

# The Wireless World Indoors





The structural attributes of modern buildings, campuses and public in-building environments can disrupt the various signals of cellular and other wireless services. Facilities owners and managers across a range of sectors including Education, Healthcare and Public venues require an in-building solution that can cost effectively cope with present and evolving demands specific to that industry, and avoid impinging the availability of multiple services.

Zinwave's unique, patented Wideband 3000 Distributed Antenna System (DAS) removes many of the traditional issues and considerations associated with delivering multiple RF services in buildings. It provides simultaneous support for any number or combination of cellular and other wireless services, enabling the addition of new services on demand without the need for costly and disruptive upgrades.

## UNIQUE TECHNOLOGY EXPERTISE

The Zinwave 3000 DAS utilises patented technologies drawn from world leading research groups at Cambridge University and University College London. It is the only fibre distribution system that can utilise any installed fibre base, including Multi mode fibre (MMF) over long distances. In addition, it has the ability to propagate wideband wireless signals without down conversion, therefore minimising the chance of data loss, signal delays and cost implications.



# 3000 ACTIVE WIDEBAND DAS

## One solution, one system for all your wireless needs

### FEATURES

#### Architecture

Zinwave 3000 DAS offers a double or single star DAS architecture from the same elements, comprising Primary Hubs (PH), Secondary Hubs (SH) and Remote Units (RU). All the elements have the flexibility to connect using either Single mode fibre (SMF) or MMF. The RU connection can be via SMF, or MMF. The RUs have sufficient power levels to provide optimum economic coverage areas. Zinwave also offers a dual port antenna in a single low profile housing for optimal deployment.

The PH can feed RUs and SHs simultaneously giving extra flexibility which, when combined with Zinwave's unique service distribution capability, allows service and carrier sectorisation. A small system can be deployed using a single hub and up to 8 RUs. Also, larger systems can be designed by cascading hubs to give a system capability of up to 64 RUs from a single PH. The hubs allow flexible service distribution as the input signals can be dynamically routed to the output ports using the unique Hub distribution matrix, controlled via the Element Management System.

#### Element Management System (EMS)

The Zinwave 3000 DAS provides a built-in EMS for centralised monitoring, and configuration. It has a user friendly, intuitive web based GUI interface. SNMP interface for integration into higher level NMS systems. The EMS has separate user classes and secure communication via SSH/SSL and secure SNMP v3. No Management controller unit and no proprietary software is required to view and monitor your DAS installations, other than a standard web interface.

#### Coverage

The Zinwave 3000 DAS covers all services in the 150MHz to 2700 MHz frequency range, including:

GSM 900	GSM 1800	UMTS	Cellular/850
DVB-H	LTE	RFID	PCS/1800
AWS	LMR	SMR	WiFi



### BENEFITS

#### True Wideband

The Zinwave 3000 DAS is the only TRUE WIDEBAND RF over fibre distribution system for in-building wireless coverage, with all wideband components end-to-end. It supports any services and wireless technology between 150MHz to 2700MHz, irrespective of protocol or modulation scheme.

#### Low component count

The Zinwave 3000 DAS is made up of just 4 components which support any mix of services

#### Lowest cost per sq.metre

Carrying the full range of wireless services over one single hardware platform ensures significant savings over traditional, more costly solutions

#### No costly upgrades

Additional services can be added without the need for supplementary hardware or infrastructure, therefore avoiding further costs, disruption and making it an ideal choice for phased deployments

#### Easy planning and installation

Self calibration for cable/fibre loss compensation and auto-configure features simplify design and deployment

## ABOUT ZINWAVE

Zinwave is a company at the forefront of wireless technology development, pioneering a new approach to in-building coverage. A rapidly expanding company, with principle operations based in Cambridge, UK, Zinwave is led by a management team with extensive experience in all parts of the wireless industry and international telecoms markets.

Sales and support worldwide is provided from offices in the UK and the US. Also based in Cambridge, UK, is an experienced RF planning, program management and execution team.



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