

# PATRIOT GATEWAY

Protocol Aggregation & Telemetry Router for IoT



PLUG AND PLAY WITH SIGNALFIRE CLOUD

MQTT/SPARKPLUG READY

CONNECTS AND INTEGRATES WITH SIGNALFIRE 900MHZ PRODUCTS

MULTI PROTOCOL HUB FOR WIRED AND WIRELESS DEVICES

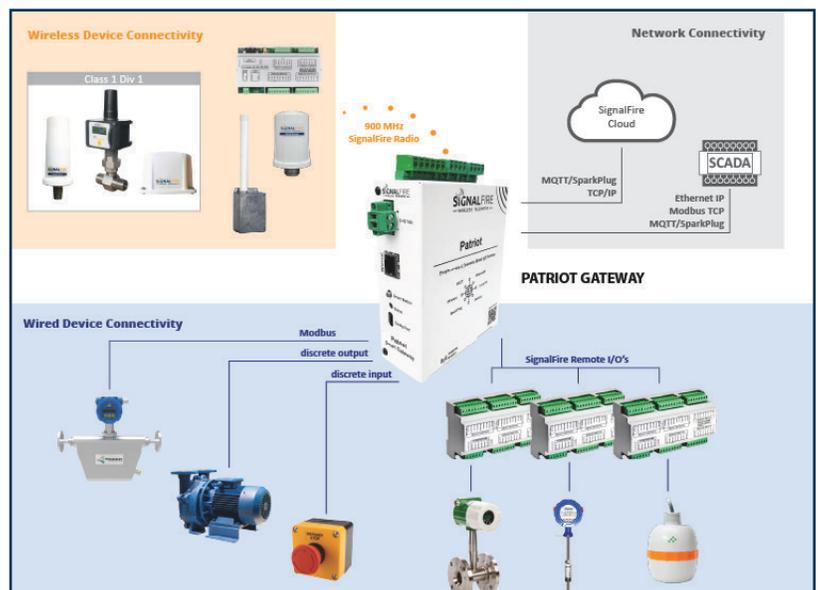
## PRODUCT DESCRIPTION

The PATRIOT Gateway is a versatile hub that connects wireless and wired devices into SCADA, cloud, and monitoring systems with ease. Supporting Modbus TCP, EtherNet/IP, and MQTT/Sparkplug, it seamlessly integrates data from SignalFire's 900 MHz wireless nodes, Modbus devices, and field I/O modules for a flexible, cost-effective solution.

With ultra-low power consumption, large-scale tag support, and secure cloud-ready connectivity, the PATRIOT delivers reliable performance in even the most remote applications. Whether you need to shorten cable runs, enable local automation, or scale to thousands of devices, the PATRIOT Gateway provides a powerful platform to modernize and simplify industrial monitoring.

## FEATURES

- Integrates wireless + wired signals into SCADA, cloud, or remote systems
- Publishes to MQTT/Sparkplug with no licensing required
- Supports SignalFire Cloud for turnkey monitoring and control
- Ultra-low power consumption (<50mA) for solar-friendly installations
- Large-scale deployment capabilities with up to 30,000 Modbus tags
- Remote shutdown logic with 128 configurable rules for automation
- Expansion modules for analog and relay outputs
- Supports wireless configuration of remote nodes and HART devices with PACTware, Fieldcare, or Radar Master



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## TECHNICAL SPECIFICATIONS

Table 1

Physical Specifications	
Dimensions	5.6" (142mm) Tall x 1.6" (41mm) Wide x 5.2" (132mm) Deep
Weight	2 Lbs (0.9Kg)
Housing Material	Powder Coated Steel
Mechanical installation	DIN Rail Mount
Electrical Specifications	
Input Power	6 to 42 Vdc
Power Consumption @ 12Vdc	No Ethernet: 66mA Average, 75mA Max With Ethernet: 85mA Average, 95mA Max
Power Consumption @ 24Vdc	No Ethernet: 35mA Average, 43mA Max With Ethernet: 45mA Average, 53mA Max
Wire Termination	Screw Terminals. 18AWG-22AWG
Clock	Clock and RSD Control Registers Maintained For 30 Days Without Power
Environmental	
Ambient Operating Temperature	-40 to +185°F (-40°C to 85°C)
Humidity	0% - 95% Non-Condensing
Wired Communication Interfaces	
2x RS485/RS232	2 Serial Ports. Individually software Configurable For RS485 or RS232. Server or Client Mode
1x RJ45	10/100 Ethernet Port with TCP/IP, Modbus TCP , EtherNet/IP
1x USB-C	USB-C High Speed Interface For Local Configuration With SignalFire Toolkit
Wired Communication Protocols	
Modbus RTU	30,000 Tags 2000 Remappable Tags Mode: Server Mode: Client
Modbus TCP	30,000 Tags 2000 Remappable Tags 8 Concurrent Clients Mode: Server
EtherNet/IP Adapter	CIP I/O Connections CIP Input Data Assemblies: 2 x 496 bytes CIP Output Data Assemblies: 2 x 496 bytes
MQTT/Sparkplug	1000 Tags 200,000 Store/Forward Tag Buffer Configurable MQTT Brokers (3) TLS Encryption 1.2

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## TECHNICAL SPECIFICATIONS CONTINUED

Table 1

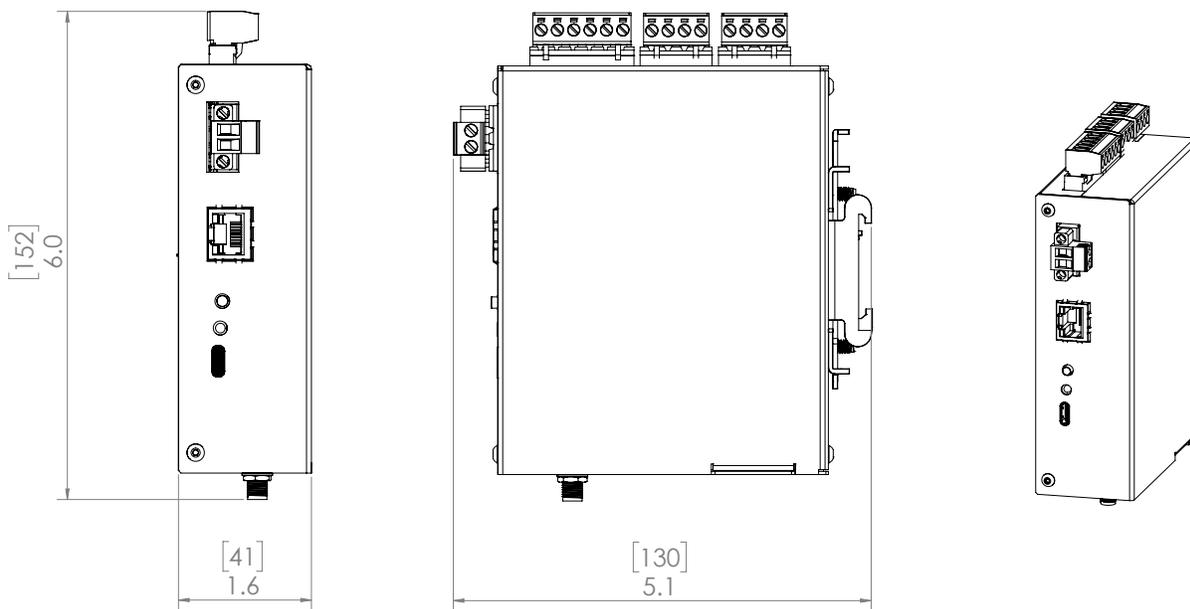
Wireless Communication Interface	
SignalFire 900MHz Star/Mesh Network	Radio Power: 500mW Antenna: External, Omnidirectional Frequency Band: 902MHz - 928MHz ISM License Free, Compliant With FCC Part 15 And Industry Canada Up To 3 Mile Range (Depends on SignalFire Node Type & Condition)
Antenna	RP-SMA Antenna connector
Wireless Communication Protocol	
SignalFire	Mode: Start/Mesh Self Organizing and Self Healing Nodes: 240 (Depends On Update Rate Interval Of Each Node) Remote Configuration Of Nodes Using Over-The-Air Technology
Security	128 Bit AES Encryption, Pre-shared Key Frequency Hopping Replay Prevention
Local Automation	
Remote Shutdown Logic	Configurable With Up To 128 rules
Networking	
Modbus TCP Connections	8 Modbus Concurrent Clients
Web Admin Interface	Configurable Login Credentials and Enable/Disable Control Setting
MQTT/Sparkplug	Configurable Broker (3) with TLS 1.2 Security
IP	Static or DHCP
Network Time	NTP Sync
I/O Expansion Modules	
SignalFire Analog/Relay Output Module	Up to 2 Modules. Each Module Has 8 Analog Outputs and 2 Relay Outputs
SignalFire Digital Output Module	Up to 2 Modules. Each Module Has 12 Digital Outputs
Approvals	
Hazardous Locations	Class 1 Division 2 Certified, Groups C & D. Temperature Code T4 Certified to CSA C22.2 No. 213, Conforms to UL 121201 and 61010
ISM Band	Compliant with FCC Part 15, IC (Industry Canada)

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## DIMENSIONS

Weight	2 Lbs (0.9Kg)
Housing Material	Powder Coated Steel
Mechanical installation	DIN Rail Mount



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## HOW TO ORDER

Order Code Example:  
PATRIOTGW-900-SF128STD1-N-EXT

