CENTAURI 200

Enterprise/Industrial IoT Gateway
Powered by CENTAURI **Software Framework**

Overview

CENTAURI 200 IoT Gateway platform 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 platform is pre-integrated with well-known cloud & app platform providers to help OEMs develop applications faster. OEMs can build Zigbee, Z-Wave, BLE 5.0, Matter, and Thread gateway-based solutions on the platform with any two radios supported at a time. The CENTAURI Gateway platform is available under OEM offerings to reduce time to market, allowing you to focus more on creating value in end-user applications.

Feature Highlights

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

Business Applications	Building Automation	Smart Healthcare	Smart Retail	Smart Hospitality	Asset Tracking	Industrial Automation	Smart Agriculture
IoT Core	Device Provisioning		Device Manager		OTA	Config	Cloud Agent
Platform Software	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
Hardware	CENTAURI Hardware Platform							

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

CPU
Processor:	i.MX6UL/6ULL/6ULZ(528 MHz to 900 MHz)
Technology:	ARM® Cortex®-A7
OS Support:	Yocto Warrior Linux, CENTAURI Framework, Node JS, Python, Docker, OpenWRT*

Radio Interfaces
Thread (∧):	NXP KW41Z
Zigbee®(∧):	NXP JN5169/79/Silabs EFR32MG12P / Silabs MGM210P
Z-Wave (∧):	Silabs ZGM130S(700 Series)
BLE 5.0 (∧):	Nordic nRF52840
Wi-Fi:	Broadcom Wi-Fi 802.11 b/g/n And Bluetooth 4.0 or Broadcom Wi-Fi 802.11a/b/g/n/ac And Bluetooth 5.0
LTE:	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)

Connectivity
Cloud:	IoTify, AWS IoT, Ayla Networks, IBM BlueMix*, and Microsoft Azure*
Compatible:	Any other MQTT or CoAP based cloud

General
Dimensions:	(150 L x 100 W x 30 H)mm
Weight:	304 gm (0.67 lbs)
Temperature:	Commercial (0ºC to +60ºC) and Industrial (-20ºC to +75ºC)
Mounting:	Desktop, Wall, and DIN rail
IP Rating:	IP 41 or IP 65

Memory
Data (DDR3L):	256MB (Upgradable to 1GB)
Program Memory:	128MB NAND Flash (Upgradable to 4GB) or 4GB eMMC (Upgradable to 32GB)

I/O Interfaces
USB:	Type-A USB Host or Device
CAN:	Yes
RS485/RS232:	Yes (Any one)
LED:	2 LEDs (Programmable), 1 LED (Power)
User Button:	2 Buttons (Programmable)
Ethernet:	2 Ports 10/100 Mbps (1 Port POE)

Electric
DC Power:	Input: 5V DC Current – Maximum: 3A
Terminal:	9V to 27V
POE:	802.3af

Security
Software:	SNVS, Trust Zone, and Secure Boot (HABv4)
Hardware:	A7101CHTK2 (Encryption)

Certification
RoHS, REACH CE,FCC,IC,UL	Compliant Pre-certified (Formal Certification Pending)
LTE carrier	Verizon Cat 1/Cat M1 for USA

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