

REBOTNIX<sup>®</sup>  
INDUSTRIAL A.I. SOLUTIONS

# GUSTAV-i7

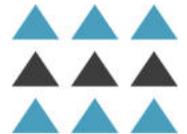
ALL IN ONE EDGE SOLUTION  
DOCUMENT VERSION 1.0.2



SKU: RB\_GI7ONX16

## ABOUT GUSTAV-I7

SUPPORTS NVIDIA JETSON ORIN NX, XAVIER NX 8GB & 16GB



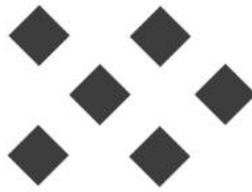
The GUSTAV-i7 by REBOTNIX is a highly versatile all-in-one edge computer, designed to meet the highest quality standards for a wide range of industrial and AI applications. Powered by an NVIDIA Jetson Orin NX (8 or 16 GB), it offers strong on-device AI processing in a compact black anodized aluminum housing.

What sets the GUSTAV-i7 apart is its extensive internal add-on support – including RTK-GPS with wheel encoder, LTE modem, Wi-Fi (2.4 & 5 GHz), M.2 SSD, GPIO, and a dedicated service port. With seven USB ports, CAN-Bus, RS485, a Gigabit Ethernet port, and DisplayPort output, it provides unmatched connectivity for complex edge applications.

A built-in 256-bit hardware cryptochip ensures secure AI model protection, compliant with the European AI Act and cybersecurity regulations.

[www.rebotnix.com](http://www.rebotnix.com)





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# SPEZIFIKATIONS

SUPPORTS NVIDIA JETSON ORIN NX 8 & 16 GB

## ELEKTRICAL SPECIFICATIONS

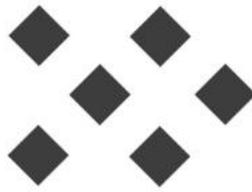
DC voltage input	12-30V
Power consumption	Max.30W

## ENVIRONMENTAL SPECIFICATIONS:

Temperature range	-20°C bis 70°C
Humidity	Non-condensing

## INTERFACES & CONNECTORS

LTE; LTE	SMA SOCKET FOR LTE ANTENNA
WIFI	RP-SMA SOCKET FOR WIFI ANTENNA
GPS	SMA SOCKET FOR GPS ANTENNA
USB 2.0	USB 2.0 SOCKET
DISPLAY	DISPLAYPORT SOCKET FOR CONNECTING A DISPLAY
SP	SERVICEPORT FOR CONNECTING A SERVICEBOX
USB 1-7	USB 3:0 SOCKETS
CAN - GPIO - RS485	SOCKET FOR DIGITAL I/O
RJ45	INTRANET SOCKET
TP	SMA SOCKET FÜR TIMEPULS SENSOR
PWR	SOCKET POWER SUUPLIEY ANDFOR AUT: START/STOP



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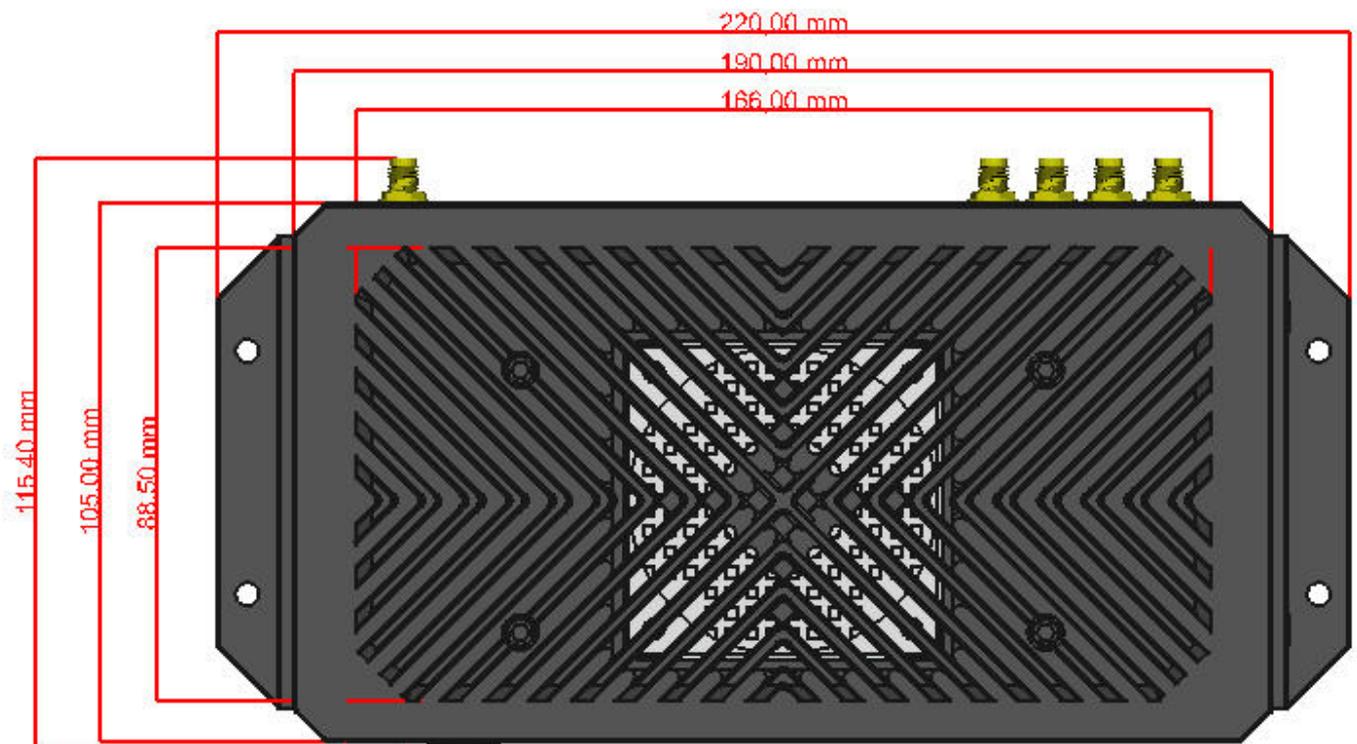
## SPEZIFICATIONS

SUPPORTS NVIDIA JETSON ORIN NX 8 & 16 GB

## TECHNICAL SPECIFICATIONS

Dimensions	190MM x 105mm x 47mm (without sockets)
Weight	890g (without power supply unit)
Housing	Black anodized aluminum

TOPSIDE





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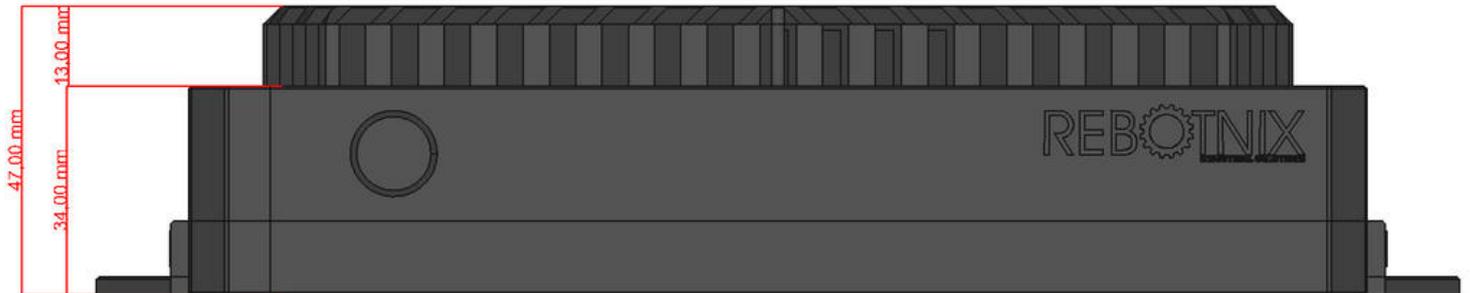
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# SPEZIFICATIONS

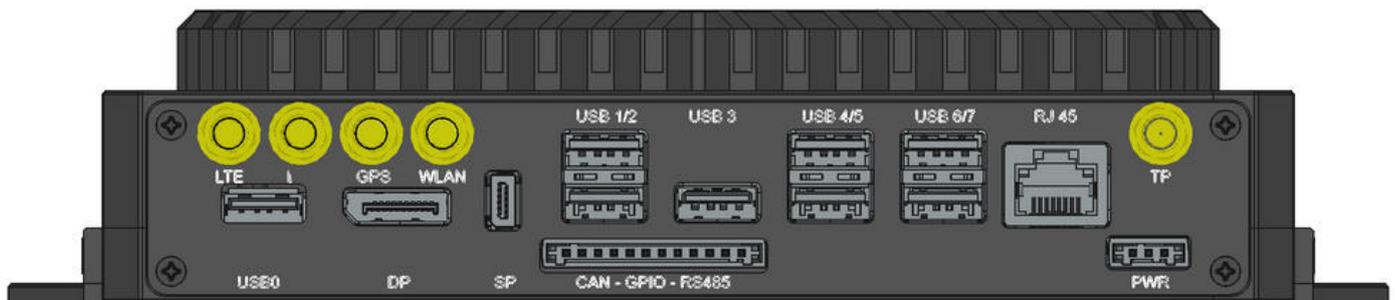
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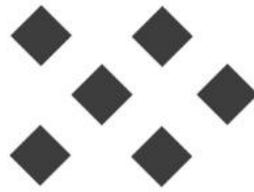
## TECHNICAL SPECIFICATIONS

FRONTSIDE



BACKSIDE





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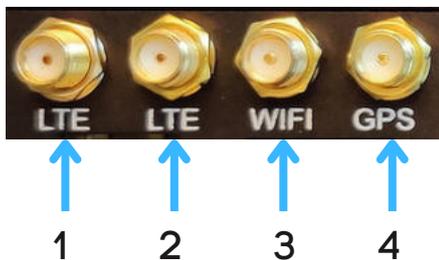
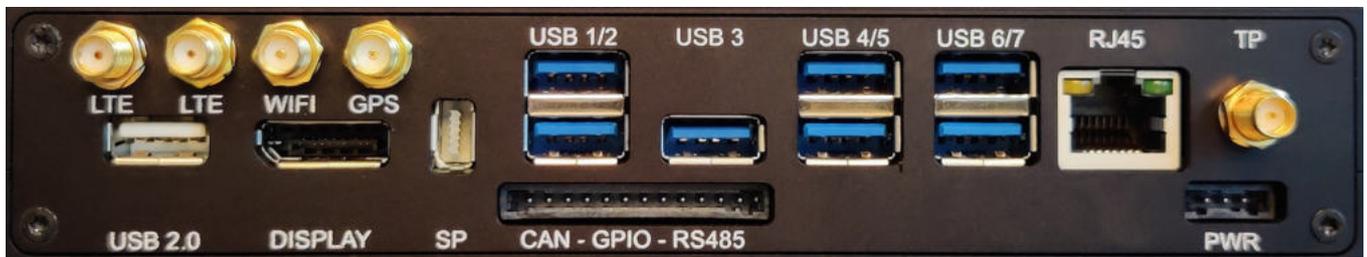
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## CONNECTIVITY

SUPPORTS NVIDIA JETSON ORIN NX 8 & 16 GB

BACKSIDE



Antenna connections

1 - 2 -> SMA socket for an LTE antennas

3 -> RP-SMA socket for WLAN antenna

4 -> SMA socket for GPS antenna



USB Ports 1-7\*

Configuration depending on the installed NVIDIA Jetson module

\*USB 1-7 configuration with ORIN NANO/NX

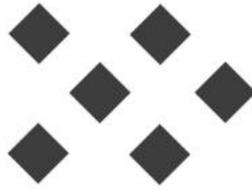
USB 1/2 -> USB 3.2 NATIVE

USB3-7 -> SHARED USB 3.2

\*USB 1-7 configuration with XAVIER NX/NANO

USB 1/2 -> USB 2.0 NATIVE

USB3-7 -> SHARED USB 3.2



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# CONNECTIVITY

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RJ45 - Ethernet socket, supports network speeds up to 1Gbps



TP - SMA socket for TimePulse connection with built-in RTK GPS



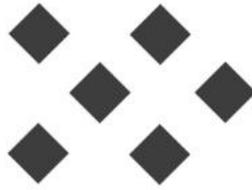
USB 2.0 - USB socket for data transfer and peripheral connection



DISPLAY - DisplayPort socket for video output



SP -> ServicePort socket - for connecting a ServicePort adapter for flashing and debugging using a UART console



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# CONNECTIVITY

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CAN-GPIO-RS485 - > Extension socket  
Pin assignment see below

PIN 1* -> DIR	PIN 4 -> IN1	PIN 7 -> CAN-L	PIN 10 -> RS485A
PIN 2* -> WT	PIN 5 -> GPIO2	PIN 8 -> CAN-H	PIN 11 -> +5V
PIN 3 -> OUT1	PIN 6 -> GPIO1	PIN 9 -> RS485B	PIN 12 -> GND

\*

PIN 1 -> DIR -> Directory PIN for connection with a built-in RTK-GPS (only in connection with RTK-GPS)

PIN 2 -> WT -> WhellTick PIN for connection to a built-in RTK-GPS (only in connection with RTK-GPS)



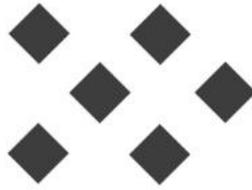
PWR - Socket for connecting the power supply and the automatic start.

PIN 1 - GND

PIN 2 - Automatic start

PIN 3 - 12-24V

Further information can be found in the "Power supply and automatic start" data sheet



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## SECURE HARDWARE AUTHENTICATION



For the verifiability of AI applications as well as the European cybersecurity law and the upcoming AI ACT, proof of generated AI data of the liability issue is mandatory.

REBOTNIX edge systems include a hardware 256 bit based cryptochip on the mainboard. In combination with NVIDIA JETSON GPU and GUSTAVi as host, we can now create more secure AI applications and protect custom generated models.

The Microchip's is a full turnkey security device. It includes a 4.5Kb EEPROM divided into 16 slots. This array can be used for storage of keys, miscellaneous read/write, read-only, password or secret data, and consumption tracking. Access to the various sections of memory can be restricted in a variety of ways and then the configuration locked to prevent changes.