

Charles Universal Broadband Enclosures

Compact Remote Terminal Solutions for Fiber and Copper Electronics



CUBE Applications

- Backhaul
 - Wireless
 - Microwave Radio
 - Ethernet First Mile (EFM) and xDSL
- Advanced Metering Infrastructure (AMI), Automatic Meter Reading (AMR)
- Enclosure consolidation
- Remote equipment deployments
- Adjunct to pre-existing, space-exhausted cabinet installations

Charles Universal Broadband Enclosures (CUBE) bring a new level of compactness to full-featured Fiber Optic and Copper Remote Terminals. Constructed of welded aluminum, CUBE are built to withstand the elements and provide superior protection in all environments. Their small size and light weight allow technicians to install these terminals in virtually any location quickly and easily.

Designed to house a variety of communications equipment, CUBE may be ordered pre-wired to meet your power, protection and physical interface requirements. Many customizable sizes and features provide the flexibility to meet your every application at remote, multi-user locations such as cell towers, business parks, campuses and strip malls.

Configurable Options

- Equipment mounting position (vertical, door or rack mount)
- Pre-wired cable harnesses for various electronics
- Surge protection
- Fiber splice trays
- Protector block interface type (screw, punchdown, etc.)
- AC, DC or AC with battery backup power
- Heat exchangers
- Cooling fans
- Solar shielding
- Venting
- Pre-stubbed cable types and lengths



Vertical Mount Cabinets (CUBE VM)



**Backplane Mount Configuration
(VM1100 shown)**



**Swing Mount Door Configuration
(VM1400 shown)**

CUBE VM Series Cabinets are designed for mounting electronics, splice trays and other communications equipment directly to the backplane of the enclosure. Technicians have easy access to internal equipment and ample room for cable management. A swing out door option allows multiplexers and other rack equipment to be secured to the cabinet's door for even greater access to both front and rear connections.

CUBE Cabinets are constructed of 1/8" aluminum with a powder coated finish for superior performance in all outdoor environments. Interior equipment is sheltered from the elements, corrosion and vandalism. All CUBE cabinets may be wall, H-frame, or pole mounted. Their compact size is designed for easy installation at locations where space is at premium and security is a priority.

All CUBE Cabinets are designed to meet NEMA 3R or 4X standards, depending on configuration. Charles can perform in-house thermal testing on specific customer configurations and provide test results validating the design of the cabinet selected for deployment.

Available options include heat exchangers, copper and fiber cable management, solar shields, and AC or DC powering options.

VM Series Sizes & Capacities

Model Number	VM1100	VM1200	VM1300	VM1400	VM1500
Dimensions (HxWxD)	23.5" x 21" x 17.5"	24" x 17" x 9.5"	31.5" x 24" x 8"	32" x 24" x 9.5"	39.5" x 26" x 12"
Swing Mount Door Capacity	—	—	2RU / 19"	4RU / 19"	4RU / 19"
OPTIONAL FEATURES					
Pivot Hinge Backplate Mount		✓	✓		
Vertical Mount Fixed	✓				
AC Power w/BBU		✓		✓	✓
DC Power	✓	✓	✓	✓	✓

Rack Mount Cabinets (CUBE RM & RL)



**Single Compartment with BBU Configuration
(RM2000B shown)**



**Multiple Compartment Configuration
(RL3000B shown)**

CUBE RM and RL Series Cabinets are designed for traditional 19" or 23" rackmount equipment. Flexible designs can be configured to support virtually all telecommunications, utility, CATV, or wireless applications. Chambered designs provide for restricted access to equipment only by authorized personnel. RL Series cabinets are certified to Telcordia GR-487 specifications for electronic equipment cabinets.

A modular approach for adding needed peripherals can also help achieve a quick, easy, cost effective configuration for your application. A 2RU AC panel that includes circuit breakers, surge suppression, and GFCI outlets is available. Rack mounted protection and a variety of fiber management options are also offered to enable quick turn up in the field.

Thermal management has become an increasingly important consideration in the design of any integrated cabinet solution due to the huge advances in transport bandwidth seen in today's communication electronics. Charles' engineering team carefully analyzes the needs of your proposed application and works with your team to develop a thermal management solution that will maximize the life of your equipment.

Available options include heat exchangers, copper and fiber cable management, solar shields, and AC or DC powering options.

RM and RL Series Sizes & Capacities

Model Number	RM2000B	RM2000	RL3000B	RL2000
Dimensions (HxWxD)	49.5" x 24" x 20"	40" x 24" x 20"	28" x 26" x 15.5"	20.5" x 26" x 15.5"
Equipment Chamber Dimensions	38.5" x 24" x 20"	40" x 24" x 20"	14.5" x 26" x 15.5"	14.5" x 26" x 15.5"
Equipment Chamber Capacity	21RU / 19"	21RU / 19"	5RU / 23"	5RU / 23"
Customer Chamber Dimensions	—	—	6" x 26" x 15.5"	6" x 26" x 15.5"
Customer Chamber Capacity	—	—	2RU / 23"	2RU / 23"
Battery Chamber Dimensions	11" x 24" x 20"	—	7.5" x 26" x 15.5"	—

Pad Mount Cabinets (CUBE PM)

The CUBE PM Series offers pad mountable cabinet options for high density installations. CUBE PM include bolt-mounted bases and lifting ears for placement performed by crane or other lifting equipment. CUBE PM cabinets offer ample room for up to 16 rack units of electronics in the main chamber, with an additional customer chamber option available for added capacity separated for restricted access.

CUBE PM Series offer the same outstanding environmental protection standards and durable aluminum construction as other CUBE cabinets. PM Series cabinets are certified to Telcordia GR-487 specifications for electronic equipment cabinets.

AC and DC powering options are available, with an isolated battery chamber available for AC configurations.



**Pad Mount Configuration
(PM4300 shown)**

PM Series Sizes & Capacities

Model Number	PM4300	PM4200	PM4100
Overall Dimensions (HxWxD)	48" x 38" x 18"	48" x 28" x 18"	34" x 28" x 18"
Equipment Chamber Dimensions	32" x 28" x 18"	32" x 28" x 18"	34" x 28" x 18"
Equipment Chamber Capacity	16RU / 23"	16RU / 23"	16RU / 23"
Battery Chamber Dimensions	15" x 28" x 18"	15" x 28" x 18"	—
Battery Chamber Capacity	Four (4) 60AH	Four (4) 60AH	—
Customer Chamber Dimensions	32" x 10" x 18"	—	—
Customer Chamber Capacity	3RU / 19"	—	—

Special Configurations

Charles Industries custom builds CUBE cabinets to the specific needs of its customers. The models presented in this brochure represent some of our most popular configurations. You are encouraged to call Charles at 847-806-6300 to discuss your application and specific 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 cabinet solution tailored to your network.



CUSTOMER SATISFACTION
CONTINUOUS IMPROVEMENT

OSP INNOVATIONS™

With Charles, You Can Depend On:


- Field-proven and unequalled 24-hour technical support
- Individualized application consultation
- Training courses available

Visit our website at <http://www.charlesindustries.com>

Charles Industries, Ltd.
Telecommunications Group
5600 Apollo Drive
Rolling Meadows, IL 60008

Voice: (847) 806-6300
FAX: (847) 806-6231
E-mail: mktserv@charlesindustries.com



 is a registered trademarks of Charles Industries, Ltd.

D-AAT112-B10