

All Logan VPU Products

Codensity Quadra G5



NETINT Technologies
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	1st Generation VPU		
	Modules		Server
	ASIC VPU T408	ASIC VPU T432	G4 VPU Logan
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	~400W
Real-time Throughput Up to:	8x 1080p30 2x 4Kp30	32x 1080p30 8x 4Kp30	80x 1080p30 20x 4Kp30
Latency	12.8 ms	12.8 ms	12.8 ms
Encode Codecs	H.264, HEVC, YUV		
Decode Codecs	H.264, HEVC, YUV		
Audio Codecs	n/a		
Features			
Artificial Intelligence	n/a	n/a	n/a
New Capped CRF	●	●	●
Flexible GOP	●	●	●
Scaling	○	○	○
Cropping and Padding	○	○	○
Video Overlay	○	○	○
YUV / RGB Conversion	○	○	○
Configurable tuning of quality/throughput	n/a	n/a	n/a

● Feature supported on VPU ○ Feature runs on host CPU

Logan Video Server

VPU | Codensity ASIC G4



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CPU Options	AMD EPYC™ 7232P Server Processor (8-core)
	AMD EPYC 7543P Server Processor (32-core)
	AMD EPYC 7713P Server Processor (64-core)
Operating System	Ubuntu 20.04.05 LTS <i>(as of May 2023)</i>
Memory	8x 16GB DDR4-3200
Storage	400GB M.2 SSD
NVMe Support	10x
PCIe Expansion	Up to 3x PCIe slots
Network Options	Dual 10GBase-T LAN
Power Consumption	~400W
Power Supply	700W: 100 - 140Vac
	750W: 200 - 240Vac
	750W: 200 - 240Vdc (CCC only)
Transcoders	10x NETINT T408
Throughput Capacity	Up to 80x 1080p30 or 20x 4Kp30
Codec Support	H.264 - Encode/Decode
	HEVC - Encode/Decode
	YUV - Encode/Decode
Transcoder Software	FFmpeg, GStreamer

Physical Dimensions	W: 17.2" (437mm), H: 1.7" (43mm), D: 23.5" (597mm)
Rack Size	1U
Weight	39 lbs (17.69 kg) <i>(fully loaded with 10 T408s)</i>
Environmental	50 degrees F to 95 degrees F Operating Temperature, 8% to 90% Operating Relative Humidity
Power Inputs	100 - 140Vac / 8 - 6V / 50-60Hz
	200 - 240Vac / 4.5 - 3.8A / 50-60Hz
	200 - 240Vdc / 4.5 - 3.8A (CCC Only)
Certifications	RoHS Compliant, UL Approved

T408 VPU

Codensity ASIC G4

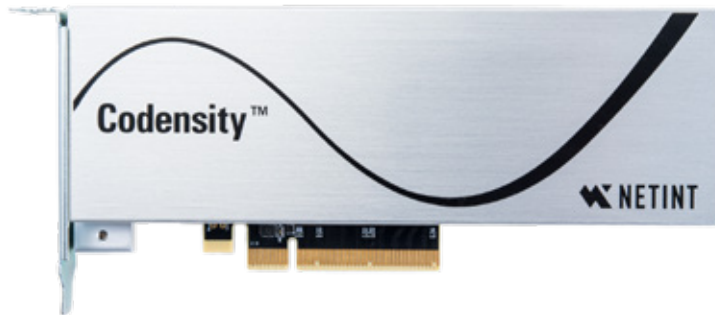


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Form Factor	U.2 (SFF-8639)
Interface	PCIe 3.0 x4
Power Consumption (Typ)	7W
Usage	24/7 Operation
Operation Temperature	0 - 70°C
RoHS Compliance	Meets requirements of European Union (EU) ROHS Compliance Directives
Product Health Monitoring	Self-Monitoring, Analysis, and Reporting Technology (SMART) commands Temperature Monitoring & Logging
Video Encoding Standards/Formats	H.264 AVC, CBP / BP / XP / MP / HiP / HiP10 H.265 HEVC, Main / Main 10 YUV
Video Decoding Standards/Formats	H.264 AVC, CBP / BP / XP / MP / HiP / Hi10P H.265 HEVC, Main / Main 10 YUV
Throughput Capacity	8x 1080p30 or 2x 4Kp30
Level	1 to 6.2 Main Tier
Min / Max Resolution	32 x 32 to 8192 x 5120
Scan Type	Progressive
Bitrate	64kbit/s to 700Mbit/s
Software Integration	FFmpeg and GStreamer SDKs and direct integration with LibXcoder API
Region of Interest (ROI)	ROI enables the quality of some regions to be improved at the expense of other regions
Closed Captioning	EIA CEA-708 for H.264 and H.265 encode/decode
High Dynamic Range (HDR)	HDR10 & HDR10+ for H.264 & H.265 encode/decode
Low Latency	Sub-frame latency
IDR Insert	Forced IDR frame inserts at any location
Flexible GOP Structure	8 presets plus customizable GOP structure

T432 VPU

Codensity ASIC G4



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Form Factor	AIC (HHHL)
Interface	PCIe 3.0 x16 bifurcated to 4x4
Power Consumption (Typ)	27W
Usage	24/7 Operation
Operation Temperature	0 - 70°C
RoHS Compliance	Meets requirements of European Union (EU) ROHS Compliance Directives
Product Health Monitoring	Self-Monitoring, Analysis, and Reporting Technology (SMART) commands Temperature Monitoring & Logging
Video Encoding Standards/Formats	H.264 AVC, CBP / BP / XP / MP / HiP / HiP10 H.265 HEVC, Main / Main 10 YUV
Video Decoding Standards/Formats	H.264 AVC, CBP / BP / XP / MP / HiP / Hi10P H.265 HEVC, Main / Main 10 YUV
Throughput Capacity	32x 1080p30 or 8x 4Kp30
Level	1 to 6.2 Main Tier
Min / Max Resolution	32 x 32 to 8192 x 5120
Scan Type	Progressive
Bitrate	64kbit/s to 700Mbit/s
Software Integration	FFmpeg and GStreamer SDKs and direct integration with LibXcoder API
Region of Interest (ROI)	ROI enables the quality of some regions to be improved at the expense of other regions
Closed Captioning	EIA CEA-708 for H.264 and H.265 encode/decode
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