



Wireless Solutions

For maximum mobility, remote access and network availability in today's industrial environments.

 **HIRSCHMANN**
A **BELDEN** BRAND

 **GarrettCom**[®]
A **BELDEN** BRAND

 **TOFINO SECURITY**
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For fast and stable wireless connections in harsh industrial environments, the industrial wireless family of product solutions include a broad portfolio of cellular routers, access points/clients, WLAN controller and antennas that work seamlessly together.

Be certain.
Belden.

Industrial Networking

Magnum DX940e Router

- Obtain better connectivity with high speed 4G/LTE cellular interface for secure remote access
- Use high-end, robust cybersecurity mechanisms with advanced safety features, IP routing and guaranteed network protection with firewall layers
- Adhere to industry standards with NERC CIP compliant security elements



OWL Cellular Routers

- LTE devices for fast vehicles like trains and modern IIoT applications
- Fully encrypted data streams with IPSec and OpenVPN
- Many protocols and media conversion modules: Azure, Modbus, Node-RED, Python, Serial
- GPS Dead Reckoning functionality for position data of fast moving vehicles inside tunnels



OpenBAT Wireless Platform

- A unique platform concept that permits tailor-made solutions with an optimum price-performance ratio
- Innovative wireless technology that guarantees maximum WLAN availability
- Integrated ESD protection combined with robust hardware ensures high reliability and an extremely long operational lifetime for the access points



Secure Remote Access Solution

- Easy to implement, allowing those with limited technical knowledge to network devices together
- State-of-the-art security technology results in a secure system without reconfiguring corporate firewalls
- Immediate remote access & control of industrial networks to fix problems means more efficient, productive staff time & less network downtime



BAT450-F Wireless LAN Access Points

- Proven Fast Roaming for critical Transportation projects
- Ruggedized, compact design meets IP65/67 protection class, with extended temperature range of -40°C to +70°C
- Runs on Hirschmann's HiLCOS software to ensure maximum network availability & data security



BAT867-R Industrial Wireless Access Points

- Fast data speeds enable transmissions up to 867 Mbps with IEEE 802.11ac radio module & backward compatible to a/b/g/n standards
- Proven wireless device to connect machines for maintenance applications, cross-vendor compatibility
- Cost-effective solution with only the features required by typical industrial WLAN applications – one radio, one Ethernet port, one power supply + can be used as access point, client, router or bridge
- Reliable wireless connectivity even when monitoring and operating machines from wireless tablets or smartphones



Wireless LAN Controller

- Centralized management of wireless network components for secure operation
- Easily scalable for legacy devices and future growth
- Compliant with IEEE 802.1x, RADIUS and LEPS standards
- Guarantees high availability through redundancy and backup mechanisms



BAT-C2 WLAN Client and Access Point

- Compact ruggedized 802.11ac
- Client with fast roaming for Autonomous Guided Vehicles
- Access Point to easily integrate and control automatically
- Industrial Grade Security with IEEE 802.1x, RADIUS



belden.com/products/industrial/networking

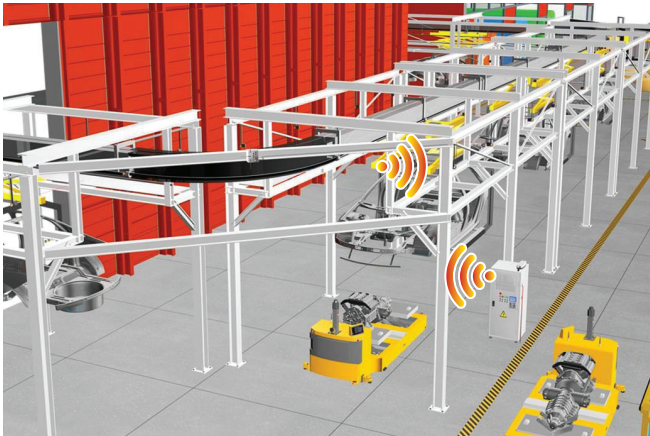
Vertical Solutions



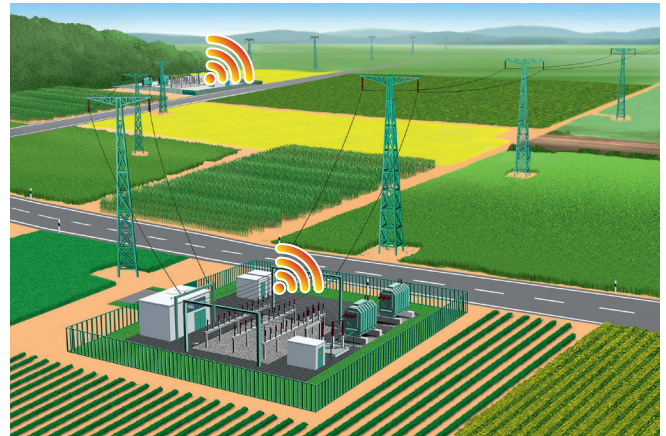
Onboard Systems



Smart Cities & Traffic Systems



Logistics & Factory Automation



Smart Grids & Remote Asset Management

- Advanced security features
- Built in redundancy protocols
- Seamless roaming
- Market specific certifications

- IP67 for outdoor deployment
- Complete set of accessories
- Remote diagnostics
- IIoT Azure cloud ready

Value-Added Benefits

The Belden Solution brings breadth you won't find with any other vendor. Consider the reliability of a total infrastructure built to work seamlessly in the harshest operating conditions. Based on true industry knowledge built over time in field-proven applications, Belden networks work.

Plus, you'll find Belden professionals actively engaged in the governance organizations and work groups exploring new technologies and setting standards for optimum performance.

Wireless Product Selection

Wireless Routers and Access Points	MT12 Connectivity	RJ45 Connectivity	FE Support (100 Mbit/s)	GE Support (1000 Mbit/s)	IEEE 802.11a/b/g/n	IEEE 802.11ac	AWDS	PRP	VRRP	-40°C to +70°C	IP65/67	IEC 50155	24V DC	110VDC	PoE	2G/3G	4G/LTE	GPS/GLONASS	SIM Cards
	Functionality and Certification											Power Input			Cellular				
Magnum DX940e Router		•	•	•					•	•		•				•	•	•	1
OWL Cellular Router	•	•	•		•	•			•	•		•	•		•	•	•	•	2
OpenBAT Wireless Platform	•	•	•	•	•		•	•	•	•	•	•	•	•	•				
BAT450-F wireless LAN AP	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2
BAT867-R Industrial wireless AP		•	•	•	•	•	•		•				•						
BAT-C2 WLAN Client and AP	•		•		•	•				•	•		•						

Accessories

- Antennas compliant with the IP65 degree of protection – for a high industrial suitability.
- The emission behavior of the new antennas is more homogeneous – with improved transmit and receive power during operation.
- The antennas, equipped with N sockets – allow you to connect the antennas easily and quickly with other cables and overvoltage protectors.
- The scope of delivery – comprises a complete solution, with the antenna, cable and the pigtail included. The complete solution allows you to immediately connect the antenna to the BAT devices.
- Vibration resistant, weatherproof and sturdy.



Competence Center

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.



Learning Opportunities

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