

Outdoor fiber distribution cabinets

A flexible solution to meet the needs of future applications





Providers face a quickly changing environment

Every week brings new challenges. The future is uncertain. What needs will convergence, 5G, and the IoT bring?



Providers look for costeffective solutions that have the flexibility to meet the needs of future applications To respond quickly to market changes, operators need design, deployment, and servicing resources they can count on Given the network's critical role in today's world, operators need to ensure business continuity and availability



Turnkey solution. Optimized total cost of ownership.

At CommScope, we're ready to partner with you to help optimize your total cost of ownership. We listened to our customers' needs and developed an outdoor fiber distribution cabinets solution that provides a turnkey approach for all deployment needs.

In close collaboration with our long-standing local partners and the CommScope Professional Services Group, we provide customers the opportunity to choose from a spectrum of turnkey solutions that best fits their rollout needs. Whatever your application needs, you can rest assured that CommScope network experts, with know-how in both passives and actives, can design effective solutions with proven future network functionality.



Market-leading fiber management

Even in the most challenging high-density environments, our industry-renowned fiber management gives field technicians ease of installation, while minimizing potential network disruptions in the case of moves, adds, and changes (MAC).



We offer two market-leading fiber management options:

- MFPS (Modular Front Patching System) panels with front patching
- FACT[™] distribution frames with tray patching

And, as many technicians are familiar with MFPS and FACT because they're widely used in the inside plant—central offices, data centers, and headends—training for outside plant deployments of these products is often short and simple.

When designing their outdoor fiber cabinets, our customers can choose from a list of approved suppliers of cabinets, splitters, and other components, instead of being limited to one option. In addition, our global-reach supply chain helps customers respond quickly to market needs, meeting capacity demands and supporting business continuity even in times of extreme disruptions.

Let's work together to design the solution for your application

CommScope outdoor fiber distribution cabinets are uniquely adaptable to almost any FTTH need, and we're eager to work with you to build effective solutions, both for today and for the future. Our selection is not limited to off-the-shelf items—once we understand your application needs, our network experts can design a cabinet solution that's right for your deployment. We have the scope to handle any job.

| Cabinet | Capacity max | Feeder | Distribution | Splitter max | Dimensions | Material |
|---------|-----------------|---|--|--------------|-------------------------|-----------------|
| Small | | | | | | |
| | 48 or 96 | Splice trays on backplane for splicing main cable and branch/distribution if necessary | Individual drops connected to the cabinet patch panel | 14 x 1:8* | 985 x 535 x 330 mm | Stainless steel |
| | | | | | | |
| | 576 | 1 x 48f FACT modules | 3 x 192f FACT modules | 18 x 1:32 | 800 x 1301 x 320 mm | Stainless steel |
| | 864 | 1 x 96f MFPS panels | 8 x 96f MFPS panels | 48 x 1:16 | | |
| | | 2 x 48f MFPS panels | 2 x 216f MFPS panels | 40 x 1:16 | 754 x 998 x 400 mm | Polycarbonate |
| | 1152 | 1 x 96F MFPS panels | 12 x 96f MFPS panels | 48 x 1:16 | 1131 x 998 x 400 mm | |
| | | | | | | |
| | 1728 | 2 x 144F MFPS panels | 12 x 144f MFPS panels | 48 x 1:32 | 1253 x 1697 x 395 mm | Stainless steel |
| | 2 x 1296 | 1 x 144f MFPS panels | 9 x 144f MFPS panels | 40 x 1:32 | 1711 x 1885 x 382 mm | Stainless steel |

Small outdoor fiber distribution cabinets



Small outdoor fiber distribution cabinets are often used as the last distribution hub, connecting the network directly to homes with microducts or drop cables. These cabinets are also used as the secondary node in blown fiber access deployments.

- **Splice tray tower** on cabinet backplane allows splicing of main cable, branch, and distribution lines if necessary
- Maximum connectors: 48 or 96
- **Distribution drops:** individually connected to cabinet's patch panel, typically
- Splitters: holds 14 OCM1 1:8
- **Dimensions:** 985 x 535 x 330 mm / 38.78 x 21.06 x 12.99 in
- · Sealing level: IP54 with optional filter
- **Construction:** 1.4003 grade stainless steel with polyester powder coat
- Impact level: IK10+
- Compliance: IEC
- Color: Light Grey/RAL7035
- Single door with removable LH lift-off type hinges
- Installation: in-ground root
- Security: Smart lock system, optional



Topology 1: Drops on demand

Drops are installed when the customer requests service. Drops are preconnectorized on the cabinet side, and typically spliced on the customer side.

Topology 2: Secondary node in microtrenching networks

Ballistic drops are blown from the customer premises to the cabinet, either from day 1 or on customer demand. Microducts are brought to the demarcation box, sometimes with fiber already inside and fiber slack stored in the cable termination unit, waiting for the customer to be connected.



Topology 3: Retractable fiber layout

Drops are installed when the customer requests service. Drops are preconnectorized on the cabinet side, and typically spliced on the customer side.

Topology 4: Speed pipes

Speedpipes (or microducts) are laid to every home. Usually, fiber is not blown in from day 1. Four fibers exit the cabinet per customer, with two fibers exiting per building. MDUs are also connected from the cabinet, with two levels of splitting used—the first in the cabinet and the second in the building box.

Medium outdoor fiber distribution cabinets



Medium outdoor fiber distribution cabinets are often deployed as distribution hubs in medium or large neighborhoods, containing splitters for centralized topologies.



Topology 1: Microducts in access network

The cabinet is configured with centralized splitting. Microducts are laid individually from terminal closures to each individual home.



Topology 2: Colocation

The cabinet is deployed as a colocation element, with each service provider installing their own splitter in the cabinet. Lines out from the cabinet are point-to-point to each customer, through closures and terminal boxes.

- Superior fiber management: FACT modules and MFPS panels give networks flexibility in the most challenging highdensity environments
- Maximum connectors: 576, 864, or 1152
- Feeder capacity: 1 x 48f FACT module, 1 x 96f MFPS panel, or 2 x 48f MFPS panels
- **Distribution drops:** 3 x 192f FACT modules, 8 x 96f MFPS panels, 2 x 216f MFPS panels, or 12 x 96f MFPS panels
- **Splitters:** 18 x 1:32, 48 x 1:16, or 40 x 1:16
- · Dimensions:
 - 535 x 985 x 330 mm/21.06 x 38.78 x 12.6 in
 - 754 x 998 x 400 mm/29.68 x 39.29 x 15.75 in
 - 1131 x 998 x 400 mm/44.53 x 39.29 x 15.75 in
- Sealing level: IP55
- **Construction:** 1.4003 grade stainless steel with polyester powder coat, or polycarbonate PC-GF5 and aluminum
- Impact level: IK10+
- **Compliance:** IEC; or IEC 62262, IEC 60068-2-75, DIN EN 60529, and VDE 0470
- **Color:** Light Gray/RAL7035, Olive Green/ RAL6014, or Agate Gray
- **Door:** three-point locking mechanism, with double locking swivel handle for profile half cylinder (DIN)
- Installation: in-ground root
- Security: smart lock system, optional

Large outdoor fiber distribution cabinets



Large outdoor fiber distribution cabinets are generally deployed as distribution hubs for medium and large neighborhoods, containing splitters for centralized topologies. They are also employed as colocation cabinets, allowing the connection of any home within a medium-size neighborhood to different service providers.



Topology 1: Colocation cabinet

The cabinet is configured in multi-operator mode, with two bodies—one for service providers and one for distribution.



The cabinet holds both active equipment and high-capacity optical distribution fiber.

- Superior cable management: CommScope's patented cabling system provides easy, flexible, and smart fiber routing
- **MFPS panels:** because of its innovative modular design CommScope's MFPS (Modular Front Patching System), gives best-in-class fiber density
- **Maximum connectors:** 1728, or 2 x 1296
- Feeder capacity: 1 or 2 x 144f MFPS panels
- Distribution: 9 or 12 x 144f MFPS panels
- **Splitters:** 40 or 48 x 1:32
- Dimensions:
 - 1253 x 1697 x 395 mm/49.33 x 66.81 x 15.55 in
 - 1711 x 1885 x 382 mm/69.36 x 73.03 x 15.04 in
- Sealing level: IP55
- **Construction:** 1.4003 grade stainless steel with polyester powder coat
- · Impact level: IK10+
- Compliance: IEC
- **Color:** Light Gray/RAL7035, Olive Green/ RAL6014
- **Door:** three-point locking mechanism, with double locking swivel handle for profile half cylinder (DIN)
- Installation: concrete pre-fabricated base
- Security: smart lock system, optional

Featured technology



FACT optical distribution modules

- Ensure superior cable management
- No risk to optical connections when opening the module
- Cables secured so they don't move during installation, service upgrades, or maintenance
- Only one length of patch cord is needed to connect to any port
- Adapters accessible from both sides for easy cleaning and testing
- Integrates splitters, WDM (wavelength division multiplexing), and MPO (multi-fiber push on), connectors



MFPS panels

- Best-in-class fiber density
- Innovative modular design—stackable 40 mm elements
- Each panel comes with 900 µm pigtails installed and ready for splicing
- As many as 288 3HU-size patch positions
- Each stackable tray is designed for single element splicing
- Requires different patch cord lengths to connect ports, with excess stored in cable management area



Cable management

- Patented system provides easy, flexible, and smart fiber routing
- Guarantees connectivity between any two points in the cabinet, with specified cable length
- Easy to reroute and reconnect to different ports
- Ideal for patching-on-demand applications
- Provides bend control to maintain minimum bend radius



Spare ports parking

- Provides a separate route for spare fiber, making future location easier
- Reliable and safe parking for each fiber connector
- Ideal design for patching on-demand applications
- Can store splitters bundles together, or each fiber individually





Cable entries and fixation

- Provides strength member fixation and strain relief
- Cable glands available for four feeder and 16 distribution cables
- For STC configuration, one gland for feeder and six glands for distribution will be delivered
- Available entries on the second side for future use

Hybrid passive and active outside cabinet



 Modular frame and outer housing construction allows in-service housing removal

- Full front access for 19-inch rackmounted passive devices and active equipment, two removable doors
- **Configuration:** interconnect or crossconnect between equipment and distribution
- Integrated fiber cord management allows one length of cord for each customer connection, integrated identification system
- **Splicing organizers:** plug-and-play units compatible with all fiber types
- **Distribution splicing capacity:** 320 single fibers in FIST single-circuit and single-element splice trays
- Patch panel capacity: 320 LC/SC
- Microduct size range: as large as 40 mm.
- Microduct cable capacity range: 0 to 14

The OCAB-H passive and active cabinet is an IP54-rated modular enclosure. An integrated cable management system allows the housing of passive and active equipment, ensuring smooth transitions from feeder to distribution in the access network transition node. The cabinet's flexible modular design allows for the addition of plug-and-play equipment, to facilitate network and services growth and technology migration. The OCABH accommodates any type of coaxial or fiber feeder cable, as well as fiber distribution cable. The cable entrance and termination are open to handle any network topology and provide physical separation between feeder and distribution.

- Main cable capacity: as many as four
- Main cable size range: 0 to 20 mm
- · Looped cable capacity: as many as two
- Looped cable size range: 0 to 20 mm
- Passive heat dissipation: 420 w
- External dimensions: 1362 mm H x 1124 mm W x 400 mm D / 53.6 in H x 44.2 in W x 15.7 in D, (includes plinth)
- Street or floor plinth height: 300 mm
- Hardboard panel height: (19-in. units) five
- **Power distribution panel height:** (19-in. units) 2.5
- **Construction:** 1.5 mm gauge 1.4003 grade stainless steel, welded construction, polyester powder coat
- · Impact level: IK10
- · Compliance: EN 60529 IP54
- **Color:** Light Gray/RAL7035, Olive Green/ RAL6014

- **Door:** Double doors with removable LH lift-off hinges
- Security: black die cast swing handle driving three-point locking mechanism, eurocylinder lock keyed, optional wireless charged SMART locking mechanism
- Anti-vandalism features: reinforced door hinges prevent forced entry or door removal, optional anti-graffiti paint finish
- All parts fully earth bonded with 4 mm 2 earth cables
- 17HU (usable) 19 inch + 6+6 for cable termination plate

Environmental management for passive and active configurations

The cabinet is configured for passive ventilated heat management. For specific applications, this can be extended to active heat management. To ensure environmental flexibility for providers, a power distribution panel and circuit breaker are integrated into the cabinet. Additionally, a wide range of options is available to meet specific regional requirements and applications.



We have the scope to handle any job.

Our portfolio of outdoor fiber distribution cabinets can be configured to suit almost any FTTH need. The selection is not limited to off-the-shelf items, and, once we understand your application needs, we can design a cabinet solution that's right for your deployment.

We're eager to work with you to build effective solutions, both for today and for the future. For more information, please contact your local sales representative for assistance. CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com.



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