

CiT® One RSU

The CiT One RSU is a state-of-the-art communication unit specially developed for vehicle-to-infrastructure (V2I) communication. Thanks to its powerful equipment, it enables real-time data processing.

The housing of the CiT One RSU is waterproof and made of plastic/aluminum, making it reliable even under difficult conditions.

Its most important features are:

- ⊙ powerful NXP i.MX 8XLite processor
- ⊙ two cores with 1.2 GHz and one M4F core
- ⊙ 1 GB RAM
- ⊙ 8 GB internal memory
- ⊙ integrated hardware security module NXP SXF1800
- ⊙ 100 Mbit/s Ethernet
- ⊙ IEEE 802.11p for V2X, LTE, IEEE 802.11a/b/g/n/ac
- ⊙ Bluetooth 5.0
- ⊙ GNSS
- ⊙ Operating temperature range from -40 °C to +85 °C
- ⊙ Standards E1 - ECE - R10, CE
- ⊙ RoHS compliant



The CiT One RSU offers a versatile solution for modern traffic technology, including intelligent transportation systems, autonomous vehicles, vehicles with special rights and public transport. Its seamless integration into V2X systems helps to improve traffic safety, optimize traffic flow and support innovative mobility solutions.

Technical details

CPU Details	NXP i.MX 8XLite 2 x Cortex A35 @ 1.2 GHz / 1 x Cortex M4F
RAM	1GB LPDDR4 with inline ECC
Internal storage	8GB eMMC
External storage	USB 2.0

Security

Hardware security module	NXP SXF1800 Hardware Security Module
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Connectivity

Connector Plug	2 x M12 X-Code (8 pin) Ethernet 1 xPoE / 1 x ohne PoE
Network interface	2 x Ethernet
Speed of ethernet	100mbit
Traffic management	OCIT-O interface
Service interface	Ethernet-Service UI for configuration and commissioning
UART	1 internal
GPIO	2 internal inputs, 2 internal outputs
CAN	2 internal
100BASE-T1	1 internal

Radio interfaces

Mobile radio	LTE
V2X	IEEE 802.11p
WLAN/BT	IEEE 802.11 a/b/g/n/ac, Bluetooth 5.0
GNSS	u-blox MIA-M10Q

Physical characteristics

Housing	measurements of housing: 120×120×70 (mm) measurements of mast housing: 80×160 (mm) waterproof
Weight	
Material	plastic/aluminium

Energy

Voltage range	48V POE+ (802.3at)
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Conformity

Certifications and standard	E1 – ECE – R10 CE
Environmental conditions	waste clays RoHS compliant
Operating range	temperature: -40°C - +85°C humidity: 10% - 90% (non-condensing)

Producer