INDUSTRIAL AI COMPUTER

FLOWNEX EDGE

Features

▶ Edge AI Ready

▶ Configurable PoE Ports

▶ Various Communication Interfaces

▶ Wide Input Power Range

▶ Fanless design

▶ Supports IP65

Flownex Edge, designed as an AI ready, fanless embedded computing solution with robust antivibration and anti-shock protection, finds its ideal application as an onboard unit within the transit sector.

FlowneX

Flownex Edge – a powerful, scalable, and compact edge AI ready computing solution designed to meet the demands of real-time processing, automation, intelligent control with Cloud support.
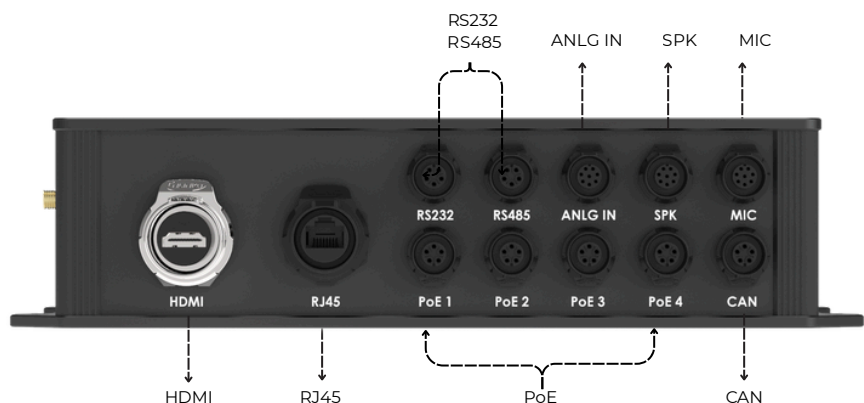
Whether you're working in:

- ◆ Smart Transportation as Onboard Unit OBU
- ◆ Industrial Automation
- ◆ Mining Sector
- ◆ Surveillance & Security
- ◆ Smart Energy or IoT Deployments

FRONT

Power Indicator
Power
USB 1
USB 2
USB 3
Digi In
Digi out
Sim card
WiFi
4G
GPS

BACK

HDMI
RJ45
PoE
CAN
RS232
RS485
ANLG IN
SPK
MIC

debian

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FlowneX

INDUSTRIAL COMPUTER EDGE
FLOWNEX EDGE

Specifications	Description
CPU	4x Cortex-A72 cores @ 2.2GHz + 4x Cortex-A53 cores @ 1.8GHz
NPU	6 TOPS
RAM	LPDDR4 (4GB)
Memory	512 GB SSD (2TB), 32 GB eMMC on board, supports SD 2.0 (max. 64 GB)
OS	Debian - 12
WLAN	802.11ax/ac/a/b/g/n Wi-Fi 6.0 MIMO.
Bluetooth	BT 5.0
WWAN	4G-LTE (5G ready) with dual SIM support
GPS	GNSS/GLONASS/Beidou with dead reckoning feature, 2–3-meter accuracy, NMEA (RMC, VTG, GGA, GSA, GSV, GLL, GPTXT)
COM Ports	2 x RS-232, 2 x RS-485
Ethernet	4 x 10/100/1000 Mbps Base-T(X) Ethernet with PoE with Circular connector, RJ45 Jack - 1 Gbps
Digital I/O	8 x Digital IN, 8 x Digital OUT
Analog In	4 x Analog IN
CAN Bus	CAN FD 2.0, supports standard (11-bit) and extended frames (29-bit) (compliant with J1939)
Display	1 x HDMI
Display Resolution	HDMI: V2.0A up to 4Kp60
USB	2 x USB 2.0, 1 x USB 3.0 Type-C
Audio	Audio Circular connector for IP

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Audio Encoding	G.711 audio codec
Microphone	2 x Microphones with circular connector
Amplifier	• 10W x 2 Channel RMS each • Suitable for 4 to 8 ohms
Camera	IP Camera supported
Video Encoding	4Kp60 with High Dynamic Range (h.265, VP9), 4Kp30 (h.264), 1080p60 (MPEG2, MPEG4p2, VC1, VP8, RV9, AVS/AVS+, h.263, DiVX), MJPEG - 8x8
Playback Function	Video / Audio playback
Alarm Input	Part of Analogue / Digital Input
Power input	• 9 – 36v DC with Ignition sense and protection from Voltage Surge, Short Circuit • Configurable Ignition support for systematic shutdown
Antenna	1 x GPS, 1 x WWAN, 1 x WiFi
Gyroscope and Accelerometer	6 - Axis IMU Sensor
Digital I/O	8 x Digital IN, 8 x Digital OUT
Connectors	Circular connector with IP65
Operating Temperature	-20°C to +70°C
Protocol	TCP, HTTP, MQTT, AMQP, Modbus, FTP , TLS
Certification	IP65 Rating
Humidity	5% ~ 95%, non-condensing
Compliance	BIS, ARAI, E-Mark, BIS-CRS
Vibration Test	As per AIS140,Vibration standard AIS 012/AIS:062 -10g
Shock Test	As per AIS140:15g, 11ms, half sine. 3 impacts each on X,Y and Z axis
Dimensions	280 mm (L) x 185 mm (B) x 68 mm (W)