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Find the *Ceragon Networks FibeAir 1500P* at our website: ***Click HERE***

CERAGON networks®



FibeAir® 1500P Family

Broadband Wireless Network Solutions

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FibeAir® 1500P for versatile high-capacity point-to-point backhaul solutions

FibeAir® 1500P Family

Whether it's 2G, 3G, WiMAX, triple play converged services or legacy networks, today more than ever, operators are looking for a solution that will cover the most modern telecommunications trends.
Based on a deep understanding of operator requirements and with future evolution in mind, Ceragon created the FibeAir 1500P family of products, which answers the need for a future-proof, efficient wireless networking solution and ensures backhaul profitability. State-of-the-art technology and a common hardware platform supporting multiple capacities, frequencies and configurations, make the FibeAir solution ideal for a broad range of network applications.

Optimizing operator costs and reducing risk were the foundations of the FibeAir 1500P system design. With its rapid deployment and maximum equipment efficiency, Ceragon's field proven solution allows operators to leverage their investments and OPEX by simplifying migration to higher capacity multi-service systems.

Maximum Versatility, Maximum Choice

FibeAir 1500P is a versatile solution with the most comprehensive combination of advanced features and capabilities in a single platform. From 155 to 622 Mbps SDH/SONET and 50 to 800 Mbps Fast/Gigabit Ethernet throughput, a frequency range of 6 to 38 GHz and modulation schemes including QPSK, 16, 32, 64, 128 and 256 QAM over 10-56 MHz channels, FibeAir 1500P is an essential building block for any network.

FibeAir includes a variety of interfaces such as Gigabit Ethernet, nxDS3 and nxE1/DS1. The system can be installed in split-mount and all-indoor configurations, for long, medium and short haul transmission, with multiple protection schemes.

With optimal versatility, reliability and efficiency, FibeAir is a guaranteed solution for all your current and future backhaul scenarios.

Integrated Solutions

TDM

Delivering high-capacity SDH/SONET (nxSTM-1/OC3) and medium to high PDH traffic (nxE1/DS1,1xDS3, and 3xDS3), FiberAir 1500P radios constitute the power behind your transport network.

Ethernet

For IP-based traffic, FibeAir 1500P is a flexible and robust fiber-like solution with Fast Ethernet and Gigabit Ethernet options.

Converged

Both TDM and Ethernet traffic interfaces can be provided within the same radio carrier. Each carrier allocates capacity for nxE1/DS1 traffic utilizing the remaining bandwidth for Ethernet traffic. This method, known as dynamic bandwidth allocation, is available for Fast & Gigabit Ethernet solutions.

Long-Haul

FibeAir 1500HP (High Power) is the first split-mount radio to be optimized for long-haul applications. Ceragon's unique embedded space diversity protection, with dual receiver architecture, extremely high transmit power and IF combining algorithm, guarantee superior performance and errorless transmission. For operators, this means a carrier-grade solution that uses less equipment and smaller antennas, resulting in substantial savings on initial investments and operational expenditures.

Security

Ceragon's secure solutions with advanced encryption are based on the AES algorithm. When encrypted links are essential for applications such as those in government or military facilities, FibeAir 1500P ensures that data will be encoded, so that only authorized users are able to send or receive it over the link.



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Key Advantages

- Incomparable cost-effective performance, with the latest XPIC and modulations
- A single IDU supports:
  45-622 Mbps TDM capacities or
  50-800 Mbps Ethernet throughput
- Fast service provisioning
- Smaller antennas, lower installation costs
- Modular, "expand-on-demand", scalable and future-proof architecture
- Long, medium and short reach using the same indoor unit
- Built-in space and frequency diversity
- Assured interoperability with standard SDH/SONET and IP equipment
- Comprehensive network management
- Split-mount and all-indoor installations

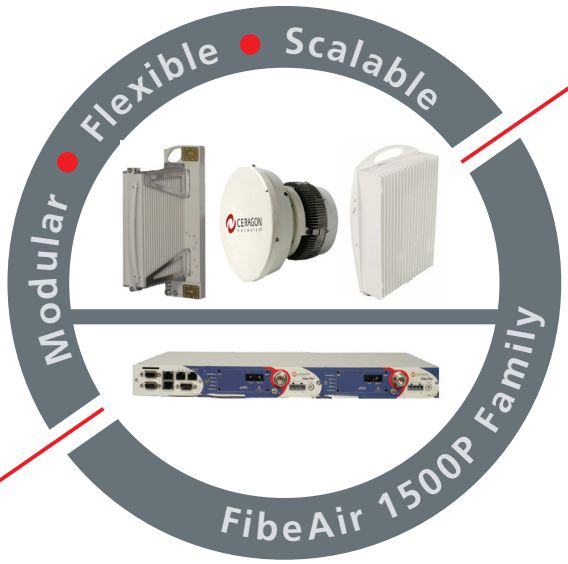
Multiple Network Configuration In Ultra Compact Platform

Physical Interfaces

Gigabit Ethernet
Gigabit Ethernet + 8xE1/T1
nxSTM-1/OC-3
STM-4/OC-12
nxDS3, nxE1/T1
nx100BaseT
100BaseT + 8xE1/T1

Capacities & Throughput

Ethernet: 50-800 Mbps
TDM: 45-622 Mbps



Frequency Bands

6-38 GHz

Modulation

QPSK, 16-256 QAM

Integrated Solutions

Spectral efficiency-XPIC
Space/frequency diversity
Errorless and hitless switching
Split-mount and all-indoor
Long-haul applications
Element & network management
AES encryption

2G/3G | WiMAX Backhaul | Triple Play | Converged Services

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A single powerful platform for multiple services and applications

System Overview

FibeAir 1500P provides wireless high-capacity digital transmission over short, medium and long distances, in a variety of network capacities, frequencies and modulation schemes.

Distances

FibeAir 1500P Outdoor Units (ODUs) are used for short to medium haul applications and operate in the entire frequency range of 6-38 GHz. FibeAir 1500HP RFUs (RF Units) are used for long haul applications, operate in the frequency range of 6-11 GHz and can be installed outdoors in a split-mount configuration or all-indoor in a standard rack.

Configurations

A typical FibeAir 1500P configuration includes an Indoor Unit (IDU) consisting of a compact 1U chassis with two independent traffic modules, a single control unit for both modules, an ODU and an antenna.

The two independent, hot-swappable carriers can be used for protection, diversity or double capacity. High spectral efficiency is ensured by choosing the same frequency for double the capacity, whereby both carriers are used for vertical and horizontal polarization, implemented by the built-in XPIC mechanism. A 2U IDU that can host up to four carriers is available for optimized protected configurations using XPIC and space diversity.

Capacities

The FibeAir 1500P system can easily upgrade TDM capacities of 45 to 622 Mbps or Ethernet throughput from 50 up to 800 Mbps, using the same 1U IDU. The two independent modules in the 1U chassis can each deliver 45 to 311 Mbps for PDH/SDH/SONET or 50 to 400 Mbps throughput for Ethernet traffic, optimizing the solution for every network topology and configuration.



Topologies

Supported topologies include point-to-point, ring, star, mesh and cascaded chain. In East-West configurations (ring and cascaded topologies) one carrier is directed to the East and the other to the West, reducing equipment and resource requirements in each node, which in turn, increases network efficiency.

Protection

Protected configurations for FibeAir 1500P include 1+1/2+2 HSB and 1+1 HSB with space or frequency diversity and with optional XPIC, Cross Polarization Interference Canceller mechanism. The hitless/errorless protection mechanism, provides superior resilience. Network protection schemes include SNCP/UPSR (e.g. 2+0 East-West configurations) and MSP 1+1. All traffic-affecting circuitry has inherent redundancy.

Seamless Integration

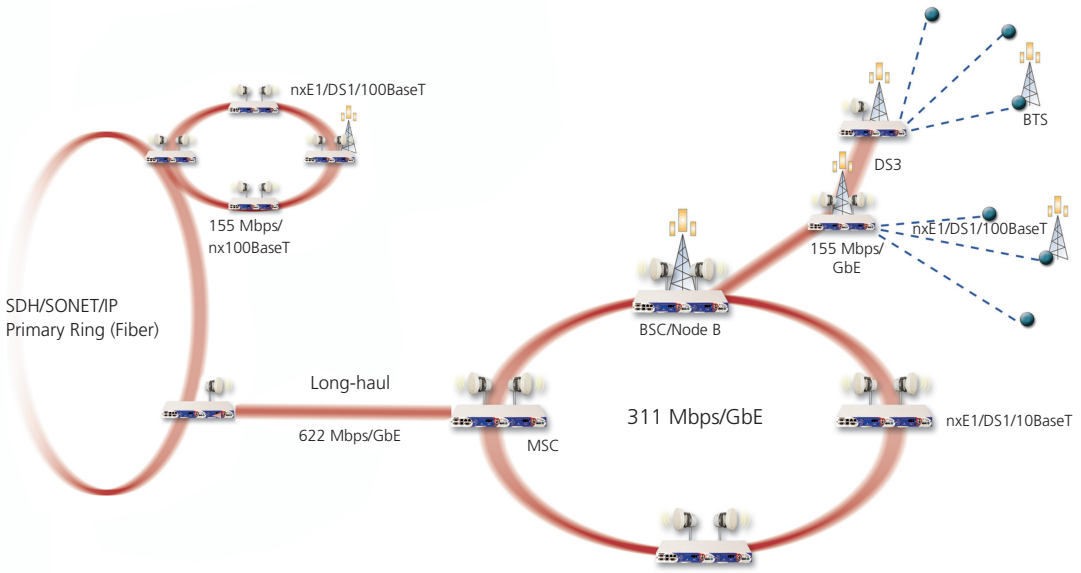
FibeAir can seamlessly integrate in any SDH/SONET, IP and ATM network, while supporting a wide variety of Ethernet and TDM interfaces, including nxE1/DS1, nxDS3, nxSTM-1/OC-3, STM-4/OC-12, nxFE and GbE. This enables network designers to meet growing market needs, including integration of current and next generation technologies, using the same radio equipment.

Winning Combination

Combining unparalleled spectral efficiency, hardware efficiency, modularity, flexibility and upgradeability in a single, compact and cost-effective system, the FibeAir 1500P family is a breakthrough in the wireless point-to-point market.

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Applications

The FibeAir 1500P family enables rapid and cost-effective high-capacity connectivity for carriers, both in the cellular and fixed operator markets as well as for private networks.

Mobile Cellular Infrastructure

Ceragon's FibeAir 1500P is an optimal solution for mobile cellular networks, which require higher capacity due to an increase in subscribers, cell sites and data rich applications. FibeAir enables fast and efficient network expansion and as an intelligent network element, offers a smooth migration path from existing PDH to SDH/SONET network functionality and to next generation ATM and IP.

Fixed Networks

To bridge the broadband access gap between end-user demands and the core network infrastructure, FibeAir offers high-capacity wireless metropolitan ring/mesh/chain and PTP solutions in the core network. Ceragon's FibeAir delivers Internet access and integrated high-speed data, video and voice traffic in the most optimum cost-effective manner whether across a city or far into the suburbs.

Private Networks

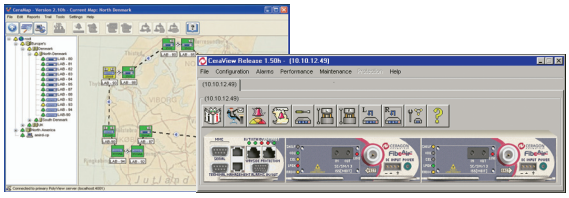
Easy to install and operate, the modular FibeAir design is ideal for private networks, educational campuses, financial institutions, utility companies, governmental and corporate facilities providing direct carrier-class connections for ATM, IP and IP+TDM traffic.

Comprehensive Network Management

Ceragon provides state-of-the-art management based on SNMP. Our management applications are written in Java code and enable management functions at both the element and network levels. The applications run on Windows 2000/2003/XP and Sun Solaris.

CeraView® is Ceragon's SNMP-based EMS (Element Management System) that enables the operator to perform element configuration, RF and SDH performance monitoring, remote diagnostics, alarm reports and more. CeraView integrates with different NMS (Network Management System) platforms, such as Ceragon's NMS, HP OpenView® and SNMPc, to provide more comprehensive system management.

PolyView™ is Ceragon's NMS that includes CeraMap™, its friendly and powerful graphical interface. PolyView can be used to update and monitor network topology status, provide statistical and inventory reports, download software, and configure elements in the network. In addition, it can integrate with Northbound NMS platforms, to provide enhanced network management.



PolyView and CeraView screens

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Ceragon Networks Ltd.

Ceragon Networks Ltd. (NASDAQ and TASE: CRNT), a leader in broadband wireless networking systems, enables rapid and cost-effective high-capacity network connectivity. Ceragon's FibeAir product family was designed with network evolution and technology in mind, to benefit mobile cellular infrastructure, fixed networks, private networks and enterprise applications. For all modern telecommunication trends, whether it's 2G, 3G, WiMAX, triple play converged services or legacy networks, FibeAir answers the demand for future-proof backhaul connectivity.

FibeAir covers a wide frequency range from 6-38 GHz and supports integrated high-capacity SDH/SONET, ATM and IP services. FibeAir is easily upgradeable for TDM networks from 45 to 622 Mbps, and for IP networks, from 50 to 800 Mbps, with Fast Ethernet and Gigabit Ethernet interfaces.

The FibeAir product family offers innovative built-in multiplexing and encryption functionalities to meet the growing demand for value-added broadband services. Ceragon's product family is installed with over 160 customers in more than 75 countries. More information is available at **www.ceragon.com.**

CERAGON networks®

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