


## Data sheet BAT300-F - BAT300-F

Industrial Ethernet:Industrial Wireless LAN:Chassis:BAT-F:BAT300-F

<b>Name</b>	BAT300-F
	
<b>Delivery informations</b>	
<b>Document created at</b>	05-08-2010
<b>Availability</b>	available
<b>Product description</b>	
<b>Description</b>	Dualband Ruggedized Industrial Wireless LAN Access Point/Client with one radio module with IEEE 802.11n for installation in harsh environment.
<b>Port type and quantity</b>	1 x WLAN interface, up to 8 SSIDs per WLAN interface, one LAN ports 10/100BASE-TX, autosensing, Power over Ethernet according to IEEE 802.3af
<b>Type</b>	BAT300-F
<b>Order No.</b>	943 959-118
<b>Radio technology</b>	
<b>Antenna connector</b>	3 x N jack antenna connectors
<b>Range</b>	Up to 20 km with external antenna (depending on type of antenna, frequency range and data rate - please use the antenna distance calculator)
<b>Transmission rate</b>	54 Mbps according to IEEE 802.11g (fallback to 48, 36, 24, 18, 12, 9, 6 Mbps, Automatic Rate Selection) compatible to IEEE 802.11b (11,5.5, 2, 1 Mbps, Automatic Rate Selection), 802.11 b/g compatibility mode or pure g or pure b. 54 Mbps according to 802.11a (fallback to 48, 36, 24, 18, 12, 9, 6 Mbps, Automatic Rate Selection), fully compatible with TPC (adjustable power output) and DFS 2 (automatic channel selection, radar detection) according to ETSI regulations. 300 Mbps according to IEEE 802.11n draft 2.0 with MSC15 (fallback to 6.5 Mbps with MSC0)
<b>Encryption</b>	IEEE 802.11i / WPA2 with passphrase or 802.1x and hardware-accelerated AES, user authentication by 802.1x /EAP or LEPS, IEEE 802.1x supplicant in client mode, WPA/TKIP, WEP, access-control lists, WLAN port and protocol filter, RADIUS client and server, built-in firewall with QoS, port filter, protocol filter, IDS and DoS protection, PMK caching and preauthentication for fast roaming with IEEE 802.1x
<b>Operating system</b>	LAN interface usable for simultaneous DSL-over-LAN, IP-Router, NAT/Reverse NAT (IP-Masquerading) DHCPServer, DHCP-Client, DHCP-Relay-Server, DNS-Server, PPPoE-Client (incl.Multi-PPPoE), PPTP- Client und - Server, NetBIOSProxy,DynDNS-Client, NTP, Port-Mapping, Policy-based Routing on basis of Routing-Tags, Tagging cording to firewall routes, dynamic routing RIPv2, VRRP, Rapid Spanning Tree Protocol (IEEE 802.1w), ARP, Proxy ARP, BOOTP, DHCP, DNS, HTTP, HTTPS, IP, ICMP, NTP/SNTP, NetBIOS, PPPoE (Server), RADIUS, RIP- 1, RIP-2, RTP, SIP, SNMP, TCP, TFTP, UDP, VRRP, VLAN with up to 4094 VLAN IDs for WLAN connections, 32 usable simultaneously, dynamic VLAN-Tags for 802.1x-Clients, Integrated RADIUS server with IEEE 802.1x/EAP authentication
<b>Frequency band</b>	1 x radio module, supporting 2.4 GHz and 5 GHz: 2400-2483.5 MHz (ISM) and 5170-5850 MHz
<b>Modulation</b>	22M0F7D(DSSS/OFDM) @ 2.4 GHz 20M0G7D (OFDM) @ 5 GHz
<b>Receiver sensitivity</b>	2.4 GHz 802.11b: -91 dBm @ 11 MBit/s, -96 dBm @ 1 MBit/s; 802.11g: -96 dBm @ 6 MBit/s, -83 dBm @ 54 MBit/s; 802.11n: -96 dBm @ 6.5 MBit/s (MCS0, 20 MHz), -79 dBm @ 65 MBit/s (MCS 7, 20 MHz); -95 dBm @ 13 MBit/s (MCS8, 20 MHz), -75 dBm @ 130 MBit/s (MCS15, 20 MHz); -90 dBm @ 15 MBit/s (MCS0, 40 MHz), -75 dBm @ 150 MBit/s (MCS7, 40 MHz); -90 dBm @ 30 MBit/s (MCS8, 40 MHz), -71 dBm @ 300 MBit/s (MCS15, 40 MHz) Empfangsempfindlichkeit 5 GHz 802.11a/h: -95 dBm @ 6 MBit/s, -82 dBm @ 54 MBit/s; 802.11n: -95 dBm @ 6.5 MBit/s (MCS0, 20 MHz), -77 dBm @ 65 MBit/s (MCS7, 20 MHz); -94 dBm @ 13 MBit/s (MCS8, 20 MHz), -74 dBm @ 130 MBit/s (MCS15, 20 MHz); -91 dBm @ 15 MBit/s (MCS0, 40 MHz), -74 dBm @ 150 MBit/s (MCS7, 40 MHz); -91 dBm @ 30 MBit/s (MCS8, 40 MHz), -70 dBm @ 300 MBit/s (MCS15, 40 MHz)
<b>Radio topology</b>	WLAN access point, bridge, router, point-to-point, client, client-bridge mode, fixed mesh with RSTP
<b>Roaming</b>	seamless handover between radio cells, IAPP support, IEEE 802.11d support, background scanning for rogue AP detection and fast roaming, support of IEEE 802.11e (WME), preauthentication and PMK caching with IEEE 802.1x
<b>Radio Power</b>	max. 2.4 GHz 802.11b: +19 dBm @ 1 und 2 MBit/s, +19 dBm @ 5.5 and 11 MBit/s (output power at antenna connector); max. 2.4 GHz output power at antenna connector 802.11g: +18 dBm @ 6 to 36 MBit/s, +17 dBm @ 48 MBit/s, +16 dBm @ 54 MBit/s; 802.11n: +19 dBm @ 6.5/13 MBit/s (MCS0/8, 20 MHz), +10 dBm @ 65/130 MBit/s (MCS7/15, 20 MHz), +17 dBm @ 15/30 MBit/s (MCS0/8, 40 MHz), +10 dBm @ 150/300 MBit/s (MCS7/15, 40 MHz); max. 5 GHz output power at antenna connector 802.11a/h: +18 dBm @ 6 to 24 MBit/s, +17 dBm @ 36 MBit/s, +16 dBm @ 48 MBit/s, +15 dBm @ 54 MBit/s; 802.11n: +18 dBm @ 6.5/13 MBit/s (MCS0/8, 20 MHz), +10 dBm @ 65/130 MBit/s (MCS7/15, 20 MHz), +17 dBm @ 15/30 MBit/s (MCS0/8, 40 MHz), +10 dBm @ 150/300 MBit/s (MCS7/15, 40 MHz); min. power reduction in 1 dB steps down to 0.5 dBm minimum
<b>Power requirements</b>	
<b>Operating voltage</b>	2 x DC 24 V; 1 x Power-over-Ethernet according to IEEE802.3af; all power supplies redundant to each other
<b>Current consumption at 24 V DC</b>	417 mA
<b>Current consumption</b>	DC 12 V: 625 mA; DC 24 V: 417 mA; PoE (48 V DC): 167 mA

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<b>Service</b>	
<b>Diagnostics</b>	Extensive LOG and TRACE options, PING and TRACEROUTE for checking connections, LANmonitor status display, internal logging buffer for SYSLOG and firewall events, monitor mode for Ethernet ports, WLANmonitor for WLAN network overview and Rogue AP detection
<b>Management</b>	SNMP management via SNMP V2, private MIB exportable by WEBconfig, MIB II; Remote configuration with Telnet/SSL, SSH, browser (HTTP/HTTPS), TFTP or SNMP, firmware upload via HTTP/HTTPS or TFTP; Support of up to 4094 VLAN IDs for WLAN connections, 256 simultaneously usable VLAN tags for 802.11 clients
<b>Other services</b>	Warning via e-mail, SNMP-Traps and SYSLOG; Remote management and configuration by modem support via LAN (DSL) or serial port
<b>Ambient conditions</b>	
<b>Operation temperature</b>	-30 °C to +55 °C
<b>Storage/transport temperature</b>	-40 °C to +70 °C
<b>Relative humidity (non-condensing)</b>	max. 95%
<b>MTBF</b>	43.3 years
<b>Mechanical construction</b>	
<b>Dimensions (W x H x D)</b>	261 mm x 189 mm x 55 mm
<b>Mounting</b>	for wall and mast mounting
<b>Protection class</b>	IP 65, IP 67
<b>Approvals</b>	
<b>Safety of information technology equipment</b>	EN 60950
<b>Radio</b>	EN 300328, EN 301893, notified in all countries of EU. For other notifications or certifications please refer to INET-Sales@hirschmann.de
<b>Environmental</b>	EN 61000-6-2 , EN 61131 EN50155 (in preparation) E1 (in preparation)
<b>Scope of delivery and accessories</b>	
<b>Scope of delivery</b>	Device, CD, M12 connector, 2 x 50 Ohm terminators, mounting material
<b>Accessories to order separately</b>	External antennas for 802.11b/g/n and 802.11a/h/n operation adapter cable and surge arrester, mast mount material