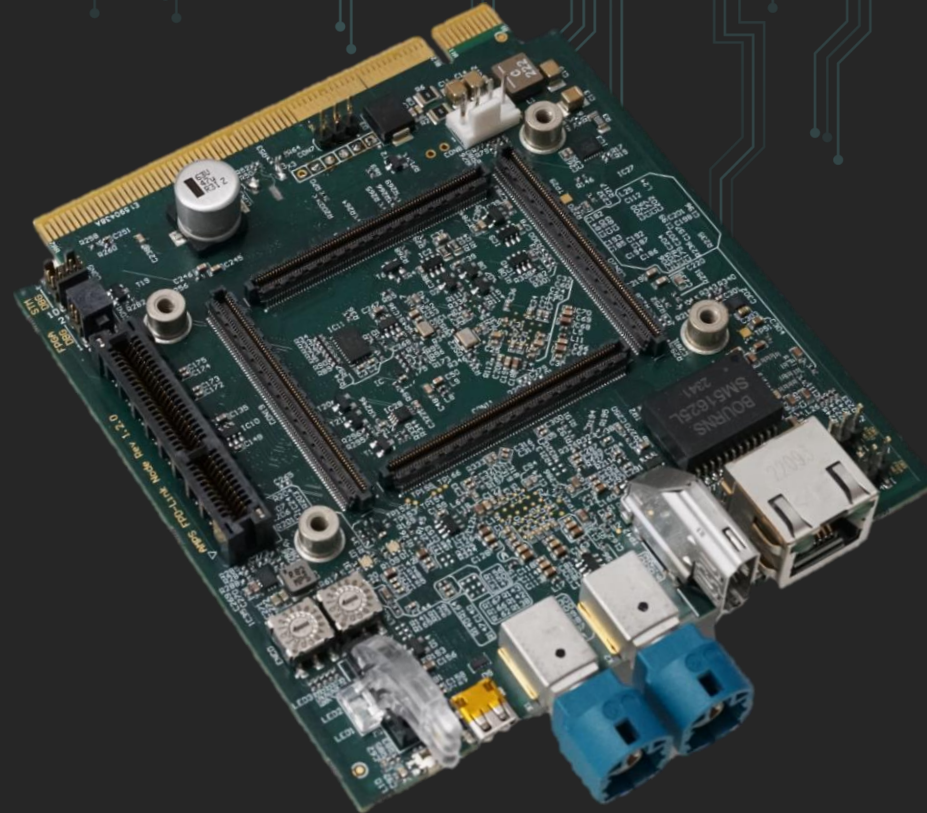


INNOVATIVE ELECTRONICS ENGINEERING



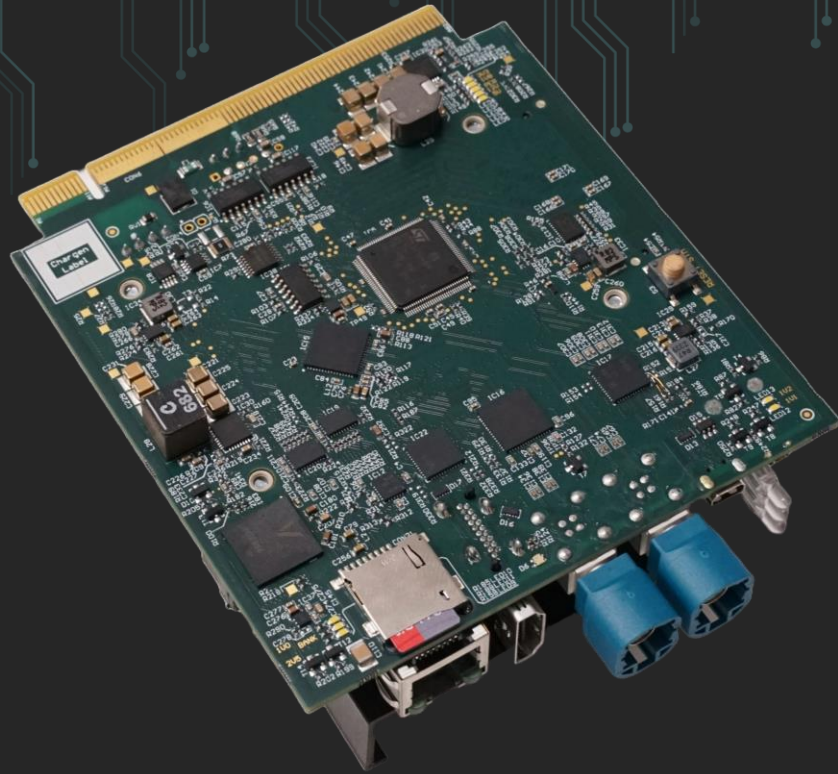
ZERO

FPD-Link NODE

ZYNQ UltraScale+

AUTOMOTIVE-GRADE VIDEO PROTOTYPING





WIDE RANGE INPUT VOLTAGE [9-55V]

3x STATUS LED

1x CAN FD

1x FPD-Link III SERIALIZER

1x FPD-Link III DESERIALIZER

1x ETHERNET [MANAGEMENT PORT]

1x PCIe x4 SLOT [GPU, NETWORK, STORAGE]

FPGA: ZYNQ Ultrascale+ ZU4

1x HDMI OUT

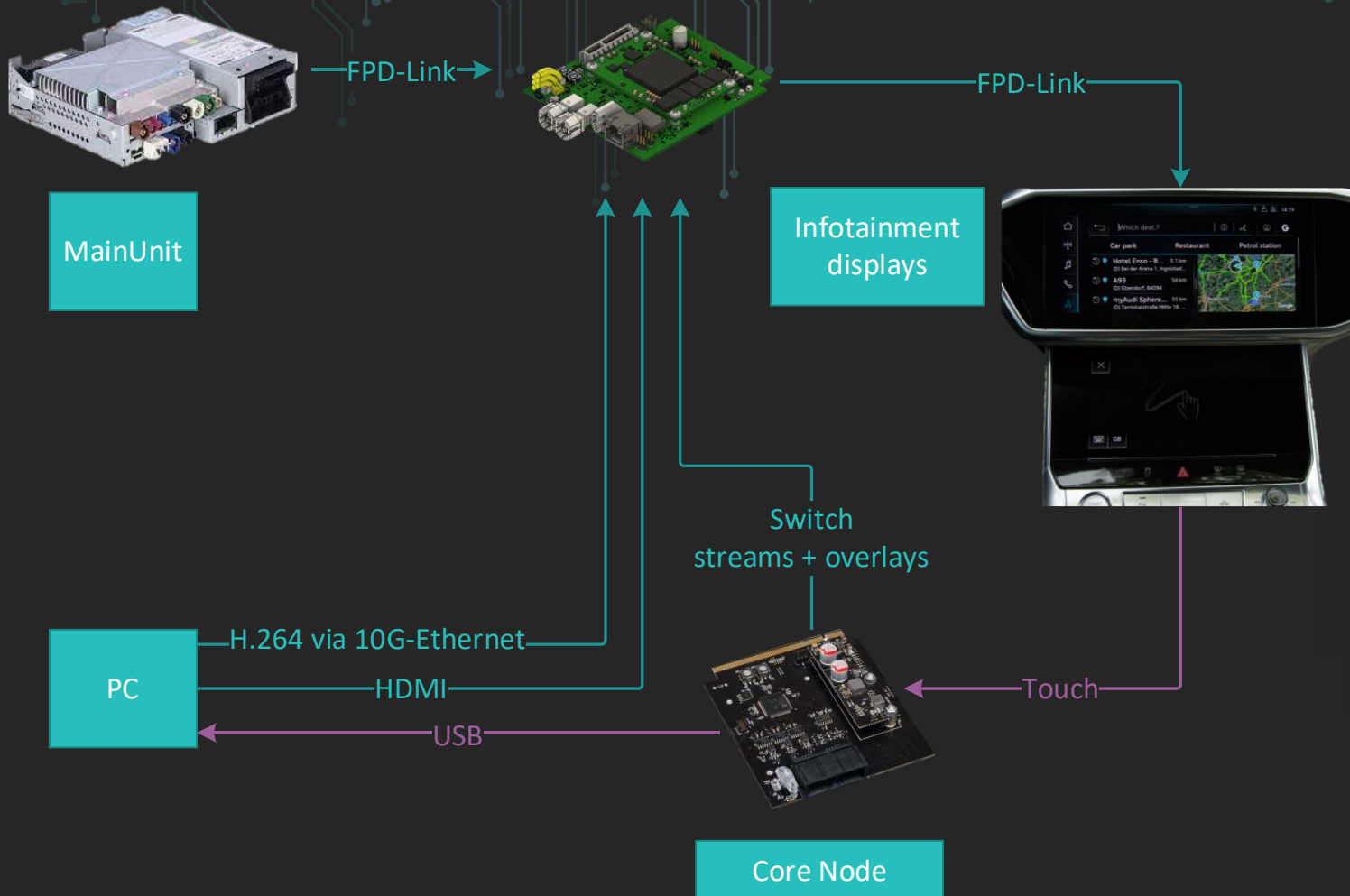
1x HDMI IN

ZERO

FPD-Link NODE



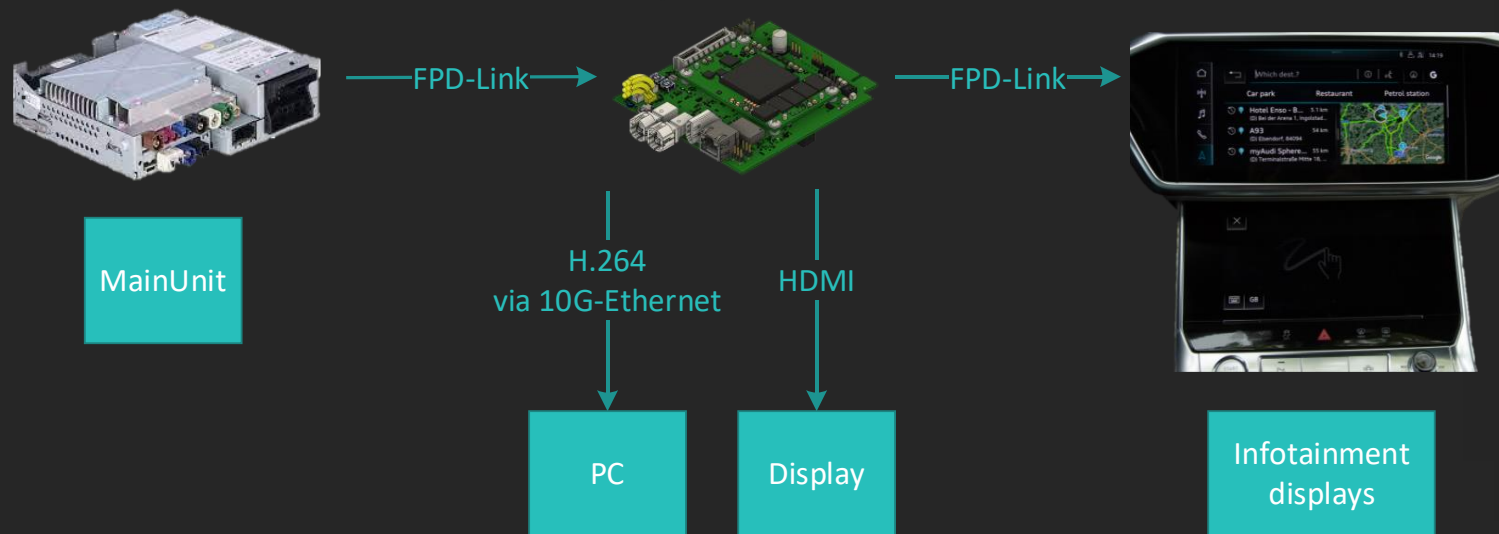
FPD-Link Node Use Case Overlay



- Control streaming pipelines and overlay features via CAN bus and digital input
- Read system status information via CAN bus
- Optional video input via 10G-Ethernet in x.264 format
- Color-Based Overlay: all pixels with the same color can be overlaid with the video from the HDMI input
- Show a new infotainment UI on a vehicle without adapting the software to the in-vehicle MainUnit

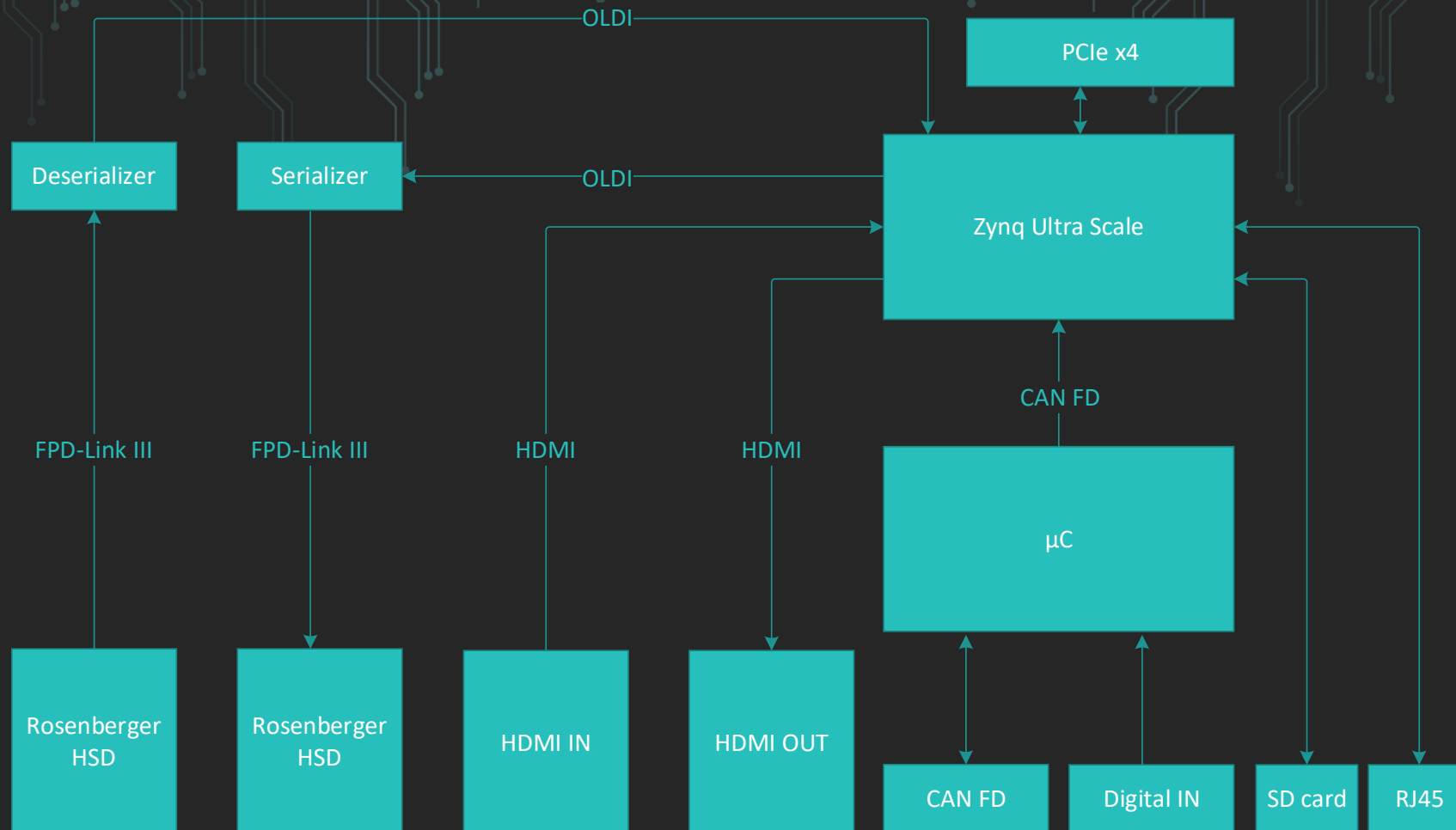


FPD-Link Node Use Case Video Grabber



- Display the MainUnit's FPD-Link III output on an external screen
- Use the original infotainment display to interact with your own video source
- Record the MainUnit's FPD-Link III output via 10G Ethernet, e.g. for user studies or pixel accurate testing and validation

FPD-Link Node Block Diagram



FPD-Link Node Datasheet

<p>Interfaces</p>	<ul style="list-style-type: none"> ▪ Front panel <ul style="list-style-type: none"> ▪ FPD-Link: 1x IN, 1x OUT (Rosenberger HSD) ▪ 1x 100BASE-TX Ethernet (RJ45) ▪ 1x CAN FD ▪ 1x Digital IN ▪ Power socket ▪ SD card ▪ HDMI: 1x IN, 1x OUT ▪ On-board <ul style="list-style-type: none"> ▪ 1x PCIe 4x ▪ FlexPins
<p>Computing</p>	<ul style="list-style-type: none"> ▪ FPGA: Zynq Ultrascale+ ZU4 ▪ STM32 Microcontroller
<p>Dimension</p>	<ul style="list-style-type: none"> ▪ 124 x 105 x 44 mm (w x d x h)
<p>Weight</p>	<ul style="list-style-type: none"> ▪ 757g
<p>Power</p>	<ul style="list-style-type: none"> ▪ Input voltage: 9 - 55V DC ▪ Idle power consumption: 7,3W (608mA @ 12V)
<p>Other</p>	<ul style="list-style-type: none"> ▪ Mounting: DIN rail (TH35) and screw straps ▪ Updates <ul style="list-style-type: none"> ▪ The Firmware can be updated by the user via CAN / openBLT ▪ The Operating System is fully accessible to the user ▪ Extensive configuration options for live video manipulation including multiple inputs ▪ LEDs: 1x Power indicator, 1x Status, 1x User-programmable



FPD-Link Node Pinout

Interface Connector

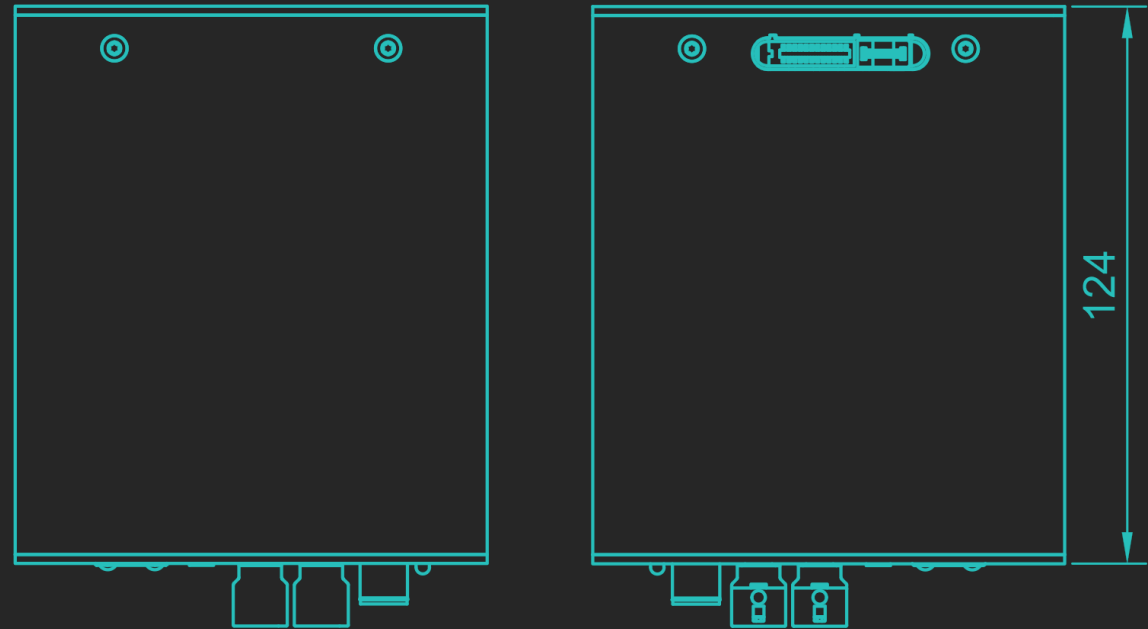
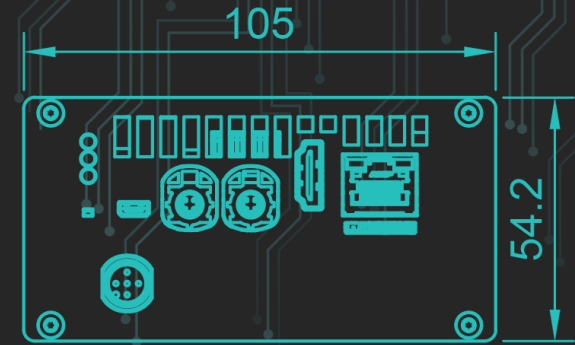
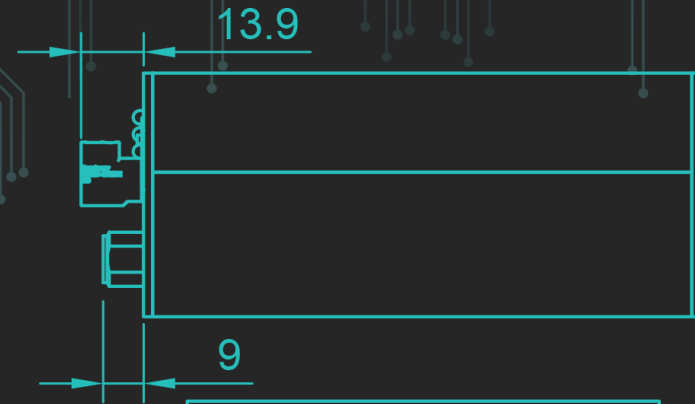
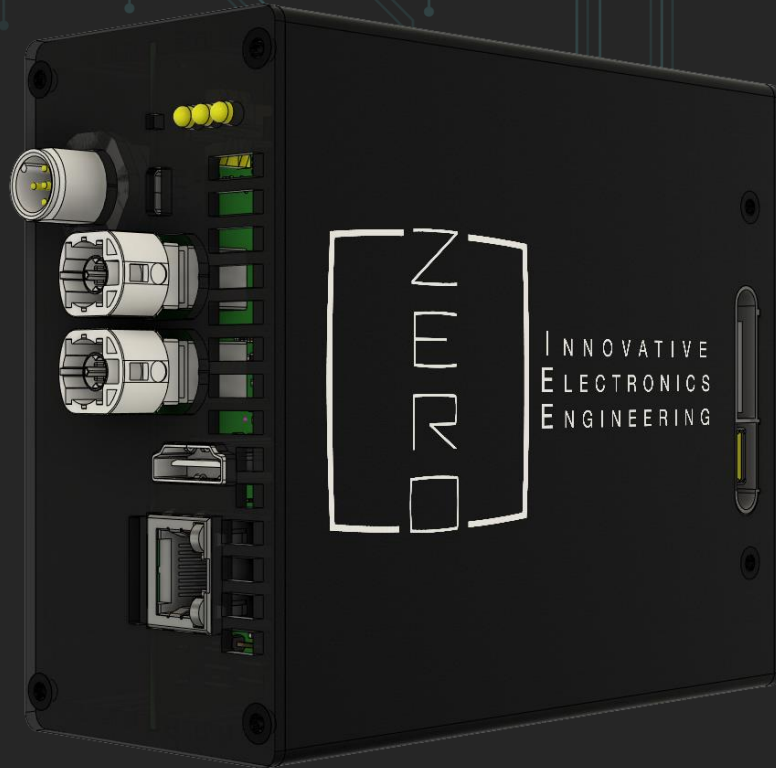
Jack / Socket	Specification: M12 straight 5-pin Part Number: 1000743 Manufacturer: Stecker Express
Plug / Connector	Specification: straight Part Number: 100716 Manufacturer: Stecker Express
Pins	1 GND 2 VBAT 3 CANL 4 CANH 5 SWITCH

FPD-Link

Jack / Socket	Specification: HSD socket water blue Part Number: D4S20D-40MA5-Z Manufacturer: Rosenberger
Plug / Connector	Specification: straight jack with housing Part Number: D4K10A-1D5A5-Z Manufacturer: Rosenberger



FPD-Link Node Drawing





INNOVATIVE
ELECTRONICS
ENGINEERING

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

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