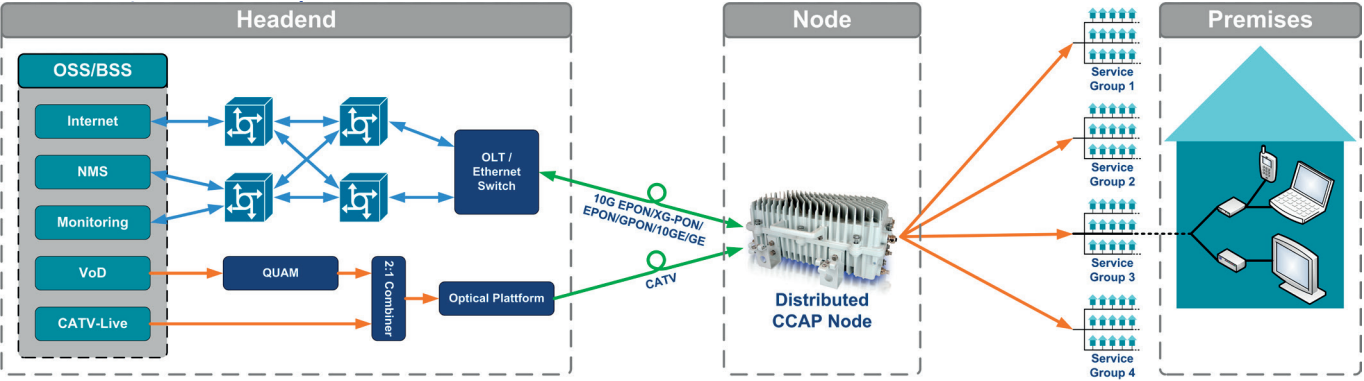


Easy Integration in Current Networks

Distributed CCAP Nodes are not only suitable for new network infrastructures; they can also be integrated into existing networks to scale the existing infrastructure. With the Remote MAC-PHY topology, Distributed CCAP nodes can be used without changing the existing infrastructure simply by replacing the existing HFC optical nodes. Remote MAC-PHY nodes support all common DOCSIS standards and also work in conjunction with Remote PHY devices or conventional CMTS systems.



DEV Supports Your Path to DAA

With Distributed CCAP Nodes, DEV Systemtechnik GmbH supports European MSOs transition towards demanding Gigabit services over cable networks. Distributed CCAP nodes are available in outdoor and indoor form factors for both testing and field use. DEV Systemtechnik ([www.dev-systemtechnik.com](http://www.dev-systemtechnik.com)) in Friedberg, Germany welcomes inquiries from interested Network Operators and System Integrators seeking a Distributed CCAP solution.

Reliable Technology, Trusted Expertise

DEV Systemtechnik, part of the AXING Group, develops and manufactures a complete range of products and systems for optical and electrical transmission of Radio Frequency (RF) signals via coaxial cable or fiber. For over 20 years DEV has designed, engineered, and manufactured RF transmission equipment for satellite, broadcast, and cable applications. All products are built to meet the highest standards of system availability, reliability and manageability.

We are always excited about helping our customers meet new challenges – and we believe you will enjoy working with us.

Whatever your requirement, discover the DEV solution.

Discover Superior RF Solutions



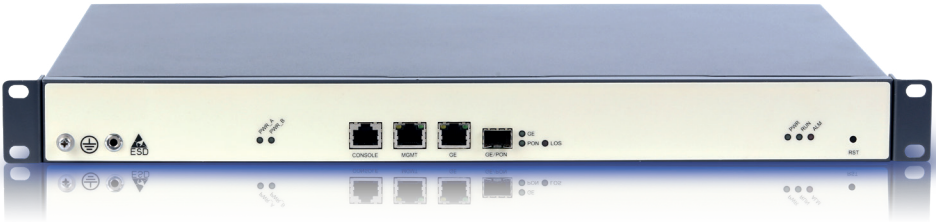
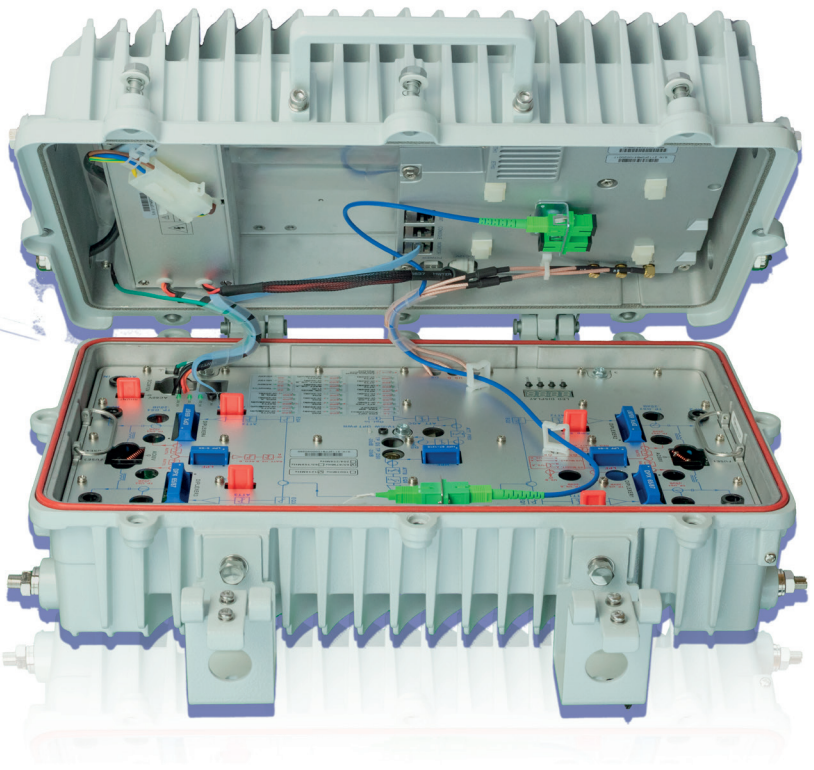
DEV Systemtechnik GmbH

Grüner Weg 4A  
D-61169 Friedberg  
Germany

Phone: +49(0) 60 31/6975 100  
Fax: +49(0) 60 31/6975 114  
[www.dev-systemtechnik.com](http://www.dev-systemtechnik.com)  
[info@dev-systemtechnik.com](mailto:info@dev-systemtechnik.com)

© DEV Systemtechnik · 2023 | Rev. 1

Distributed CCAP Solutions



BOOST YOUR HFC / FTTX NETWORK  
WITH REMOTE MAC-PHY TECHNOLOGY

Your Path to DAA – Up to 10 Gbps+

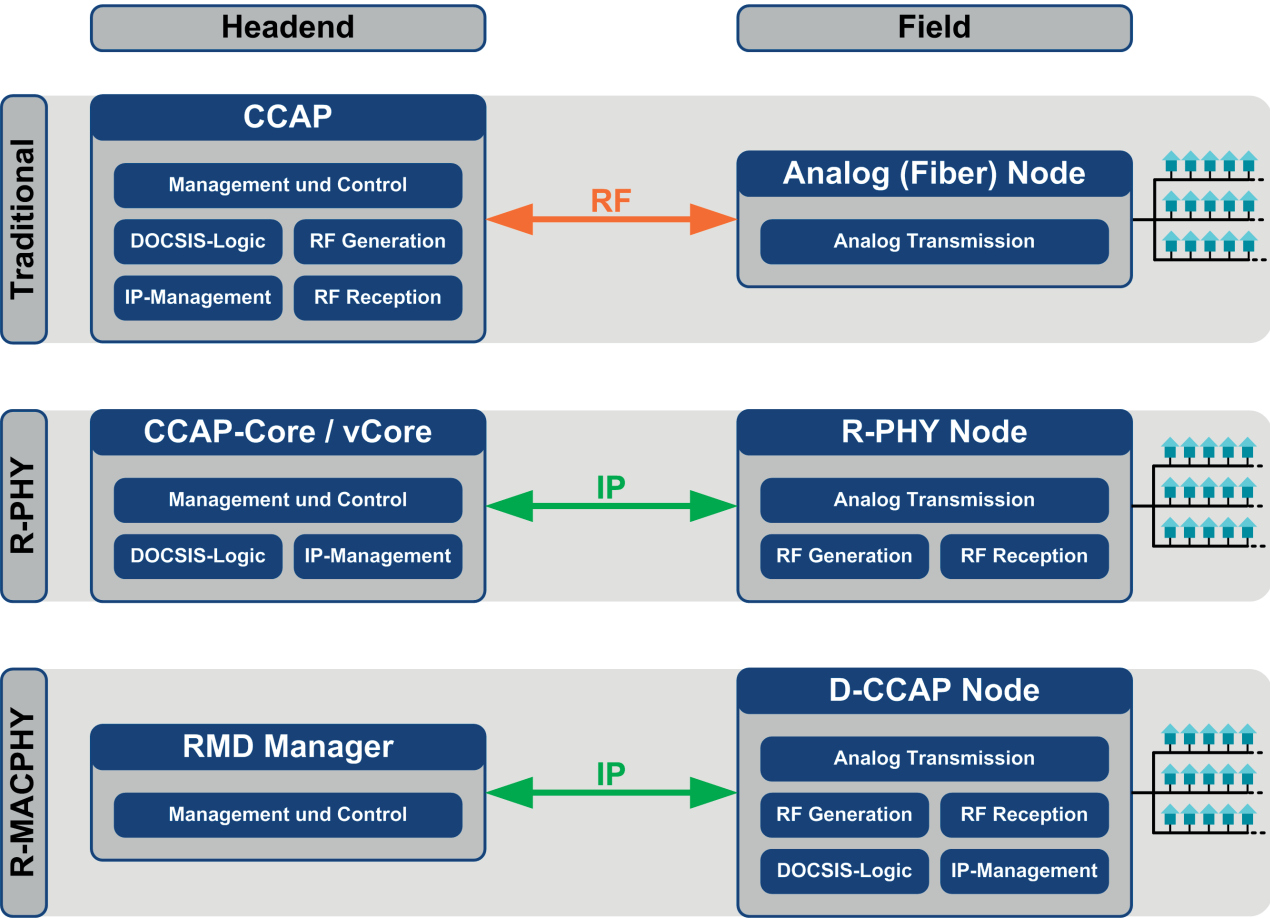
Evolution of Cable Networks

The demand for bandwidth is sharpening competition in the broadband market. Common coax feeds have evolved into high-performance hybrid fiber coax (HFC) networks that handle not only TV signals, but data traffic, telephony and video-on-demand content.

Rising bandwidth demand and the number of network users has been driving the headend CCAP to capacity limits. Future bandwidth expansion requirements cannot be met with conventional network structures. Solving this capacity problem has often separated individual components of the CCAP and placed them closer to the end customer.

Distributed Access Architecture (DAA) Networks

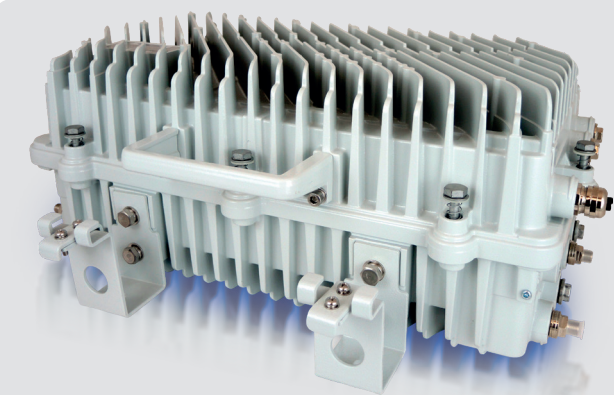
The Remote MAC-PHY technology with Distributed CCAP nodes is a further development of the Remote PHY approach. In the Remote PHY concept, the Media Access Control (MAC) layer remains in the headend, while only the PHY layer is moved into the node. The physical separation of the two layers comes with emerging synchronization and communication challenges particular if the MAC and PHY layers are integrated in platforms from different manufacturers and are located many miles apart.



Superfluous Headend CMTS

Within Distributed CCAP architectures, PHY and MAC layer are moved into the node. Thus, only the monitoring and control, as well as the technology for optical digital transmission, remain in the headend. A headend CMTS becomes superfluous because it is integrated within the Distributed CCAP Node. This meets the challenges of timing and synchronization between node and headend devices. The higher signal quality enables higher QAM modulations in the networks which in the end provide significantly higher transmission speeds for the end customer. In addition, big savings in costs, space and energy consumption in the headend can be achieved.

DEV 6872 – Distributed CCAP DOCSIS 3.1 Outdoor Node



Size	436x243x185 mm
Weight	< 20 kg
Ingress Protection	IP67
Supported DOCSIS Standards	3.1, 3.0, 2.0, C-, Euro-DOCSIS
Channels	6 × OFDM, 2 × OFDMA
Max. Throughput	Up to 10 Gbps
No. of Cable Modems	Up to 1000
Power Consumption	115 W

Features

- Ready for Distributed Access Architecture (DAA)
- Functions as Remote MACPHY or Remote PHY
- Support of PacketCable / PacketCable Multimedia (PCMM) / EQAM
- Integrated Analog Fiber Node with Receiver
- Support all common US/DS Frequency Splits
- Support of two Upstream Clusters
- Integrated RF-Frontend

DEV 6811 – Distributed CCAP DOCSIS 3.1 Indoor Node



Size	1 RU, 483x44x300 mm
Weight	~5,5 kg
Supported DOCSIS Standards	3.1, 3.0, 2.0, C-, Euro-DOCSIS
Channels	6 × OFDM, 2 × 2 × OFDMA
Max. Throughput	More than 10 Gbps
No. of Cable Modems	Up to 1000
Power Consumption	70 W

Features

- Ready for Distributed Access Architecture (DAA)
- Support of PacketCable / PacketCable Multimedia (PCMM) / EQAM
- Support all common US/DS Frequency Splits
- Support of two Upstream Clusters
- Redundant Power Supplies
- 10 Gbps and more per Node
- Up to 1000 Cable Modems per Node