

# INNOVATIVE ENCLOSED SOLUTIONS™

Telecom / Wireless / Broadband Cable Line Card for Charles Industries, LLC



## FIBER DISTRIBUTION PEDESTALS

- Buried fiber splice point pedestals designed to exceed GR-771 environmental protection standards
- Accommodate loop-through or stub-out distribution cables, ribbon or loose buffer tube, and branch or drop splices
- Suitable for Fiber to the Home, Business or Small Cell & Macro Sites



## FIBER INTERCONNECTS

- Provide pre-connectorized "interconnect panel" fiber drops to multiple broadband service customers (cellsites, multi-dwelling units (MDU), campuses, strip malls, business parks)
- Pedestal and indoor/outdoor cabinet designs



## FIBER DISTRIBUTION HUB PEDESTALS

- Sizes from 36 to 288 subscribers
- Pre-stubbed with feed and distribution cables that are factory tested
- One splitter module fits all CFFP sizes
- Patch & splice option is available for small hub applications



## FIBER DEMARCATION TERMINALS

- MDU-ready indoor and outdoor enclosures for fusion, pre-terminated or field terminated fiber demarcation s
- Building Terminals for 24, 48, 72, 96, 144 or 288 subscriber ports
- CFIT-Flex non-metallic universal enclosures



## FIBER HUB CABINETS & TERMINALS

- High capacity Optical Hub Cabinets (OHC) support fusion, pre-terminated and field terminated feed and drop fibers for 288, 432, 576 or 864 ports; may be wall, pole or pad mounted
- Compact CFIT-H and CFBT-H Terminals offer locations for 1x8, 1x16 and 1x32 splitters and bulkheads with up to 384 adapters



## FIBER SPLICE CLOSURES

- Fiber Sealed Drop Closures (FSDC), Fiber Optic Dome Closures (FODC) and Fiber Optic Round Closures (FORC) for splicing and protecting FTTH connections
- Strand or pole mount, or placements in below grade buried vaults or buried distribution pedestals



## FIBER RACK & WALL SOLUTIONS

- Compact indoor/outdoor fiber distribution solutions neatly organize and manage patch, splice and splitter requirements
- 1RU, 2RU and 4RU CFRS rack solutions provide up to 288 ports
- Standard LGX footprint patch plates support SC and LC adapters



## WDM, SPLITTERS & SPLICE TRAYS

- Charles 4"x6" and 4"x9" splice trays are specifically designed for butt-end splices in pedestal and cabinet enclosures
- Available fiber accessories include splitter trays, CWDM, optical taps bulkhead adapters, attenuators, fan-outs, jumpers, and pigtails



## BELOW GRADE ENCLOSURES

- CBGE Series includes 8 sizes of molded polyethylene handholes and round enclosures for light-duty (parkway/greenbelt) applications
- TRUE Series includes 3 sizes of advanced composite material handholes meeting medium-duty ANSI Tier 15 & 22 load ratings



## CATV/BROADBAND ENCLOSURES

- Non-metallic polyethylene construction with a variety of bracket options for mounting taps, splitters, line extenders, amplifiers, fiber optic nodes and other equipment
- Vented and non-vented models available
- Low-profile expanded-capacity models available



## UNIVERSAL BROADBAND ENCLOSURES

- Customizable indoor and outdoor metal cabinets available for housing a wide range of optical and electronic equipment
- Fully integrated, pre-wired enclosures
- Compact, low-profile designs save space and ease installation
- AC and DC powering options with optional battery backup
- Thermal management options including air conditioners, heat exchangers and direct air cooling



## MODULAR & EDGE ENCLOSURES

- Multiple standard bays can be mixed and matched into a multitude of different configurations and shipped direct from Charles' factory
- Standard bay types include relay rack bays to support power and active electronics, passive fiber management, and battery bays



## SITE SUPPORT & BBU ENCLOSURES

- Zone 4 seismic rated battery backup cabinets ideally suited for cell sites and other outdoor environments when a large amount of battery backup time is required
- Optional sealed chambers with integrated power systems
- Custom site support cabinet solutions available



## CPAD COMPOSITE MOUNTING PADS

- Lightweight, rigid buried mounting pads provide level mounting platform and slack storage for cabinet or generator placements
- Economical alternative to poured-in-place or pre-cast concrete pads
- One-piece or modular solutions available



## 4G/5G CONCEALMENT SHROUDS

- Aesthetically pleasing concealment of radios and antennas at small cell, densification, and DAS remote sites
- Pole top, mid-pole and ground mount options
- Powder-coated finish available in multiple colors



## INDOOR BATTERY RACKS

- Modular, seismic Zone 4 rated (GR-487 certified) battery rack systems designed for Ni-Cd or VRLA batteries
- Flexible, modular designs for placement at rooftops, COWs/COLTs, small shelters or sites with limited access



## COPPER DISTRIBUTION PEDESTALS

- Durable PVC construction won't rust, dent, warp, chip, peel or corrode (GR-13-CORE compliant)
- 360° access to internal areas and generous splicing capacity
- Outstanding flood, fire and impact protection
- Many backboard, bracket and base options are available



## COPPER/FIBER SPLICE ENCLOSURES

- Metallic enclosure solutions for housing copper splices (6,000-10,000 pairs) or sealed fiber splice enclosures with cable slack
- Constructed of powder-coated aluminum for long service life
- Pad mount or direct-buried installation; front and rear access doors



## MULTI-PURPOSE OSP HOUSINGS

- Protect copper cable and fiber access points from floods, fire, pests, and wind-blown dirt and debris
- Ideal for rehabilitation of metallic closures without service disruption
- Multiple sizes and configurations for copper and fiber storage



## RISER PIPES & WIRE GUARDS

- UV stabilized, thinwall PVC construction is lightweight, easy to handle, and allows pipes and guards to be cut to size on site
- Protect fiber, copper, coaxial and hybrid buried service wire installations from wind, snagging and vandalism
- 0.875" and 1.25" outside diameters available with or without offsets

# Charles Universal Broadband Enclosures (CUBE)

Charles CUBE cabinets are designed for use in a wide range of applications, including:



- Backhaul
- Small Cell / DAS
- Site Support / BBU
- Macro Site Equipment
- Edge Compute
- Enclosure Consolidation
- Head End
- Remote Equipment Deployments
- Adjunct to Space-Exhausted Cabinet Installations

## COMPACT AND CUSTOMIZABLE CABINET SOLUTIONS FOR REMOTE DEPLOYMENTS

Charles Universal Broadband Enclosures (CUBE) bring a new level of compactness to full-featured Fiber Optic and Copper Remote Terminals. Their small size and light weight allow technicians to install these terminals in virtually any location quickly and easily, including MDUs, cell sites, utility poles, telecom equipment rooms, and other remote deployments.

Designed to house a variety of communications equipment, CUBE are pre-wired to meet your power, protection and physical interface requirements. Many customizable sizes, powering options and design features provide the flexibility to meet your backhaul, site support and edge compute applications.

For additional models and options, please visit [www.charlesindustries.com](http://www.charlesindustries.com) or call 847-806-6300 to discuss your specific applications and cabinet needs. Charles provides full engineering support and application consultation for its CUBE family of enclosures, and will work with you to create the most reliable and cost-efficient solution uniquely tailored to your network.

## FACTORY INTEGRATION OF 3RD PARTY EQUIPMENT

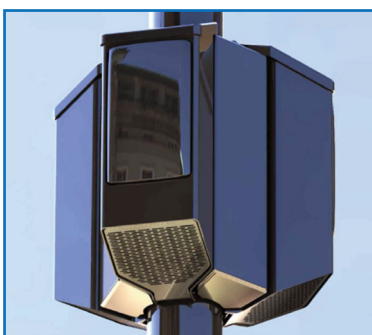
Service providers wanting to decrease installation timelines often take advantage of Charles' ability to provide factory integration of electronic equipment before the CUBE cabinet is shipped to the job site. Charles experienced technicians can pre-wire and install many types of 3rd party equipment, testing and configuring equipment before shipment. Attention to detail and a consistent approach to equipment installation and cable routing improves quality and speeds on-site turn up.

## New Innovative Enclosed Solutions from Charles



### CMPH 8500

This large, above grade housing offers bulk storage space for cable slack, sealed closures, and other equipment; but with lower installation costs than heavy below grade enclosures.



### CLOK

Stylish 5G mid-pole radio shroud that can be used standalone or in groups of three to provide 360° coverage. Cutout for 5G antenna face provides optimum RF transmission.



### Standalone and Integrated Poles

For small cell deployments, Charles offers decorative standalone and integrated poles in straight or tapered styles of various heights and colors.



### Walk-In Cabinet (WIC)

A lighter weight alternative to concrete shelters, the WIC provides the ability for remote site installation with no maintenance. It supports four equipment racks each at 26"W x 84"H.