




Hirschmann BAT-C2

WLAN Client and Access Point

Among the most compact of its kind, the BAT-C2 device doubles as a WLAN client and access point – offering unprecedented fast-roaming and security to automated environments.

-  **Provides unmatched speed and security**, due to the 11ac double-antenna design and high-speed Wi-Fi roaming capabilities.
-  **Seamlessly integrates into modern industrial infrastructures** with its compact, lightweight design featuring a water and vibration-proof plastic housing.
-  **Offers optimal cost-efficiency** through scalable, vendor-neutral integration and energy-saving remote power down of non-essential devices.

Key Features

- 802.11ac fast-roaming WLAN Client
- WLAN Access Point for machine building and remote maintenance
- Supports simultaneous Access Point/Client function
- Lightweight for maximum project scalability (< 250 grams)
- International compliance (Europe, U.S., China)
- Dual mountable for upright or flat installation
- Compatible with third-party Wi-Fi installations
- Uses local Wi-Fi for simple integration and automatic Access Point control
- Remote-triggered relay to control power of attached devices
- Maximized component lifetime (up to seven years)
- Operating temperature range of -40 °C to +70 °C
- Water and vibration-proof IP65-rated plastic housing
- Scriptable via Python, configurable via CURL



Hirschmann's BAT-C2 802.11ac WLAN Client and Access Points offer high-speed roaming and Wi-Fi security, even in the most extreme factory and machine building environments.

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BAT-C2 WLAN Client and Access Points

Hirschmann's BAT-C2 provide heightened performance and cost-efficiency to today's increasingly automated industrial environments.

Onboard Autonomous Guided Vehicles (AGVs) the BAT-C2 uses high-speed 802.11ac WLAN technology to ensure a seamless and secure connection both inside and between factory buildings. Supporting data transfer up to 40 Megabits per second, the device is a perfect combination of performance and power.

When integrated into machines, the BAT-C2 uses local Wi-Fi to provide a Service Set Identifier (SSID) for virtually instantaneous maintenance or device monitoring. BAT-C2 Access Points are easily embeddable and programmable, providing a truly scalable and secure solution that saves lifecycle costs by powering down non-essential devices.



Applications

Modern factories constantly increase their degree of automation. The BAT-C2 can be used on board of critical autonomous guided vehicle (AGV) applications. With its fast cross-vendor roaming speeds the device delivers the performance required to have maximum availability. The relay feature makes it capable of remotely terminating and restarting AGV and robot systems, while its double-antenna design makes it ideal for factory-wide connection, as well as productivity between buildings.

Ease of integration also makes the BAT-C2 fitted for use with machines, as remote Wi-Fi Access Control provides regular updates and maintenance around the machine via laptop, tablet or other mobile devices.



Markets

Specifically designed for use within automated environments, Hirschmann's BAT-C2 is ideal for use in markets that require maximum scalability and performance options within harsh and industrial environments alike. The device is most pertinent to infrastructures within logistics, general manufacturing, machine building, security, and wireless markets, but can also be applied within water and wastewater, food and beverage, automotive, energy, and consumer packaged goods operations.



BAT-C2 Clients are equipped with 802.11ac WLAN technology to ensure a seamless connection between two points of production, featuring a compact design to easily integrate with modern AGVs and robots in industrial environments.



Technical Information

Product Description			
Type	BAT-C2 Europe	BAT-C2 North-America	BAT-C2 China
Short Description	Compact WLAN Client and Access Point with 11ac technology and fast roaming.		
Long Description	The BAT-C2's compact design and low weight are unprecedented in its class of ruggedized industrial WLAN devices. It is optimized for integration either into mobile units or stationary machines. When used as a mobile client it delivers fast roaming at an enterprise security level. When used stationary it allows for simple integration and automatic control of its AccessPoint functionality to deliver wireless access locally around a machine.		
Port Type and Quantity	1 Port: 10/100 BASE TX		
Order Number	942 249-001	942 249-002	942 249-003
Construction			
Mounting	wall-mounting, upright or flat		
Protection Class	IP65		
Weight (device without connectors)	140 g	4.94 oz	140 g
Dimensions (WxHxD)	102 x 72 x 34.5 mm	4.02 x 2.84 x 1.36 inches	102 x 72 x 34.5 mm
Ambient Conditions			
Operating Temperature	-40 °C to +70 °C	-40 to +158 °F	-40 °C to +70 °C
Power Requirements			
Operating Voltage	12 V DC up to 24 V DC		
Typical Power Consumption	1.4 W		
Relais			
Potential Free	yes		
Switching Power (max.)	1 A @ 30 V AC, 1 A @ 60 V DC		
Interfaces			
WLAN Antenna Connector	2 x RP-SMA Female Socket		
Ethernet Connector	M12 D-Coded Socket Female		
Power/Relais Connector	M12 A-Coded Socket Male		
Reset Button	yes, can be disabled		
WLAN			
WLAN Technology	Diversity, IEEE 802.11ac, IEEE 802.11a/b/g/n		
WLAN Access Point	Up to 10 Clients		
WLAN Client			
Further functionality	Roaming Thresholds, 802.11w – PMF		
Network Modes	1:1 MAC Adoption, NAT + Masquerading, Bridging		
Security	WPA/WPA2 Personal PSK, WPA/WPA2 Enterprise Radius 802.1X		
Software Functionality			
Diagnostics	Web Interface (HTTPS), DNS, Routing, System Log, Ping, Traceroute, SNMP, Syslog		
Further functionality	Extendable via custom Python Scripts, Filesystem to store custom data, DHCP Client and Server		
Security	IPSec, MAC filter, User Permission Management, Firewall		
Routing	Static, RIP, OSPF, 1:1 NAT, GRE, Port Forwarding, QoS, IPv4, IPv6		
WLAN Approvals			
WLAN Approvals	ETSI RED CE	FCC	SRRC
Regulatory Approvals			
Safety of Industrial Control Equipment	EN 61131, EN 62368-1		
Accessories and Support			
Power/Relay/Ground Connector	included: 933 170-100 - ELKA 5012 PG7		
Ethernet Cable M12-RJ45	not included, Lumberg Automation 0985 342 104		
Ethernet Cable M12-M12	not included, Lumberg Automation 0985 342 100		
Antenna	not included, 942 046-001 BAT-ANT-RSMA-2AGN-R		
Documentation	https://www.doc.hirschmann.com		
Reliability			
MTBF	137 years		
Warranty	5 years standard		

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

Belden Competence Center

As the complexity of communication and connectivity solutions has increased, so have the requirements for design, implementation and maintenance of these solutions. For users, acquiring and verifying the latest expert knowledge plays a decisive role in this. As a reliable partner for end-to-end solutions, Belden offers expert consulting, design, technical support, as well as technology and product training courses, from a single source: Belden Competence Center. In addition, we offer you the right qualification for every area of expertise through the world's first certification program for industrial networks. Up-to-date manufacturer's expertise, an international service network and access to external specialists guarantee you the best possible support for products.

Irrespective of the technology you use, you can rely on our full support – from implementation to optimization of every aspect of daily operations.



Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We know your business and want to understand your specific challenges and goals to show how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our five leading brands, Belden, GarrettCom, Hirschmann, Lumberg Automation and Tofino Security, we are able to offer the integrated solution you need. Today, it may be a single cable, switch or connector, to solve a specific issue; tomorrow, it can be a complex range of integrated applications, systems and solutions. With the rise in smart, connected devices brought on by the Industrial Internet of Things (IIoT), together, we can make sure your infrastructure is ready to handle and make sense of the influx of data. Transform your business now with instant access to information, and make your vision a reality. Visit info.belden.com/iiot to learn more.

About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

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