

FibeAir[®] 2000

Carrier-Class, High-Capacity Sub-6GHz Solution for Next-Generation Networks



Introducing FibeAir[®] 2000

The new FibeAir 2000 Sub-6GHz radio series delivers high capacity, extended range and carrierclass performance for today's and tomorrow's networks.

FibeAir 2000 is the solution of choice for carriers looking for affordable backhaul solutions. While demand for mobile bandwidth and migration to 3G and 4G networks will require carriers to increase significantly their backhaul capacity, they can not expect a similar growth in ARPU and are thus looking for high-capacity, cost-effective backhaul solutions.

FibeAir 2000 enables carriers to accommodate capacity growth and maintain profitability through unparalleled price and excellent performance. The high-capacity radio system provides 50 Mbps full-duplex net throughput, with a flexible combination of Ethernet and up to 16 E1/T1 interfaces and a range of up to 120 km/75 miles in various sub-6GHz frequencies.

FibeAir 2000 offers native Ethernet and native TDM over a single wireless link, enabling carriers to migrate to Ethernet with no additional cost and to protect their investment in the legacy TDM infrastructure. Built on Ceragon's FA2000 proprietary air interface together with advanced built-in Diversity, MIMO and OFDM technologies, it delivers optimal performance and unmatched robustness in all environments.

FibeAir 2000 solutions are ideally suited for applications such as backhaul for cellular and WiMax networks, access and backhaul solutions for ISPs, enterprise networks, as well as for temporary applications for both carriers and private networks.

- 50 Mbps full-duplex net throughput
- Up to 16 E1s/T1s
- Superior OFDM and MIMO technology
- Unparalleled performance
- Extended range
- Easy to install, simple to maintain
- Competitively priced

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Configuration	
Architecture	ODU: Outdoor Unit with Integrated Antenna or Connectorized for External Antenna IDU: Indoor Unit for combination of E1/T1 and Ethernet interfaces or PoE device for Ethernet only
IDU to ODU Interface	Outdoor CAT-5e cable; Maximum cable length: 100 m
Radio	
Capacity	50 Mbps capacity (net throughput, full duplex)
Range	Up to 120 km / 75 miles
Frequency Bands	4.9 – 5.9 GHz, 2.3 – 2.5 GHz
Channel Bandwidth	20 MHz
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Automatic Channel Selection	Supported
Max Tx Power	27 dBm @ 2.4 GHz; 25 dBm @ 5.8 GHz
Radio Regulation	FCC, IC (Canada), ETSI, WPC (India), China
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128
TDM Interface	
Number of E1/T1 ports	Up to 16
Framing	Transparent to unframed or framed
Timing	Independent clock per port, Tx and Rx
Connector	RJ-45
Standards Compliance	ITU-T G.703, G.826
Line Code	E1: HDB3, T1: B8SZ/AMI (configured by FA2000 Manager)
Latency	Configurable, 5 - 20 msec
Impedance	E1: 120Ω balanced; T1: 100Ω balanced
Jitter and Wander	Compliant with ITU-T G.823, G.824
Ethernet Interface	
Number of Ethernet ports	2
Type	10/100BaseT with Auto-Negotiation (IEEE 802.3u)
Framing/Coding	IEEE 802.3
Line Impedance	100 Ω
VLAN Support	Transparent
Connector	RJ-45
Maximum Frame Size	2048 Bytes
Latency	3 msec (typical)
Management	
Management Application	FA2000 Manager
Protocol	SNMP and Telnet
Mechanics	
Dimensions	ODU with Integrated Antenna: 37.1(w) x 37.1(h) x 9.00(d) cm; 3.5 kg / 7 lbs ODU Connectorized: 18.0(w) x 27.0(h) x 5.5(d) cm; 1.5 kg / 3.0 lbs IDU: 48.3(w) x 4.5(h) x 29(d) cm; 1.5 kg / 3.3 lbs
Power	
Power Feeding	ref: Dual feeding, -20 to -60 VDC (AC/DC converter is available)
Power Consumption	< 35 W (IDU+ODU)
Environmental	
Operating Temperatures	ODU: -35°C to +60°C / -31°F to +140°F IDU: 0°C to +50°C / -4°F to +122°F
Humidity	ODU: Up to 100% non-condensing, IP67 IDU: 90% non-condensing
Safety and EMC	
TUV	UL/EN/IEC 60950, CAN/CSA 60950 C22.2
EMC	CFR47 Class B, Part15, Subpart B
ETSI	EN 300 386, EN 301 489-4, EN 301 489-1
CAN/CSA-CE/IEC, AS/NZS	CISPR 22

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