



Core-500

The small yet powerful quad core ODROID-C2 is ideal for small-scale Private LTE systems where space and weight are a limiting factor. Perfect for sub 32 user Private Cellular applications like in vehicle, remote IoT and deployable network applications.

The ODROID-C2 is a 64-bit quad-core, 2GB RAM single board computer (SBC) that is one of the most cost-effective 64bit boards of its size available.

The ODROID-C2 from Quortus comes supplied with the 4G Quortus Core pre-installed on a 16GB Memory card.

Contained within either a plastic or aluminium enclosure to protect the board whilst still allowing easy access to the 4x USB, HDMI, DC power and LAN ports.

The ODROID form factor, weight and power requirements mean it's easy to incorporate into very small network applications, vehicle installations and anywhere else where space is at a premium.

The solution comes preconfigured so that once powered and connected to the LAN its ready go, users/devices and 4G eNodeB's (S1 interface to eNodeB's is fully interoperable) are administered through either the simple to use web GUI or via the Command line interface. A SOAP API is also available for integration into 3rd party systems.

The Quortus Core virtualised network provides all the functions required of a 3GPP 4G network. Quortus Core provides flexibility in the way

networks can be architected and deployed, supporting operation as a fully self-contained system, or within the defined 3GPP reference architecture.

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

HSS/HLR functionality enables the creation of standalone private networks.

Quortus Core includes an integrated PGW allowing data to be placed directly on a local LAN.

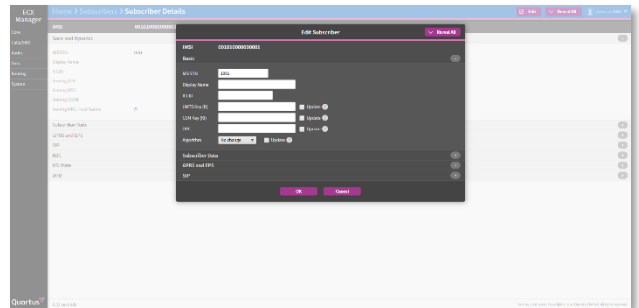
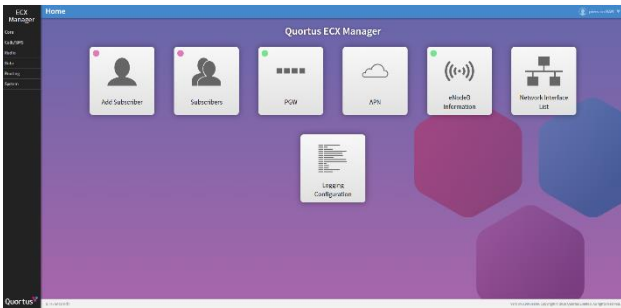
Highlights

- Fully integrated Quortus 4G core network pre-installed.
- Ideal for up to 32 users
- High-speed (>150Mbps) 4G user data
- Small Form Factor (90 x 59 x 28 mm)
- 64-bit quad core computer
- Gigabit ethernet
- HDMI display output
- 2GB DDR3 SDRAM



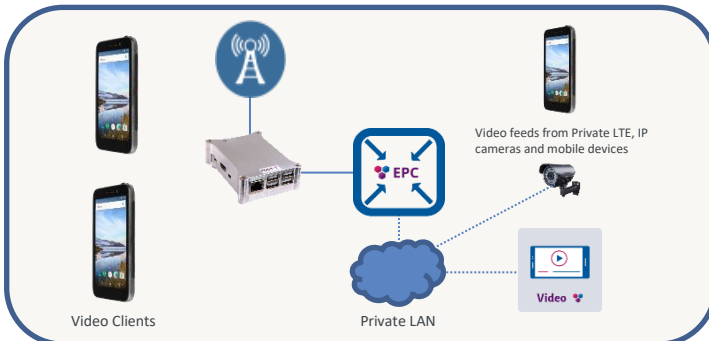
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Graphical user interface



Typical Use Cases

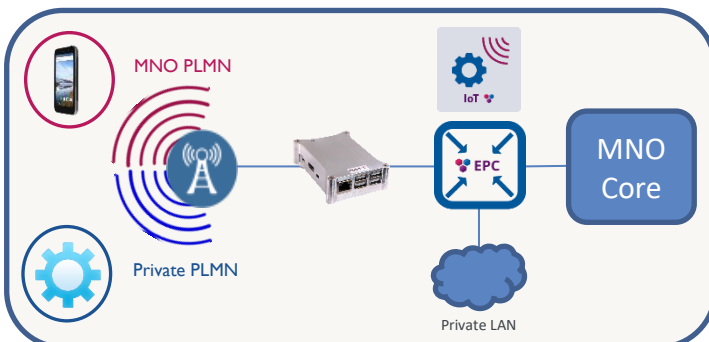
Streaming Video/CCTV



Receive feeds from multiple sources i.e. fixed and wireless cameras or Private LTE devices into a 3rd 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

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Key facts

Product Code	ECXCORE-500-1 (Plastic case) ECXCORE-500-2 (Aluminium case)
What's included	Quortus Core 4G - (pre-installed) Licensed for: <ul style="list-style-type: none">• Up to 32 users (subject to usage profile)• 1x connected eNodeB ODROID C2 64-bit quad-core single board computer <ul style="list-style-type: none">• ODROID C2 case (Plastic/Aluminum)• 16GB eMMC/SD Storage Card• UK, EU or US 5V Power Supply
Optional Features	ECX-FEAT-MACMOB - Macro Mobility Quortus Feature License ECX-FEAT-DIA - External Diameter Interface Quortus Feature License ECX-FEAT-RADIUS - External RADIUS Interface Quortus Feature License ECX-FEAT-MCAST - Multi-cast Quortus Feature License
Integrated core elements	HSS, MME, SGW and PGW
CN side interfaces	SIP/RTP for voice, SGI (for packet data)
Management (OAM) interfaces	Command line, SOAP XML interface, Web screens, SNMP, Remote syslog output.
IP interfaces	User plane data drops directly to local LAN (SGi interface), IPv4 or IPv6.
External interfaces	SGs interface to CS VLR for SMS and legacy mobility. Interface to external HSS (DIAMETER/S6a)
Authentication, integrity and ciphering	EIA1 (SNOW) for integrity protection. Ciphering available subject to radio support
HSS per-user session control	Configurable UL/DL AMBR thresholds, and EPS QoS/QCI configurable for GBR and non-GBR sessions
Packet gateway features	Multiple APN and PDP address pools. Built-in PGW NAT ability to ease IP routing management. Multiple bearers per UE IP traffic placed on local LAN
Processor	Amlogic S905 (ARM® Cortex®-A53(ARMv8) 1.5Ghz quad core CPU)
Size	Board 85 x 56 x 18 mm approx. (56 grams with heat sink) Case 90 x 59 x 28 mm approx. (32 grams / 88 grams total)
RAM Memory	2GB DDR3 SDRAM
Graphics	ARM Mali™-450 MP3 GPU HDMI 2.0 4K/60Hz display
Storage	eMMC5.0 HS400 Flash Storage slot, UHS-1 SDR50 MicroSD slot
I/O Connections	USB 2.0 Host x 4, USB OTG x 1, Infrared (IR) Receiver, 40pin GPIOs, 1x Gb Ethernet Adapter
Input Power	5V DC / 2A

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