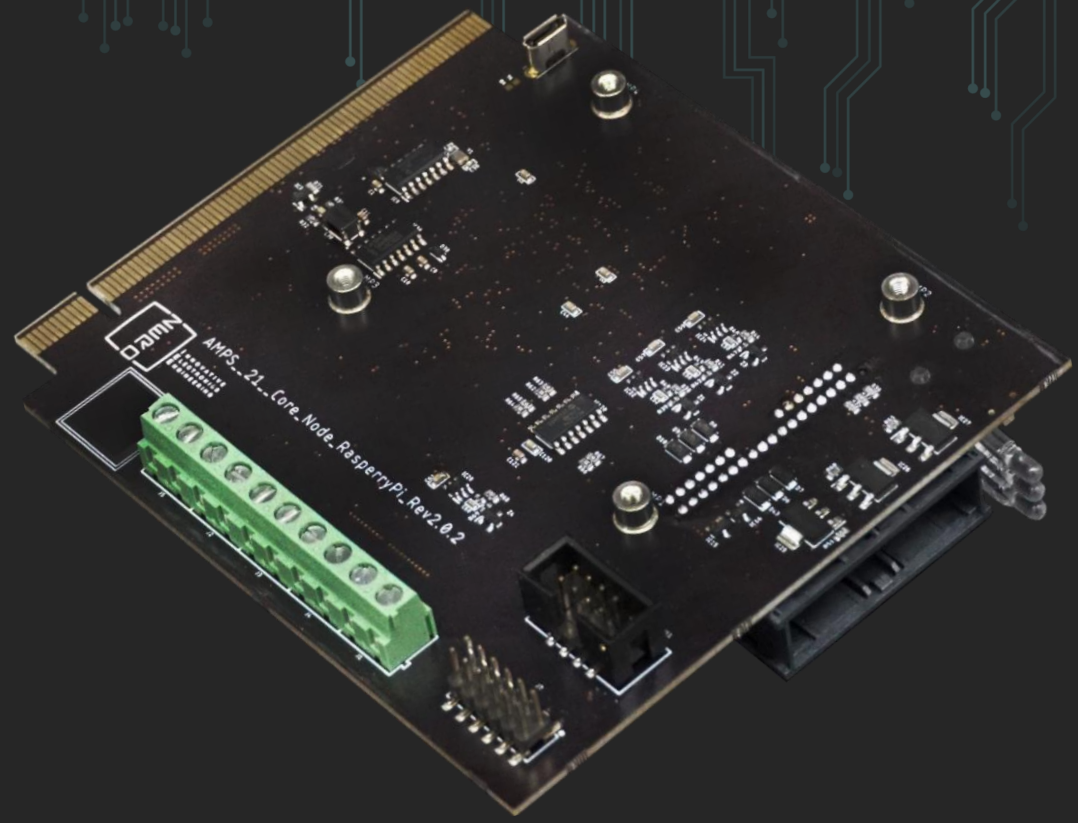
INNOVATIVE ELECTRONICS ENGINEERING



ZERO

CORE NODE

compatible with Raspberry Pi 4
and many others

CARRIER BOARD WITH INFINITE POSSIBILITIES

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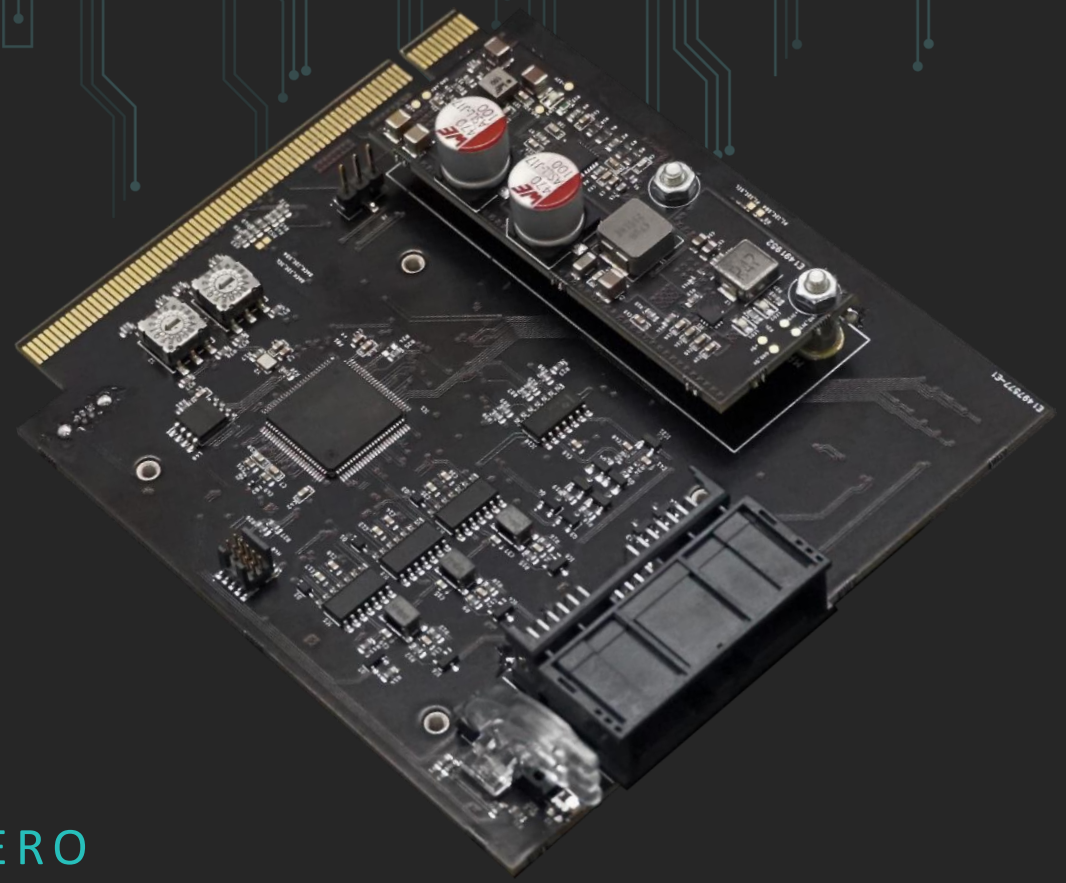


ZERO

CORE NODE

WIDE RANGE INPUT VOLTAGE [9-55V]

3x STATUS LED

4x CAN-FD

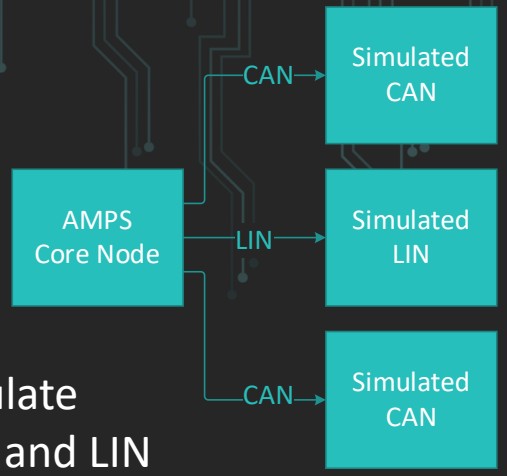
2x LIN

3x ANALOG I/O

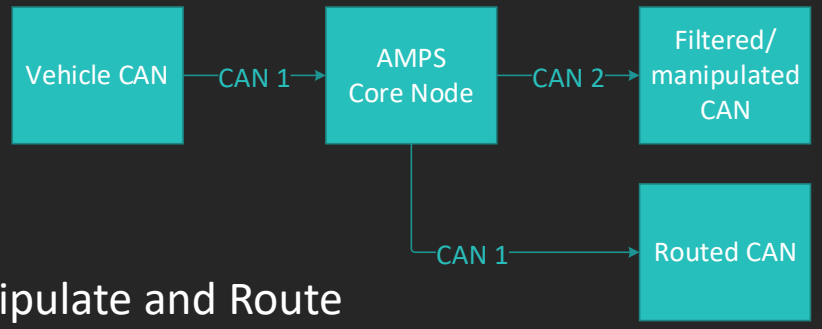
3x DIGITAL I/O

AUTOMOTIVE-GRADE CONNECTOR

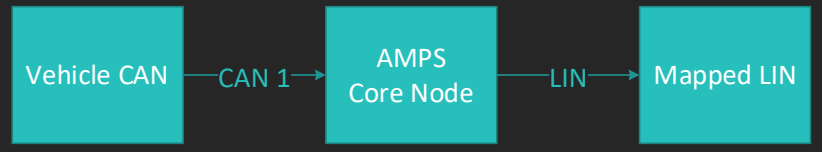
Core Node Use Cases



Simulate CAN and LIN



Manipulate and Route



Gateway

- Master in an AMPS cluster: full access to the features of the other Nodes
- Signage: Output static images and videos in a robust case with flexible power supply
- Electronics Prototyping: Try and verify your ideas; we use this in show cars and automotive prototypes
- Industrial Control and Human-Machine-Interface via CODESYS Control, e.g. to switch relays or control lights
- Automation of test procedures and other repetetive tasks (e.g. movements of vehicular mirrors and windows)
- IoT applications: collect and transmit data from all kinds of sensors (temperature, humidity, weight, voltage, etc.)
- …. and many more!

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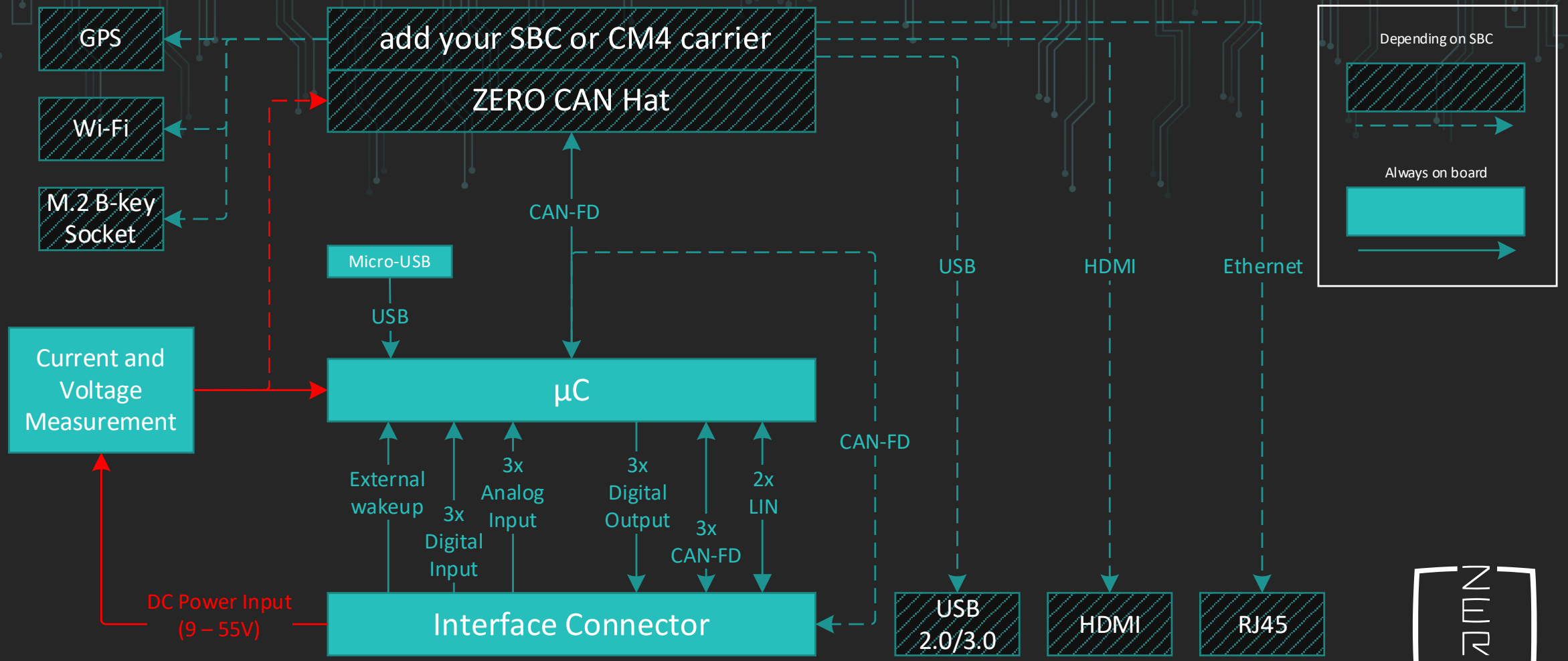
Core Node Block Diagram



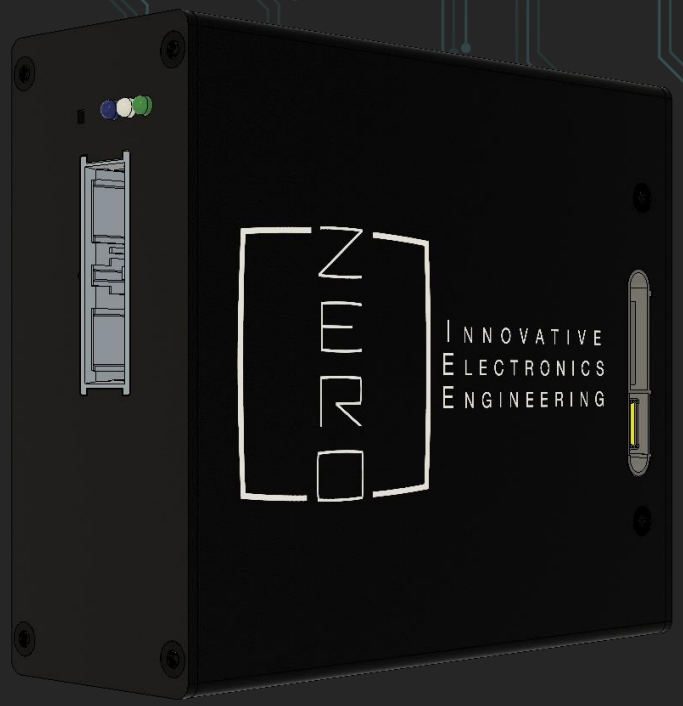
Core Node Datasheet

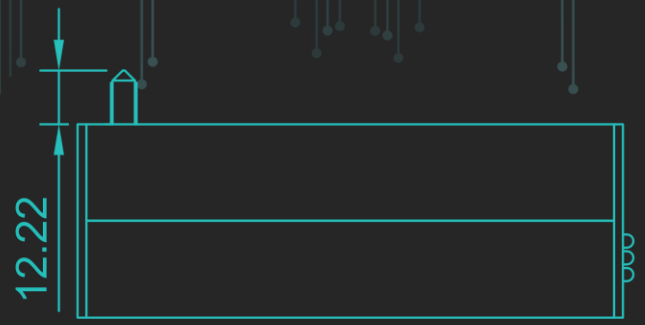
Interfaces	▪ Automotive-grade connector at the front
	  ▪ 3x CAN-FD
	  ▪ 2x LIN (Master/Slave selectable)
	  ▪ 3x Digital Input
	  ▪ 3x Digital Output (Low-Side Switch)
	  ▪ 3x Analog Input
	▪ Internal: 4x Flex Pins (e.g. for SPI, CAN, I²C)
	▪ … many others via your SBC

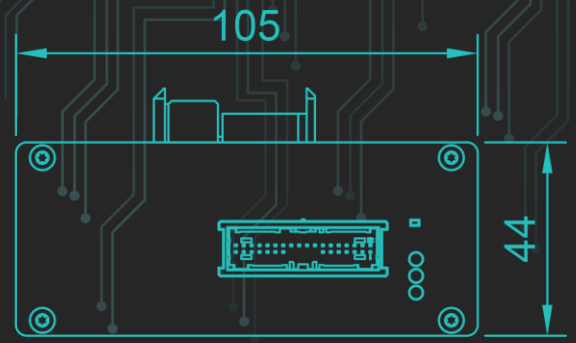
SBC Compatibility	▪ Raspberry Pi 2 | 3 | 4 ▪ Waveshare CM4 Carrier Board
Dimension	▪ 124 x 105 x 44 mm (w x d x h)
Weight	▪ 515g
Power	▪ Input voltage: 9 - 55V DC ▪ Idle power consumption: 90 mA @ 12V DC (1,08W)

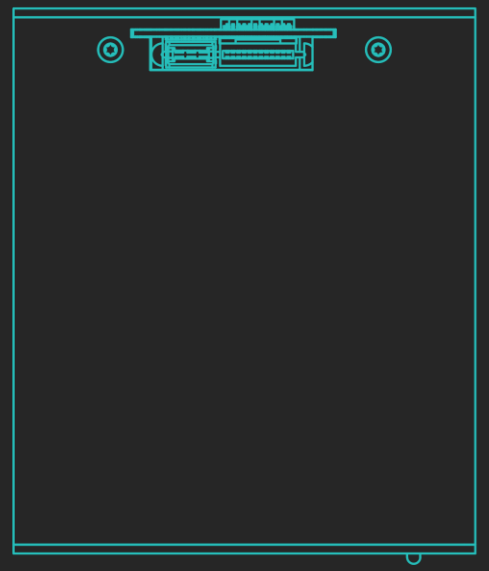
Other	▪ Mounting: DIN rail (TH35) and screw straps
	▪ Updates
	  ▪ The Light Node can be updated by the user
	  ▪ Updates are installed via CAN / openBLT
	▪ LEDs
	  ▪ 1x power indicator
	  ▪ 1x status
	  ▪ 1x user-programmable

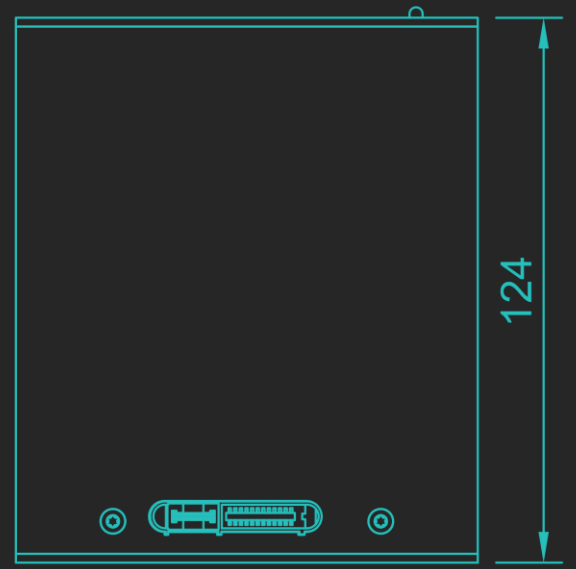
Core Node Drawing





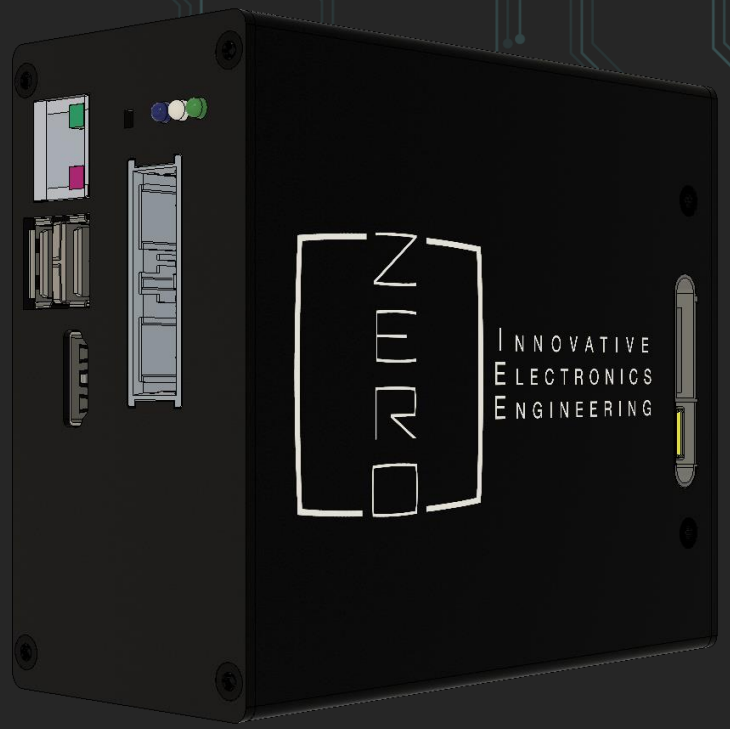


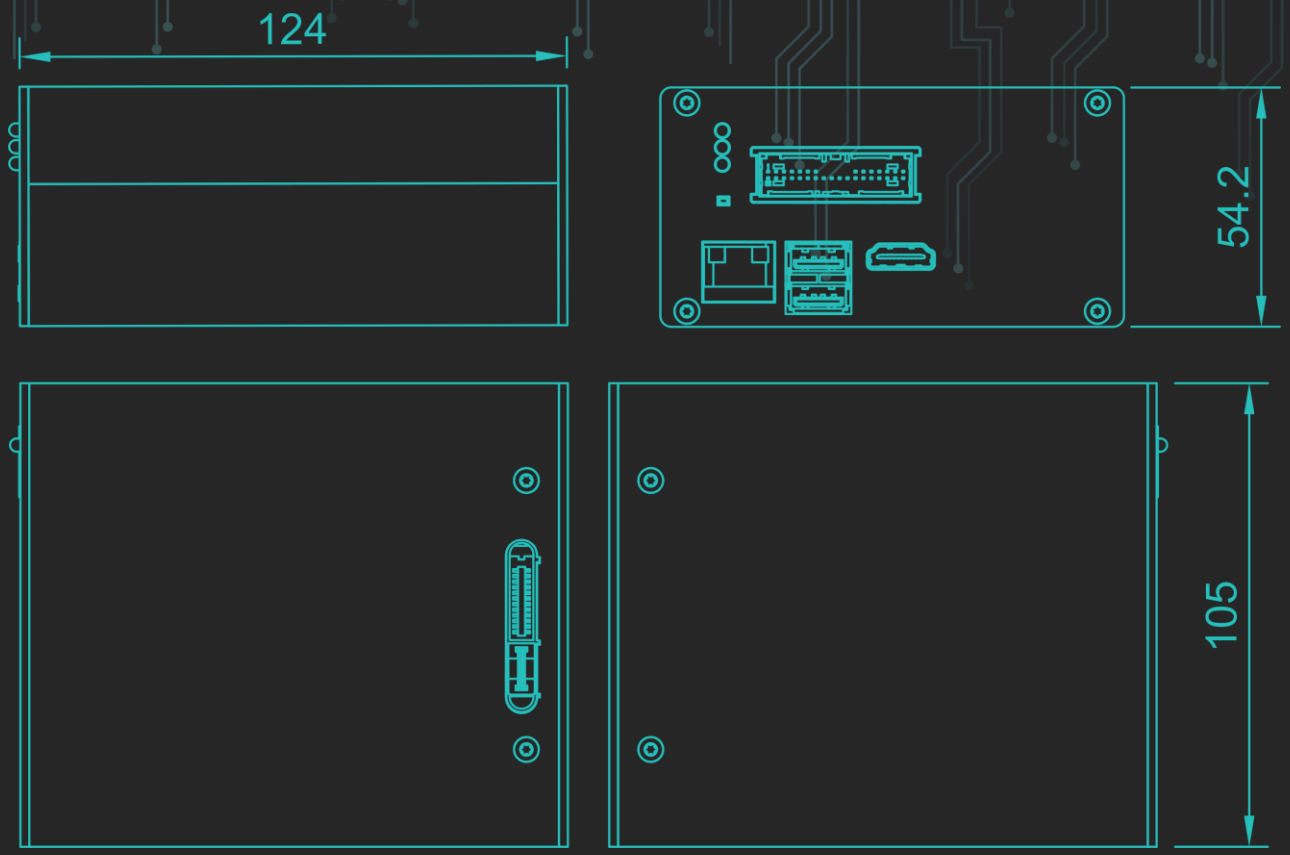




Core Node Drawing

Exemplary illustration with an IO base board (incl. CM4) inside





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Thank you for your interest in the AMPS Core Node! For further information, please visit our website or contact us.

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