People Sensing Edge Computing Unit

PS-ECU

017.371-007

PS-ECU is a compact on-board computer for buses and trains, specially designed for video processing with AI.
This edge computing unit combines high performance and compactness. This unit is the perfect platform to host embedded Deep Learning solutions and features a modern system architecture.

PS.LOAD - LIVE OCCUPANCY WITH AI

What belongs together, comes together - with the edge computing unit PS-ECU and the AI-based software PS.LOAD.
The software turns cameras on buses and trains into intelligent devices by using algorithms to determine the actual passenger load in real time. More insights into passenger flows offer new opportunities to optimize public transport operations. Smarter passenger guidance can increase efficiency and improve passenger interchange times.
This solution opens up many options to make travel more comfortable for passengers.

TECHNICAL SPECIFICATIONS

Power supply	12 V DC to 36 V DC nominal EN 50155 class S1 compliant EN 50498 compliant ITxPT compliant Ignition input, programmable
Energy consumption	Max. 10 W < 10 mW in standby
Operating temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Humidity	Max. 95 % continuous, Max. 100 % occasional
Shock/vibration	IEC 60721, STM-E001, any orientation
Dimensions	161 mm x 110 mm x 42 mm (6,33 in x 4.33 in x 1.65 in)
Weight	520 g
Ingress protection	IP30
Fire protection	EN 45545 compliant, UL94-V0
Reliability	MTBF > 300.000 h in typical railway environment
Certifications	EN 50155 approval for railway vehicles ECE type approval for road vehicles CE and UKCA conformity Product safety 2001/95/EG

COMPUTER SPECIFICATIONS

CPU	NXP i.MX8M Plus SoC
RAM	2 GB
Storage	8 GB
Interfaces	1 x 1000 Mbit/s Ethernet, M12 X-coded 1 x USB 3.0 type A 2 x digital input (isolated) 1 x digital output (isolated)
Other extras	6-axis acceleration sensor Programmable 3 color status LED
Operating system	Linux
User interfaces	Via IP network No monitor port (headless unit)

ACCESSORIES

- Mounting kit for surface mounting (275.611-07).
- Rack adapter to mount the PS-ECU in a 19 inch rack (275.609-07).
- Cable adapter for ITxPT conformity (017.538-007).

PS-ECU is also available as an extended configuration PS-ECU-X.

What is the difference?

PS-ECU-X is especially designed for autonomous system solutions in buses and trains and therefore has extended connectivity options:

- Integrated LTE and GNSS module.
- 3 extra networks ports with PoE power supply.

Product features and technical specifications are subject to change without further notice / Version 2024-A / All rights reserved

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