IBR Intelligent Backhaul Radio™

Fastback NETWORKS
intelligent wireless transport

IBR-1211-83-NA and IBR-1211-38-NA Specifications

The IBR is a ruggedized, outdoor Carrier Ethernet switch with a wireless port that uses Fastback's breakthrough any line of sight (AnyLOS™) radio technology to simultaneously support NLOS (non line of sight), nLOS (near line of sight) and LOS (line of sight) operating conditions in a single device. The IBR builds on state-of-the-art RF building blocks and features to manage interference and deliver the highest sustained throughput while maintaining low jitter and latency at distances of 500m or more (NLOS) and 13km (LOS).

Specifications

Specifications	IBR
RADIO	
Speed and Range	Typical: Scalable up to 800Mbps at 500m range (NLOS) and 3km range (LOS), 300Mbps at 13km range (LOS)
Latency	Typical: <500μsec
Frequency bands	5GHz UNII/ISM
Antenna Beamwidth	40-degree
EIRP	Up to 42 dBm
Adaptive Rate Modulation	Supported via proprietary adaptive algorithms
Interference Mitigation	Supported via proprietary avoidance and cancellation algorithms
Diversity	Supported via proprietary antenna array signal processing
Security	AES-256 OTA Encryption
SWITCH	
Carrier Ethernet Features	Y.1731 and 802.1ag (QinQ) OAM, RFC 2544 reflection, QoS, Broadcast, Unknown, Multicast (BUM) filter, Configurable latency per queue
Interfaces	1 x GbE (Cu), 2 x GbE (SFP) 1 ALOS radio interface (see above), 1 console
QoS	802.1p classification, strict priority scheduling, WDRR scheduling
Management	HTTPS, ssh, Telnet, serial, SNMP v2c & v3, IPv6, Dying Gasp
Dimensions (W x H x D)	15.2" x 9.1" x 6.6", 388 x 232 x 169 mm
Volume	5 liters
Weight	<4 kg
Power Input	802.3at
Temperature	-40C to +60C operating -55C to +85C storage
Environmental	IP66

Certifications	IBR
Radiated	FCC Part 15, IC RSS-210
Safety	UL/cUL (UL60950-1, UL60950-22)
EMC/EMI	FCC Part 15 Class B
Environmental	GR-3108

Patented Wireless Extension of Existing Network Architecture

- Fiber performance in any line of sight (AnyLOS™)
- Scalable in capacity: 800 Mbps at 500m range (NLOS) and 3km range (LOS), 300 Mbps at 13km range (LOS)
- <500 μsec latency
- UNI, NTE-Demarc, SLA on a light pole: monitor, manage and deliver an SLA to any location
- Carrier Ethernet services:
  - *Transport:* full layer 2
  - *SLA assurance:* via full-featured OAM capability
  - *Network synchronization:* support in any location
  - *Service uptime:* carrier-grade physical link and network layer redundancy
  - *Security:* service protection and reliability

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