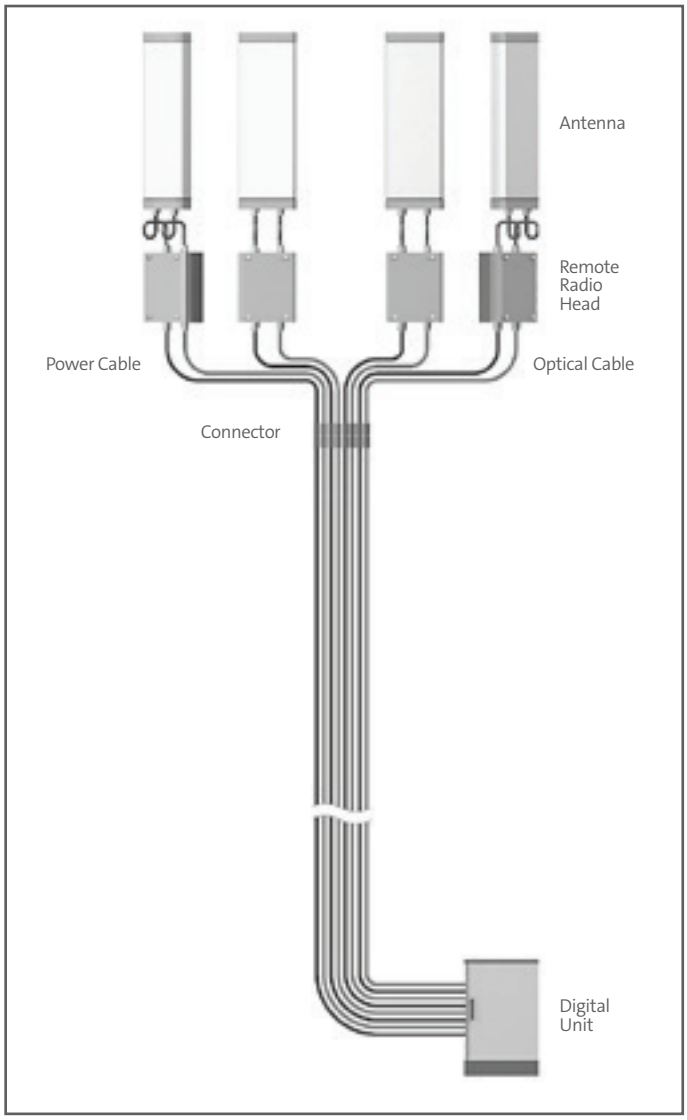
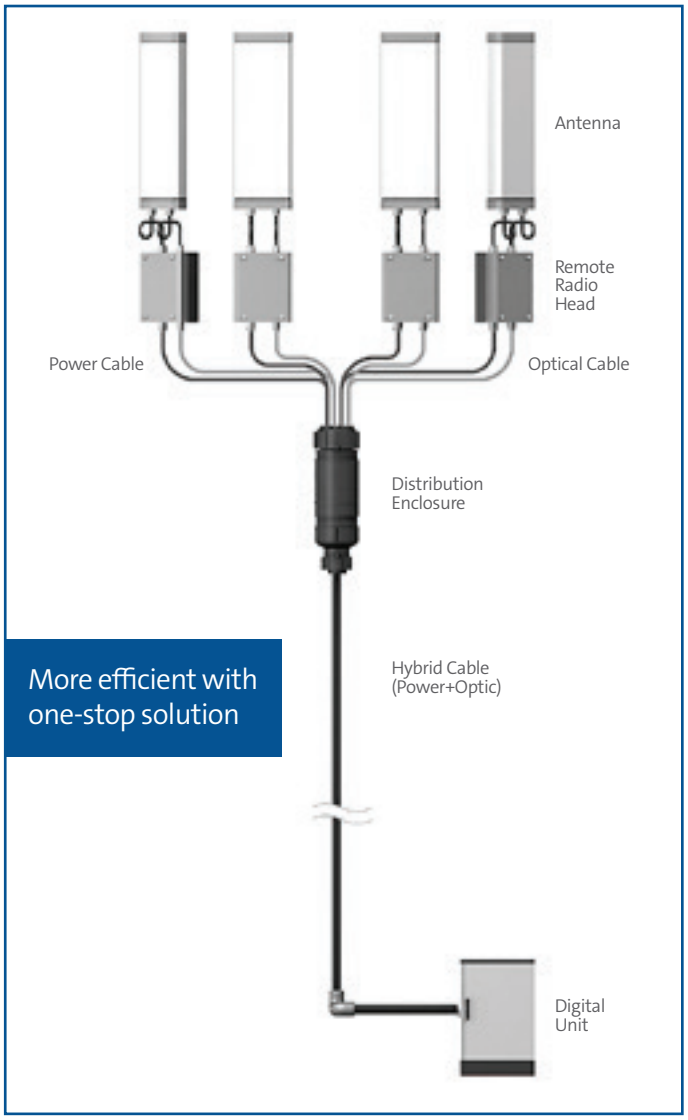
CORNING

Cell Site Interconnectivity Solution

Connect to Cellular

Consumer demand for reliable, high-capacity wireless networks continues to drive the transition from coaxial cabling to fiber-based architectures. The first generation of fiber deployments used discrete fiber and power cables installed separately on the tower. Today, you have a second option: hybrid fiber-power cables featuring breakout points at the tower, where individual fibers and power conductors split from the cable to connect individual remote radio heads (RRHs). These hybrid cables, together with distribution enclosures and hybrid connectors, provide greater flexibility for future enhancements while potentially lowering capital expenditure and labor costs over time.





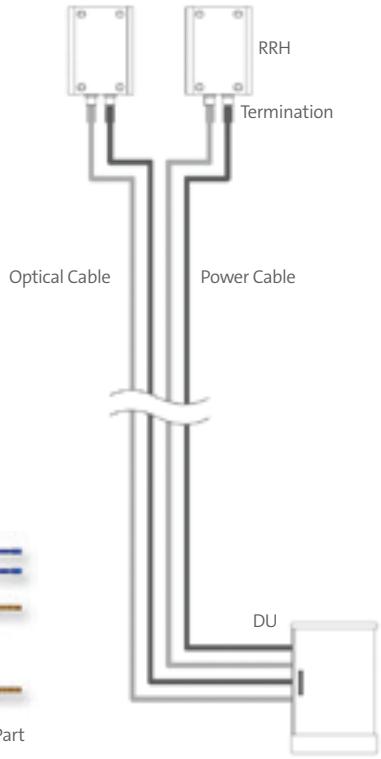
Simple, One-Stop Solution for RRH-to-DU Connectivity

FTTA/PTTA Solution
Fiber/Power to the Antenna

Whether you choose to deliver power and fiber to the tower drop using discrete cables feeding a single RRH or a hybrid cable serving multiple RRHs, we offer solutions with lightweight, easy-to-install assemblies or terminal-based systems.

Discrete Cables 1, 2, 3, and 4
Discrete Type

With discrete cables, single runs of fiber and paired power cables directly link the base band unit (BBU) to each RRH. This simple approach is the most widely deployed in existing RRH networks. Discrete cables are available preconnectorized for easy connections between the BBU and RRHs.



Optical Cable
- Up to 6 fibers
- Available in a superior bend performance fiber (Corning® ClearCurve® fiber)
- Weather resistance (IP67 rating)
- Armored cable – steel braid or dielectric
- High crush and UV resistance

Power Cable
- Weather resistance (IP67 rating)
- High crush and UV resistance
- IEC/UL compliant

RRH Connection Part | DU Connection Part

RRH Connection

Various types of commercial connectors (IP connector, etc.) are available upon your request

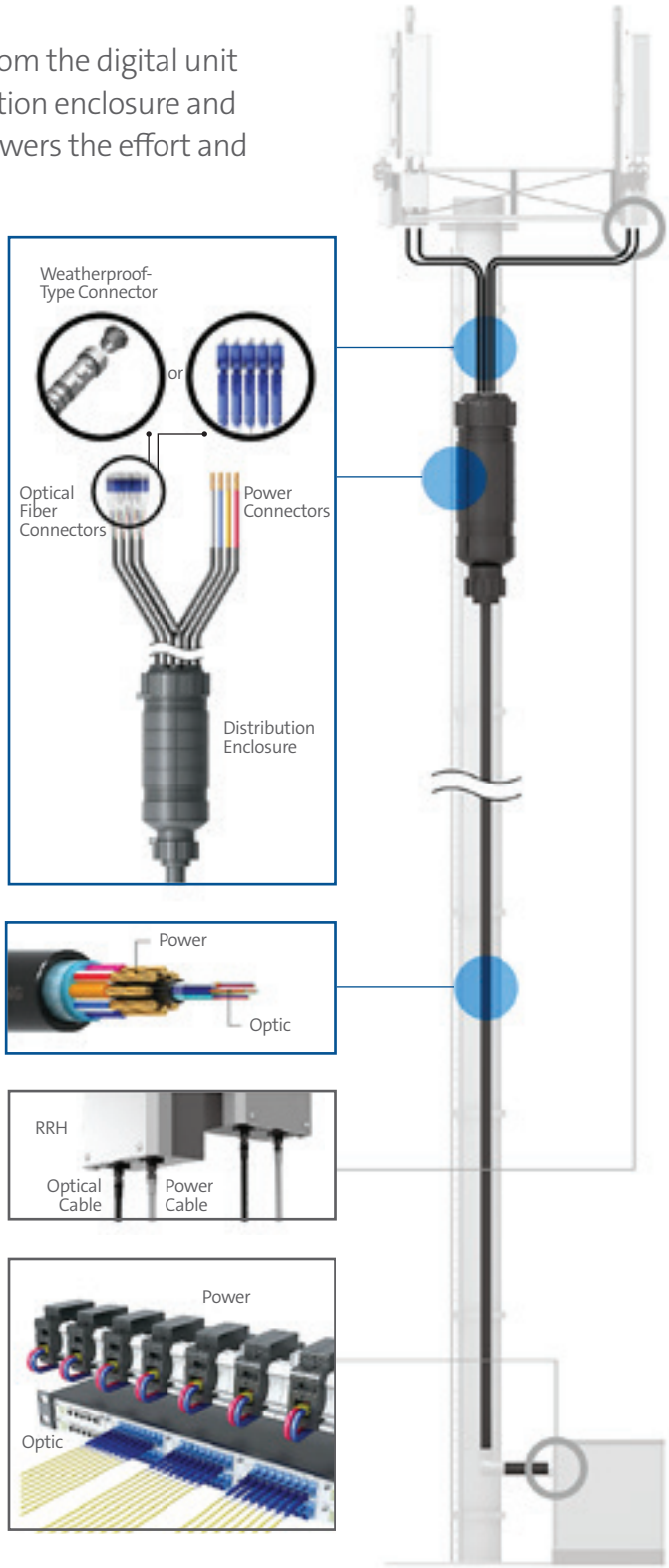
Optical Connectors

Power Connectors

HTTA Solution
Hybrid (Optical/Power) to the Antenna

The end-to-end HTTA solution dramatically simplifies and reduces the cost of upgrading or replacing traditional base station configurations with the latest distributed base station architectures.

Our solution provides a fluid interconnection all the way from the digital unit (DU) cabinet to the RRH with a factory-assembled distribution enclosure and hybrid cables (fiber optic and power cable). This solution lowers the effort and cost of installation with minimal impact at the tower.



Hybrid 1
No Jumper, Hybrid Feeder Type

Hybrid type 1 is a simplified RRH connection solution in terms of ease of installation and space savings on the mast. To simplify installation, the entire solution from the DU to the RRH connection point is seamlessly preconnected, including the distribution enclosure.

Breakout Cable
- Optical and power connection from the distribution enclosure to RRHs
- Pre-installed in distribution enclosure for simple and fast installation
- Factory-assembled cables for fast on-site installation
- Equipped with customer-specific power and fiber optic connectors
- Available with weatherproof-type connectors (optical, power)

Distribution Enclosure
- Ruggedized and robust design
- Weatherproof (IP67 rating)
- Breakout cables and feeder cables are preconnected to distribution enclosure for efficient installation
- Designed to cover up to four RRHs

Hybrid Feeder Cable
- Combines optical and power cables into one hybrid cable for lighter burden
- Prefabricated cable covers up to four RRHs
- Harsh environment protection (e.g., weather, wildlife)
- Cable cut to site length

Hybrids 2 and 3
The Most Efficient Hybrid Solutions

Hybrid types 2 and 3 are the most efficient hybrid solutions, designed to provide lowest total cost of ownership, maximum installation flexibility, ongoing expandability, and long-term reliability. Simply connect more jumper cables to spare hybrid adapters and additional RRHs later as capacity growth dictates.

Jumper Cable

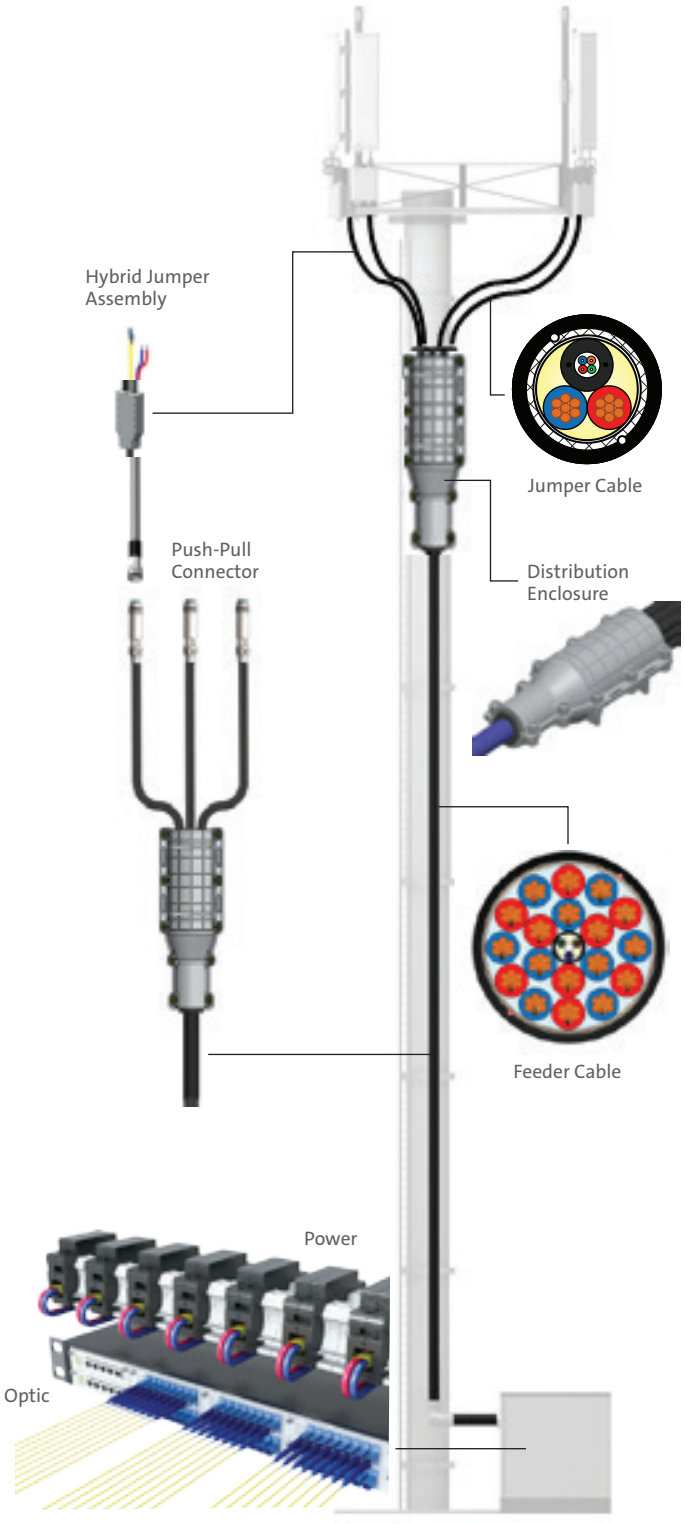
- Optical and power connection from the distribution enclosure to RRHs
- Push-pull mechanism for easy, fast connection
- Easily add/install jumper cables for future expansion
- Factory-assembled cables for fast on-site installation
- Flexibility with small bend radius and excellent cable routing properties
- Equipped with customer-specific power and fiber optic connectors
- Hybrid 3 – hybrid jumper (optical/power)
- Hybrid 2 – optical/power separated jumper

Distribution Enclosure

- Ruggedized and robust design
- Weatherproof (IP67 rating)
- Available hybrid connector (water and dust protection)
- Designed to cover up to a maximum of nine RRHs
- One-touch connection between jumper and the distribution enclosure (no need to open it for repair or replacement; just plug in jumper cables)

Hybrid Feeder Cable

- Combines fiber and power cables into one hybrid cable for lighter burden
- Prefabricated cable covers up to nine RRHs
- Cable cut to site length



Hybrids 4 and 5

Suitable Hybrid Solutions for Harsh Environments

Hybrid types 4 and 5 are designed as special cable structures for bird protection and harsh environments.

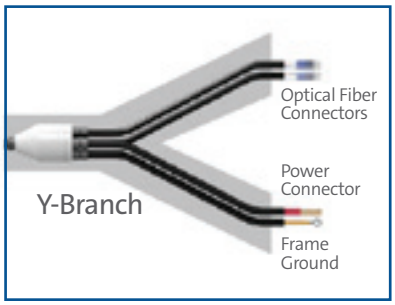
Hybrid 4

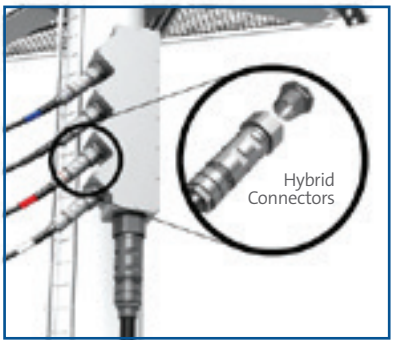
Jumper Cable

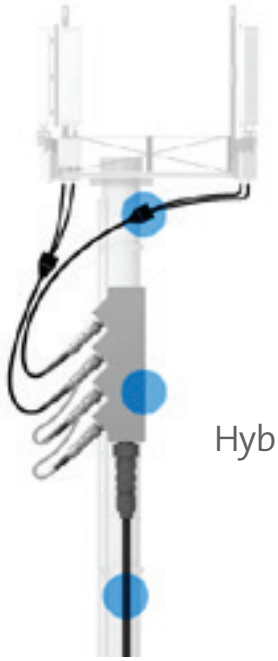
- Armored cable for bird protection:
  Hybrid 4 – outer diameter 22.5 mm for cockatoo protection
  Hybrid 5 – corrugated aluminum construction
- Hybrid connection between feeder and jumper
- Easily add/install jumper cables for future expansion
- Factory-assembled cables for fast on-site installation
- Flexibility with small bend radius and excellent cable routing properties
- Equipped with customer-specific power and fiber optic connectors

Distribution Enclosure

- Ruggedized and robust design
- Weatherproof:
  Hybrid 4 – IP67
  Hybrid 5 – IP66
- Hybrid connector (water and dust protection)
- Hybrid 4 – covering up to nine RRHs
- Hybrid 5 – covering up to four RRHs, box-type enclosure







Hybrid 5

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