

## Core-1000

The industrial server from Quortus enables Private LTE to be run on a single hardened, fanless computer with 5x Gb LAN ports negating the need for a switch in smaller installations. Quortus Core pre-installed ready to go and perfect for deployments of up to 100 simultaneous users.

The fanless, ventless, and dust-resistant Logic Supply ML400G-12 make it ideal for harsh environments like factories, remote locations and vehicles (when fitted with an anti-vibration kit) allowing for an easy, secure installation virtually anywhere.

The device comes with the Quortus Core network pre-installed ready for the provisioning of users and devices via the easy to use web GUI or alternatively the fully feature Command Line Interface.

A SOAP API is also available for integration into 3<sup>rd</sup> party systems.

Radios can be directly connected on one of the 5 LAN ports or via Wi-Fi and connect to the core via the S1 interface which is fully interoperable.

Along with the LAN ports the ML400G-12 also features 6 USB ports (including a USB 3.0 port), VGA and HDMI video output, dual PS/2 ports and RS-232 COM. This combination of I/O allows for a perfect fit in a wide variety of applications including

networking, telecommunications, security and IoT.

Form factor remains small allowing multiple deployment options aided by DIN, VESA and wall mount slots. Additionally, it can be rack mounted with the supplied 19" rack adapter.

Quortus Core is a virtualised mobile network, supporting 4G LTE\* functions applicable to a standard 3GPP architecture.

Quortus Core provides flexibility in the way networks can be architected and deployed, supporting operation as a fully self-contained system.

Quortus Core supports standard interoperable interfaces to enable connectivity with 3rd party elements.

HSS functionality enables the creation of standalone private networks. This enables cellular users to be directly hosted locally, allowing for local breakout of traffic for users and IoT devices meaning that information doesn't leave the enterprise domain improving latency, reliability and security.

\* 2G and 3G are also available



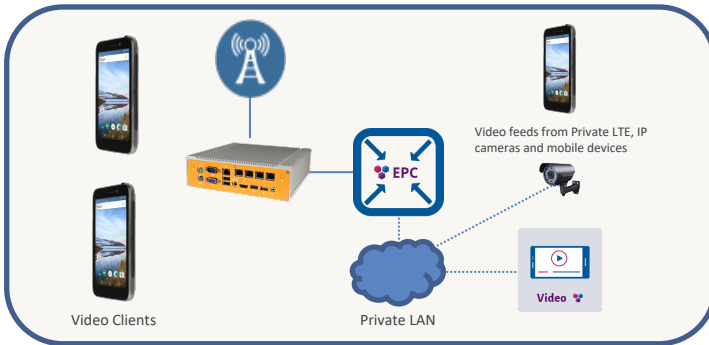
## Highlights

- Fully integrated 4G core network pre-installed.
- Can run as self-contained or part of a larger LTE network
- Fanless, industrial, small form factor PC (196 x 57 x 202 mm)
- Pre-installed Quortus Core ready to deploy
- Intel Celeron N2930 Quad core Processor
- Ideal for up to 100 users
- High-speed (>150Mbps) 4G user data
- 5x Gb ethernet & 802.11a/b/g/n
- HDMI display output
- 4 GB DDR3 SDRAM

# Core-1000

## Typical Use Cases

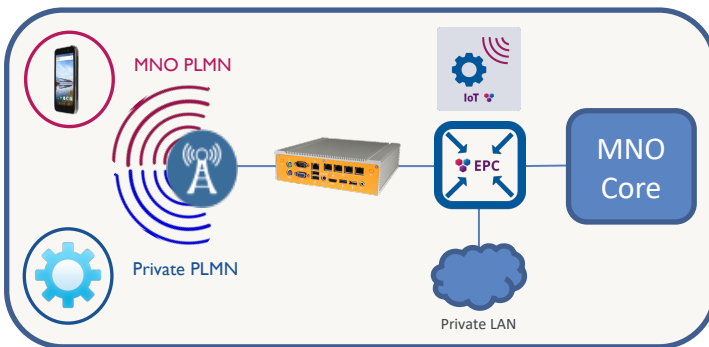
### Streaming Video/CCTV



Receive feeds from multiple sources i.e. fixed and wireless cameras or Private LTE devices into a 3<sup>rd</sup> party video management solution from there you can stream those feeds on request or send the same feed to all devices the same feed utilising the Quortus Multicast feature.

- Low latency, high bandwidth
- High availability wireless network
- Coverage / capacity improvements

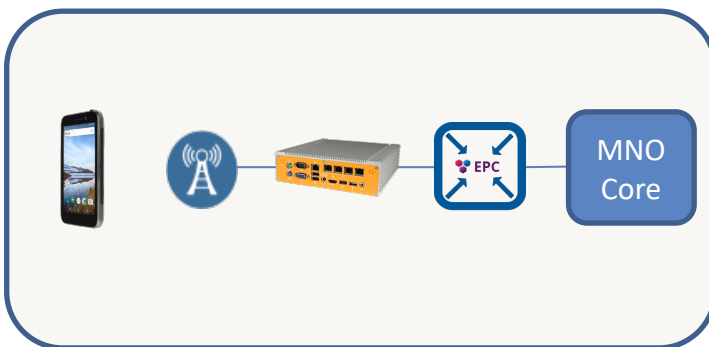
### IoT



Keep IoT traffic within the enterprise domain ensuring low latency, high security and end to end visibility. An eNodeB capable of transmitting multiple PLMN's onsite can allow IoT devices to register to the Private side, whilst authorised handsets in conjunction with an interconnect with a Network Operator allow access to the Public side.

- Secure, enterprise managed local access for IoT devices
- IoT device traffic remains within the enterprise
- Coverage / capacity improvements for macro users

### Co-Hosted with the eNodeB



Co-locate the EPC and eNodeB within the same enclosure or cabinet, the Core-1000 is well suited with its wide operating temperature range. Multiple LAN ports aide with connecting multiple radios and other fixed devices without that need for a separate switch.

- Wide operating temperature range
- 5x LAN ports allow connectivity to multiple devices
- Port covers stop ingress of dust and moisture

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## Key facts

<b>Product Code</b>	ECXCORE-1000
<b>What's included</b>	Quortus Core 4G (pre-installed) Licensed for: <ul style="list-style-type: none"><li>• Up to 100 users</li><li>• No restriction on connected eNodeB</li></ul> Logic Supply ML400G-12, Intel Celeron N2930 powered fanless, industrial PC <ul style="list-style-type: none"><li>• Transcend 370 mSATA SSD - 128 GB</li><li>• DDR3L 1600 SO-DIMM Memory - 4 GB</li><li>• Port &amp; Dust blocking kit</li><li>• Rackmount Adapter</li><li>• Centos v7 operating system</li><li>• UK Power Supply</li></ul>
<b>Management (OAM) interfaces</b>	Command line tool, SOAP XML interface and web screens and SNMP. Remote syslog output.
<b>IP interfaces</b>	User plane data drops directly to local LAN (SGi interface), IPv4 or IPv6.
<b>External interfaces</b>	SGs interface to CS VLR for SMS and legacy mobility, Interface to external HSS (DIAMETER/S6a)
<b>Authentication, integrity &amp; ciphering</b>	3G-Milenage or XOR for authentication. Ciphering available subject to radio support
<b>HSS per-user session control</b>	Configurable UL/DL AMBR thresholds, and EPS QoS/QCI configurable for GBR and non-GBR sessions
<b>Packet gateway features</b>	Multiple APN and PDP address pools, Built-in NAT ability to ease IP routing management, Multiple bearers per UE, IP traffic placed on local LAN
<b>System Cooling</b>	Fanless
<b>Processor/Graphics</b>	Intel Celeron N2930, 1.83 GHz / Intel HD Graphics
<b>Memory</b>	4 GB, 1333 MHz, DDR3L SO-DIMM (non-ECC)
<b>I/O</b>	<ul style="list-style-type: none"><li>• Front - 2 USB 2.0 ports, Power Button</li><li>• Rear - 1 HDMI port, 1 VGA port, 3 USB 2.0 ports, 1 USB 3.0 ports, 5 Gb LAN ports, 1 RS 232 COM port, 1 Audio Out, 2 PS/2 port, 1 DC Barrel Jack</li><li>• Atheros Dual-Band 2x2 802.11a/b/g/n</li></ul>
<b>Expansion Options</b>	1 PCIe Mini Card (half-height)
<b>Storage</b>	Transcend 370 mSATA SSD - 128 GB
<b>Input Voltage</b>	12 V, DC jack
<b>Operating Temperature Range</b>	0 ~ 50°C
<b>Dimensions (WxHxD)</b>	196 x 57 x 202 mm
<b>Case Material</b>	Aluminum, Steel
<b>Regulatory Information</b>	CE standards applied (EN 55022 / EN 55024 / EN 55032 / EN 60950-1), FCC, RoHS
<b>Warranty</b>	2-year limited warranty on parts and services

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