# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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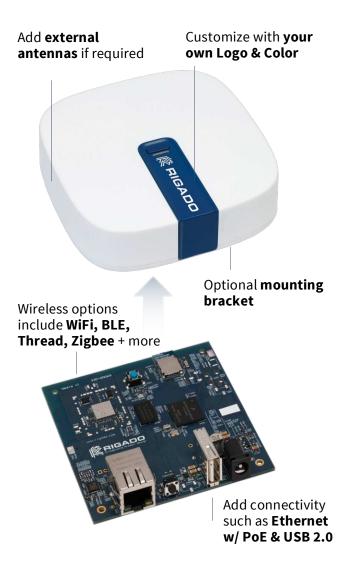




# **Configurable IoT Gateway**

This plug-and-play IoT Gateway with edge compute power comes with a range of connectivity options for maximum flexibility, allowing customers to choose the connection capabilities they need today - as well as future-proof for tomorrow. It includes Rigado tools for secure OTA updates.

# A CUSTOMIZED GATEWAY TO MEET YOUR EXACT IOT REQUIREMENTS



## **Configurable Connectivity**

Choose your modular wireless connectivity options, including WiFi (802.11a/b/g/n 2.4/5 GHz), Thread or proprietary 2.4GHz, Bluetooth Low Energy and 10/100 Ethernet with PoE.

#### **Powerful Processing**

A 528MHz 32bit ARM Cortex<sup>®</sup>-A7 running Yocto Linux BSP offers plenty of edge compute power and cloud connectivity options. Upgradable to 64MB Flash, 512MB RAM and 8GB eMMC storage.

#### **Fully Brand-able Enclosure**

Based on our extensive ODM experience bringing more than 100 IoT products to market, Rigado's team will customize and manufacture your Gateway enclosure to match your brand.

#### **Build-to-Order Components**

We can quickly customize a Gateway with just the components required for your specific application, allowing you to optimize cost and functionality for your solution.



www.rigado.com info@rigado.com +1 971.208.9870



## KEY BENEFITS OF THE CONFIGURABLE IOT GATEWAY

#### **Edge Compute Capabilities**

Armed with a 528MHz 32bit ARM Cortex®-A7 processor and up to 8GB of storage (even more if using the internal SD card) Rigado's IoT Gateway supports a host of edge compute applications. Coupled with a Linux operating system and standard cloud integrations, developers can use standard tools to create applications to collect and process information locally and then stream data to public cloud tools or enterprise backends.





#### **Flexible Development Environment**

The Rigado IoT Gateway includes a robust development environment to make creating and deploying both prototype and production applications a snap. Gateways are pre-loaded with Node-RED to provide a simple way to create browser-based workflows to connect hardware devices, APIs and online services. Developers can also deploy node.js, python, Java, or compiled applications to the gateway.

#### **Custom Branding and Enclosures**

Rigado offers multiple branding and enclosure options depending on your application. Gateways can be customized with your own brand color and pad printed logo – or built without an enclosure for integration into a custom design. We can also provide IP67 rated enclosure options, or design new enclosures tailored to fit custom applications.





#### **Rigado DeviceOps for Secure Updates**

Rigado DeviceOps is a cloud-based platform for device monitoring and secure firmware updates at scale. It works with Rigado's Modules and IoT Gateways for a seamless, end-to-end solution with fast & flexible firmware updating. Rigado Gateways don't require DeviceOps – customers are welcome to use their own secure updating tools instead.



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# CUSTOMIZE YOUR HARDWARE & CONNECTIVITY

# Hardware Specifications and Configuration Options









Processor					
528MHz ARM Cortex <sup>®</sup> -A7	i.MX6UL G3				
Memory and Storage					
DRAM	128MB				
	256MB				
	512MB				
	None				
	16MB				
NOR Flash	32MB				
	64MB				
	microSD, no card				
	microSD, 8GB				
Bulk Storage	eMMC, 4GB				
	eMMC, 8GB				
Wireless					
WiFi	WiFi/BT 4.0, Internal Antenna				
	Bluetooth 4.2				
	Rigado BMD-300 module based on Nordic nRF52832				
	Bluetooth 4.2 + 802.15.4				
Low Power Wireless	Rigado R41Z module based on NXP KW41Z				
	Add optional 4Mbit Flash for above modules				
	No Module				
	Cellular LTE (2H'17)				
Expansion Options	Lora (2H'17)				
Case, Options & Accessories					
Enclosure	Standard Enclosure				
	Enclosure with custom pad printed logo				
	IP67 rated Enclosure (requires PoE)				
	No Enclosure				
Power over Ethernet & USB	No PoE or USB				
	PoE 802.3af only				
	USB 2.0, Type A only				
	PoE 802.3af & USB 2.0 Type A				
Available Accessories	Wall/Ceiling Bracket				
	10W Wall Adapter				
	·				



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## **Standard Hardware Configurations**

The below Standard Configurations are available in single-unit quantities through our distribution partners. Note that customized orders typically require a 250 piece minimum order, and may have a 14-week lead time.

Standard Model Part #	DRAM	NOR Flash	Bulk Storage	Ethernet	WiFi	Low Power Wireless	Expansion Header	PoE / USB	Accessories
Vesta- <b>100B</b> VG3-1E4-B0-US	128MB	None	4GB eMMC	Yes	No	BMD-300 BLE 4.2	No	USB	No
Vesta- <b>100R</b> VG3-1E4-TA-US	128MB	None	4GB eMMC	Yes	No	R41Z BLE 4.2 + 802.15.4	No	USB	No
Vesta- <b>200B</b> VG3-2E4-WIB0-USA	256MB	None	4GB eMMC	Yes	Yes	BMD-300 BLE 4.2	No	USB	Wall mount AC Adapter
Vesta- <b>200R</b> VG3-2E4-WITA-USA	256MB	None	4GB eMMC	Yes	Yes	R41Z BLE 4.2 + 802.15.4	No	USB	Wall mount AC Adapter
Vesta- <b>300B</b> VGS-23E4-WIB0C0-ASA	256MB	32MB	4GB eMMC	Yes	Yes	BMD-300 BLE 4.2	Yes	PoE + USB	Wall mount AC Adapter
Vesta- <b>300R</b> VGS-23E4-WITAC0-ASA	256MB	32MB	4GB eMMC	Yes	Yes	R41Z BLE 4.2 + 802.15.4	Yes	PoE + USB	Wall mount AC Adapter

## **Software Specifications**

#### **Development Environment**

- Linux OS (Yocto open source distro)
- Vagrant build recipes for multiple development environments
- Support for application development in Python, Node.js, Java (JamVM)
- Rapid prototyping and application development using Node-RED visual development framework

#### IoT Frameworks

- Wirepas Adaptive mesh networking
- Alljoyn Open source device discovery
- lotivity Open source device connectivity

#### **Cloud support**

- Amazon Web Services (AWS)
- Microsoft Azure
- Ayla IoT Platform
- Arrayent Connect Platform
- IBM Bluemix

#### **Networking Support**

- HSDK and Threadmanager
- NAT64/DNS64 Stack
- IP Tables
- MyNewt HCI controller
- PC-BLE-Serialization
- BlueZ
- MQTT (Mosquito and paho-mqtt)
- LoRa Gateway Bridge

#### Rigado DeviceOps (optional)

- Remote Gateway Management Install apps, kernel updates, configuration changes & more
- End Device Updating Remotely manage firmware deployments to end devices connected to the IoT Gateway
- Remote Log Management Retrieve logging data from routers and aggregate and analyze it using your log management tool of choice
- Network configuration and management Remotely manage and monitor mesh network topology and devices

For additional information, including custom configuration orders, contact us at info@rigado.com



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