

Spectrum-Efficient 3Gbps Links

The BridgeWave **Flex4G-LITE (ETSI)** is an all outdoor, IP radio system operating in the 71-86GHz frequency band with capacities up to 3Gbps using 64QAM modulation. Supporting both POE and direct DC feed, this compact radio system features carrier-grade Ethernet switch functionality, hitless adaptive rate modulation, and low power consumption.

To reduce deployment costs and improve field flexibility, BridgeWave **Flex4G-LITE (ETSI)** includes a 2.5GbE port that can also be configured for CPRI operation.

BridgeWave **Flex4G-LITE (ETSI)** is available with an ultra-compact integrated 20cm antenna or with externally mounted 30cm, 60cm, or 90cm antennas for ultra long range.

The BridgeWave **Flex4G-LITE (ETSI)** enables network operators to meet exponentially-increasing backhaul requirements and is field-proven with thousands of links already in use worldwide.

Performance

- Spectrum efficient using 64QAM in 250, 500, and 750MHz wide channels
- Full-duplex providing up to 3Gbps upstream and downstream
- Hitless adaptive rate and modulation
- QPSK/8PSK/16/32/64QAM modulation support
- Highest system gain
- Internal carrier grade L2 switch
- Built-in 2.5GbE support
- Optional CPRI support (Modes 1 - 4)
- SyncE and IEEE1588v2 compliant
- Power over Ethernet
- Compact integrated 20cm antenna available (38 dBi) for ETSI deployments
- Extreme ranges supported with optional 30cm (43.8dBi), 60cm (51dBi), and 90cm (54dBi) external slip-fit antennas
- Small form factor and lightweight
- Quick and simple deployment

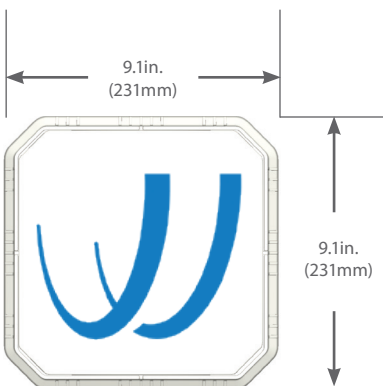
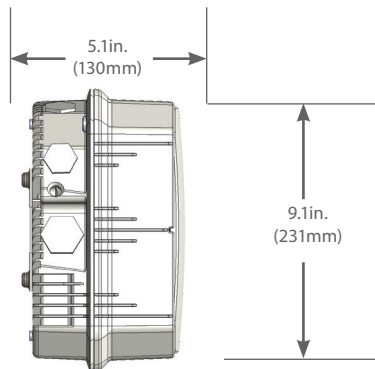
Applications

- 4G/LTE backhaul for access and aggregation
- Last-mile fiber extension for enterprises
- Temporary high capacity links for disaster recovery
- LAN extensions

Flex4G-LITE (ETSI) SPECIFICATIONS

Dimensions

Flex4G-LITE (ETSI) with
Integrated 20cm Antenna



Data Throughput Rate	Up to 3000Mbps per 1+0 terminal, Up to 6000Mbps per 2+0 terminal					
Configurations	1+0 Non-Protected; 2+0 Dual Path Transmission utilizing Orthogonal Mode Transducer, OMT					
Frequency Range	71-76GHz / 81-86GHz					
Air Interface	Full Duplex FDD					
RF Channel Tuning	Frequency Agile in 125MHz steps					
Channel Bandwidths	250, 500, and 750MHz					
Management	In-Band					
Latency	<50µs @ 64QAM with 1024byte packets					
Modulation	QPSK/8PSK/32QAM/64QAM Hitless Adaptive Code and Modulation					
System Performance	Modulation	Throughput	System Gain			
			38dBi Antenna	43.8dBi Antenna	51dBi Antenna	54dBi Antenna
@ 250MHz Channel BW	64QAM	1000Mbps	150dB	160dB	176dB	179dB
	32QAM	833Mbps	153dB	163dB	179dB	182dB
	16QAM	666Mbps	158dB	168dB	184dB	187dB
	8PSK	500Mbps	161dB	171dB	187dB	190dB
@ 500MHz Channel BW	64QAM	2000Mbps	147dB	157dB	173dB	176dB
	32QAM	1666Mbps	150dB	160dB	176dB	179dB
	16QAM	1333Mbps	155dB	165dB	181dB	184dB
	8PSK	1000Mbps	158dB	168dB	184dB	187dB
@ 750MHz Channel BW	64QAM	3000Mbps	145dB	155dB	171dB	174dB
	32QAM	2500Mbps	148dB	158dB	174dB	177dB
	16QAM	2000Mbps	153dB	163dB	179dB	182dB
	8PSK	1500Mbps	162dB	172dB	188dB	191dB
QPSK	1000/666/333/166Mbps	161/163/166/169dB	171/173/176/179dB	187/189/192/195dB	190/192/195/198dB	
	Interfaces					
Ethernet: 2 x SFPs for 1 x 2.5G/1G & 1 x 1G SFP + 4 x RJ45 10/100/1000Base-T CPRI: 1 x Option 1 to 4 (614.4Mbps to 3072.0Mbps)						
Ethernet						
Max Packet Size	9600 bytes (Jumbo Frame Compatible)					
Ethernet Timing and Synchronization	SyncE (G.8261), IEEE 1588v2 (Transparent Clock)					
Features	<ul style="list-style-type: none"> • IPv6, IPv4 • L2- 8192 MAC Address • 4096 VLAN (IEEE 802.1Q) • VLAN tag translation on ingress or egress • Provider Bridging (IEEE 802.1ad, Q-in-Q) • RSTP / MSTP 					
Ethernet QoS						
Classification	<ul style="list-style-type: none"> • 8 QoS queues per port with SP or DWRR scheduling • TCAM classification and remarking • DSCP translation, ingress and egress • Per Queues and Per Port policing and shaping • Full Duplex Flow control 					
Protection	ITU-T G.8032 Ring					
OAM	ITU-T Y.1731					
Antennas						
<ul style="list-style-type: none"> • Integrated 20 cm, 38 dBi gain, 0.8° beamwidth • External 30 cm, 43.8dBi gain, 0.9° beamwidth • External 60 cm, 51 dBi gain, 0.4° beamwidth • External 90 cm, 54 dBi gain, 0.3° beamwidth 						
Mechanical and Environmental						
Input Power Requirements	-48VDC, PoE, 30W typical (32W Max) power consumption					
Weight	2.9kg / 6.4lb (with integrated antenna)					
Temperature Range	-50°C to +60°C (-58° to +140° F)					
Weather	IP67 / All Weather					
Safety	IEC 60950-1, -22					
Regulatory RF Certification	US FCC Part 101, FCC Part 15B; ETSI EN 302 21					

Note: Specifications are typical and subject to change without notice.

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