



# HORIZON COMPACT+

ALL-OUTDOOR HIGH CAPACITY PACKET MICROWAVE

## SERVICE PROVIDERS CAN NOW DO MORE OUTDOORS WITH THE ZERO FOOTPRINT HORIZON COMPACT+ FROM DRAGONWAVE.

This high capacity packet microwave system delivers big performance in a small package. Because the radio and modem are integrated into a single highly compact outdoor unit, Horizon Compact+ is a zero footprint solution – eliminating rack congestion and minimizing collocation space. Equipped with DragonWave’s Bandwidth Accelerator technology, the Horizon Compact+ achieves the highest degree of spectral efficiency, delivering more capacity per channel than any other all-outdoor microwave system.

With unmatched radio performance, simple installation and operation, as well as sophisticated remote management capability, the Horizon Compact+ delivers significant lifecycle cost savings for service providers and enterprises alike.

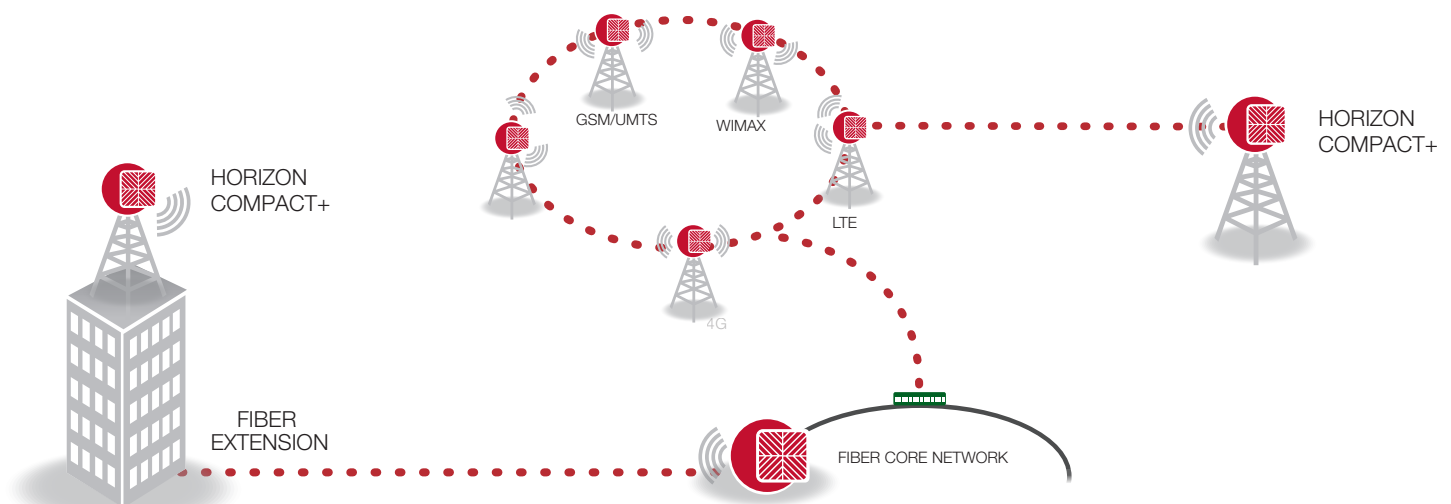
This innovative, carrier-grade packet microwave solution operates in licensed or unlicensed spectrum from 6 to 60 GHz.

## SOLUTION HIGHLIGHTS

- Zero footprint, fully integrated all-outdoor unit
- 1 to 2 Gbps capacity with DragonWave’s Bandwidth Accelerator
- Up to 2048QAM modulation support
- Service aware Hitless Automatic Adaptive Modulation (HAAM)
- SyncE support and optimized transport of 1588v2
- Pay-as-you-grow with automatic remote scalability
- Integrated 256-bit AES encryption; FIPS 140-2 Certified
- Comprehensive Ethernet OAM support (802.3ah, 802.1ag, Y.1731)
- Advanced QoS support with 8 levels of prioritization
- Comprehensive management and provisioning with Netviewer NMS
- Lowest total cost of ownership solution

## KEY APPLICATIONS

- Mobile Backhaul
- Leased Line Replacement
- Last Mile Fiber Extension
- Private and Enterprise Networks



## FREQUENCIES

6 GHz	FCC/IC/ETSI/ITU
11 GHz	FCC/IC/ETSI/ITU
13 GHz	ETSI/AUS/NZ/ITU
15 GHz	IC/ETSI/AUS/NZ/MX/ITU
18 GHz	FCC/IC /ETSI/AUS/NZ/ITU
23 GHz	FCC/IC/ETSI/AUS/NZ/ITU/MX
24 GHz DEMS	FCC/IC
26 GHz	ETSI
28 GHz	FCC/ETSI
32 GHz	ETSI
38 GHz	FCC/ETSI/AUS/NZ/MX
60 GHz	UNLICENSED

## FEATURES

Capacity w/Accelerator	Variable from 10 to 1000 Mbps full duplex CIR 2x capacity up to 2 Gbps with Dual Pole Radio Mount (DPRM)
Base Capacity	Variable from 10 to 500 Mbps full duplex CIR 2x capacity up to 800 Mbps with DPRM
Latency GigE	120µs @ 256QAM. 50 MHz
Modulations	QPSK to 2048QAM
Modulation Shifting	Yes, Hitless
Loopback	Yes, Radio loopback
Encryption	Integrated 256-bit AES encryption

## POWER

Input	-40.5 VDC to -56 VDC or +40.5 VDC to +56 VDC	
Optional Adapter	110/240 VAC	
Consumption*	6 GHz	55W
	11/13/15 GHz	47W
	18 GHz	49W
	23 GHz	48W
	38 GHz	43W

\*Measured at the radio with 30M of CAT5E cable and 48V input to PoE.

## MECHANICAL

Radio/Modem (without antenna)	10.2 cm x 24.3 cm x 22.1 cm; 3.4 kg 4" x 9.6" x 8.7"; 7.5 lbs
Power Adapter	15 cm x 7 cm x 3.5 cm 5.91" x 2.76" x 1.38"
Interface	2 x 10/100/1000bT (Optical SFP available)

## MECHANICAL

Antenna Wind Loading	112 kph (70 mph) operational, 200 kph (125 mph) survival
Antenna Mount Adjustment	+/- 45° Azimuth; +/- 22° Elevation

## CONNECTIONS

Power	-48V, Power on Ethernet
Payload (+ Inband NMS)	RJ45 or optical LC
NMS (when out-of-band)	RJ45

## NETWORK MANAGEMENT (NMS)

Alarm Management	SNMP Traps, Enterprise MIB
NMS Compatibility	NetViewer
Security	3 Level Authentication
EMS	Web Based Management, SSL HTTP, SSH, Radius, Telnet, sFTP

## ENVIRONMENTAL

Operating Temperature	-40°C to + 60°C (-40°F to +140° F)
Humidity	100 % Condensing
Altitude	4500 m (14,760 ft)
Water Tightness	Nema4X, IP66 (directed hose test)
Operational Shock	ETSI 300-019-1-4; 5g 11ms
Operational Vibration	ETSI 300-019-1-4 Class 4m5, NEBS GR-63
Earthquake	NEBS GR-63

## ETHERNET

Packet Size	64 to 9600 Bytes
Flow Control	Yes
Prioritization	8 levels served by 8 hardware queues, based on 802.1p/q, MPLS, DSCP ToS Bits
Synchronization	Synchronous Ethernet