

# TRX R2

TRX R2 provides the KlasOS Keel feature-set in a Voyager module form factor, compatible with Voyager 1, Voyager 2 and Voyager 8 chassis.

TRX R2 is available with two Category 12 modems with downlink speeds of up to 600 Mbps and also has a built-in Wi-Fi interface. Combined with Klas' proven SDWAN feature embedded in KlasOS Keel, multiple transports can be used simultaneously in a secure and agile way.

A broad range of virtual machines are also supported including VPN technology, WAN optimization, RoIP and video analytics on Intel Atom Denverton 4 or 8 core variants.



## Combined compute and cellular gateway for road vehicles

### Key Features

- CPU Options
- Intel® Atom™ Denverton C3708 8-Core processor with 1.7 GHz,
- Intel® Atom™ Denverton C3508 4-Core processor with 1.6 GHz
- Intel® Atom™ Denverton C3308 2-Core processor with 1.6 GHz, 8MB
- 8 to 96 GB RAM
- 4G/LTE Modems
- Sierra Wireless EM7455 LTE Cat-6 (B1, B2, B3, B4, B5, B7, B12, B13, B20, B25, B26, B29, B30, B41)
- Sierra Wireless EM7511 LTE Cat-12 (B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48, B66)
- IEEE802.11 ac/b/g/n 3x3 MIMO Wi-Fi modem with data rates of 1.3 Gb/s downlink in 2.4/5. Ghz bands
- 2 x 1 Gb Ethernet ports
- 2 x 10 Gb SFP ports on 2, 8 core variants
- 1 x GPS antenna port



Trains



Autonomous



Fleet

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# KLAS

# TRX R2

## Specifications



### Physical Specifications

- 7.4"W x 6.3"L x 2"H (188 mm x 160 mm x 52 mm)
- 4.4 lb / 2 kg

### Electrical Specifications

- 9 - 36 VDC input
- 15 - 32 W power consumption

### Construction

- Aluminum chassis with fanless cooling

- Temperature Range
- 4-Core : -20°C to 60°C
- 8-Core: -20°C to 40°C

### Ports

- 2 x LTE Modem Slots of M.2 form factor accessible by removing the top modem cover
- 2 x SIM card slots (one for each LTE modem)
- 2 x 1 Gb Ethernet ports
- 2 x 10 Gb SFP ports (8-core only)
- 4 x modem antenna ports (2 per modem)
- 1 x GPS antenna port
- 3 x Wi-Fi antenna ports
- 2 x USB 2.0 interfaces
- RJ-45 serial console port with hypervisor access

### CPU Options

- Intel® Atom™ Denverton C3708 8-Core processor with 1.7 GHz, 16MB Cache with Intel® Cache Allocation Technology
- Intel® Atom™ Denverton C3508 4-Core processor with 1.5 GHz, 8MB Cache with Intel® Cache Allocation Technology
- Intel® Virtualization Technology (VT-x) & Intel® Virtualization Technology for Directed I/O (VT-d)
- 8 to 48 GB RAM

### 4G LTE Modems

- Sierra Wireless EM7455 LTE Cat-6 (B1, B2, B3, B4, B5, B7, B12, B13, B20, B25, B26, B29, B30, B41)
- Sierra Wireless EM7511 LTE Cat-12 (B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48, B66)

### Wi-Fi Interface

- IEEE802.11 ac/b/g/n modem with data rates of 1.3 Gb/s downlink
- 3x3 MIMO
- Supports 2.4 GHz and 5 GHz bands
- Enhanced wireless security supporting 64/128-bits WEP, WPA, WPA2, 802.1x

### Software Support

- KLAS OS Keel KVM-based hypervisor

### Compliance

- Designed to meet:
- MIL-STD-810G
- MIL-STD-461F
- FCC Part 15 B
- CE
- RoHS, REACH



**KEELOS** | **BLACKROCK**

Optimised Management & Virtualization

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