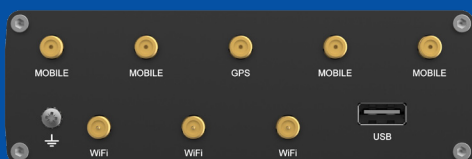
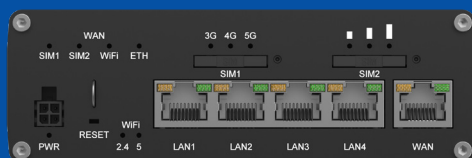




Datasheet ON2500

- Compact 5G/LTE communications unit for vehicles
- Secure transfer of usage data (IPsec with certificates)
- Secure, constant connection to central management system (Configuration Management)
- Zero touch deployment from the works
- High transmission rates with 5G, LTE Cat 20 and Wi-Fi 6 (802.11ax)
- Secure, logical separation of internal and external data connections
- Automotive type approval (E-Mark / ECE-R118) for reliable operation in vehicles
- Very fast boot process
- Modern software architecture – ideal for mobile cloud applications
- Software developed in house based on Linux®



Applications

- Passenger Wi-Fi
- Status Monitoring
- Passenger Information Systems
- Driver Communication
- CCTV
- Remote Maintenance
- Payment Systems

Features

- Automotive approval E-Mark / ECE-R118
- 5G Sub-6 (SA/NSA) + LTE Cat 20
- Wi-Fi 6 (802.11ax), dual-band, up to 512 clients
- Dual-SIM + eSIM
- 5x Gigabit Ethernet
- Multi-GNSS and Digital I/O
- VLAN, VPN/IPsec and Firewall

Performance

- Dual-Core ARM Cortex-A53, 1.3 GHz
- 5G up to 3.4 Gbps DL / LTE Cat 20 up to 2.0 Gbps DL
- Wi-Fi 6 up to 2.4 Gbps
- 5x Gigabit Ethernet ports

Technical specifications ON2500

Dimensions / Weight

Dimensions (W x H x D): 130.4 x 42.6 x 103.4 mm

Weight: 452 g

Casing: Anodized aluminum housing

Operating environment

Operating temperature: -40 to +75°C

Operating humidity: 10–90% non-condensing

Ingress Protection Level: IP30

Mobile / Cellular

MediaTek 5G/LTE/UMTS module

5G Sub-6GHz SA/NSA: 2.4/3.4 Gbps DL (4x4 MIMO), 550/900 Mbps UL (2x2)

4G – LTE Cat 20: 2.0 Gbps DL, 210 Mbps UL

3G: 42 Mbps DL, 5.76 Mbps UL

5G NR bands: n1, n3, n5, n7, n8, n20, n28, n38, n40, n41, n75, n76, n77, n78

4G LTE-FDD: B1, B3, B5, B7, B8, B20, B28, B32

4G LTE-TDD: B38, B40, B41, B42, B43

3G bands: B1, B5, B8

SIM: 2x Mini-SIM (2FF), 1.8V/3V, external SIM holders, eSIM optional

Antenna connectors: 4x SMA (Mobile)

Wi-Fi

IEEE 802.11 b/g/n/ac/ax (Wi-Fi 6), Dual-Band, MU-MIMO

Data rate: up to 2402 Mbps (5GHz) / 576 Mbps (2.4GHz)

Clients: up to 512 simultaneous connections

Antenna connectors: 3x RP-SMA

Ethernet

Ports: 5x Gigabit RJ45 (1x WAN, 4x LAN), 10/100/1000 Mbps

Standard: IEEE 802.3 / 802.3u / 802.3az, Auto MDI/MDIX

GNSS

Constellations: GPS, GLONASS, BeiDou, Galileo, QZSS

Protocols: NMEA 0183, NTRIP support

Antenna connector: 1x SMA

USB

Connector: 1x USB 2.0 Host (Type A)

Digital I/O

Input: 1x Digital Input, 0-6 VDC = low, 8-50 VDC = high

Output: 1x Digital Output, open collector, max. 50 VDC / 300 mA

System

CPU: MediaTek Dual-Core ARM Cortex-A53, 1.3 GHz

Memory: 1 GB RAM, 8 GB Flash

Power

Input voltage: 9-50 VDC, reverse polarity & surge protection

Power consumption: < 4.5 W (idle) / < 13.5 W (max.)

Connector: 4-pin industrial DC power socket

PoE (optional, passive): via LAN1, 9-30 VDC (from HW revision 0003)

Mounting

DIN rail, wall mount or flat surface (additional kit required)

Certifications

CE: 2014/53/EU (RED), 2011/65/EU (RoHS)

Automotive: E-Mark E24*10R06/03*6421*00 (ECE Regulation No. 10, Amendment 06, Supplement 03)

ECE-R118: Burning behaviour of materials in the vehicle interior, evaluated by TÜV SÜD Auto Service GmbH

3GPP: Release 16