



ETHERHAUL™ 8020FX DATASHEET

20Gbps, 70/80GHz Radio | Fiber-Speeds. Wireless Freedom

The game-changing EH-8020FX combines the easiest-to-install, cutting-edge EtherHaul™ technology with a flexible pay-as-you-grow approach, offering a competitive solution for seamless and cost-effective scalability

Built for Every Market

- **Wireless ISPs** – backbone and multi dwelling units
- **Private Networks** – utilities, public safety, smart cities
- **Enterprise Connectivity** – low delay, secure multi-gigabit
- **High-Capacity Backup** – fiber and leased lines

Based on EtherHaul's Field Proven Platform

The EH-8020FX is the 20 Gbps evolution of the best-selling EtherHaul™ series—the world's pioneering all-silicon millimeter-wave radio. It is designed for unparalleled ease of installation and commissioning. With tens of thousands of links deployed and performing reliably in diverse weather conditions across the globe, the EH-8020FX builds on a proven legacy to deliver a trustable next-generation solution.

Spectrum Without Barriers

The EH-8020FX operates across the interference-free and ultra-wide 71–86GHz E-band spectrum, providing 10GHz of bandwidth. By utilizing high-gain, pencil-beam antennas, the solution maximizes spectrum reuse.

E-band links are also governed by low licensing fees and quick registration processes, which significantly contribute to a faster time-to-market and lower overall costs.

Best ROI for any Application

The EH-8020FX enables truly scalable rollouts. It comes with multi-step licenses and a field upgradeable XPIC kit for doubling capacity while utilizing the same RF channel. A selection of 1ft and 2ft antenna size further contributes to optimize performance based on specific distance and link availability needs.

Compact. Smart. Simple.

The EH-8020FX all-outdoor lightweight cuts site costs and commissioning time. Any installer can deploy it, no telco expertise necessary. Physical installation with out-of-the-box operation including 8 levels of QOS aware services, typically takes less than an hour. Optional advance configuration is available via an intuitive web GUI, while additional services may be remotely activated from a NOC. An IPERF TCP and UDP traffic delivery tester, coupled with a spectrum analyser, streamline commissioning and troubleshooting.

Rugged with High Availability

The EH-8020FX IP67 construction coupled with a wide operating temperature range, ensures durability in harsh environments. With redundant built in dual power inputs, it further extends network's availability.

Secure by Design



AES-128 encryption, advanced access controls, and secure management protocols protect your critical traffic across the backbone.





ETHERHAUL™ – 8020FX SPECIFICATIONS

10/20Gbps E-band Radio

Topology	Point-to-Point , Ring	
Configuration	1+0; 2+0	
Frequency / Duplexing	71-76GHz / 81-86GHz, FDD	
Channel Bandwidth, Modulation	Bandwidth: 250, 500, 1,250 & 2,000MHz; Adaptive Modulation: BPSK to QAM128. Up to 9 levels of hitless adaptive bandwidth, coding, and modulation – boost gain by over 29dB	
Max Throughput	1+0: ≤10 Gbps full duplex; 2+0: ≤20 Gbps full duplex with an OMT (XPIC mode)	
System Gain	64 / 93 dB (channel bandwidth = 2,000MHz, max capacity / min modulation) 75 / 97.5 dB (channel bandwidth = 500MHz, max capacity / min modulation)	
Antenna Options	0.5 ft. (16 cm) 38dBi; 1 ft. (31cm) 43dBi (1+0 configuration only) 1 ft. plus (38cm) 46dBi; 2 ft. (65cm) 50dBi (1+0/2+0 configurations)	
Interfaces	Antenna port (RF) Direct DC 1x 1GE port: 802.3ab (RJ-45, CAT6A or better) 2x 10GE ports: SFP+ IEEE 802.3-2022 (MMF or SMF) RSSI measurement: voltmeter sockets XPIC signaling: propriety mini-HDMI socket	
QoS & Networking	Ethernet transparent bridge with flow control with VLAN support; 8-level configurable QOS-aware forwarding, L2 802.1pl, L3 DSCP; 10K Jumbo frames; LLDP	
Management & Provisioning	In / Out-of-band management; Web GUI / CLI; Up to 4x IPv4 or IPv6 address, fixed / DHCP allocation SNMPv2/3, TACACS+, RADIUS; Zero-touch turn-up	
Power Supply	Dual input: PoE++ (4 pairs 802.3 at type 2 PD) and/or Direct DC (42÷57 VDC; ≤55W), Hot standby	
Conformance	Radio: FCC Part 15.101 & ETSI EN 302 217 EMC: FCC 47CFR Part 15 & ETSI EN 301 489 Safety: UL/EN 62368-1 and 60950	
Environmental	IP67: -45° to +55°C (-49° to +131°F)	
Dimensions	108 x 226 x 244 mm.(4.25 x 8.9 x 9.6 in) (H x W x D)4.04 Kg (8.9 lbs.)	
Security	AES-128 encryption (SW key option)	
Ordering information	Part Number	Description
	EH-8020FX-ODUH-AES-1C2P-EXT	EtherHaul™ 8020FX ODU with AES HW & license, with ANT. port, TX High; Power: DC/PoE; Capacity up to 10Gbps; Ports: 2x SFP+, 1x RJ-45 for management/traffic, 1x XPIC; 2x short All-Weather Shells
	EH-8020FX-ODUL-AES-1C2P-EXT	EtherHaul™ 8020FX ODU with AES HW & license, with ANT. port, TX Low; Power: DC/PoE; Capacity up to 10Gbps; Ports: 2x SFP+, 1x RJ-45 for management/traffic, 1x XPIC; 2x short All-Weather Shells
	EH-XPIC-Kit	1x70/80GHz OMT; 1xXPIC Signaling Cable; 2x short All-Weather Shells
	EH-OPT-XPIC	XPIC feature SW key for EH-8020 series
	EH-ANT-1ft-CI3	EtherHaul™ E-band 1 ft. ANT. (ETSI Class 3/FCC) with X adaptor, supports XPIC
	EH-ANT-2ft-D	EtherHaul™ 2 ft. antenna (FCC/ETSI) and mounting kit, with X adaptor, supports XPIC

