



LATEST GENERATION ON-BOARD UNIT
IDR-i3



Building on previous versions and reflecting our continual innovation, we present the **IDR-i3** - new for 2023.



Combines **functionality** and **connectivity** with the assurance of **proven development**. Rolled out in the **largest tram network** in the world.



Enhanced **Reliability**

By **minimising** the risk of failures and downtime, reliable hardware **empowers** businesses to focus on innovation and productivity, secure in the knowledge that their infrastructure is **steadfast and dependable**.



eSIM Capability

- Offers mobile connectivity, maximising network availability
- Higher levels of reliability
- Easier to switch operator quickly and easily



Dual Boot Partition

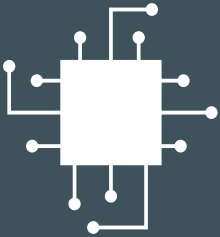
- Offers a fallback in the event of software issues
- Promotes efficiency and adaptability
- Enables users to test new configurations without compromising the stability of the primary system

Vehicle **Security**

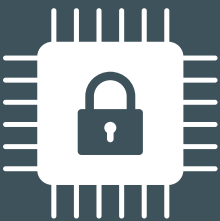
As technology advances, the **significance** of hardware security remains paramount, reinforcing the importance of **investing** in **resilient hardware architectures** to fortify our digital landscape.



ARM Processor with Linux



- Minimal attack surface, decreasing potential entry points for cyber threats
- Fine-grained control over user privileges, restricting unauthorised access to sensitive resources
- Separation of roles minimises risk of accidental system-wide changes



TrustZone®

- Protects high-value code and data
- An efficient, system-wide approach to security
- Hardware-enforced isolation built into the CPU

Commitment to Standards

Adhering to **established standards** ensures that devices and components are built in accordance with **widely accepted specifications**, fostering interoperability, allowing different hardware elements to seamlessly **interact and function** together.



IP65 Rating

- High levels of dust and water protection for the most demanding of environments
- Easier maintenance and longer lifetime



5G Ready

- 4x4 MiMo support for maximum speed and reception on 5G devices
- 5G modem supports latest 3GPP release for quality of service and multiple APN for network segmentation to increase security



ITxPT Compliant

- Supporting the implementation of standards and procedures for integrated 'plug-and-play' public transport IT systems

Sustainable **Hardware**

By reducing environmental impact and prolonging product lifecycles, sustainable hardware fosters a **harmonious relationship** between **innovation** and **ecological responsibility**.



- Minimum use of hard-to-recycle material
- Efficient power management - ARM CPU offers low power consumption
- Restriction of Hazardous Substances (RHOS3) compliant
- Easy recycling due to non-encapsulated design
- CO² compensation for transport from manufacturer to customer
- 100% recyclable packing materials



IDR-i3 is produced in a world-leading manufacturing centre that has achieved:

Energy Management System Certification (ISO50001)

Social Responsibility Certification (ISO26000)

Technical Specifications

Ethernet switch and ports	<ul style="list-style-type: none">• Layer 2 switch with VLAN 802.1p and 802.1q• 4 x M12 1000 Mb, 4 x M12 Gb with PoE
Serial interfaces	<ul style="list-style-type: none">• 1x vehicle bus master• 2x RS232/RS422/RS485 galvanically isolated• 2x CAN bus galvanically isolated• 1x USB 3.0
Processor core & OS	<ul style="list-style-type: none">• 6-core ARM processor• 4 GB RAM, 64 GB Storage• Operating system:• Yocto/Linux
GNSS	<ul style="list-style-type: none">• GPS, GLONASS, BeiDou, Galileo receiver with 3-D dead reckoning• Supporting SBAS, L1/L5 and E1/E5 Bands• 3-D acceleration sensor• 3-D gyroscope
WiFi	<ul style="list-style-type: none">• Wi-Fi 802.11 a/b/g/n/ac/6• Up to 2x2 MIMO• BT 5.3
EMC conformity	<ul style="list-style-type: none">• CE 2014/53/EU (covers UKCA)• E-mark UN ECE R10• EN50155, chapter 13.3
Additional tests and conformities	<ul style="list-style-type: none">• Power supply ISO 16750• Safety according to EN 62368-1• Fire protection EN 45545-1/2 & R118• RoHS-compliant 2011/65/UE• ITxPT compliance S01/S02/S04
Acoustics	<ul style="list-style-type: none">• Support of 3 microphones• Loudspeaker connections:<ul style="list-style-type: none">• Driver loudspeaker (5W), 2 PA system speakers (each 25W)• 2 Line-Out, 1 Line-In (PA system)• Support of Voice over LTE and external voice radio
Operating Environment	<ul style="list-style-type: none">• Operating temperature: -25°C to +70°C

Want to know more?

Connect with our experts - the link is in the post



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