



## **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.

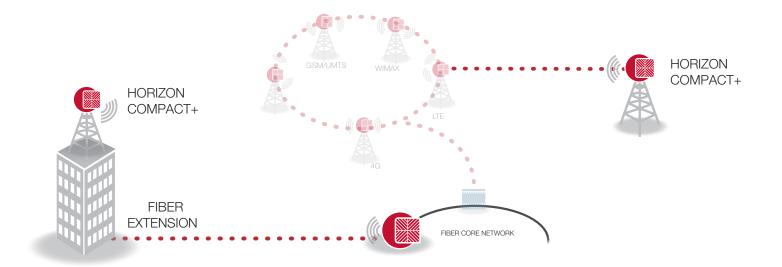
This innovative, carrier-grade packet microwave solution operates in licensed or unlicensed spectrum from 6 to 60 GHz.

#### **SOLUTION HIGHLIGHTS**

- Zero footprint, fully integrated all-outdoor unit
- 1 to 2 Gbps capacity with DragonWave's Bandwidth Accelerator
- Industry first XPIC in an all-outdoor microwave system
- Service aware Hitless Automatic Adaptive Modulation (HAAM)
- SyncE support and optimized transport of 1588v2
- Pay-as-you-grow with automatic remote scalability
- Advanced security with integrated 256-bit AES encryption
- Comprehensive Ethernet OAM support (802.3ah, 802.1ag, Y.1731)
- Advanced QoS support with 8 levels of prioritization
- Comprehensive management and provisioning with DragonVision NMS
- Lowest total cost of ownership solution

### **KEY APPLICATIONS**

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



**FREQUENCIES** 

11 GHz

6 GHz FCC/IC/ETSI/ITU
7 GHz ETSI/ITU/MX
8 GHz 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

FCC/IC/ETSI/ITU

24 GHz UL FCC/IC/ETSI
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 400 Mbps full duplex CIR

2x capacity up to 800 Mbps with DPRM

Interface Software selectable: 2xGE or 4 x10/100bT or

1xGE + 2x10/100bT

Latency GigE 120µs @ 256QAM. 50 MHz

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

Modulations QPSK to 2048QAM

Modulation Shifting Yes, Hitless

Loopback Yes, Radio loopback

XPIC Yes, enables co-channel cross polarization

Synchronization Synchronous Ethernet ready

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

7/8 GHz 80W 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 PonE.

MECHANICAL

Radio/Modem (without 10.2 cm x 24.3 cm x 22.1 cm; 3.4 kg

antenna)

4" x 9.6" x 8.7"; 7.5 lbs 15 cm x 7 cm x 3.5 cm

Power Adapter 15 cm x 7 cm x 3.5 cm 5.91" x 2.76" x 1.38"

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 Any SNMP based network manager;

SNMP v1, v2c and v3

Security 3 Level Authentication

EMS Web Based Management, SSL HTTP, SSH,

Radius, Telnet

**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