



Compact Backhaul Aggregation



OmniBAS™-4P



OmniBAS™-10P

**Compact IDUs for Aggregation & Convergence**

## Overview

OmniBAS™-4P and OmniBAS™-10P, members of the OmniBAS™ Next-Generation packet microwave portfolio, are half-rack IDU units (1RU) implementing state-of-the-art compact Converged Backhaul Aggregation Nodes (CBANs) for the effective addressing of today's backhaul challenges. OmniBAS™-4P features six Gigabit Ethernet ports (four electrical PonE<sup>(1)</sup>-enabled and two optical). It can be used either as an Ethernet switch and/or as an expansion PonE unit for the connection and control of up to four all-outdoor radios. OmniBAS™-10P, the newest model version, extends the capabilities of the OmniBAS™-4P unit, whilst it's optimized for higher GbE and 10GbE traffic and connectivity requirements. OmniBAS™-10P features eight Gigabit Ethernet ports (four electrical PonE<sup>(1)</sup>-enabled and four optical) as well as two optical 10GbE ports. OmniBAS™-4P and OmniBAS™-10P CBANs offer:

- Flexibility utilizing MW (PtP and PtMP) and E-Band / V-Band solutions
- Unified macro and small-cell backhaul
- Legacy E1 or 10GbE traffic capabilities
- IP/MPLS convergence (OmniBAS™-10P)
- Optimized backhaul performance end-to-end
- Simplified network planning, operation and maintenance
- Unified management suite (uniIMS™) for network and services.

## System Specifications

		OmniBAS™-4P / OmniBAS™-10P	
Synergy		<ul style="list-style-type: none"> <li>• StreetNode™ (MW PtP / PtMP)</li> <li>• StreetNode™ V60-PTP (mmWave PtP)</li> <li>• UltraLink™-FX80 (E-Band PtP)</li> <li>• UltraLink™-BX70 (E-Band PtP)</li> </ul>	<ul style="list-style-type: none"> <li>• WiBAS™-OSDR (MW PtMP)</li> <li>• OmniBAS™-OSDR (MW PtP)</li> <li>• OmniBAS™-BX (MW PtP)</li> <li>• uniIMS™</li> </ul>
<b>Interface (Type)</b>			
	OmniBAS™-4P	OmniBAS™-10P	Use
GbE electrical (RJ-45)	4	4	Traffic & PonE power (enabled by management)
GbE (SFP)	2	4	Traffic
10GbE (SFP+)	-	2	Traffic
FE (RJ-45)	1	-	Outband management (NMS)
FE (RJ-45)	-	1	Outband management (NMS) - serial console
AUX (RJ-45)	1	-	Auxiliary connection (serial - console)
AUX 1 (RJ-45)	-	1	PRTC port, SYNC IN/OUT
AUX 2 (micro-D15)	-	1	I/O ports, dry contacts: IN (x6) & OUT (x1)
SYNC IN/OUT (Coaxial)	1/1	-	Synchronization signal input / output
16 x E1	1	-	TDM traffic over Ethernet encapsulated in PW-TDM
-48 V DC (2-Pin)	1	1	DC power input
USB (micro)	-	1	Management
<b>Operating DC Voltage, V:</b>		Nominal -48 (tested at -40.5 to -60)	
<b>Power Consumption, max., (excluding PonE out)<sup>(2)</sup>, W:</b>			
OmniBAS™-4P / OmniBAS™-10P		17 / 30	
<b>Dimensions (H x W x D), mm</b>			
OmniBAS™-4P / OmniBAS™-10P		42 x 215 x 221 / 42 x 215 x 250	
<b>Weight (fully equipped), kg</b>			
OmniBAS™-4P / OmniBAS™-10P		1.65 / 2.06	

<sup>(1)</sup> Power on Ethernet.

<sup>(2)</sup> Total power consumption is calculated by adding the power consumption of each (up to four) all-outdoor units connected to OmniBAS™-4P / OmniBAS™-10P.

# Features & Networking

## • Ethernet, QoS & System Features

- IEEE 802.1Q (Virtual LAN) & IEEE 802.1p (QoS)
- IEEE 802.1ad (provider bridging, Q in Q)
- Packet classification per VLAN / P-Bits / DSCP / MPLS exp / IPv6 QoS
- Support of ingress Ethernet checking / filtering
- Eight QoS queues; two-rate, three-color policer (2R3CP)
- SP scheduling
- Ethernet OAM (IEEE 802.1ag (CFM), ITU-T Y.1731 (PM))
- Jumbo Frames: 9,600 bytes
- IEEE 802.1w (RSTP)
- IEEE 802.3ad (Link Aggregation - static)
- PseudoWire (PW) over Ethernet (MEF8-based), 16xE1 structured and unstructured mode
- IP / MPLS<sup>(3)</sup>

## • TDM Interfaces

- ITU-T G.703 / G.736 / G.775 / G.823 / G.783 (OmniBAS™-4P)

## • Ethernet

- IEEE 802.3u/i (100/10 Mbit/s electrical)
- IEEE 802.3z (1000 Mbit/s optical)
- IEEE 802.3ab (1000 Mbit/s electrical)
- IEEE 802.3ae (10 Gbit/s optical)

## • Synchronization

- Timing extracted from E1 (OmniBAS™-4P)
- Synchronous Ethernet (ITU-T G.8261 / G.8262, G.8264 (ESMC))
- IEEE 1588v2 TC/BC<sup>(3)</sup>

## • EMC

- ETSI EN 301 489-1, ETSI EN 301 489-4, EN 55032
- ETSI EN 300 132-2 (Power Supply)

## • Health & Safety

- EN 60950-1

## • RoHS

- EN 50581

## • Environmental

- Operation
  - › ETSI EN 300 019-1-3, Class 3.2, specifying testing according to ETSI EN 300 019-2-3, Class 3.2 (Tested at temperatures: -20 °C to +50 °C)
- Transportation
  - › ETSI EN 300 019-1-2, Class 2.3 specifying testing according to ETSI EN 300 019-2-2, Class 2.3
- Storage
  - › ETSI EN 300 019-1-1, Class 1.2, specifying testing according to ETSI EN 300 019-2-1, Class 1.2

# Management

- System is manageable through:
  - Java-based Node Manager (NM), locally and remotely, over Ethernet interface (OmniBAS™-4P)
  - Web UI Node Manager (NM), locally and remotely, over Ethernet interface (OmniBAS™-10P)
  - Intracom Telecom's NMS - uni|MS™, node level, Web UI Node Manager (OmniBAS™-4P & 10P)
  - Intracom Telecom's NMS - uni|MS™, network wide (OmniBAS™-4P & 10P)
- Command Line Interface (CLI)
- System configuration and upgrade procedure
- SNMPv2
- ETH OAM (CFM and PM)
- TACACS and SYSLOG interfaces (internal or external)
- Ethernet statistics and alarms
- RMON statistics for Gigabit Ethernet interfaces
- E1 alarms and statistics
- E1 loopback (local and remote) for all sixteen interfaces

<sup>(3)</sup> In roadmap (OmniBAS™-10P)