

Product: [BAT-C2 Europe](#) 



Compact WLAN Client and AccessPoint with 11ac technology and rapid roaming.

Product 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.

Technical Drawing



Technical Specifications

Product description

| | |
|-------------------------|---|
| Type: | BAT-C2-W01.01-F01-U01-A01 |
| Name: | BAT-C2 Europe |
| Part Number: | 942249001 |
| Port type and quantity: | 1 Port: 10/100 BASE TX |
| Radio protocol: | IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac |

Product Life Cycle

| | |
|------------------------------------|------------|
| Availability: | Available |
| Discontinuation Announcement Date: | 2023-12-12 |
| Last Order Date: | 2024-06-01 |
| Last Delivery Date: | 2024-10-01 |
| Last Service Date: | 2029-12-01 |

More Interfaces

| | |
|---------------|---------------------------|
| WLAN Antenna: | 2x RP-SMA Female Socket |
| Ethernet: | M12 D-Coded Socket Female |
| Power Supply: | M12 A-Coded Socket Male |

Power requirements

| | |
|--------------------|---|
| Power Loss Buffer: | min. 10 msec |
| Operating Voltage: | 12 VDC ... 24 VDC (nominal), 9.6 VDC .. 32 VDC (max tolerances) |

Software

| | |
|--------------------|---|
| Software features: | Filesystem to store custom data, QoS, QoS based on IP or Ports, GRE, MAC filter |
| Management: | Web Interface (HTTPS), IPv4, IPv6, Filesystem to store custom data, SNMP v1/v2/v3 |
| Diagnostics: | DNS, Routing, System Log, Ping, Traceroute, Syslog |
| Configuration: | DHCP client, DHCP Server, Extendable via custom Python Scripts |
| Security: | IPSec, Firewall, User Permission Management |
| Routing: | Static, RIP, OSPF, 1:1 NAT, Port Forwarding |

Ambient conditions

| | |
|--|-------------|
| MTBF (Telecordia SR-332 Issue 3) @ 25°C: | 1 207 342 h |
| Operating temperature: | -40+70 °C |
| Relative humidity (non-condensing): | 1-95 % |

Mechanical construction

| | |
|---------------------|---|
| Dimensions (WxHxD): | 102 mm x 72 mm x 34.5 mm |
| Weight: | 140 g |
| Housing: | Plastic (PC+ABS), fire safety UL 94 V-0 |
| Protection class: | IP65 (when using matching connectors) |

Mechanical stability

| | |
|--------------------------|---|
| IEC 60068-2-6 vibration: | 5 Hz ... 8,4 Hz with 3.5 mm Amplitude; 8.4 Hz ... 150 Hz with 1 g |
| IEC 60068-2-27 shock: | 11 g at 11 ms |

EMC interference immunity

| | |
|---|---|
| EN 61000-4-2 electrostatic discharge (ESD): | 4 kV contact discharge, 8 kV air discharge |
| EN 61000-4-3 electromagnetic field: | 20 V/m (80 MHz - 1000 MHz), 10 V/m (1GHz - 3 GHz), 10 V/m (3 GHz - 6 GHz) |
| EN 61000-4-4 fast transients (burst): | 2 kV power line, 1 kV data line (shielded) |
| EN 61000-4-5 surge voltage: | power line 1 kV (line/earth), 0,5 kV (Line/line); data line 1 kV (shielded) |
| EN 61000-4-6 Conducted Immunity: | 10 V (150 kHz - 80 MHz); 1 kHz, 80 % AM |

EMC emitted immunity

| | |
|-----------|---------|
| EN 55032: | Class A |
|-----------|---------|

Approvals

| | |
|---|--------------------|
| Basis Standard: | CE Conformity, RED |
| Safety of industrial control equipment: | EN 61131 |

Reliability

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|------------|---|
| Guarantee: | 60 months (please refer to the terms of guarantee for detailed information) |
|------------|---|

WLAN Access Point

| | |
|---|-----------------------|
| Access Point Functionality: | Yes |
| Channel Restriction if Client is Deactivated: | 1-13, 36-48 |
| Security: | WPA/WPA2 Personal PSK |

WLAN Client

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|-----------------------------|--|
| 802.11w - PMF: | Yes |
| Client / STA Functionality: | yes |
| Network Modes: | 1:1 MAC Adoption, Bridging, NAT + Masquerading |
| Roaming Thresholds: | Yes |
| Security: | IEEE 802.1X - FAST, IEEE 802.1X - LEAP, IEEE 802.1X - PEAP, IEEE 802.1X - TLS, IEEE 802.1X - TTLS, Open, WEP, WPA/WPA2 Enterprise Radius 802.1X, WPA/WPA2 Personal PSK |

WLAN Output Power

| WLAN technology | Power load |
|------------------------|------------|
| Minimal Output Power | 5 dBm |
| Granularity steps | 1 dB |
| 802.11b, 1 Mbps | 16±2 dBm |
| 802.11b, 11 Mbps | 16±2 dBm |
| 802.11g, 6 Mbps | 14±2 dBm |
| 802.11g, 54 Mbps | 14±2 dBm |
| 802.11a, 6 Mbps | 14±2 dBm |
| 802.11a, 54 Mbps | 14±2 dBm |
| 802.11n, MCS0, 2.4 GHz | 13±2 dBm |
| 802.11n, MCS7, 2.4 GHz | 13±2 dBm |
| 802.11n, MCS0, 5 GHz | 13±2 dBm |
| 802.11n, MCS7, 5 GHz | 13±2 dBm |
| 802.11ac, MCS8, 5 GHz | 13±2 dBm |
| 802.11ac, MCS9, 5 GHz | 11±2 dBm |

WLAN Typical Receive Sensitivity

| | |
|---------------------------------|---------|
| 802.11n, 2.4 GHz, 20 MHz, MCS0: | -93 dBm |
| 802.11n, 2.4 GHz, 20 MHz, MCS7: | -74 dBm |
| 802.11n, 5 GHz, 20 MHz, MCS0: | -92 dBm |
| 802.11n, 5 GHz, 20 MHz, MCS7: | -74 dBm |
| 802.11ac, 5 GHz, 20 MHz: | -70 dBm |

WLAN Approvals

| WLAN Approvals | Applicable |
|-----------------------------|------------|
| ETSI RED CE | Yes |
| ETSI - EN 300 328 | Yes |
| ETSI - EN 301 893-1 | Yes |
| ETSI - EN 301 489-1 | Yes |
| ETSI - EN 301 489-17 | Yes |
| ETSI - EN 302 502 (5.8 GHz) | - |
| ETSI - EN 300 440 (SRD) | - |
| FCC | - |
| SRRC | - |

WLAN Countries

| WLAN AccessPoints/Clients | Applicable | WLAN AccessPoints/Clients | Applicable |
|---------------------------|------------|---------------------------|------------|
| Australia | - | Japan | - |
| Austria | Yes | Latvia | Yes |
| Belgium | Yes | Lithuania | Yes |
| Brazil | - | Luxembourg | Yes |
| Bulgaria | Yes | Malaysia | - |
| Canada | - | Malta | Yes |
| China | - | Mexico | - |
| Croatia | Yes | Netherland | - |
| Cyprus | Yes | New Zealand | - |
| Czech Republic | Yes | Philippines | - |
| Denmark | Yes | Poland | Yes |

| | | | |
|---------------|-----|-------------|-----|
| Estonia | Yes | Portugal | Yes |
| Finland | Yes | Romania | Yes |
| France | Yes | Singapore | - |
| Germany | Yes | Slowakia | Yes |
| Great Britain | - | Slowenia | Yes |
| Greece | Yes | South Korea | - |
| Hungary | Yes | Spain | Yes |
| India | - | Sweden | Yes |
| Indonesia | - | Thailand | - |
| Ireland | Yes | USA | - |
| Italy | Yes | Vietnam | - |

WLAN Channels

| WLAN Approvals | Applicable |
|---------------------------|--------------|
| 2.4GHz | 1-11, 12, 13 |
| Supported Bandwidth, 5GHz | 20/40/80 Mhz |
| 5GHz (U-NII-1), 36-48 | Yes |
| 5GHz (U-NII-2a), 52-64 | Yes |
| 5GHz (U-NII-2c), 100-116 | Yes |
| 5GHz (U-NII-2c), 120-128 | Yes |
| 5GHz (U-NII-2c), 132-140 | - |
| 5GHz (U-NII-2c), 144 | - |
| 5GHz (U-NII-3), 149-165 | - |

Scope of delivery and accessories

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|----------------------------------|--|
| Accessories to Order Separately: | Ethernet Cable M12-RJ45, Ethernet Cable M12-M12, 942 046-001 BAT-ANT-RSMA-2AGN-R |
| Scope of delivery: | 1x Device, 1x General Safety Instructions, 1x Power Connector |

Further Instructions

| | |
|------------------------|---|
| Product Documentation: | https://www.doc.hirschmann.com |
| Certificates: | https://www.doc.hirschmann.com/certificates.html |
| Software Download: | https://hirschmann-support.belden.com/en-US/downloads |
| Technical Information: | https://hirschmann-support.belden.com/en/kb/bat-c2 |

History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.162 Revision Date: 01-10-2024 |
|----------------------|--|

Variants

| Item # | Type |
|-----------|---------------|
| 942249001 | BAT-C2-Europe |

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