T LAN
<b>Power Supply</b>	700W: 100 - 140Vac
	750W: 200 - 240Vac
	750W: 200 - 240Vdc (CCC only)
<b>Transcoders</b>	10x NETINT T408
<b>Encoding Capacity</b>	Up to 10x 4Kp60 or 80x 1080p30 (HEVC and H.264)
<b>Codec Support</b>	H.264 - Encode/Decode
	HEVC - Encode/Decode
<b>Transcoder Software</b>	FFmpeg, GStreamer

<b>Physical Dimensions</b>	W: 17.2" (437mm), H: 1.7" (43mm), D: 23.5" (597mm)
<b>Rack Size</b>	1U
<b>Weight</b>	39 lbs (17.69 kg) <i>(includes 10 processors)</i>
<b>Environmental</b>	50 degrees F to 95 degrees F Operating Temperature, 8% to 90% Operating Relative Humidity
<b>Power Inputs</b>	100 - 140Vac / 8 - 6V / 50-60Hz
	200 - 240Vac / 4.5 - 3.8A / 50-60Hz
	200 - 240Vdc / 4.5 - 3.8A (CCC Only)
<b>Certifications</b>	RoHS Compliant, UL Approved

# T408 VPU

Codensity ASIC G4



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<b>Form Factor</b>	U.2 (SFF-8639)
<b>Interface</b>	PCIe 3.0 x4
<b>Protocol</b>	NVMe
<b>Power Consumption (Typ)</b>	7W
<b>Usage</b>	24/7 Operation
<b>Operation Temperature</b>	0 - 70°C
<b>RoHS Compliance</b>	Meets requirements of European Union (EU) ROHS Compliance Directives
<b>Product Health Monitoring</b>	Self-Monitoring, Analysis, and Reporting Technology (SMART) commands Temperature Monitoring & Logging
<b>Video Encoding Standards/Formats</b>	H.264 AVC, CBP / BP / XP / MP / HiP / HiP10 H.265 HEVC, Main / Main 10
<b>Video Decoding Standards/Formats</b>	H.264 AVC, CBP / BP / XP / MP / HiP / Hi10P H.265 HEVC, Main / Main 10
<b>Throughput Capacity</b>	1x 4Kp60 or 4x 1080p60
<b>Level</b>	1 to 6.2 Main Tier
<b>Min / Max Resolution</b>	32 x 32 to 8192 x 5120
<b>Scan Type</b>	Progressive
<b>Bitrate</b>	64kbit/s to 700Mbit/s
<b>Software Integration</b>	FFmpeg and GStreamer SDKs and direct integration with LibXcoder API
<b>Region of Interest (ROI)</b>	ROI enables the quality of some regions to be improved at the expense of other regions
<b>Closed Captioning</b>	EIA CEA-708 for H.264 and H.265 encode/decode
<b>High Dynamic Range (HDR)</b>	HDR10 & HDR10+ for H.264 & H.265 encode/decode
<b>Low Latency</b>	Sub-frame latency
<b>IDR Insert</b>	Forced IDR frame inserts at any location
<b>Flexible GOP Structure</b>	8 presets plus customizable GOP structure

# T432 VPU

Codensity ASIC G4



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<b>Form Factor</b>	AIC (HHHL)
<b>Interface</b>	PCIe 3.0 x16 bifurcated to 4x4
<b>Protocol</b>	NVMe
<b>Power Consumption (Typ)</b>	27W
<b>Usage</b>	24/7 Operation
<b>Operation Temperature</b>	0 - 70°C
<b>RoHS Compliance</b>	Meets requirements of European Union (EU) ROHS Compliance Directives
<b>Product Health Monitoring</b>	Self-Monitoring, Analysis, and Reporting Technology (SMART) commands Temperature Monitoring & Logging
<b>Video Encoding Standards/Formats</b>	H.264 AVC, CBP / BP / XP / MP / HiP / HiP10 H.265 HEVC, Main / Main 10
<b>Video Decoding Standards/Formats</b>	H.264 AVC, CBP / BP / XP / MP / HiP / Hi10P H.265 HEVC, Main / Main 10
<b>Throughput Capacity</b>	4x 4Kp60 or 16x 1080p60
<b>Level</b>	1 to 6.2 Main Tier
<b>Min / Max Resolution</b>	32 x 32 to 8192 x 5120
<b>Scan Type</b>	Progressive
<b>Bitrate</b>	64kbit/s to 700Mbit/s
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