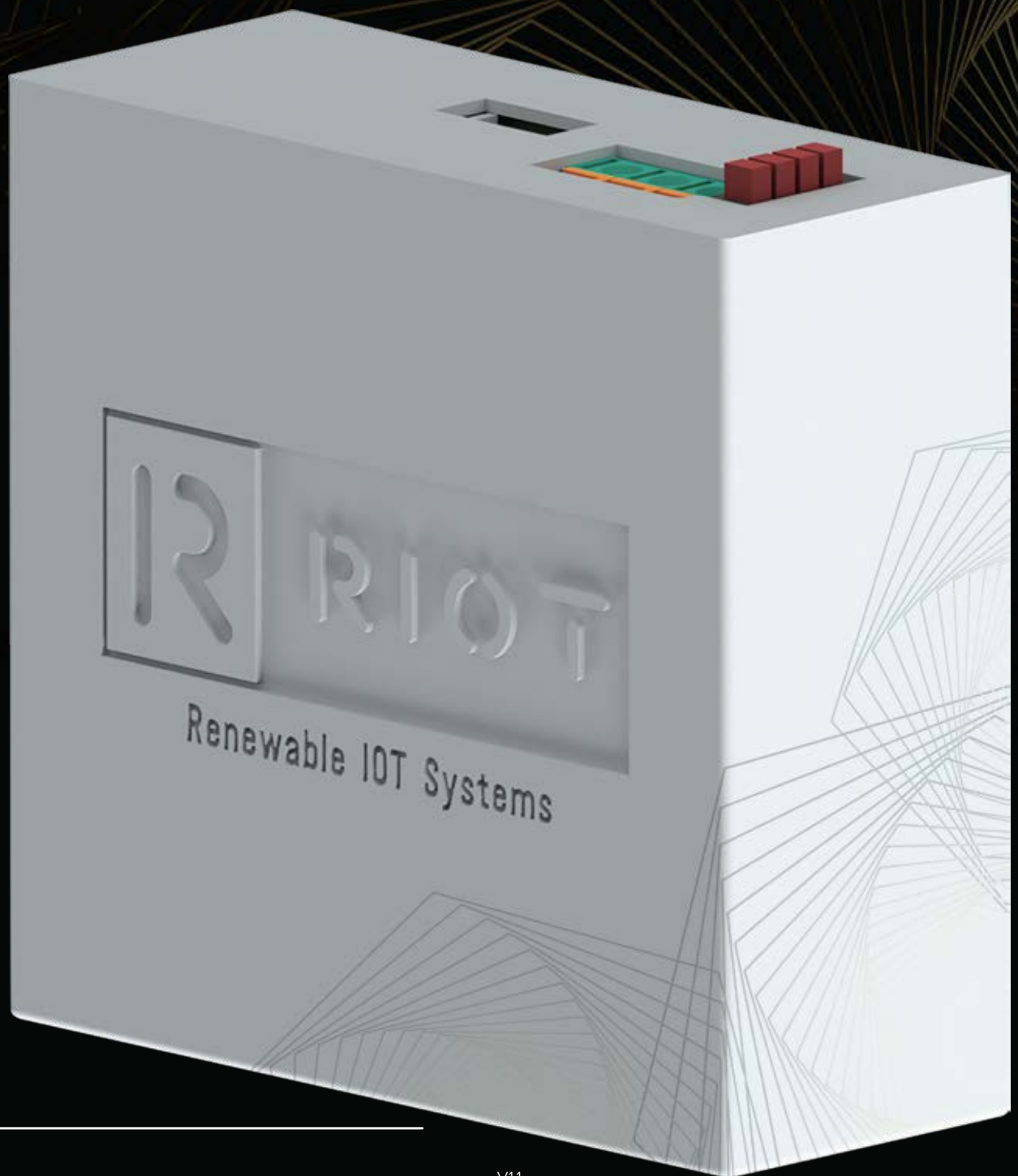




Renewable IOT Systems

# Cloudlink

Intelligent Lithium & Inverter integration



## FEATURES

- CAN bus converter for Hubble Lithium BMS
- RS232, CAN Bus, Wifi, Bluetooth functionality
- Cloud monitoring of multiple battery values
- A.I - Artificial Intelligence Processor
- Industry grade encrypted cloud reporting
- Integrates with leading Inverter CAN Bus systems
- Multiple CAN bus protocols built in for maximum inverter compatibility
- Automatic OTA firmware updates
- A.I selects which CAN Bus protocol to use on your inverter
- Embedded Protocols: RIOT Cloudlink, Victron, SMA, Pylontech
- Easy install with magnetic clips
- Plug and Play setup
- Reports Inverter values to the cloud for monitoring\*
- Engineered, designed & assembled in South Africa



### INTEGRATE

The RIOT Cloudlink has been designed to integrate lithium battery BMS systems with as many inverters as possible. Currently there is integration for most leading CAN bus based Inverters.



### CONNECT

The Cloudlink can integrate through CAN bus, Modbus, RS232, WiFi, Bluetooth, USB, and dry contacts. This enables the device to connect through any port to almost any inverter to enable communications.



### MONITOR

Intelligent cloud reporting from Battery voltages, to current draw, temperatures in real-time, alarms and down to per cell level of your lithium batteries. Multiple battery reporting per device and intelligent CAN bus inverter reporting to the cloud. \*

## HARDWARE

RIOT Cloudlink specifications are supplied as per current revision. Hardware changes might slightly change to enable enhancements.

### SPECIFICATION

<b>Input</b>	Voltage	20v to 75v DC		
	Power	<2W		
<b>Indicators</b>	<b>LED</b>	<b>Off</b>	<b>Flash/Pulse</b>	<b>On</b>
	LED-1	No Power	-	Device Powered
	LED-2	Wifi Off	Wifi Connected to internet	Wifi On
	LED-3	No Communications	Battery Connected	CAN Connected
	LED-4	CPU Fault	Normal	Config Mode
	Buzzer	-	Config Mode	-
<b>Mode Button</b>	1 Sec	Check for firmware		
	2 to 4 Sec	Config Mode		
	10 Sec +	Wifi Password Reset		

### COMPATIBILITY

<b>Batteries</b>	Hubble Lithium	Models: X-100, X-200, AM-2, AM-3, AM-4		
<b>Inverters</b>	Victron	Cerbo GX, Colour Control, Venus GX		
	GoodWe	ES4.6		
	Deye/Sunsynk	3.6kw Hybrid, 8kw Hybrid		
	Growatt	SPF5000ES		
	Phocos	3KVA & 5KVA Any Grid (due Jan 2021)		

### COMMUNICATIONS

<b>Protocol</b>	Standard	Physical	Built in termination	Pinouts
<b>CAN Bus</b>	CAN J1939 & NMEA2000	2xRJ45	Yes	H-4, L-5, GND-2
<b>MOD Bus</b>	RS485	Config	Yes	Config
<b>Serial</b>	RS232	RJ11	NA	TX-4, RX-3, GND-5, P-6

### WIFI

<b>Wi-Fi Mode</b>	Station/SoftAP/SoftAP+Station/P2P			
<b>Standards</b>	FCC/CE/IC/TELEC/KCC/SRRC/NCC			
<b>Protocol</b>	802.11 b/g/n/e/i (802.11n up to 150 Mbps)			
<b>Security</b>	WPA/WPA2/WPA2-Enterprise/WPS			

### BLUETOOTH

<b>Protocols</b>	Bluetooth v4.2 BR/EDR and BLE specification			
<b>Radio</b>	NZIF receiver with -98 dBm sensitivity Class-1, Class-2 and Class-3 transmitter			
<b>Dimensions</b>	80mm x 75mm x 32mm			

Due to continuous product improvements specifications are subject to change without further notice.

