



# FlexPort80-3000

80 GHz 3000 Mbps Ultra-High Capacity Wireless Links

## ULTRA-HIGH CAPACITY MULTI-GIGABIT WIRELESS LINKS FOR HIGH BANDWIDTH APPLICATIONS

The FlexPort® family of high capacity millimeter wave radios offers carriers, service providers, government and enterprise users the ultimate flexibility in an access and aggregation/backhaul solution for today's networks.

FP80-3000 utilizes BridgeWave's innovative FlexPort product platform to provide the highest capacity transmission solution available at millimeter wave frequencies. The FP80-3000 yields over-the-air transmission rates of 3000 Mbps (2.4 Gbps end user throughput) through the use of two FlexPort80 terminals and an ODU combiner. Frequency agility means both radios can be set to different RF channels, and avoid the use of orthogonal polarization methods while ensuring optimal link availability.

BridgeWave is the market leader in providing highly reliable gigabit wireless solutions. The FlexPort family of products leverages our expertise in designing and bringing to market carrier-class millimeter wave and microwave solutions that have been accepted and used in thousands of installations worldwide.



**FP80-3000 with 12" (30 cm) Antennas**

### HIGH CAPACITY WIRELESS VIRTUAL FIBER SOLUTIONS FOR:



#### Mobile Backhaul

Future-proof full-rate gigabit backhaul for next generation 4G/LTE/WiMAX backhaul.



#### Service Provider

High-capacity business services, fiber extensions, cellular/Wi-Fi/WiMAX backhaul, redundant fiber overlays, mesh.



#### Education

High-performance campus connectivity, Wi-Fi and security camera backbone.



#### Enterprise

Server centralization, remote data storage and backup, leased line replacement.



#### Government/Municipalities

Video surveillance systems, traffic control and monitoring, Wi-Fi/4.9GHz backhaul.



#### Healthcare

Secure, HIPAA-compliant connectivity, medical office, lab network access, real-time imaging & records, application connectivity.

### FEATURES

#### Performance:

- 3000 Mbps over-the-air data rate delivering the equivalent of two full-rate gigabit Ethernet plus 400 Mbps Ethernet transmission rates
- Efficient spectrum utilization using QPSK
- Low latency for fiber-equivalent performance
- Forward Error Correction for maximum link range
- Frequency agile RF tuning eases network planning and mitigates interference
- Carrier Ethernet services enabled through built-in Gigabit Ethernet Layer 2 switch
- Optional Adaptive Rate and Modulation

#### Ease of Use:

- Compact all-outdoor design
- Ethernet SFPs available with multi-mode, single mode, or copper interfaces
- Web based & SNMP management

#### Security:

- Optional built-in FIPS certified 256-bit AES encryption
- Narrow antenna beamwidth for low probability of detection/interception
- RADIUS Authentication
- HTTP/HTTPS web management



*Backhaul Evolved*



# Specifications

FlexPort80-3000	
Frequency	Range: 71 – 76 GHz/81 – 86 GHz T/R Spacing: 10 GHz Channelization: Software selectable channels in 250 MHz increments per ECC/REC/(05)/07 Recommendation Stability: ±25ppm
Configuration	Two FlexPort80 radios utilizing an equal loss splitter in a 2+0 configuration
Data Rates	3 Gbps (3000 Mbps) over-the-air data rate includes framing and FEC overhead Two x 1.2 Gbps (1200 Mbps) data transmission over two RF channels for an equivalent of 2.4 Gbps (2400 Mbps) actual user throughput Ethernet: Four pluggable slots plus one RJ45 10/100/1000 Base-T supports gigabit Ethernet line rates
Interfaces	Physical layer: SFP, 1000Base-X, single mode (-LX) or multi-mode (-SX) fiber, 10/100/1000 Base-T with RJ45 connector – CAT5e cable
Networking	Quality of Service per 802.1p, VLAN Support (802.1q): up to 4096 VLANs Scheduling: 8 queues allowing user configurable Strict Priority or Shaped Deficit Weighted Round Robin (SDWRR) Maximum Ethernet frame length: supports Jumbo packets up to 10,000 bytes Per-port Rate Limiting
Latency	As low as 65 micro-seconds (µSec)
Security	Inherently secure ultra-narrow beamwidth antennas for low probability of detection and interception Option: internal FIPS certified 256-bit AES Encryption (export controlled)
Management	Web-based (HTTP) embedded management agent, HTTPS secure management available SNMP Support: MIB-II And BridgeWave enterprise MIB SysLog (RFC 3164, RFC 3195) event support RADIUS client support
Power	-48 VDC input, -37.5v to -70v range, 60 watts power consumption. Supports redundant “A” and “B” power feeds
Size & Weight	11.5” w x 11.5” h x 11.5” d (29.2 cm x 29.2 cm x 29.2 cm); 35 lbs (15.9 kg) – does not include antennas
Environmental	Operating temperature: -33°C to +55°C (-27°F to +131°F) per EN 300 019 Class 4.1 Operating Altitude: 4,500 m (14,764 ft) Water Ingress: IP66
Antenna	External 30cm (12”) directional cassegrain, 44 dBi gain, 0.9o beamwidth, EN 302 217-4-2, class 3, FCC Category A External 60cm (24”) directional cassegrain, 51 dBi gain, 0.4o beamwidth, EN 302 217-4-2, class 2, FCC Category A Mount: Fine adjust pole mount, 8.9 – 11.4 cm (3.5” – 4.5”) diameter – SCH40 or higher
Regulatory	Safety: UL Listed, CE Mark, EN60950, meets FCC 1.310 general population RF MPE limits RF Certifications: U.S. FCC Part 101, EN 302 217 (2008-11) Environmental: EN 300 019

