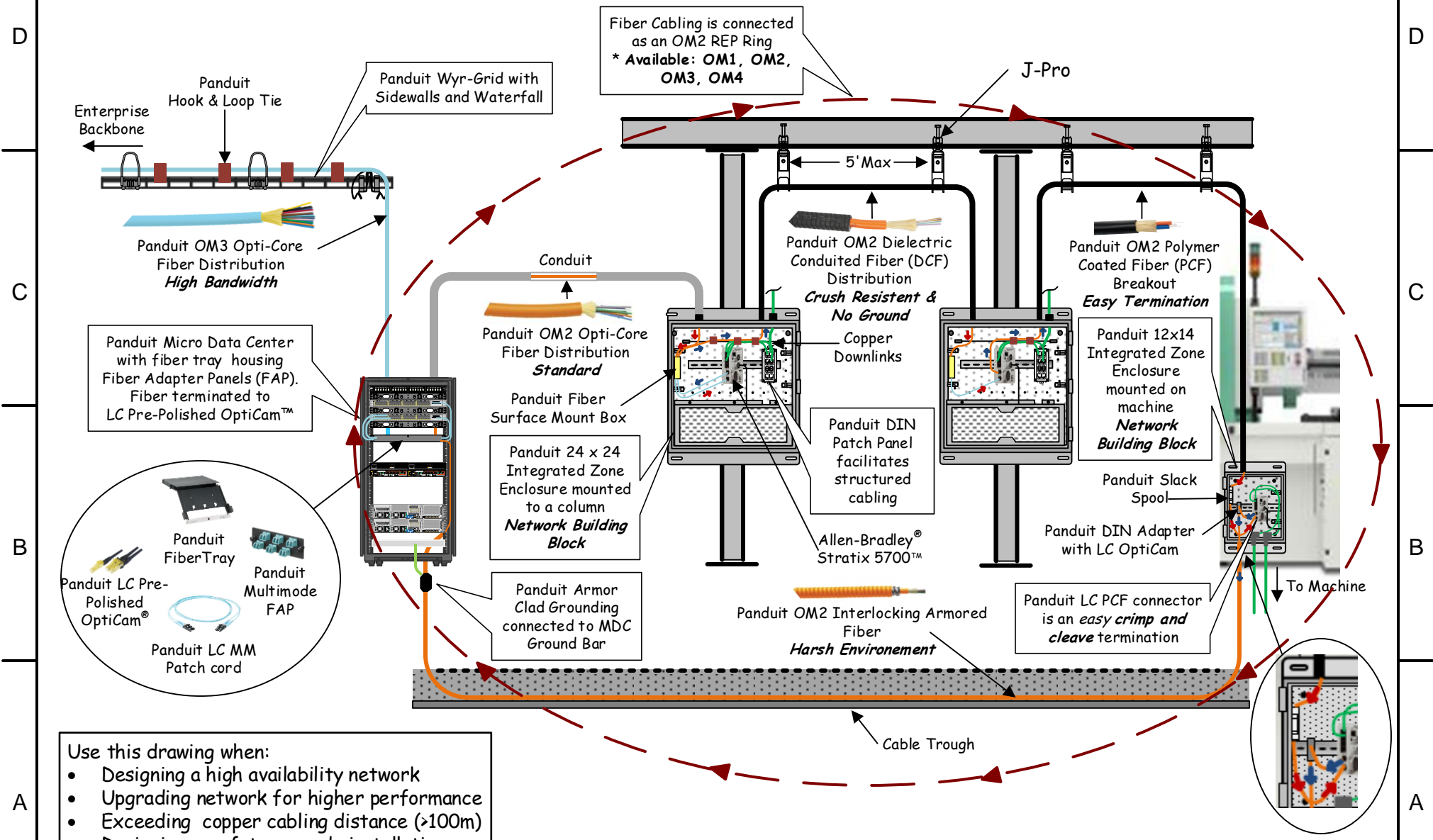


This drawing shows various fiber cabling, pathways, adapters and connectors for a Resilient Ethernet Protocol (REP) switch ring using an Allen-Bradley® Stratix switch for high availability



- Use this drawing when:
- Designing a high availability network
  - Upgrading network for higher performance
  - Exceeding copper cabling distance (>100m)
  - Designing new future ready installation
  - Mitigating electrical noise

## Panduit Bill of Material

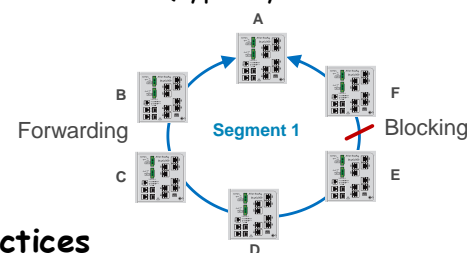
Part Number	Description
<b>Cabling, Patch Cords, and Zone Enclosure</b>	
FODRX12Y	12 Fiber OM3 multimode riser distribution cable
FSDR506Y	6 Fiber OM2 multimode riser distribution cable
FSPR506Y	6 Fiber OM2 multimode riser indoor armor cable
ACG24K	Armored Cable Grounding Kit
FSPD508	8 Fiber dielectric crush resistant indoor MM cable
FI2D204	4 fiber OM2 PCF (polymer coated fiber) multimode LSZH-riser indoor breakout cable
FX2ERLNLNSNM001	LC OM3 patch cord 1M (OK to patch to OM2 horizontal fiber cable)
Z22N-SDAD1	24"x24" integrated system with 8 downlinks, Stratix 5700 and UPS
Z11N-SDD	12"x14" integrated system with Stratix 5700 and 8 downlinks
<b>Adapters, Connectors, DIN Patch Box and Tray</b>	
FCE1U	19" Rack mount fiber tray
FLCDMC5BLY	LC OM2 OptiCam Duplex Fiber Connector
FLCDMCXAQY	LC OM3 OptiCam Duplex Fiber Connector
FAP8WAQDLC	LC OM3/OM4 FAP with 8 Duplex Multimode adapters phosphor bronze sleeve.
FLCDHMIG	LC duplex crimp and cleave fiber connector for PCF (polymer coated fiber) multimode cable with push-pull release mechanism
FDME8RG	8-port DIN fiber Patch Panel
<b>Pathways</b>	
WG12BL10	12" wide x 10' long Wyr-Grid pathway section used to carry cables horizontally throughout the system.
WG12BL10	Wyr-Grid Splice to join sections
WGBTMWFBL	Wyr-grid Waterfall bend radius cable transition
WGSDWL4BL	Wyr-Grid 4" high Snap-On Sidewalls
JP2SBC50-L20	J-Hook with screw-on beam clamp for use with flanges up to 1/2" thick. Other hook sizes, mounting, clamp size, rotation and colors available
HLB2S-C0	Hook & Loop Stacked Strip Cable Ties Qty 100

## About this Configuration

Fiber is ideal for high bandwidth, long distance runs and electrical noise immune transmission. This drawing lays out the options for media, methods to route, protect and patch fiber for a high availability REP switch ring

## Resilient Ethernet Protocol (REP) Ring

Resilient Ethernet Protocol (REP) is a segment concept. Segments can be wrapped into rings seen as a redundant link to form a redundant network that self heals (typically less than 80ms).



## Best Practices

- Fiber switch uplinks minimizes network drop-out during discovery after a disconnect as well as provide greatest bandwidth headroom
- Controlling fiber bend radius using spools, waterfalls, etc. minimizes signal attenuation to achieve the greatest distances and performance
- Structured cabling accommodates network expansion, speeds troubleshoot and improves reliability. It is a cabling infrastructure that has demarcation points such as patching and horizontal cable.
- Cable identification using labeling and color coding speeds troubleshoot and maintenance activities (Moves/Add/Changes)
- Prevent unauthorized access and cable changes with block-out and lock-in port control products
- Grounding of armored fiber cabling required for electrical code
- Link testing with a power meter ensures optimal signal transmission
- Conduit fill should not exceed 60% capacity

## References

- Panduit Fiber Optic Infrastructure Application Guide
- ANSI/TIA 568C
- NECA/FOA 301
- <http://www.ab.com/en/epub/catalogs/6005557/6005561/10213454/Introduction.html>

## For More Information

For more information, contact your local distributor or Panduit Sales rep.  
[www.panduit.com/ia](http://www.panduit.com/ia)  
[ia@panduit.com](mailto:ia@panduit.com)

**PANDUIT™**