

# CENTAURI 200

Enterprise/Industrial IoT Gateway  
Development Board

Powered by CENTAURI Software Framework



## Overview

CENTAURI 200 IoT Gateway Development Board is specifically crafted to meet all the needs of Enterprise/Industrial IoT Gateway Solutions. The gateway is built on a secure, power-efficient, and cost-optimized ARM® Cortex®-A7 based i.MX6UL/6ULL/6ULZ SoC, enabling greater flexibility in providing various RF connectivities and peripherals to create tailor-made solutions according to end-user needs. ACL Digital also offers the CENTAURI Software Framework for all OEMs to quickly build applications. The CENTAURI Gateway Development Board is pre-integrated with well-known cloud & app platform providers to help OEMs develop applications faster. OEMs can build Zigbee, Z-Wave, IEEE 802.15.1, Matter, and Thread gateway-based solutions on the platform with any two radios supported at a time. The CENTAURI Gateway Development Board is available under OEM offerings to reduce time to market, allowing you to focus more on creating value in end-user applications.

<b>Powerful Processor:</b>	ARM® Cortex® A7 Core
<b>Modular Design:</b>	mikroBUSTM Compatible Connectivity Linux
<b>OS Support:</b>	Yocto, CENTAURI Framework, Docker*, and OpenWrt*
<b>Wireless Connectivity:</b>	Zigbee®, Z-Wave, IEEE 802.15.1, Thread & Matter Protocol
<b>Wired Connectivity:</b>	Ethernet, RS485/RS232, and CAN
<b>Cloud Connectivity:</b>	Wi-Fi, LTE Cat M1/NB2/NB1/EGPRS
<b>Cloud Integration:</b>	IoTify, AWS IoT, Ayla Networks, IBM BlueMix*, and Microsoft Azure*
<b>LED &amp; Button:</b>	Programmable for Custom Interface
<b>Security:</b>	A7101CHTK2 Based Hardware Encryption



OEM  
Solution



Faster Time  
to Market



Lower Cost of  
Ownership



Development  
Support

## Target Applications

- Smart Industrial Automation
- Smart Asset Tracking

- Smart Building Management
- Smart Healthcare

- Smart Hospitality
- Smart Home Automation










# CENTAURI Software Framework

<b>Business Applications</b>	Building Automation	Smart Healthcare	Smart Retail	Smart Hospitality	Asset Tracking	Industrial Automation	Smart Agriculture		
<b>IoT Core</b>	Device Provisioning		Device Manager		OTA	Config	Cloud Agent		
<b>Platform Software</b>	MQTT Lib	CoAP Lib	Field Protocols	Connectivity Manager	VFS	Crypto	Json Lib	I/O Control Lib	Device Discovery
	Network Interface		Serial Interface	File System	Crypto Driver	CAN Interface	USB Interface	GPIO Interface	
<b>Hardware</b>	CENTAURI Gateway Development Board								

CENTAURI Software Framework extends major strategic advantages to OEM customers.

- **Modular Services:** Utilize services based on the customer's requirements to optimize resources.
- **Business Application Templates:** Enable quick app development using pre-built templates.
- **Uniform API:** Facilitates the customer's work on multiple connectivity protocols with ease.
- **Development Models:** Build applications on top of the basic platform or leverage IoT Core libraries for faster development.

## Technical Specifications

 <b>CPU</b>	<p><b>Processor:</b> i.MX6UL/6ULL/6ULZ(528 MHz to 900 MHz)</p> <p><b>Technology:</b> ARM® Cortex®-A7</p> <p><b>OS Support:</b> Yocto Warrior Linux, CENTAURI Framework, Node JS, Python, Docker, OpenWRT*</p>	 <b>Memory</b>	<p><b>Data (DDR3L):</b> 256MB (Upgradable to 1GB)</p> <p><b>Program Memory:</b> 128MB NAND Flash (Upgradable to 4GB) or 4GB eMMC (Upgradable to 32GB)</p>
 <b>Radio Interfaces</b>	<p><b>Thread (Λ):</b> NXP KW4IZ</p> <p><b>Zigbee®(Λ):</b> NXP JN5169/79/Silabs EFR32MG12P / Silabs MGM210P</p> <p><b>Z-Wave (Λ):</b> Silabs ZGM130S(700 Series)</p> <p><b>IEEE 802.15.1:</b> Nordic nRF52840</p> <p><b>Wi-Fi:</b> Broadcom Wi-Fi 802.11 b/g/n And IEEE 802.15.1 or Broadcom Wi-Fi 802.11a/b/g/n/ac And IEEE 802.15.1</p> <p><b>LTE:</b> Quectel EG91 (IoT/M2M Optimized LTE Cat 1) or Quectel BG95 (LTE Cat M1/Cat NB2/EGPRS) or Quectel BG96 (LTE Cat M1/Cat NB1/EGPRS) or Quectel EG95 (LTE Cat1) or Quectel EG95-NA LTE (CAT 4)</p>	 <b>I/O Interfaces</b>	<p><b>USB:</b> Type-A USB Host or Device</p> <p><b>CAN:</b> Yes</p> <p><b>RS485/RS232:</b> Yes (Any one)</p> <p><b>LED:</b> 2 LEDs (Programmable), 1 LED (Power)</p> <p><b>User Button:</b> 2 Buttons (Programmable)</p> <p><b>Ethernet:</b> 2 Ports 10/100 Mbps (1 Port POE)</p>
 <b>Connectivity</b>	<p><b>Cloud:</b> IoTify, AWS IoT, Ayla Networks, IBM BlueMix*, and Microsoft Azure*</p> <p><b>Compatible:</b> Any other MQTT or CoAP based cloud</p>	 <b>Electric</b>	<p><b>DC Power:</b> Input: 5V DC Current – Maximum: 3A</p> <p><b>Terminal:</b> 9V to 27V</p> <p><b>POE:</b> 802.3af</p>
 <b>General</b>	<p><b>Dimensions:</b> (150 L x 100 W x 30 H)mm</p> <p><b>Weight:</b> 304 gm (0.67 lbs)</p> <p><b>Temperature:</b> Commercial (0°C to +60°C) and Industrial (-20°C to +75°C)</p> <p><b>Mounting:</b> Desktop, Wall, and DIN rail</p> <p><b>IP Rating:</b> IP 41 or IP 65</p>	 <b>Security</b>	<p><b>Software:</b> SNVS, Trust Zone, and Secure Boot (HABv4)</p> <p><b>Hardware:</b> A7101CHTK2 (Encryption)</p>
		 <b>Certification</b>	<p><b>RoHS, REACH CE,FCC,IC,UL</b> Compliant</p> <p><b>LTE carrier</b> Pre-certified (Formal Certification Pending) Verizon Cat 1/Cat M1 for USA</p>

Note: "Λ" - Maximum two radios from this list

ACL Digital is a design-led Digital Experience, Product Innovation, Engineering and Enterprise IT offerings leader. From strategy, to design, implementation and management we help accelerate innovation and transform businesses. ACL Digital is a part of ALTEN group, a leader in technology consulting and engineering services.

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