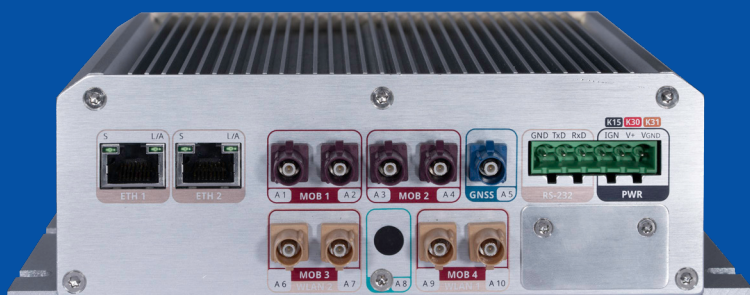




Datasheet ON2800

- Optimum 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 LTE Advanced and WLAN 802.11ac
- Secure, logical separation of internal and external data connections
- Maximum bandwidth in the vehicle-to-ground connection by bundling all available mobile phone capacities
- Redundancy through evaluation of link telemetry data
- Maximum mobile phone transmission with LTE Advanced modems
- Detection of vehicle ignition voltage (run-on time)
- Very fast boot process
- Modern software architecture – ideal for mobile cloud applications
- Software developed in house based on Linux®



Applications

- Passenger WiFi
- Status monitoring
- Passenger information systems
- Driver communication
- CCTV
- Remote maintenance
- Payment systems

Features

- Automotive E1-Mark / ECE-R118
- Ignition voltage
- Conductive Cooling concept
- Dual LTE Advanced modems
- Quad SIM
- Multiple WiFi ac AP / client modules
- 2 gigabit Ethernet ports
- VLAN, VXLAN, VRF, IPsec, Firewall
- Multipath routing, load balancing
- «Quality of Service» (QoS) to prioritise data traffic
- Integrated content and web server

Performance

- Dual Core, 1.3 GHz ARM CPU
- 1000 Mbps ETH to ETH routing
- >200 Mbps LTE to WiFi/LAN for each module

Technical specifications ON2800

Dimensions (W x H x D): 164/190 x 58 x 139.5 mm
Weight: 1000 g
Operating temperature: -25 to +70 °C
Storage temperature: -40 to +85 °C
Ingress Protection Level: IP40

Mobile / Cellular

1–2 Multimode LTE Advanced, UMTS/3G modules with seamless hand-over

LTE Advanced Bands: B30, B41, B29, B26, B25, B5, B20, B13, B12, B7, B4, B3, B2, B1

3G – DC-HSPA+/UMTS: 1800, 1700, 900, 850, 1900, 2100

LTE Advanced Cat. 6 max. 300 Mbps downlink / 50 Mbps uplink, DC-HSPA+ 42/5.76

FAKRA D (bordeaux, plug) antenna connectors supporting MIMO or standard antennas

SIM: 4 Micro-SIM (3FF) ISO / IEC 7810:2003, ID-000 SIM slots

1–2 x Mobile/Cellular

Multimode LTE Advanced Pro, UMTS

4G – LTE – B1, B3, B7, B8, B20, B28, B38, B40

3G – DC-HSPA+/UMTS: B1, B8

LTE Specification: LTE Cat 12, 2x2 MIMO

DL 600 Mbps / *UL* 50 Mbps

Region: Europe, EMEA, *on request:* NA, APAC

Connector: 2 – 4x FAKRA D-coded

SIM: 4x Mini SIM – 2FF

WLAN / WiFi

1–2 IEEE 802.11 a/b/g/n/ac up to 867 Mbps 2.4 / 5GHz 2x2 MIMO, Access Point or Client

Clients in access point mode: at least 100, no limitation by software

2 or 4 FAKRA I (beige, plug) antenna connectors supporting MIMO or standard antennas.

Ethernet

2 Ethernet ports 10 / 100 / 1000 Mbps (GbE), auto MDX, RJ45

CAN

Optional single or dual CAN-Bus interface for CAN V2.0B up to 1Mbit/s.

GPS / GNSS

GPS / GLONASS data server with JSON or NMEA data stream, tracking sensitivity -154 dBm (typical)

Antenna connector: FAKRA C (blue, plug), support for active and passive antennas.

Optional: GPS / GLONASS / BeiDu / (Galileo ready), -160 dBm, 72-channel, 2m accuracy, dead reckoning with onboard 3D accelerometer and 3D gyroscope

USB

USB 3.0 Host; USB A connector type

Mass Storage

Up to 1TB SSD disk for content like web pages, pictures, audio, and video files

Ignition Sense

Configurable time delay between ignition off and power down.

Power

Nominal voltages: 24VDC, 36VDC and 48VDC

Input voltage: 12V DC to 48V DC -25% / +20%

Max. power cons.: 20W

Connector: 3 pins of the 6-pin terminal block (V+, GND, ignition sense)

MTBF

180'000 h – 280'000 h depending on model

EMC Standards

EN 55022:2010, EN 61000-6-3: 2007+A1:2012, EN 50121-3-2: 2006+AC:2008; CFR 47 Part 15B, EN 301 489 (Emission) EN 50121-3-2: 2006+AC:2008, EN 301 489 (Immunity)

Type Approval

CE according R&TTE, FCC according to 47 CFR, Part 15B

Automotive: E1 according to Regulation No. 10, ECE-R118