BAT867-F

Industrial Wireless LAN Access Points

Rugged, compact and high-speed WLAN gateway for optimal and secure wireless connectivity in harsh indoor and outdoor industrial environments where space and budget are limited.

+ Strong WLANs through an industrial-grade IEEE 802.11ac chipset with rapid multichannel roaming and point-to-multipoint support

+ Rugged, compact design with IP65/67 protection rating for indoor or outdoor use and along railway tracks

+ Cost-effective solution with flexible feature set and multiple power input options, including Power over Ethernet (PoE)

Key Features

- Fast data transfer up to 867Mbps with IEEE 802.11ac technology

- Single radio supports dual bands (2.4GHz or 5GHz via 2x2 MIMO)

- Extensive management, rapid roaming and security functions with Hirschmann's HiLCOS operating system

- Tough M12 X-coded Ethernet port supports 10/100/1000 BASE-TX data rates

- Power input via 24VDC or PoE

- Extended operating temperature range from -40°C to +70°C

- IP65/67 waterproof metal housing

- Trackside compliance (EN 50121-4)
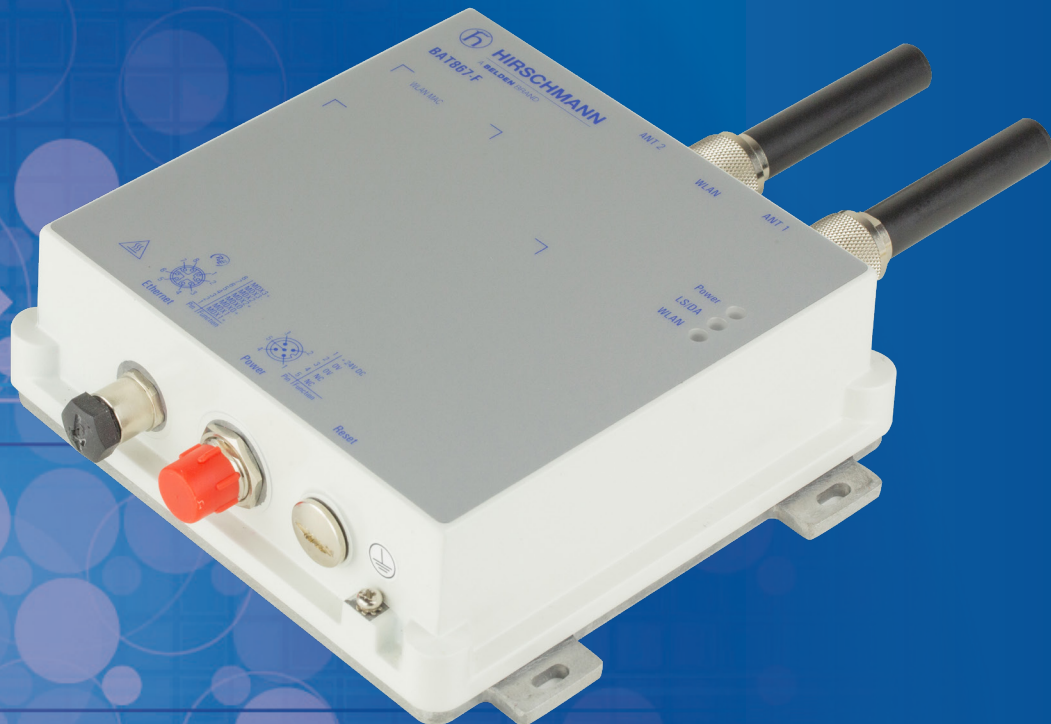
BAT867-F industrial WLAN access points are fast, reliable and PoE supported – enabling the setup of cost-effective, yet high-performance wireless networks across various applications.

**Be certain.
Belden.**

Your Benefits

The ruggedized IP65/67 metal housing and compact design offers reliability and flexibility for deployments in a variety of harsh environments and mission-critical systems. With PoE or 24VDC, the BAT867-F provides multiple power input approaches to reduce installation efforts and costs.

Available variants include:

- BAT867-F for wall mounting in outdoor, indoor and trackside applications

- List of variants:
  - indoor / outdoor
  - optional PoE
  - optional trackside approval
  - optional included accessories

The device supports extensive management, redundancy and security functions via Hirschmann's HiLCOS operating system.

Applications

The BAT867 family are ideal wireless access points for mid-size industrial automation applications with challenging operating conditions and cost constraints. The BAT867-F version can also be deployed in outdoor settings with extreme temperatures and exposure to water, as well as transportation applications that require resistance to shock, vibration and EMC interference.

Specific application examples include:

- Self-driving robots/AGVs and mobile workers
- SCADA system infrastructure access points equipment
- CCTV/PIS system trackside equipment

Markets

Industrial automation applications and sub-verticals, including factory automation, water and wastewater treatment, mining, logistics, machine building, utility tunnels and mass transit systems.

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Technical Information

Name	BAT867-F
Product description	
Description	Ruggedized wireless LAN access point and client with IEEE 802.11ac for use in industrial environments.
Port type and quantity	1x Ethernet M12 X-Coded, 1x Power M12 A-Coded
Radio protocol	IEEE 802.11a/b/g/n/ac WLAN interface as per IEEE 802.11ac, 802.11F (IAPP) as Access Point, 802.11r as Access Point
Type	BAT867-F
More Interfaces	
Ethernet	1x 10/100/1000Mbit/s
Power supply	PoE PD via Ethernet M12 X-Coded, 24VDC via M12 A-coded 5-pin, field assembly connectors included
Radio technology	
Antenna connector	2x N-Type Female Socket, requires N-Type Male Connectors on the Antenna
Additional radio features	2x2 MIMO (configurable). Up to 2 streams (configurable). Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low-Density Parity Check (LDPC) Codes, Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
Frequency band	Supports 2.4 GHz or 5 GHz: 2412-2472 MHz or 5180-5825 MHz (regulatory restrictions apply depending on the country of operation)
Modulation	OFDM: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM; Note: MCS numbering changed with 11ac. Supported rates with up to 2 streams: MCS0-MCS9. Channel widths: 20MHz, 40MHz and 80MHz
Encryption	Open, WEP, 802.11i - WPA/WPA2 - Personal (PSK), 802.11i - WPA/WPA2 - Enterprise (802.1X: TLS, TTLS/PAP, TTLS/CHAP, TTLS/MSCHAP, TTLS/MSCHAPV2, TTLS/MD5, PEAP/MSCHAPV2)
Access Point Functionality	Yes (Free selection between Access Point, Access Client and Point-to-Point functionality separately in software). Operates as Managed Access Point in combination with a BAT Controller (WLC). PMK Caching, Preauthentication, OKC (Opportunistic Key Caching).
Client / STA Functionality	Yes (Can be switched in software between AP, P2P, Client)
Power requirements	
Operating voltage	PoE PD 802.3af Class 3, 24 VDC (18-32 VDC)
Power consumption	Maximum power consumption: 9 W
Power output in Btu (IT) h	25.39 Btu/h
Ambient conditions	
Operating temperature	Standard:-10ºC – 60ºC; Extended:-40ºC – 70ºC
Note	Temperature of the surrounding air
Storage/transport temperature	-40ºC – 85ºC
Relative humidity (also condensing)	10% – 95%
MTBF	233 years for Telecordia SR-332 Issue 3: Gb 25 ºC
Protective paint on PCB	Yes
Software	
Software features	High performance operating system HiLCOS. Supports WLAN functions, routing, firewall, VLAN and redundancy. IPv4 and IPv6. IGMP Snooping, VLAN, Switching over WLAN (Client Briding or P2P). RSTP, VRRP v2. Web Interface (HTTPs), IPv4, IPv6, SNMP v1/v2/v3, Console (SSH, Telnet). System log, reboot log, signal strength, Trace (via Lantools or Console), LEDs, IPerf Server and Client. SNTP Client, SNTP Server. Static unicast routing, RIP, Multinetting, IP Masquerading, Port Forwarding, Proxy ARP, 1-to-1 NAT, 1-to-N NAT, Nto-N NAT. Industrial HiVision, LANConfig, optional BAT Controller (WLC for AccessPoint mode).
Mechanical construction	
Dimensions (W x H x D)	172 x 150 x 50 mm
Mounting	Wall mounting
Weight	1 Kg
Protection class	IP65/67 (when using matching connectors)
Approvals	
Basis Standard	CE, FCC
Safety of industrial control equipment	IEC/EN 62368-1:2014 + AC:2015 (formerly EN 60950-1), EN 62311:2008
Radio	ETSI EN 300 328:2019 V2.2.2 (2.4GHz), ETSI EN 301 893:2017 V2.1.1 (5GHz), ETSI EN 302 502:2017 V2.1.1 (5.8GHz)
Railway norm	EN 50121-4
Scope of delivery and accessories	
Scope of delivery	Device, safety instructions, dust protection caps, EU declaration of conformity, outdoor safety instructions, 2x Antenna (BATANT-N-3AGN-IP67), 1x 50 Ω terminating resistor, Field attachable Gigabit Ethernet connector "X"-coded (942 083-001), M12 power supply plug (ELKA 5012 PG7)
Accessories to order separately	External antennas; External surge protection; Cables 2m, 5m, 15m

For complete technical specifications visit: www.hirschmann.com