Fiche technique ON4800

- ON4800 est un serveur/routeur sans ventilateur ni maintenance (datacenter mobile «in a box») pour toutes les applications embarquées dans des transports, comme par exemple les bus et les trains.
- Grâce à la virtualisation (VM, containers), plusieurs applications telles qu'information passagers, divertissement, comptage des passagers ou sauvegarde des données de surveillance peuvent fonctionner simultanément sur le même hardware.
- High-performance Intel 8 Core x86-64 CPU
- Gamme complète d'interfaces de communication: VGA, 4 x PoE Gig ETH, 1 x Gigabit Ethernet, GPS/GNSS, up to 2 x 4G/5G cellular, 802.11ac, Wi-Fi 5/6, RS232 etc.
- Les fonctionnalités Qualité de service et Pare-feu veillent à satisfaire constamment aux différentes exigences en matière de sécurité et de capacité.
- Déploiement «zero touch» automatique départ usine, c'est-à-dire que les appareils peuvent être montés dès la production et qu'aucuns travaux de configuration manuels ne sont requis (gestion en nuage).
- Transmission sécurisée des données utiles via VPN (IPsec avec certificats)

Applications

- L'infrastructure de base idéale pour ordinateurs de bord, système d'information passagers, infodivertissement, etc.
- Centrale de communication pour la communication véhicule-terre à grande vitesse (4G/5G).
- Sauvegarde et administration des données de surveillance (p. ex. vidéosurveillance)

Caractéristiques

- Intel® Core™ 9th Gen., 32 GB DDR4 DRAM
- WLAN, 4G/5G LTE, GNSS
- 2.5" HDD/SSD, NVMe storage
- Gigabit Ethernet, USB 3.0, DisplayPort, Audio
- RS232, RS422/RS485, IBIS

Performance

- > 1000 Mbps de routage local
- > 1000 Mbps de débit VPN via LTE/5G

Données techniques ON4800

Dimensions (W x H x D): 260 x 256 x 110 mm
Weight: 6500 g, depending on options
Operating temperature: -40 to +70 °C
Ingress Protection Level: IP65

CPU
Intel® Core™ 9th Gen. 8 cores, 8 Threads, up to 4.3 GHz, 12–25 W, 12 MB cache, 35 W

Memory
System RAM, SO-DMIM socket up to 32 GB/channel (64 GB for two channels)

Security
Trusted Platform Module 2.0

Mass Storage
- 2 x SSD/HDD 2.5" (SATA) external SSD/HDD
- 2 x mSATA 3.0

Wireless Functionality
- Dual-Modem support up to LTE CAT-20 and 5G
- Up to Dual-Band WiFi-6 (802.11ax) 2x2 MIMO
- GNSS receiver

Interfaces
This product includes interface options:
- Different wireless functions depending on assembled wireless interface cards
- Variable I/O in cutouts

SSD/HDD slot: 2 x 2.5" SATA 3.0 external SSD/HDD (compatible with 15 mm height), RAID 0/1 supported
2 x mSATA 3.0 (BIOS selection, occupied mPCIe slot)

Video: Chipset Intel® UHD graphics 360
1 x Waterproof VGA up to 1920 x 1200 @ 60 Hz

USB: 3 x USB 3.1

Ethernet: 1 x 10/100/1000BASE-T, iAMT + WOL, M12, X-coded, 4 x Independent LAN, 10/100/1000 Mbps I210-IT GbE, PoE 802.3af/at, max. 60W

GPS/GNSS: 1 x U-blox NEO-M8N GNSS module for GPS/Gloness/QZSS/Galileo/Beidou
Optional U-blox NEO-M8U with dead reckoning

Expansions:
- 1 x Full size mini-PCIe socket (USB 2.0, PCIe 3.0/ SATA 3.0 (BIOS selection))
- 1 x Full size mini-PCIe socket (USB 2.0, PCIe 3.0/ SATA 3.0 (BIOS selection)), BOM optional full size mini-PCIe socket (USB 2.0) for LTE module with 2 x external SIM
- 1 x Full size mini-PCIe socket (USB 2.0) for LTE module, BOM optinal M.2 3042 Key B socket (USB 2.0, USB 3.1 Gen2) for LTE/5G NR module with 2 x external SIM
- 1 x M.2 3042/3050/3052 Key B socket (USB 2.0, USB 3.1 Gen2) for LTE/5G NR module with 2 x external SIM
- 1 x M.2 3042/3050/3052 Key B socket (USB 2.0, USB 3.1 Gen2, PCIe 3.0 (BOM optional)) for LTE/5G NR module with 2 x external SIM

I/O Interface Front
21 x LED indicators (including 4 x programmable LED), 2 x externally accessible SIM card sockets per modem, 1 x Reset button, 2 x 2.5" external SSD/HDD, 12 x SMA antenna hole, 3 x USB 3.1 Gen1 type A (5V/1A) w/ cover, 1 x USB 3.1 Gen2 type A (5V/1A) w/ cover

I/O Interface Rear
4 x M12 X-coded PoE 802.3af/at, max. 60W, 1 x M12 X-coded LAN port, 10/100/1000 Mbps, 1 x Waterproof DC input connector with ignition, male, 1 x M8 for 1 x Mic-in, 1 x Line-out, 2 x Waterproof DB9 (COM1/COM2) for RS232 (isolation) 1 x Waterproof DB9 (COM3) for full RS232/422/485 (isolation), 1 x M12 A-coded 10pin (DIO)
- 4 x DI and 4 x DO (isolation)
- Power in for DIO isolation, 9~36VDC 1 x M12 A-coded for 2 x USB 2.0

1 x VGA

Electrical Specifications
Power input 24~110 VDC w/ isolation
Reverse protection, OCP & UVP
Selectable boot-up & shut-down voltage for low power protection by software
Setting 8-level power on/off delay time by software
10~255 seconds WDT support, setup by software
SDK (Windows/Linux) including utility and sample code

Product Compliance: Rail-Rolling Stock
CE, FCC Class A, EN 50155: 2017
- Class OT4 (-40~70°C), 85°C for 10 minutes
- Interruptions of voltage supply class S1, S2 (S2: 36~110VDC@70% load)
- Supply change over class C1, C2
- EMC EN 50121-1: 2017, EN 50121-3-2: 2016+A1: 2019
- Environment EN 60068-2-1, EN 60068-2-2, EN 60068-2-30
- Shock and vibration IEC 61373 Class B
- Protective coating class PC1 (PC2, by request)

EN 45545-2: 2013+A1:2015

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