

WALKair® 5000 Base Station

WALKair 5000 is a small footprint base station (1U IDU) with simple and flexible mounting capabilities. Configured as a single sector or a multi sector base station, WALKair 5000 is capable of serving multiple terminal stations with assured Quality of Service (QoS).

WALKair 5000
Outdoor Unit – ODU
(shown with highgain sectoral antenna)



WALKair 5000 Indoor Unit
(in 4 - sector configuration)

Overview

WALKair 5000 is a carrier-class Point-to-Multipoint (PtMP) platform for both backhaul and access applications. Leveraging years of experience and industry leadership, WALKair 5000 incorporates technologically advanced features for optimized bandwidth utilization and capacity, providing best value for operators.

Alvarion's 4G networks power an extensive customer base with end-to-end solutions that can give our customers a competitive edge. Alvarion's WALKair product line presents an optimal solution for service providers to provide their corporate customers with a solid infrastructure for productivity and growth.

Best fit for:

- High capacity broadband access solutions for business/corporate customers
- Backhaul applications for 2G / 3G / 4G including WiMAX & LTE Networks
- Utility applications for special purpose communication and control networks

Product Highlights

- Highly-compact multi-sector solution, accommodating up to four sectors in a low-profile (1RU) indoor unit
- Variable configurations supporting up to 4+0 (unprotected) or 2+2 (protected) deployments
- Different redundancy schemes: 1:1; 1+1; 2:2; 2+2
- Industry-leading sector capacity (180 Mbit/s gross)
- Hitless adaptive modulation up to 256 QAM for optimum bandwidth utilization
- Dynamic bandwidth allocation with statistical multiplexing
- Carrier-grade system
- Low latency for time-sensitive transmission
- Managed by WALKnet 5000, a state-of-the-art management system

Specifications

International Corporate HQ

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Operation

Bands:

- 10.5 / 26 / 28 GHz

Channel Size:

- 28 / 14 MHz in all bands and 28 / 14 / 7 MHz in 10.5 GHz Band

Peak DL net data rate

- 138 Mbit/s over 28 MHz
- 157 Mbit/s over 28 MHz (Road Map)

Scalability

- Up to 32 Terminal Stations per Sector
- Up to 64 Terminal Stations per Base Station indoor unit

Networking features

- Bandwidth allocation based on VLAN or physical port separation
- Packet prioritization: VLAN, p-bit, IP QoS DSCP
- Packet scheduling: 8 queues
- Scheduler - Weighted Round Robin (WRR) and Strict Priority (SP)
- Interworking
 - IEEE 802.1q (VLAN)
 - IEEE 802.1p
 - IEEE 802.1ad
 - RSTP
 - Static LAG (based on IEEE 802.3ad)

Configuration

- 1+0 / 1+1 / 2+0 / 2+2 / 4+0

Interfaces

- 2 x GbE (optical or electrical), for native Ethernet / IP traffic
- 32 E1, for TDM or ATM traffic
- Optional SDH interfaces 2 x STM-1 (VC-4) and 4 x STM-1 (VC-12)
- 2 x Fast Ethernet management ports
- Sync IN / OUT
- External I/O

Mechanical

Dimensions (H x W x D):

- IDU: 44.5 mm (1RU) x 482.6 mm x 284.7 mm
- ODU (10.5 GHz) : 285 mm x 263 mm x 75 mm
- ODU (26/28 GHz): 238 mm x 228 mm x 46 mm

Weight:

- IDU: 8.4 kg (fully equipped)
- ODU: 2.5 kg (standalone), 5 kg (with attached antenna)

Electrical

Operating DC Voltage:

- -40 V to -60 V (-48 V typ.)

Power Consumption, Max:

85 W plus 15 W per interconnected outdoor unit

Environmental

Operating Temperature:

- IDU: -5 °C to +45 °C
- ODU: -50 °C to +60 °C

Relative Humidity (RH):

- 0% to 95%, non-condensing

Standards

Radio:

- ETSI EN 302 326- /1 v1.2.2, Annex E /2 /3
- ETSI TS 102 123

TDM Synchronization:

- ITU-T G.783 / G.811 / G.812 / G.813 / G.823 / G.825

EMC / EMI:

- ETSI EN 301 489-4 v1.3.1

Electrical Safety:

- EN 60950-1 (2006)
- EN 50385 (2002)

Environmental:

- ETSI EN 300 019-2-3 v2.2.2:2003, Class 3.2 (Operation IDU)
- ETSI EN 300 019-2-4 v2.2.2:2003, Class 4.1E (Operation ODU)
- ETSI EN 300 019-2-2 v2.1.2:1999, Class 2.3 (Transportation)
- ETSI EN 300 019-2-1 v2.1.2:2000, Class 1.2 (Storage)

Modulation	Ranges (km) ⁽¹⁾					
	10.5 GHz Band		26 GHz Band ⁽²⁾		28 GHz Band ⁽²⁾	
	28 MHz	14 MHz	28 MHz	14 MHz	28 MHz	14 MHz
4 QAM 2/3	20.0	20.0	6.0	6.7	5.2	5.6
4 QAM	20.0	20.0	6.0	6.7	5.2	5.6
16 QAM	11.1	14.8	6.0	6.7	5.2	5.6
64 QAM	5.5	7.5	4.8	6.0	4.0	5.1
256 QAM	1.8	2.5	2.6	2.9	1.7	2.3

⁽¹⁾ Alvarion's 2 ft. (60 cm) Terminal Station antennas.

⁽²⁾ Alvarion's high-gain Base Station antennas.



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About Alvarion

Alvarion Ltd. (NASDAQ:ALVR) provides optimized wireless broadband solutions addressing the connectivity, coverage and capacity challenges of telecom operators, smart cities, security, and enterprise customers. Our innovative solutions are based on multiple technologies across licensed and unlicensed spectrums. (www.alvarion.com)