E6000N | E6000n Remote PHY

Remote PHY (R-PHY) Distributed Access modules for DOCSIS® and QAM video

As the newest step in the continuing evolution towards an all-digital headend, Distributed Access Architecture (DAA) extends the digital portion of the headend/hub domain out to the fiber optic node and places the digital/RF interface at the optical/coax boundary. This strategic move offers many potential benefits, including increased bandwidth capacity, improved fiber efficiencies (wavelengths and distance), simplified plant operations with digital optics, decreased loads on facility space and power systems, and directional alignment with NFV/SDN/FTTx systems of the future.

ARRIS provides both the CCAP Core and Remote PHY Device (RPD) defined in the CableLabs® Modular Headend Architecture (MHAv2). In this approach, the PHY layer is moved from the CCAP into a node or remote shelf, but the MAC processing, provisioning, and monitoring functions remain in the headend.

The E6000®CCAP Core runs on the Gen 2 E6000 hardware platform (E6000 Chassis, RSM-2, DCAM-2, and UCAM-2). The RPDs are add-in modules for existing ARRIS nodes. ARRIS supports three RPD form factors: E6000n RPD for the OM6000 Fiber Deep node, E6000n RPD for the NC4000 and NC2000 nodes, and E6000n RPD for Remote PHY Shelf.

Generating RF signals in the fiber optic node rather than in the headend can provide a cost-effective tool for:
Improving plant signal quality
Improving fiber utilization and reach
Improving service group density in the headend
Reducing space and power consumption in the headend
Simplifying plant maintenance by using digital optics
Reducing transmission costs by leveraging data center economies of scale for Ethernet switches and optics

Applications for DAA include:
Plant upgrade for DOCSIS 3.1 support
Hub consolidation
Enabling Fiber Deep deployment without requiring headend expansion
Utilizing DWDM optics for long distance links
Supporting data services in small hubs
Simplifying logistics for changing US/DS split or top-end frequencies

The E6000n RPD comes in three variants:
E6000n RPD for the OM6000 fiber optic node housing
E6000n RPD for the NC2000/NC4000 fiber optic node housing
E6000n RPD for Remote PHY Shelf

For operators with smaller hub sites or cabinet-based architectures, the Remote PHY Shelf can optimize overall power requirements while supporting up to three Downstream service groups and six Upstream service groups.

Product Classification

COMMSCOPE®

Regional Availability	Asia	Australia/New Zealand	EMEA	Latin America	North America
Product Type	Remote PHY device (RPD)

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