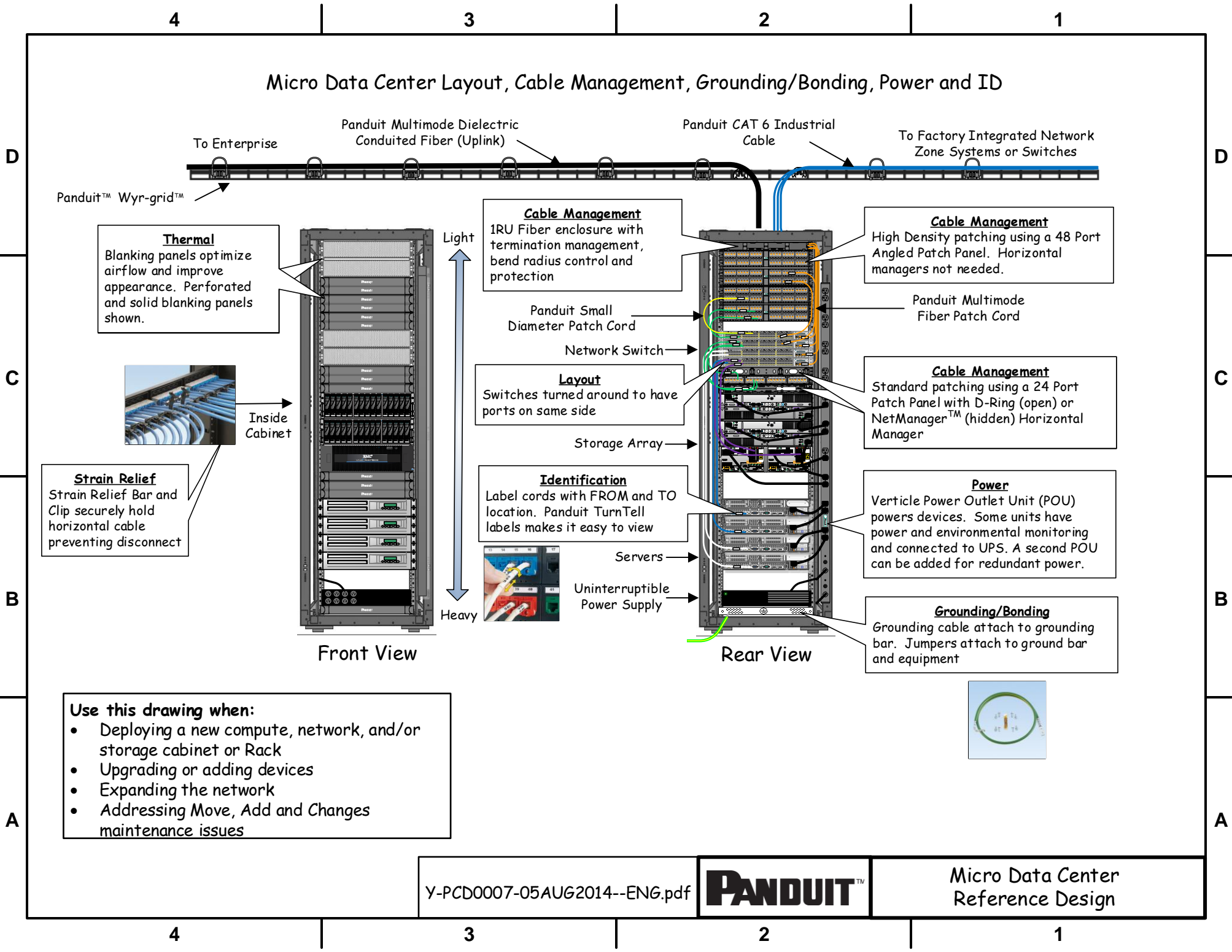


Micro Data Center Layout, Cable Management, Grounding/Bonding, Power and ID



Thermal
Blanking panels optimize airflow and improve appearance. Perforated and solid blanking panels shown.



Inside Cabinet

Strain Relief
Strain Relief Bar and Clip securely hold horizontal cable preventing disconnect

Cable Management
1RU Fiber enclosure with termination management, bend radius control and protection

Cable Management
High Density patching using a 48 Port Angled Patch Panel. Horizontal managers not needed.

Panduit Small Diameter Patch Cord

Panduit Multimode Fiber Patch Cord

Network Switch

Layout
Switches turned around to have ports on same side

Cable Management
Standard patching using a 24 Port Patch Panel with D-Ring (open) or NetManager™ (hidden) Horizontal Manager

Storage Array

Identification
Label cords with FROM and TO location. Panduit TurnTell labels makes it easy to view

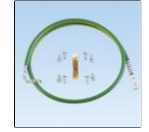
Power
Verticle Power Outlet Unit (POU) powers devices. Some units have power and environmental monitoring and connected to UPS. A second POU can be added for redundant power.



Servers

Uninterruptible Power Supply

Grounding/Bonding
Grounding cable attach to grounding bar. Jumpers attach to ground bar and equipment



Use this drawing when:

- Deploying a new compute, network, and/or storage cabinet or Rack
- Upgrading or adding devices
- Expanding the network
- Addressing Move, Add and Changes maintenance issues

Bill of Material

Panduit Part Number	Description
CQSMDC79	42RU Pre-Configured Industrial Micro Data Center, 78.1" (1984mm) height, network cabling, 4 casters, and shock pallet.
S8222B	Net-Access S-Type Cabinet frame. Single hinge perforated front door. Split perforated rear doors. Dim 79.8"H x 31.5"W x 48.0"D
CPPA48FMWBLY	Angled 48-port flush mount patch panel supplied with rear mounted faceplates
CPPL24M6BLY	24-port patch panel supplied with four factory installed CFPLM6BL snap-in faceplates.
CJ688TGBL	Cat 6, 8 position, 8 wire universal module.
CMPHF1	D-rings installed on panel
NMF1	Horizontal Cable Manager High Capacity Front Only 1RU
TLBP1R-V	Tool-less Blanking Panel for 1RU
UTP28SP5GR	Cat 6 Performance, 28 AWG UTP patch cord with TX6 Modular Plugs on each end Green 5 ft
F52ERLNLNSNM001	OM2 2-fiber patch cord, riser rated, LC duplex to LC duplex with 1.6mm jacket 1M
FAP6WBLDLC	LC OM2 FAP loaded with six LC duplex multimode fiber optic adapters (Black) with phosphor bronze split sleeves.
FCE1U	Holds up to four QuickNet Cassettes, FAP adapter panels, or FOSM splice modules
CMRPSV20	Power Strip Vertical, 20A, 10 NEMA 5-20R Receptacles, NEMA 5-20P
RGRB19CN	Grounding Busbar Kit, 19" length, 20 holes
RGCBNJ660P22	#6 AWG jumper; 60" length; 45° bent lug
R100X150V1T	TurnTell Thermal Transfer, Vinyl, 1.00" W x 1.50" H, 0.50" POA, Clear/White, 3" Core
SRBBRWC-KIT	Strain relief bar with integrated adjustable clips and pair of quick release brackets.
IUC6C04ABL-CEG	Industrial Copper Cable, Cat 6, 4-pair, 24/7 AWG stranded, U/UTP, CM, Black, 1000FT/305m reel
FSPD508-050M	8-fiber OM2 dielectric conduited, Low smoke zero halogen (LSZH)-riser (OFNR) rated, (MM) indoor distr cable 50M
WG12BL10	12" Wide Wyr-Grid Straight Section

About this Configuration

Server, Switch, Storage, etc. Layout

For best stability, heavier equipment like server, UPS and storage should be mounted towards the bottom of a cabinet or rack with lighter components like switch, firewall and patch panel towards the top. Reliable and efficient cabling is best with all equipment ports facing backwards. Equipment like switches may need to be turned around with their port side facing backwards. Cabinet rails may need to be moved forward to line up devices on the front. Ensure cabinet or rack RU holes are compatible with equipment rails and brackets.

Cable Management

Follow best practices to route and protect cabling to achieve the highest reliability and ease Moves, Adds, and Changes. Reduce interference with ports by placing rack mounted horizontal cable managers like D-Rings and NetManagers above and below equipment or flat patch panels to route cables away from port. Use angled patch panels for high density patching. A fiber enclosure protects exposed fiber cable, termination management (e.g. fusion splice), and bend radius control. Select patch cord lengths that have minimal slack between connections. Use slack spools to take up slack. Bundle cables using Hook & Loop cable ties for easy cable additions and removal. Horizontal cable should have strain relief to prevent jack connection damage like a strain relief bar.

Grounding & Bonding

Grounding and bonding is essential for reliable communication and equipment protection. A solid copper grounding conductor is terminated to a lug and then landed on a grounding bar. Jumper cables are attached to equipment ground terminal and then routed to the grounding bar terminated with a lug that is attached to the grounding bar with a screw.

Power

Reliable power is achieved with redundant power sources via UPS or dual, independent power lines to a Power Outlet Unit (POU). The POU should have a current rating and outlets sized to support current and future equipment. POU's can also come with power and environmental monitoring to provide critical alerts.

Identification

Clear and intuitive identification eases installation along with Move, Adds and Changes. This includes labeling cables on both ends following TIA-606-B standards. Color coding such as cables, color bands, and labels can be used to identify VLANs, areas, media type.

For More Information

For more information, contact your local distributor, Panduit Sales rep or Rockwell Automation sales rep.

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