

Evolution IP-10 Compact Long Haul

Compact integrated high capacity backhaul system

Evolution IP-10 Compact Long Haul (CLH) is a reliable and cost-effective all-indoor microwave system for high capacity, long distance applications. With its compact design and low power consumption, CLH is an ideal fit for network deployments with small footprint requirement. Field-proven and reliable, Evolution IP-10 CLH provides unmatched operating simplicity and radio flexibility for any configuration from 1+0 to 2+2 or 4+0. The system allows for easy expansion and migration from legacy TDM to next generation all-IP networks.

Evolution IP-10 CLH allows operators, utilities, government, and private enterprises to deploy high-capacity, long-haul microwave systems in locations where rack space and shelter real estate are limited. Designed uniquely for the North American market, Evolution IP-10 CLH allows for compact deployment of 1+1 systems in 3 rack units. Using FCC approved channel bandwidths up to 40 MHz, it delivers high capacity up to 1.4 Gbps per channel with enhanced capacity optimizations.

Combining all the benefits of Ceragon's FibeAir IP-10 indoor unit product family, the Evolution IP-10 CLH system provides total availability with 6 levels of protection across all solution layer - from radio level to the integrated networking modules.

Evolution IP-10 CLH is an exceptionally modular, expandable, and flexible system designed for a wide range of capacity, protection and diversity scenarios. The system easily scales from 1+0 or 1+1 configurations to 2+2 or 4+0.

High Performance, Extremely Compact

- **Industry unique Rack & Stack design**
Modular and flexible fitting any configuration and application
- **Optimized utilization of spectrum assets**
Highest system gain and spectral efficiency
- **Maximum network uptime**
6 levels of radio and network protection
- **Energy efficient**
Adaptive power technology for energy conservation
- **Simplified operations**
Powerful service management tools



Key Features

Highest possible capacity and efficiency at any channel bandwidth

- Ethernet traffic: up to 1.4 Gbps per channel using enhanced Multi-Layer capacity optimization
- 5.8, 6L, 6H, 7, 8, 11 GHz licensed and unlicensed bands
- Using channel bandwidths of 5, 10, 20, 30, 40 MHz
- Standards: Standards: FCC Part 15, Part 101, and IC SRSP 306.4/307.1/307.7/308.2/310.5/310.7
- Available in two versions: E-Series for all-packet applications, G-Series for hybrid applications
- Interfaces: 2 Gigabit ports (SFP/Electrical), 5 Fast Ethernet ports and 32xDS1s (or 16xDS1s and OC-3)
- Optional interfaces: DS3 and OC-3 clear channel
- Radio configurations: Radio configurations: 1+0/1+1/2+0/2+2 with an option for space diversity

Robust redundant design

- 6 levels of protection: radio protection, network port, integrated switch or cross connect module, management module, service level and integral support for Ring Optimized STP, SNCP and Ceragon Adaptive Bandwidth Recovery
- NEBS compliant GR-1089-CORE, GR-63-CORE

Advanced radio features

- Highest system gain – from 110.5dB system gain at 6 GHz delivering 42 Mbps @ 5 MHz channel bandwidth to 91dB system gain at 11 GHz delivering 700 Mbps @ 40MHz channel bandwidth
- Hitless and Errorless Adaptive Coding & Modulation (ACM)
- All-Packet or Native² technology (Hybrid Ethernet /TDM)

Simplified network design and maintenance – reducing CAPEX and OPEX

- Rack & Stack design simplifies ordering, configuration, mounting and acceptance testing
- Unique expansion port for servicing legacy radio systems on site
- Fully MEF-9 and MEF-14 certified
- NEBS GR-1089-CORE and GR-63-CORE certified

Optimized for today's deployments - easy upgrades

- Flexible synchronization solution including Synchronous Ethernet and timing-over-packet optimized transport
- Integrated Carrier Ethernet switching and TDM cross-connect
- Network Management System (NMS) with full FCAPS including End-to-End TDM and Ethernet service trails
- Enhanced user access control for increased security
- Comprehensive Service OA&M tools

Ceragon Comprehensive Network Offering:



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