VOLANSYS
Trusted Technology Partner

CENTAURI 200
Enterprise/Industrial IoT Gateway
Powered by CENTAURI Software Framework

Overview

CENTAURI 200 IoT Gateway platform is specifically crafted to satisfy all the needs of the Enterprise/Industrial IoT Gateway Solution. Gateway is built on secure, power-efficient, and cost-optimized ARM® Cortex®-A7 based i.MX6UL/6ULL/6ULZ SoC. This enables a greater amount of flexibility in providing various RF connectivities and peripherals to make a tailor-made solution according to end-user needs. VOLANSYS also offers a CENTAURI Software Framework for all OEMs to quickly build applications. CENTAURI Gateway platform is pre-integrated with well-known cloud & app platform providers to help OEMs with faster application development. OEMs can build Zigbee gateway, Z-Wave gateway, BLE gateway and Thread gateway based solution on the platform with any two radios supported at a time. CENTAURI Gateway platform is available under OEM offerings to reduce time to market so that you can focus more on creating values in end-user applications.

Feature Highlights

Powerful Processor:	ARM® Cortex® A7 Core
Modular Design:	mikroBUS™ Compatible Connectivity
OS Support:	Linux Yocto, CENTAURI Framework, Docker*, and OpenWrt*
Wireless Connectivity:	Zigbee®, Z-Wave, BLE Mesh, and Thread
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

*available in Q3

- OEM Solution
- Faster Time to Market
- Lower Cost of Ownership
- Development Support

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ELECTRONICS MANUFACTURING SOLUTION PROVIDERS - 2019

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 requirement to optimize resources
- Business Application Templates: Quick app development using pre-built templates
- Uniform API: Enables the customer to work on multiple connectivity protocols with ease
- Development Models: Build application on top of basic platform or leverage IoT Core libraries for faster development

Technical Specifications

CPU
Processor: i.MX6UL/6ULL/6ULZ
Technology: ARM® Cortex®-A7
OS Support: CENTAURI Framework, Linux Yocto, OpenWRT*, and Docker*

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

Radio Interfaces
Thread (^): NXP KW41Z
Zigbee®(^): NXP JN5169/79/Silabs EFR32MG12P
Z-Wave (^): Silabs ZGM130S/ZM5304
BLE 5.0 (^): Nordic nRF52840
Wi-Fi: AMPAK AP6236 Wi-Fi 802.11b/g/n and Bluetooth 4.2
LTE: Quectel EG91 (IoT/M2M Optimized LTE Cat 1) or BG95 (LTE Cat M1/Cat NB2/EGPRS) or BG96 (LTE Cat M1/Cat NB1/EGPRS)

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)

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

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)

General
Dimensions: (150 L x 100 W x 30 H)mm
Weight: 250 gm
Temperature: Commercial (0°C to +60°C) Industrial (-40°C to +75°C)
Mounting: Desktop, Wall, and DIN rail
IP Rating: IP 41 or IP 65

Certification
Pre-certified: RoHS, REACH, CE, FCC, IC, and UL (Formal Certification Pending)

Note: "^" - Maximum two radios from this list, "*" - Available in Q3

Target Applications

- Smart Industrial Automation
- Smart Asset Tracking
- Smart Building Management
- Smart Healthcare
- Smart Hospitality
- Smart Home Automation

Note: Registered Trademark/Logo of Z-Wave, BLE, Zigbee, Thread, ARM and miKroBUS are properties of their individual owner.

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www.volansys.com

Call: +1 510 358 4310
Email: business@volansys.com

3080 Olcott St., Ste. D235
Santa Clara, CA – 95054, USA

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