Cabling Remote Radio Units

With the increased deployment of Remote Radio Units, the need for efficient fiber optic cabling and power supply to the tower top has become critical. The traditional solution was to route fiber and power cables separately up to the tower top; often up to 24 individual cables were used. These individual cables were not sufficiently protected from weather and installation damage. Each cable routed up the tower also required multiple hangers and grounding and additional monthly leasing fees. Further, they usually cannot be re-used after one RRU swap in case of different fiber termination.

EUCAHYBRID – The optimum solution for FTTA/PTTA Cabling

As a true cable design and manufacture company, Eupen produces thousands of different cables, including power, coaxial, telecomm and many types of integrated, multifunction cables. Each of these cables are designed and produced by a coordinated team at the same production facility. Thanks to this long history as a supplier of multipurpose cables, Eupen now introduces its premium EUCAHYBRID cables as the optimum solution for Fiber & Power to the Antenna cabling.

By decreasing the number of required cables, EUCAHYBRID reduces installation and operating expense. In many cases, only one cable is required for an entire multi-sector site. EUCAHYBRID cable also has the lowest bend moment and smallest bend radius. This allows for easy on-site handling, minimizes installation effort and further reduces cost. Additionally, in a few minutes and with common tools, EUCAHYBRID cables can be trimmed to fit at the installation site. Because of this feature, EUCAHYBRID can be purchased with fiber optic connectors pre-installed and tested at the Eupen factory. Understanding the value of using familiar hoisting, mounting and grounding accessories, EUCAHYBRID cables have also been designed to match common coaxial cable sizes and to use common coax cable accessories.
**EUCAHYBRID “boxless” version**

The EUCAHYBRID “boxless” series have been designed for 1 or 3 RRUs, with power and fiber sub-units that are split without the need of a junction box. These sub-units are weather-tight and UV protected, and integrated into one “feeder” cable assembly. They can connect directly to the radio or to jumper cables.

**EUCAHYBRID version with junction box**

Eupen Cable has developed a whole range of EUCAHYBRID cables that can address from 3 to 9 RRUs with only one hybrid cable split inside a junction box. The connection to the RRUs is ensured by power and fiber jumpers cables from different lengths and with different possibilities of termination. The cable management of the junction box is designed for an easy installation on site. Moreover, the box can optionally feature an over-voltage protection and/or circuit breakers.

Optional EucaConnect™ fiber termination for connecting an optical jumper cable:
EUCAHYBRID Features:

- Power and fiber (and optionally dry contacts) integrated into a single, small assembly
- Configurations available for use with or without a junction box
- All styles offered with single-mode or multi-mode fiber
- Outdoor rated PE jacket for excellent environmental and long term UV protection
- Extremely flexible, welded and corrugated aluminum armor protects delicate fibers
- Metallic shield provides outstanding lightning protection
- Compatible with standard coax hoisting, mounting and grounding accessories
- Cables can be shipped cut-to-length with fiber terminations factory installed
- Proprietary, trim-to-length at the site feature will not damage fibers

A field-approved solution

The Eucahybrid cables have been installed on many sites throughout the world, satisfying the customers thanks to its practice-oriented design. These cables showed their advantages in different configurations such as pylons, water towers, churches, buildings,…

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