

Skyhawk PRIoT™ Connectivity Platform

A vertically integrated IoT solution with battery-powered cellular gateways, sub-GHz RF sensors and software applications for both cloud and mobile

Powering a new class of IoT monitoring

The Skyhawk PRIoT (Portable Remote IoT) platform provides a complete solution for IoT design engineers who want to combine the reliability of Verizon's LTE CAT-M1 connectivity with the drop-in portability of battery-powered gateways.

PRIoT combines long-life battery-powered gateways, high power sub-GHz sensor communications and a purpose-built cloud and mobile applications framework.

Offering portability, reliability and customizability, the PRIoT platform will increase the value and utility of your existing IoT solutions and enable entirely new IoT applications that powered gateways could never do.

No external power? No problem.

The requirement for IoT gateways to be plugged in has limited the growth of IoT. Many locations don't have power, and in some places where there is power, it's not in the best spot for RF connections to hundreds of remote sensors. The challenge has been the high power requirements of sub-GHz RF communications.

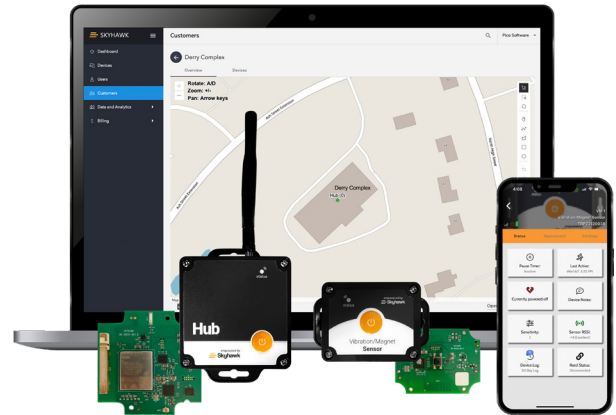
Skyhawk has solved this problem with proprietary wake-on-radio circuitry and power management algorithms. Our gateways operate on an average of less than 1mW of power – *1/1000th the power draw of most other sub-GHz gateways.*

The result? A drop-in IoT gateway you can place anywhere there is cellular signal, in whatever location is best for connecting to sensors.

Always on. Always connected.

Because they consume so little power, Skyhawk PRIoT gateways can monitor hundreds of sensors for more than two years on three AA batteries. Need 10 years? Add more batteries to your design.

And Skyhawk's cellular cloud eliminates the need for WiFi or Ethernet, utilizing Verizon's LTE CAT-M1, which has the best coverage in the United States.



PLATFORM FEATURES

- **Complete vertical IoT solution** – Gateways, sensors and cloud/mobile software stack
- **100% battery-powered** – Place your gateways anywhere there is a cell connection
- **Maintenance-free** – Runs 2+ years on 3 AA batteries (gateway); 10+ years on 2 AAs (sensors); add more batteries for longer life
- **Reliable cloud connection** – Verizon 4G LTE CAT-M1 network
- **Sub-GHz high power RF** – 1500 ft LOS range
- **Any low data sensor** – Alerts or polling sensors
- **Easy setup** – No pairing required
- **Location on demand** – Cellular/WiFi/GPS triangulation
- **Full software stack** – Device dashboards, customer license management, billing, location mapping, and more
- **Fully customizable** – Your sensors, your branding, your applications
- **For a full list of technical specifications, visit** www.skyhawk.ai/priot-platform

A complete and customizable IoT solution

The PRIoT platform is available as PCB modules, as packaged white-labeled products, or as a turnkey customized solution. We provide an array of the most useful sensor types, or you can integrate the PRIoT sensor communications modules with any alert or polling sensors.

All Skyhawk PRIoT solutions come with a license for the Skyhawk mobile and cloud software stack. You'll get dashboards to control your devices, monitor their status, track their location and broadcast alerts, along with data pipelines, license management and billing. Use as is or add your own features.

Want a turnkey solution? Skyhawk is part of the PICA Group, a leading U.S.-based electronics manufacturer, and we can help your team design and manufacture a complete IoT hardware solution, from gateway to sensors to custom software.

Skyhawk and the PICA Group – Your IoT Partner

Skyhawk PRIoT products come from PICA Product Development, one of the PICA Group companies. Headquartered in Derry, NH, and with manufacturing operations in the United States, Malaysia and China, PICA (www.picamfg.com) has for more than 20 years helped develop and manufacture top consumer, medical and industrial electronics products for the world's top technology companies and retailers.

AN IDEAL REMOTE MONITORING SOLUTION

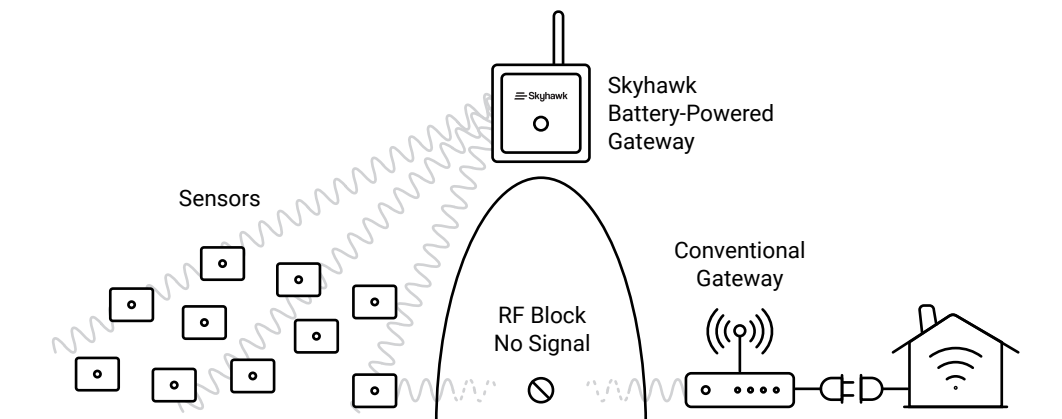
The Skyhawk PRIoT Platform's battery-powered cellular gateways, sensors and software are a full vertical solution ideal for IoT applications in:

- Agriculture
- Property Management
- Construction
- Transportation
- Asset Monitoring
- Public Space Management
- Land Management
- Aquaculture
- Smart Cities
- Smart Factories
- Any monitoring environment where there's no power or where the power is inconveniently located

Learn More

For more information about Skyhawk remote monitoring solutions, visit www.skyhawk.ai, email us at info@skyhawk.ai, or call +1 (800) 760-3966.

With the Skyhawk PRIoT Platform, you can place your gateways in optimal locations to reliably collect sensor data for years – in places where other gateways that require power can't reach



Skyhawk platform hardware specifications

The Skyhawk PRTIoT platform hardware is available in three formats:

1. Packaged gateways and sensors that can be branded to your company
2. PCB modules you can incorporate into your existing manufacturing process
3. Custom manufactured solutions to your specifications, manufactured by PICA Manufacturing Solutions (www.picamfg.com)



MECHANICAL	Gateway	Sensor
Size - Packaged (L x W x H)	4.00 x 4.00 x 1.30 in / 10.16 x 10.16 x 3.30 cm	3.75 x 2.20 x 1.10 in / 9.53 x 5.59 x 2.79 cm
Size - PCB (L x W x H)	3.50 x 3.50 x 0.25 in / 8.89 x 8.89 x 0.64 cm	3.50 x 2.00 x .125 in / 8.89 x 5.08 x 0.32 cm
Weight – Packaged	16oz / 454g	8oz / 227g
Weight – PCB	3oz / 85g	1oz / 28g
Operational Temperature	0F° to 140F° / -18C° to 60C°	0F° to 140F° / -18C° to 60C°
Ingress Protection – Packaged	IP64/67	IP64/67
Material – Packaged	Lexan	Lexan
Mounting – Packaged	Mounting ears, magnets or velcro	Mounting ears, magnets or velcro

POWER	Gateway	Sensor
Power Source – Packaged	3 x AA primary lithium batteries, extrnl. power source optnl.	2 x AA alkaline batteries
Power Source – PCB	Optional: LiPo, Primary lithium or alkaline	Optional: LiPo, Primary lithium or alkaline
Average Power Usage	< 1mW	< 20µW
Power Lifetime – Packaged	2+ years (standard duty cycle*)	10+ years (standard duty cycle*)
External Power Connection	Optional: USB-C or energy harvester	N/A

COMMUNICATIONS	Gateway	Sensor
Backbone to Cloud	LTE CAT-M1	N/A
Local RF	915 ISM, GFSK, <1W	915 ISM, GFSK, <1W
Local RF LOS Range	1500 ft / 457 m	1500 ft / 457 m
Supported Signals	Alerts and polling. Low data.	Alerts and polling. Low data.
FOTA	Y	N
Data Security	VPN	None
Regulatory (US)	FCC 15.247	FCC 15.247

*Standard duty cycle is defined as transmission of 6 sensor data packages per day