



SPECIFICATION SHEET

ARMOR 4+™

# Connected Asset Intelligence Device

**ARMOR 4+™** is a next-generation connected asset device engineered by **ARMOR Technologies Inc.** for real-time monitoring of power, runtime, and location. The device installs quickly, operates globally, and securely transmits data to **ARMOR Asset Central™**, enabling full asset visibility and control.

Model: **ARMOR 4+™ (SPI-20250311LZ-24)** | Developed by **ARMOR Technologies Inc.**, Decatur, Illinois, USA | Protected by **U.S. Patent No. 9,601,814** and additional patents pending.

# Key Capabilities & Model Compliance

## Key Capabilities

- Real-time asset monitoring (power, runtime, location)
- Global LTE Cat-M1 / NB-IoT connectivity
- Indoor + outdoor positioning (Wi-Fi + GNSS)
- Patented battery intelligence and health tracking
- BLE sensor expansion ecosystem
- Secure cloud integration with enterprise systems

## Model & Compliance

<b>Model</b>	ARMOR 4+™ (SPI-20250311LZ-24)
<b>Function</b>	Connected asset intelligence device
<b>Certifications</b>	FCC, PTCRB, CE, RoHS, EN 18031-1/2 (RED 2014/53/EU)
<b>Compliance Testing</b>	RED Directive (EU), FCC, PTCRB
<b>Manufacturing</b>	ISO-certified global partners

 **Designed for Enterprise Asset Intelligence at Scale** — Visibility | Control | Automation

# Communications & Power System

## Cellular

- LTE Cat-M1 / NB-IoT modem
- eSIM with global band support
- Multi-carrier: AT&T, Verizon, T-Mobile + international
- Protocols: TCP / UDP / MQTT over **TLS 1.3**

## Positioning

- GPS / GLONASS / BeiDou / Galileo

## Fallback

- No 2G/GSM fallback — LTE-only architecture

## Local Connectivity

- **Bluetooth:** BLE 5.2 (sensors + accessories)
- **Wi-Fi:** 2.4 GHz (indoor positioning + local comms)

## Power System

<b>Input Voltage</b>	6 – 90 V DC  *Fuse selection must be appropriately rated for applied system voltage.
<b>Battery Backup</b>	200 mAh Li-Ion (3.7 V)
<b>Protection</b>	Reverse polarity, surge, over-voltage
<b>Consumption</b>	<30 mA idle / <150 mA active at 12v

# I/O, Measurement & Sensor Capabilities

## I/O & Measurement

**Harness:** 5-wire configuration

- 2 Power, +V and COM
- 2 Digital Inputs
- 1 Digital output

## Motor Monitoring

- **AC:** Optional amp clamp (ARMOR 4+™ accessory)
- **DC:** Direct sensing

## Digital Output

- 1 channel
- Open drain, 150mA max
- Remote control for automation / lockout

## Battery Intelligence (*Patented*)

- Voltage stability tracking
- Discharge pattern analysis
- Battery health scoring
- Tamper detection

## Runtime Monitoring

- Automatic on/off detection
- Total usage hours tracking

## BLE Sensor Expansion

Supports: Sound, Vibration, Amperage, Water level, Gloss, Temperature, Proximity, Flood detection

# Security, Mechanical & Cloud Integration

## Security Architecture

- **Encryption:** AES-256
- **Transport:** TLS 1.3
- **Firmware:** Secure OTA updates (signed)
- **Validation:** Monthly external penetration testing

## Certifications & Standards

- FCC
- PTCRB
- CE
- RoHS
- EN 18031-1/2 (EU RED 2014/53/EU)

## Mechanical & Environmental

<b>Enclosure</b>	IP67, UV-resistant, impact-tested, fire retardant
<b>Dimensions</b>	94 × 53 × 24 mm
<b>Operating Temp</b>	−20°C to +70°C
<b>Mounting</b>	Adhesive, screw, or zip-tie

## Cloud & Integration

**Platform:** ARMOR Asset Central™

*Free to See / Pay to Control*

### Integration Options:

- REST API
- ERP systems
- CMMS platforms
- Enterprise dashboards

# Manufacturing & IP

## Manufacturing

Developed under **ARMOR 4+™ Specification SPI-20250311LZ-24**. Produced through **ISO-certified global manufacturing partners**.

## Intellectual Property

Protected by **U.S. Patent No. 9,601,814** and additional patents pending.

## Company

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