

Breakthrough performance and freedom of location for wireless networks

MANUFACTURING

Fastback Wireless Solutions: Transforming Wireless Connectivity in Manufacturing

Fastback wireless product family are high capacity, easy to deploy and manage, wireless Ethernet solutions ideally suited for the broad range of networking conditions found in manufacturing plants, test facilities and supply depots. Whether reliably sharing information across systems and personnel, monitoring processes and equipment, strengthening security and safety, or optimizing production, test and distribution, Fastback provides manufacturing organizations with:

- The ability to handle any wireless condition, from clear line of sight (LOS) to fully obstructed non line of sight (NLOS)
- Industry-leading capacity, rich feature set, and lowest latency of any wireless Ethernet device
- Unmatched speed and ease of deployment and portability

MORE PLACES

Proven in Tier 1 carrier deployments, Fastback solutions extend wireless connectivity to any manufacturing-related location, even those deemed inaccessible due to obstruction and interference. Organizations are able to deploy a single solution for handling unobstructed Line-of-Sight (LOS), partially obstructed Near-Line-of-Sight (nLOS) and totally obstructed Non-Line-of-Sight (NLOS) links with carrier-grade performance and reliability, indoors or outdoors, and across heavily metallic landscapes, hard-to-reach locations, and complicated terrains.



Fastback wireless solutions enable a wireless connection between locales in any operating conditions to monitor a range of manufacturing facility operations from logistics and warehousing to assets, remote equipment, and material positioning.



FASTBACK WIRELESS SOLUTIONS: READY MADE FOR MANUFACTURING

- *Fastest install:* Up and running within an hour
- *Easiest deployment:* No or low level of manual alignment, LOS studies or frequency planning
- *Versatile prediction tool:* LOS and NLOS site planning
- *Most versatile:* Tolerant to link obstructions; high interference immunity over metallic landscapes
- *Highest Speeds:* Up to 1 Gbps full duplex
- Up to 13km range
- *Lowest latency:* Under 500 μ sec
- *Most economical:* Significant time, labor and equipment cost savings
- *Easy expansion and portability:* Deployments scale quickly and economically to any size, while individual units are easily moved to meet changing needs

MORE SPEED, LESS INTERFERENCE

The only wireless Ethernet solutions to overcome the traditional barriers to wireless network performance in 5 GHz spectrum, V-band (60GHz), and E-band (70-80GHz), Fastback solutions deliver up to 1 Gbps thruput in Any-Line-of-Sight (AnyLOS™) conditions, coupled with record-setting low latency (<500 µsec). In addition, using patented Fastback technology, the Fastback IBR operates in 5 GHz unlicensed spectrum without being impacted by the severe levels of interference associated with unlicensed band, thus avoiding capacity constraints and the need for frequency planning. And if new interference is introduced into an environment, the IBR immediately auto-adjusts for that, eliminating the need to manually select new frequencies.

FAST, EASY DEPLOYMENT

Designed for rapid deployment by minimally trained personnel, self-contained Fastback units are installable on fixed or temporary infrastructure in a matter of minutes, directly out of the box. Leveraging Fastback's integrated auto discovery and synchronization capabilities, units automatically self-align and can be fully operational in less than an hour, regardless of line of sight conditions. Moreover, deployed units stay continuously aligned, so there is need to revisit them to conduct manual realignments.

COMPACT AND SELF-CONTAINED

Fastback wireless solutions integrate and utilize a variety of switch, router and native Ethernet capabilities inside a single, ruggedized (IP66), small-footprint enclosure — as small as one square foot in size. In addition to enabling faster installs, this results in fewer managed elements per site, the ability to better deal with space constrictions on shop floors and in warehouses, and lower capital costs. The Fastback IBR units mount easily on infrastructure, towers, masts and poles, buildings, signs, Cell Sites on Wheels (COWs), or hanging off a cable strand, and feature an integrated CE2.0 switch for multiple readers/cameras and two optical Fast Ethernet SFP ports.



5GHz Intelligent Backhaul
Radio (IBR)



V-band Ethernet
Wireless Bridge



E-band Ethernet
Wireless Bridge

BROAD RANGE OF APPLICATIONS

- *Data Connectivity* — Moving data in/out of MES, PLC and ERP implementations; transmitting instrumentation data to mobile devices
- *Monitoring* — Real-time monitoring of production processes, assembly lines, mobile assets
- *Industrial Security* — Streaming real-time data from video cameras and sensors
- *Material Handling & Logistics* — Real-time process monitoring
- *Asset Management* — Ubiquitous coverage for managing the health of capital equipment
- *Decision Support* — Real-time data collection for business and operational intelligence



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