



# REBOTNIX GUSTAV AGX ORIN NEXT LEVEL OF LOW ENERGY A.I. COMPUTING

MADE FOR THE INDUSTRY
ISO 16750-3 | OSP 16750 | IEC60068-2-1 | IEC60068

G-OS<sup>TM</sup>
GUSTAV OPERATING SYSTEM











## GUSTAV AGX ORIN (32 GB)

**EDGE DEVICE / SKU: RB-AGX-ORIN32** 

#### **Features**

- NVIDIA® Jetson AGX ORIN™ SOM
- 8 x ARM64 CPU & 1792 CUDA & 56 Tensor-Cores
- 32 GB / Gigabytes of RAM (shared memory)
- 2 x USB 3.x connectors
- 1x 12 Volts input with Lemo Connector
- 1 x HDMI 2.1 Output
- 2 x RJ-45 Ethernet (both gigabit)
- 128 2.000 GB SSD (M2)
- Active cooling
- Supercap 200 mF
- Quickflash for all NVIDIA Jetpack SDK
- W: 42mm H:43.5mm D:220mm
- Optional RS232 | RS485 | CAN-BUS











## GUSTAV AGX ORIN (64 GB)

**EDGE DEVICE / SKU: RB-AGX-ORIN64** 

#### **Features**

- NVIDIA® Jetson AGX ORIN™ SOM
- 12 x ARM64 CPU & 2048 CUDA & 64 Tensor-Cores
- 64 GB / Gigabytes of RAM (shared memory)
- 2 x USB 3.x connectors
- 1 x 12 Volts input with Lemo Connector
- 1 x HDMI 2.1 Output
- 2 x RJ-45 Ethernet (both gigabit)
- 128 2.000 GB SSD (M2)
- Active cooling
- Supercap 200 mF
- Quickflash for all NVIDIA Jetpack SDK
- W: 42mm H:43.5mm D:220mm
- Optional RS232 | RS485 | CAN-BUS



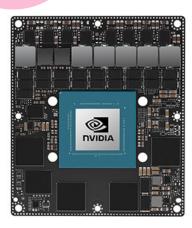




## DATASHEET



#### **GUSTAV AGX ORIN 32 GB**



#### Jetson NVIDIA™ AGX Orin 32 GB

- 200 Sparse- | 100 Dense-INT8-TOPS
- 1792 CUDA-Cores und 56 Tensor-Cores
- 15 40 Watt
- 8 Kern ARM Cortex 64 Bit CPU (2.2 GHZ max.)
- 2 x NVIDIA v2.0 DL | PVA v2.0
- 32 GB 256 bit LPDDR 204,8 GB/s | 64 GB eMMC 5.1
- Video Encode

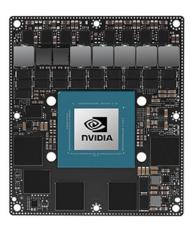
1 x 4k60, 3 x 4K30, 6 x 1080p60 12 x 1080p30 (H.265, H.264) | AV1 (Beta)

Video Decode

1x 8K30 | 2x 4K60 | 4x 4K30 | 9 x 1080p60 | 9 x 1080p30 (H.265 | H.264) 18 x 1080p30 , VP9, AV1 (Beta)

- 2 x GbE RJ-45 (Supported by GUSTAV AGX ORIN)
- 1x 8K60 multimodal DP 1.4a | 1.4a/HDMI 2.1
- 15-40 Watt power consumption

#### **GUSTAV AGX ORIN 64 GB**



#### Jetson NVIDIA™ AGX Orin 64 GB

- 275 Sparse- | 138 Dense-INT8-TOPS
- 2048 CUDA-Cores und 64 Tensor-Cores
- 15 60 Watt
- 12 Kern ARM Cortex 64 Bit CPU (2.2 GHZ max.)
- 2 x NVIDIA v2.0 DL | PVA v2.0
- 64 GB 256 bit LPDDR 204,8 GB/s | 64 GB eMMC 5.1
- Video Encode

2 x 4k60, 4 x 4K30, 8 x 1080p60 16 x 1080p30 (H.265, H.264) | AV1 (Beta)

Video Decode

1x 8K30 | 3 x 4K60 | 7 x 4K30 | 11 x 1080p60 | 22x 1080p30 (H.265 | H.264) , VP9, AV1 (Beta)

- 2 x GbE RJ-45 (Supported by GUSTAV AGX ORIN)
- 1x 8K60 multimodal DP 1.4a | 1.4a/HDMI 2.1
- 15-60 Watt power consumption

# Accessories



#### **REBOTNIX OS Software**

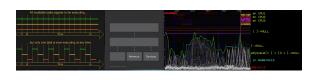
• REBOTNIX gOS™ Realtime Linux OS

#### **REBOTNIX VISIONTOOLS**

- HQ GPS UBLOX
- ModBus Server incl. Python Bindings
- Hardware Encryption Libraries
- Industry proofed A.I. Models
- Camera USB3.x Vision Support
- FFMPEG Accerlation HW Binary
- Streaming and Transcoding tools

#### **Mounting AddOns**

35mm DIN rail mounts





#### **Communication AddOns**

- RS232 I
- RS485 I
- CAN BUS I
- · CAN BUS VERIFIED



# Approvals CE, RohS

#### **Cameras**

- USB 3 CAMERAS
- GiGe CAMERAS
- FPD-III LINK



**CAMERAS CATALOG ON REQUEST** 

#### **Storage Addons (mounted internal)**

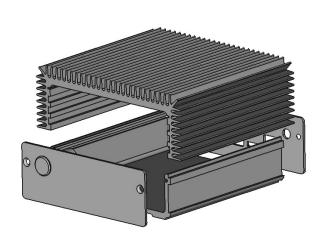
- 250 Gigabytes M2.SSD (internal)
- 500 Gigabytes M2.SSD (internal)
- 1000 Gigabytes M2.SSD (internal)
- 2000 Gigabytes M2.SSD (internal)





# **GUSTAV SUPERMINICOMPUTER**

#### **DIMENSIONS**



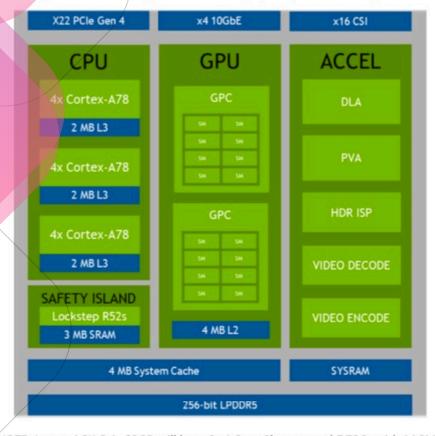


#### Components

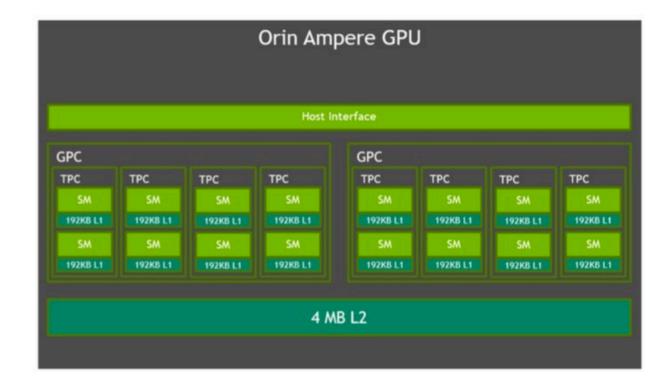
No.	Part name	Pcs	Material	Color / Finish
1	Panel	2	Aluminium A1050P	Silver • Black / Anodized
2	Heat-sink top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized
3	Bottom frame	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized
4	Screw (Hexagonal)	8	Stainless steel	Unfinished
5	Rubber feet	4	Polyurethane	Black



Figure 2: Orin System-on-Chip (SoC) Block Diagram



NOTE: Jetson AGX Orin 32GB will have 2x 4 Core Clusters, and 7 TPCs with 14 SMs



Note: The above diagram shows Jetson AGX Orin 64GB. Jetson AGX Orin 32GB will have 7 TPCs and 14 SMs.





# Solutions



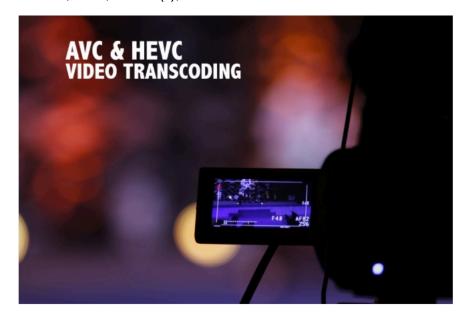


## IP-based applications



#### Video Transcoding & Transmuxing

AVC<->HEVC up 4K x 2K 60 Hz Protocol Conversation RTMP, SRT, HTTP (s), RTSP



#### Video Decoders

H.265 Video Decoder

H.264 Video Decoder

**AV1 Video Decoder** 

VP8 Video Decoder

VP9 Video Decoder

JPEG Decoder

#### Video Encoders

H.264 / AVC Video Encoder

H.265 / HEVC Video Encoder

AV1 / Video Encoder

VP9 Video Encoder

JPEG Encoder

#### Video Filters

Rotation

Scaling

Artificial Image Processing (CUDA)

#### Encryption and Decryption

AES -128 CBC



## Use scenarios

### REBOTNIX INDUSTRIAL SOLUTIONS

#### OUR READY TO GO PLATFORMS, BASED ON OUR SOFT- AND HARDWARE TECHNOLOGY



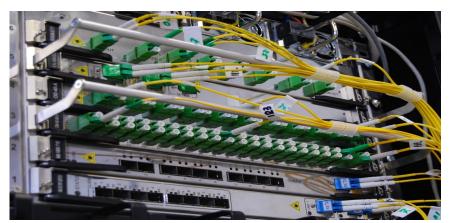
**MONITORING & AUTOMATION OF INDUSTRIAL PLANTS** 



WE CONVERT VEHICLES TO DATA SUPPLIERS



**WE CONVERT CAMERAS TO SENSORS** 



WE CONNECT NETWORKS THROUGH FAST META DATA TRANSFER





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