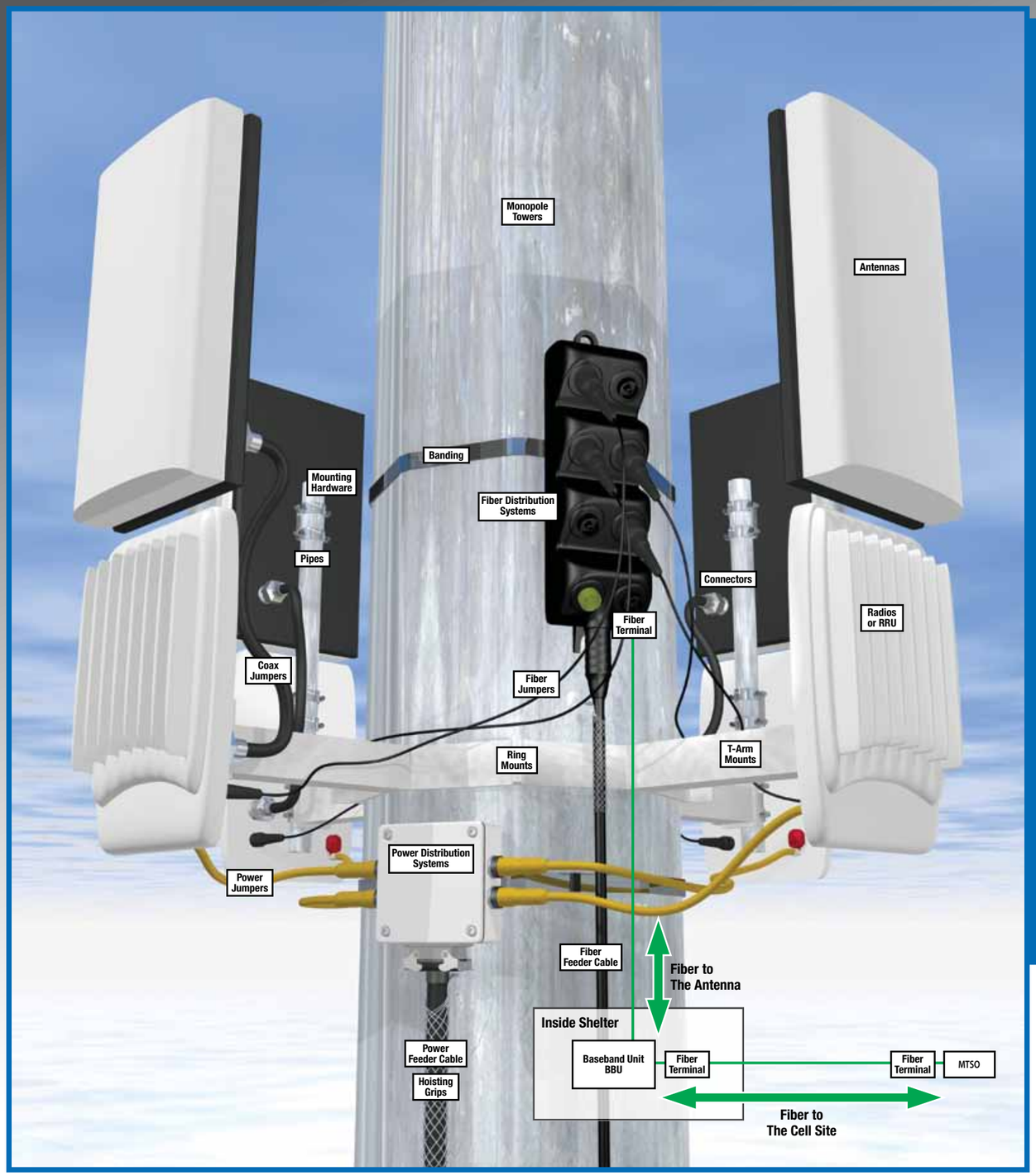

Product Index

Related Products

Fiber & Power to the Antenna, Fiber to the Cell Site

Next-generation radio systems use a baseband unit (BBU) for the information-handling part of the radio that is separate from the remote radio unit (RRU) which is the RF amplifier that is installed up on the tower next to the antennas.

The BBU and RRU are connected by a fiber optic cable – this is what is called fiber-to-the-antenna (FTTA). Even though it is fiber to the RRU, a short RF coaxial jumper cable actually connects the RRU to the antenna. Consequently, RF transmission and data-handling performance are vastly improved over earlier-generation cellular systems.

The most efficient means of connecting the BBU to a number of RRUs is a single, multi-strand feeder cable running up the tower to a multiport terminal that is located on the tower, or on a rooftop, on the same level as the RRUs. From that terminal to each RRU, short fiber cable jumpers (typically 3-10 m) are easily installed.

A companion terminated bundled power cable can provide DC power to the RRUs in capacities with up to six RRUs, with or without surge suppression.

Similarly, as traffic volumes grow at each cell site, the connection back to the switching center, or the backhaul, is becoming severely congested. Fiber-to-the-cell site (FTTCS) is a backhaul replacement for legacy narrowband T1 circuit over copper wires. FTTCS adds significant bandwidth and throughput at each site.

Taken together, these fiber-based technologies greatly expand bandwidth capacity in both the access network between customers and cell sites, and in the backhaul network that connects cell sites to switching centers.

FEATURES & BENEFITS

- Terminated cable and jumpers enable easy, cost-effective installations at the antenna level
- Growth capacity can be provisioned at initial deployment for low incremental cost of labor
- Tower climber time for site capacity expansion can be reduced by an estimated 2/3s to install new RRUs, fiber, coaxial and power jumpers with ready-to-use fiber and DC power terminals already in place at the antenna level.

Scan this barcode with your smartphone to visit the *interactive* version of this System Application.
www.tessco.com/go/sysappwg2012_14

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