

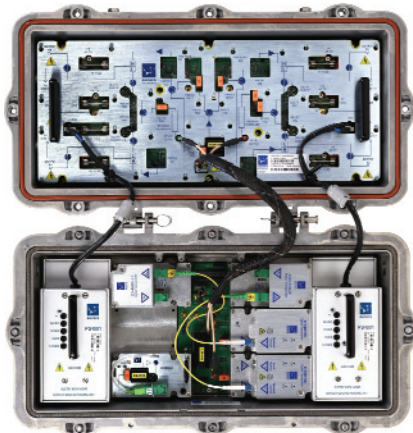
# Aurora's Optical Node Families

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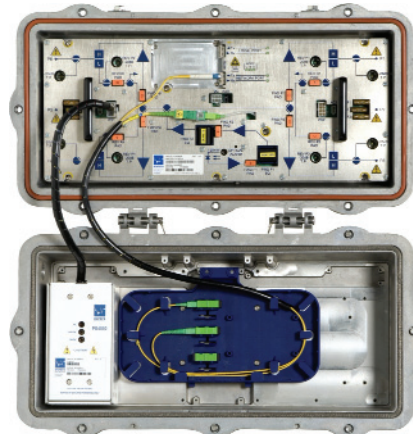
Aurora has optimized the NC4000 Optical Node platform for HFC and Fiber Deep designs. The NC4000 platform is available in a wide variety of configurations to meet your immediate network requirements and is reconfigurable to provision advanced service modules in the future. All configurations support redundant power supplies, remote monitoring, and Aurora's patented digital return technology.



## NC4000HG Series Nodes for Fiber Deep Applications

These nodes, with segmentable OA4114HG RF Amplifiers, have the industry's highest output levels and are intended for deployment in Fiber Deep networks with 50 to 200 homes passed per node segment.

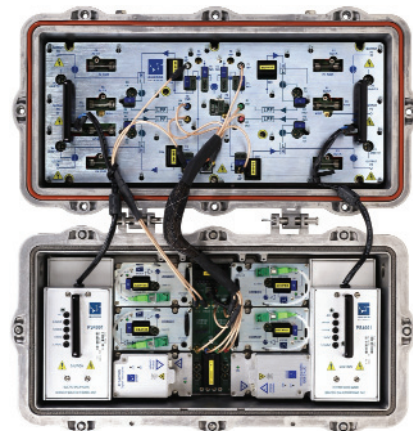
- Deploy fiber within a few hundred feet of the end-user
- Eliminate RF amplifiers following the node to reduce the actives per mile by 75%
- Reduce power bills and maintenance costs by 65%
- Expedite troubleshooting by remotely isolating the cause at the node level
- Deploy FTTP to specific high-bandwidth customers on a node-by-node basis



## NC4000EG Series Essential Features Fiber Deep Nodes

Aurora has optimized the "Essential Features" node for Fiber Deep deployments and features:

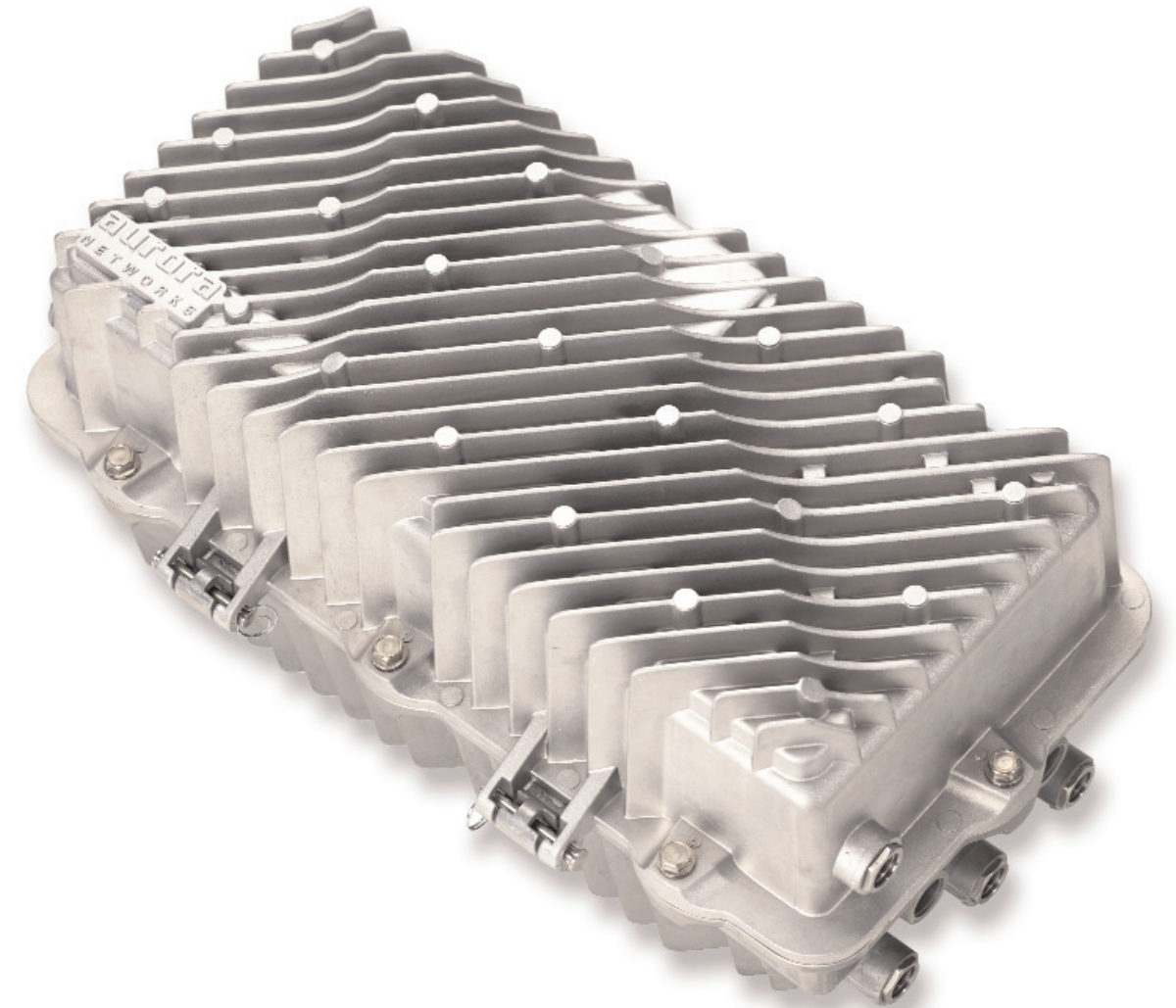
- Integration of the optical receiver and return transmitter in the RF amplifier module
- Two housing configurations: basic or premium, which supports up to six additional advanced service modules



## NC4000SG Series Nodes for HFC Applications

These nodes, with scalable OA4444SG RF Amplifiers, are the industry's benchmark for HFC builds. These nodes eliminate the need for fiber construction upgrades in a "future-proof," easy-to-migrate platform. The NC4000SG typically will feed up to 2,000 homes passed.

- Provides segmentable configurations from 1x1 to 4x4
- Supports return feeder noise mitigation
- Enables operators to build "best-fit" designs while seamlessly "scaling-to-revenue"



# The Aurora NC4000

Optical Nodes for HFC and Fiber Deep Architectures



*A whole new light, growing brighter!*

# Introducing Cable's Silver Bullet

The power to deliver today's services . . .

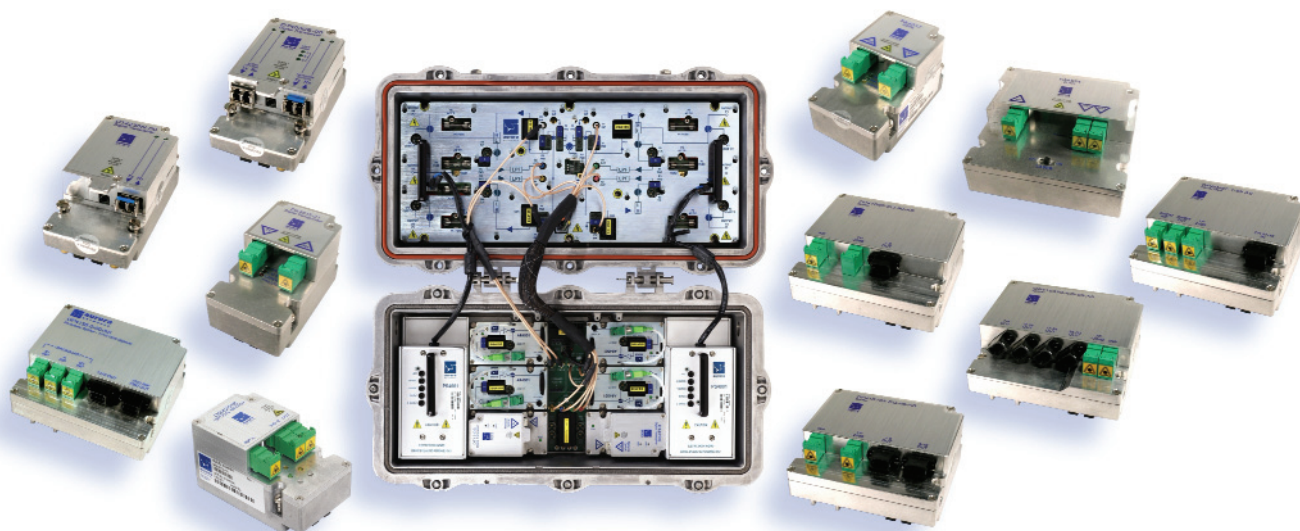
The capacity to scale to revenue



Aurora's landmark NC4000 series node platforms integrate numerous technical innovations to provide the utmost flexibility and adaptability in an optical node platform, ensuring support for evolving network architectures while protecting your investment in the cable plant. The technical advantages of these platforms include an extensive offering of plug-in node modules and Aurora's patented digital return technology.

## Designed for Superior Flexibility and Adaptability

- Support for Aurora's "best fit" architectural solutions
- Easy migration from HFC to Fiber Deep to FTTP architectures
- Multiple options for both forward and return paths
- Highly scalable with multiple expansion slots to allow easy "scale-to-revenue" deployments

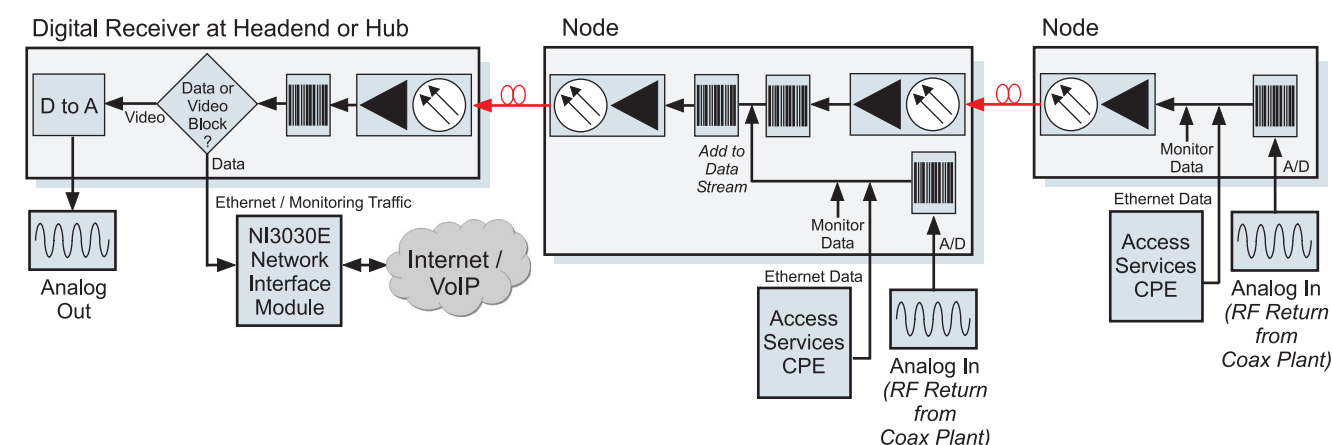


## Benefits of an Extensive, User-Friendly Module Offering

- All modules are hot-swappable without splicing.
- High-speed, remote-controllable optical switches support voice applications over alternate routing.
- Cable operators can add data services capability by plugging in Ethernet transport modules.
- Monitoring is provided with an integrated network management plug-in without the added cost of a third-party status-monitoring transponder.
- Forward paths can be configured for redundant, segmented, or BC/NC operation.
- Video/security camera loop (local channel insertion) can be deployed.
- The NC4000 can be populated with the industry's widest range of field optical passives families: couplers, splitters, filters and muxes/demuxes.

## Unparalleled Performance and the Value of Digital Return

Aurora's patented digital return technology has all the inherent advantages of all-digital return over analog return systems, while also supporting the concatenation of multiple data streams (including Ethernet data, node monitoring information, and other node return data). It provides further improvements in noise immunity, increased bandwidth capacity, and greatly reduced requirements for network return balancing. These technical and operational advantages reduce the total cost-of-ownership (lowering both CapEx and OpEx) and directly accelerate the operator's ROI.



## Return Path Advantages

- Aurora's digital return technology provides:
  - Enhanced noise immunity and increased reach when compared to analog return
  - Fiber efficiency by concatenating up to 16 nodes on one return fiber
  - Integration of Ethernet data with other return traffic
  - Options for a single return path segment or dual ("2-fer") return path segments per return wavelength
  - Uniform performance and output levels that are easily initialized or adjusted
  - Easier return path setup
  - Reduced requirements for system balancing
- Lower RF return input levels allowed due to improved internal return path amplifiers
- Return RF paths that can be segmented to provide up to four discrete return streams