

Integrated Network Zone System

The integrated network zone system enables network communications between the control room and manufacturing floor within an industrial facility. Available in three base configurations, the systems are integrated with an Allen-Bradley* Stratix Industrial Ethernet switch for fast deployment. The active equipment is deployed with network structured cabling and cable management according to best practices and industry installation guidelines. Systems also include Allen-Bradley* uninterruptible power supplies installed behind a touch-safe protective cover, and are UL certified.



Key Features

Benefits

Integrated solution	Significantly reduces the amount of effort and complication when integrating the plant floor and enterprise networks, up to 75% reduction in deployment time may be achieved with the integrated solution
Managed switching	Integrated Allen-Bradley* Stratix switches offer management and diagnostics from within IT, and controls environments and optimizes network traffic
IT-ready	Protects from shock hazards, allows clean segmentation between the upper level plant network and the machine level network to help maintain network service level agreements (SLAs)
Validated performance	Thermally tested and validated designs incorporate best practices for switch deployment, media selection, and cable management to maximize performance

Applications

Panduit's Integrated Network Zone System is used to deploy an EtherNet/IP*** network between the enterprise and the plant floor. Using the Integrated Network Zone System allows the usability and familiarity of IT switches while maintaining the critical uptime needs and controls interfaces on the plant floor. This ensures that management and control of your network does not get in the way of making the most effective use of your data available on the network.

*Allen-Bradley, Integrated Architecture, Stratix 8000, and Stratix 5700 are trademarks of Rockwell Automation, Inc.

**Cisco is a registered trademark of Cisco Technology Inc.

***EtherNet/IP is a trademark of ODVA.




Integrated Network Zone System

Deploying Zone Network Topology

A highly effective way to deploy EtherNet/IP*** solutions in a plant floor environment is to follow the recommendations from Rockwell Automation and Cisco** in their Converged Plant-wide Ethernet (CPwE) design and implementation guide. In this guide the use of zoned network topology is recommended as a best practice.

Using Panduit's Network Zone System integrated with Stratix switches from Rockwell Automation provides a platform for implementing small VLANs for cell/area zones, as recommended in the CPwE to improve manageability and limit Layer 2 broadcast domains†.

The zone enclosures allow all cables within a cell to be managed and patched within a single enclosure. By using a zone cabling architecture approach, network cabling becomes easier to locate, manage, and maintain because each additional device is routed within the same pathways and enclosures. Managed cabling helps reduce the number of home runs throughout a facility and helps reduce abandoned cable in plenum spaces, helping make the workplace run more efficiently and safely.

	Layout	Part Description
Z23N-SBAAD1		24" x 36" Network Zone System with Stratix 8000* 1783-MS10T switch with 2 1 Gb MM fiber optic uplinks, with redundant 120 V ac power supply input and UPS pre-installed.
Z23N-SBADD1		24" x 36" Network Zone System with Stratix 8000* 1783-MS10T switch with 2 1 Gb MM fiber optic uplinks and 1783-MX08T expansion module, with redundant 120 V ac power supply input and UPS pre-installed.
Z23N-SBABA1		24" x 36" Network Zone System with Stratix 8000* 1783-MS10T switch with 2 1 Gb copper uplinks and 1783-MX08T expansion module, with redundant 120 V ac power supply input and UPS pre-installed.
Z23N-SBBAD1		24" x 36" Network Zone System with 2 Stratix 8000* 1783-MS10T switches each with 2 1 Gb MM fiber optic uplinks, with redundant 120 V ac power supply input and UPS pre-installed.
Z23N-SBBFD1		24" x 36" Network Zone System with 2 Stratix 8000* 1783-MS10T switches each with 2 1 Gb MM fiber optic uplinks and 2 1783-MX08T expansion modules, with redundant 120 V ac power supply input and UPS pre-installed.
Z22N-SDAD1		24" x 24" Network Zone System with Stratix 5700* 1783-BMS10CGA switch with 2 1 Gb MM fiber optic uplinks, with redundant 120 V ac power supply input and UPS pre-installed.
Z22N-SDAA1		24" x 24" Network Zone System with Stratix 5700* 1783-BMS10CGA switch with 2 1 Gb copper uplinks, with redundant 120 V ac power supply input and UPS pre-installed.
Z22N-SEAD1		24" x 24" Network Zone System with Stratix 5700* 1783-BMS20CGP switch with 2 1 Gb MM fiber optic uplinks, with redundant 120 V ac power supply input and UPS pre-installed.
Z11N-SDD		12" x 14" Network Zone System with Stratix 5700* 1783-BMS10CGA switch with 2 1 Gb MM fiber optic uplinks.
Z11N-SDA		12" x 14" Network Zone System with Stratix 5700* 1783-BMS10CGA switch with 2 1 Gb copper uplinks.
Z11N-SED		12" x 14" Network Zone System with Stratix 5700* 1783-BMS20CGP switch with 2 1 Gb MM fiber optic uplinks.

†For additional reference see the Panduit Popular Configuration Drawing "Overview of Industrial Switch Deployment" PCD0001.

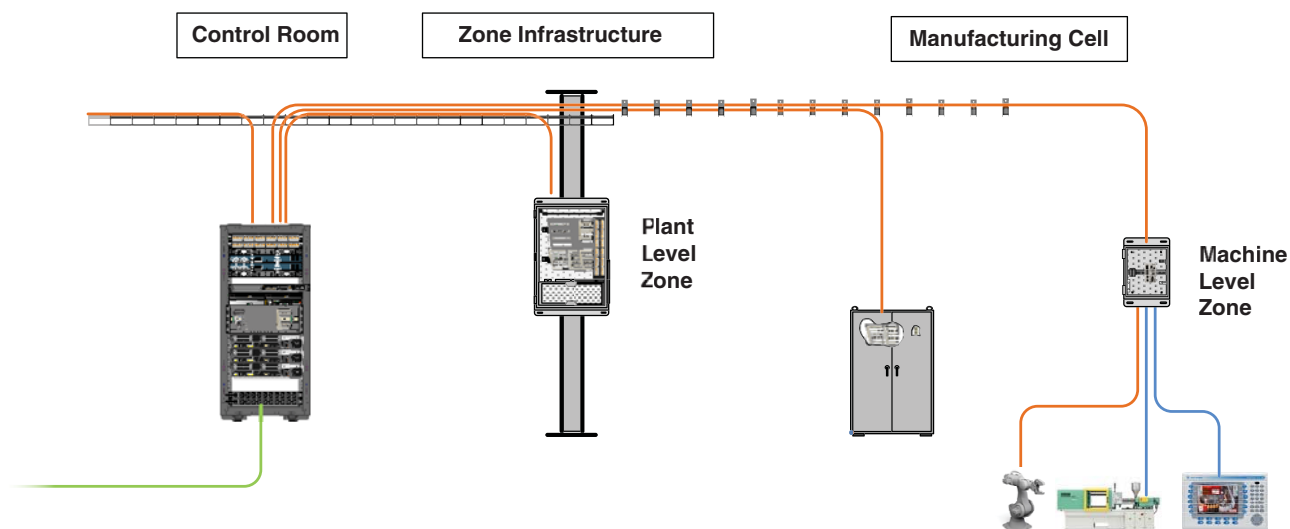
‡Maximum port count may require additional switch and expansion modules to be installed.

Leveraging the Rockwell Automation Integrated Architecture* technology simplifies switch configuration and integration while providing machine-based diagnostics and troubleshooting tools. Stratix Industrial Ethernet Switches also leverage the Cisco** operating system, bringing the world's leading switching technology to the plant floor environment. Advanced switch feature sets include: STP/RSTP/MST, Resilient Ethernet Protocol (REP), Flexlinks, EtherChannel (link aggregation), QoS, IGMP snooping with querier, VLANs with trunking, IEEE 1588 PTP v2, IPv6 support, storm control with alarming, egress traffic shaping; compatible with Cisco** Network Assistant (CNA) and CiscoWorks.




*Allen-Bradley, Integrated Architecture, Stratix 8000, and Stratix 5700 are trademarks of Rockwell Automation, Inc.

**Cisco is a registered trademark of Cisco Technology Inc.

***EtherNet/IP is a trademark of ODVA.



Following a zone topology allows a highly scalable and flexible deployment using building blocks of the CPwE architecture.

Stratix Industrial Ethernet Switches	Power Input	Allen-Bradley* UPS	Uplinks	Downlink Port Count Pre-Installed	Maximum Downlink Port Count
Stratix 8000* Modular Managed Switch 1783-MS10T 	120 V ac	Rated 9 min., 325 watts tested to 59 min. (fully expanded)	Two 1 Gb OM3 multimode fiber optic uplinks with LC cord and connector	8 RJ45 Ethernet	48 RJ45 Ethernet**
			Two 1 Gb copper uplinks	16 RJ45 Ethernet	
			Two 1 Gb OM3 multimode fiber optic uplinks with LC cord and connector	48 RJ45 Ethernet	
Stratix 5700* Managed Industrial Ethernet Switch 1783-BMS10CGA 	120 V ac	Rated at 12 V 7Ah tested to 3.5 hrs.	Two 1 Gb OM3 multimode fiber optic uplinks with LC cord and connector	8 RJ45 Ethernet	8 RJ45 Ethernet
Stratix 5700* Managed Industrial Ethernet Switch 1783-BMS20CGP			Two 1 Gb copper uplinks	16 RJ45 Ethernet	16 RJ45 Ethernet, 2 SFP+
Stratix 5700* Managed Industrial Ethernet Switch 1783-BMS10CGA 	24 V dc or 48 V dc	N/A	Two 1 Gb OM3 multimode fiber optic uplinks with LC cord and connector	8 RJ45 Ethernet	8 RJ45 Ethernet
Stratix 5700* Managed Industrial Ethernet Switch 1783-BMS20CGP			Two 1 Gb copper uplinks	16 RJ45 Ethernet	16 RJ45 Ethernet, 2 SFP+

Integrated Network Zone System

Technical Information

Standards	UL 508A – Industrial Control Panels
Rating	UL Type 4/12 and IP66
Environment	40°C ambient outside of enclosure or 60°C maximum within enclosure at up to 95% (non-condensing) humidity; Z11N systems rated up to 50°C ambient
Installation	Wall mount with optional outside-mount flange
Dimensions	Z23N series: 36.0"H x 24.0"W x 11.7"D (914mm x 610mm x 297mm) Z22N series: 24.0"H x 24.0"W x 11.7"D (610mm x 610mm x 297mm) Z11N series: 14.0"H x 12.0"W x 9.7"D (356mm x 305mm x 247mm)

Add-On Kits

Part Number	Part Description
Z23N Add-On Kits	
1783-MS10T	Stratix 8000* switch, available from Rockwell Automation.
1783-MX08T	Stratix 8000* copper expansion module, available from Rockwell Automation.
1783-MX08F	Stratix 8000* fiber expansion module, available from Rockwell Automation.
FSPD504	OptiCore® Dielectric Conduited Fiber Uplink Cable.
PUR6504BU-UY	Copper downlink cable.
LED512	12.5" LED strip light.
LED5S	Door switch.
LEDGPS4	Din-mount power supply.
Z22N Add-On Kits	
FSPD504	OptiCore® Dielectric Conduited Fiber Uplink Cable.
PUR6504BU-UY	Copper downlink cable.
Z11N Add-On Kits	
FSPD504	OptiCore® Dielectric Conduited Fiber Uplink Cable.
PUR6504BU-UY	Copper downlink cable.
Related Items – Pre-Configured Micro Data Center for Industrial Network Deployment	
CQSMDC48	24 RU Pre-Configured Industrial Micro Data Center, 48.4" (1239mm) height, network cabling, 4 casters, and shock pallet.
CQSMDC79	42 RU Pre-Configured Industrial Micro Data Center, 78.1" (1984mm) height, network cabling, 4 casters, and shock pallet.

*Allen-Bradley, Integrated Architecture, Stratix 8000, and Stratix 5700 are trademarks of Rockwell Automation, Inc.

**Cisco is a registered trademark of Cisco Technology Inc.

***EtherNet/IP is a trademark of ODVA.



WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA
Markham, Ontario
cs-cdn@panduit.com
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
cs-emea@panduit.com
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
cs-ap@panduit.com
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
cs-japan@panduit.com
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA
Guadalajara, Mexico
cs-la@panduit.com
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
cs-aus@panduit.com
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300

PANDUIT®

©2013 Panduit Corp.
ALL RIGHTS RESERVED.
Printed in the U.S.A.
Product Bulletin Number ZCCB04--SA-ENG
Replaces ZCCB03--SA-ENG
5/2013