VIC-RB-04

Intelligent Vehicle Controller

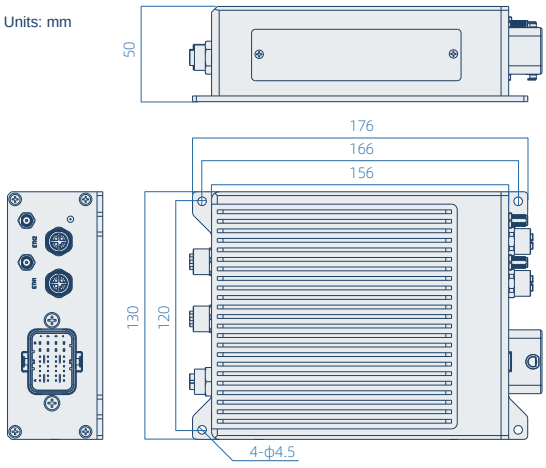
The VIC-RB-04 is a high-performance, highly integrated and reliable vehicle controller supporting CAN, Gigabit Ethernet, Fast Ethernet and AHD video input. Provision is made for RS232, RS485, HDMI, mSATA SSD storage and TF card storage.



Product Features FEATURES

- AI performance: 6 TOPS (INT8)
- 8K P60 H.264/H.265 decoding
  8K P30 H.264/H.265 encoding
- HDMI + AHD video output
  Up to 8K@60fps
- 2 Gigabit Ethernet ports
  2 Fast Ethernet ports
- Compact, highly integrated design
  Desktop or wall mounting
- IP65 protection
- Low power consumption
  Efficient passive enclosure cooling for reliable operation

Dimensions DIMENSION



Technical Specifications SPECS

Hardware			
Processor	RK3588J ARM Cortex-A76 (4 cores) + Cortex-A55 (4 cores)		
Clock Speed	2.0GHz	AI Performance	6TOPS@INT8
Memory	16/8/4GB LPDDR4x	Storage	128/64/32GB eMMC
Video Encoding	8K@30fps (H.264/H.265)	Video Decoding	8K@60fps (H.264/H.265)
Watchdog	Supported	RTC	Supported
Software			
Operating System	Ubuntu20.04		
Deep Learning	RKNN-Toolkit offers easy-to-use, one-click model conversion for Caffe / TensorFlow / TF-Lite / ONNX / PyTorch / Keras / Darknet models.		
External Interfaces			
CAN	2×CAN FD	AHD	4 AHD channels supported
USB	2×USB3.0 (TYPE-A)	Video Output	1×HDMI
Ethernet	2 x Gigabit Ethernet (M12 X-coded, 8-pin), independent ports 2 x Fast Ethernet (M12 D-coded, 4-pin), switched ports		
Serial Ports	1 x RS485, 1 x RS232, 1 x Debug (RS-232)		
SIM Card	1 x standard SIM card slot		
Antennas	2 x GNSS antenna ports; optional SMA ports for Wi-Fi and 5G/4G antennas		
Internal Expansion	1 x miniPCIe: optional mSATA SSD or Wi-Fi module (choose one) 1 x M.2 2242: optional 4G/5G module		
Power			
Input Voltage	DC 24V (9V~36V)	Power Draw	≤ 20W
Power-loss Protection	Supported		
General Specifications			
Dimensions	176mm×130mm×50mm (W×H×D)		
Weight	≤ 0.5kg		
Mounting	Wall mounting	Cooling	Natural convection
Environment and Reliability			
Operating Temp.	-40°C to 85°C	Storage Temp.	-40℃ ~85℃
Relative Humidity	5% to 95% (non-condensing)	IP Rating	IP65

Ordering Information

Model	Memory	Storage
VIC-RB-04	16GB LPDDR4x	64GB eMMC

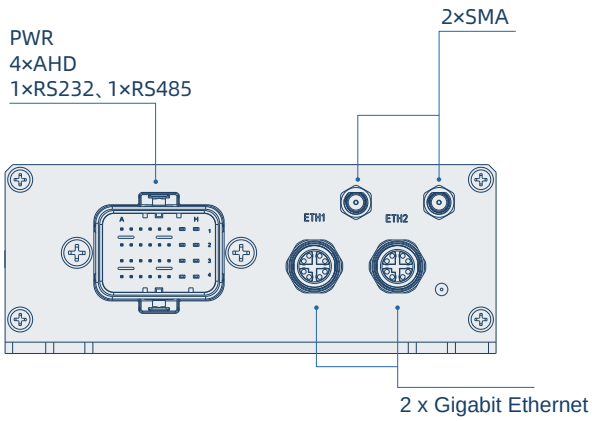
Contact the manufacturer for other configurations and functions.

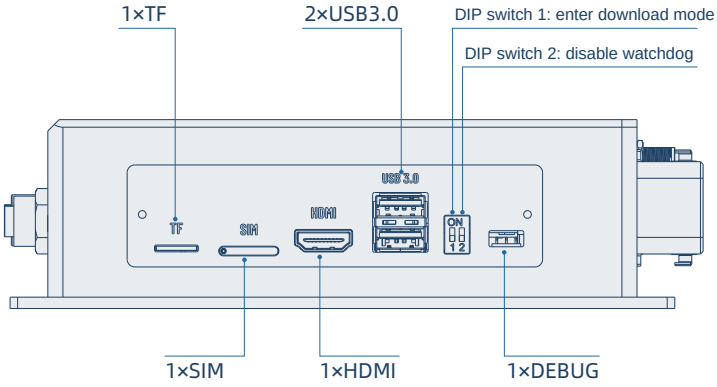
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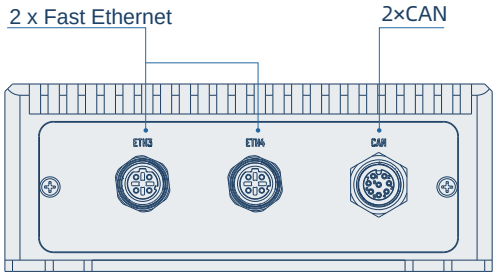
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Interface Diagram

FUNCTION







Optional Accessories

ACCESSORY

Accessory	Qty.	Specification
Automotive connector cable harness	1	0.5m
CAN M12 to flying-lead cable	1	0.5m

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