# Thermal Inlet Duct for the Cisco^ Nexus 7009 Switch

PANDUIT®

SPECIFICATION SHEET

## specifications

The thermal inlet duct shall be designed to be compatible with the Cisco^ Nexus 7009 switch using Computational Fluid Dynamics (CFD) modeling and verified via operational testing. The inlet duct shall consist of two (2 RU) inlet ducts and a side duct to feed cool air from the cold aisle to the switch's side inlet and prevent hot exhaust recirculation. The modular duct shall be capable of being installed in a retro-fit application without disrupting existing in-cabinet equipment and cabling.

## technical information

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| ***Dimensions:*** | 26.0"L x 22.1"W x 31.4"H (711mm x 562mm x 799mm) |

## key features and benefits

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| ***Passive airflow*** | No additional moving parts or power required for a more reliable, efficient, economical and environmentally friendly system |
| ***Validated performance*** | Jointly developed by Panduit and Cisco^ ensuring compatible performance and reliability |
| ***Physical separation between inlet and exhaust airflow*** | Segregates inlet and exhaust airflow preventing hot air recirculation, reducing inlet temperatures up to 17°C (30°F) |
| ***Inlet duct design*** | Ensures the cabinet is containment ready for vertical exhaust ducting (VED) and aisle containment |
| ***Maximized space utilization*** | Allows the switch to be deployed in a 800mm wide Panduit cabinet without sacrificing thermal performance |
| ***Energy efficiency*** | Provides cool air to the switch resulting in lower fan speed reducing fan power consumption by up to 250W and improving reliability |
| ***Day one or two installation*** | Eliminates the requirement to replace or disturb existing cabinets, equipment and infrastructure for lower capital expenditures and minimized risk |
| ***Easy access*** | Allows access to the power supplies and fan modules minimizing network downtime |
| ***Integral bonding to cabinet*** | Cabinets and accessories are single-point bonded, providing a safe and reliable network, while reducing installation costs |

## applications

Cisco^ Nexus 7000 series switches are a modular switching system designed to deliver 10 Gigabit Ethernet and beyond. Panduit has worked with Cisco^ to develop a comprehensive physical infrastructure solution for the new Nexus 7009 switch platform.

When the Cisco^ Nexus 7009 switch is used as an access layer switch, it could be deployed using a Panduit Pod strategy that employs an End of Row (EoR) or Middle of Row (MoR) physical topology in the Equipment Distribution Area (EDA) of the data center. If deployed as an aggregation or core switch, it could be located in the Main Distribution Area (MDA) of the data center.

By providing a path for cool air to the switch, data center temperature set points can be raised, resulting in higher energy efficiencies and lower operating costs.

^Cisco is a registered trademark of Cisco Technology, Inc.

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|---|---|
| ***Inlet Duct for End of Row (EoR) Switching Applications*** | |
| ***Inlet duct:*** | CNLTD142A2 |
| ***Net-Access™ Switch Cabinets for use in Hot Aisle/Cold Aisle Applications**** | |
| ***45 RU, front dual hinge door, rear perforated split doors, (2) side panels, #12-24 rails – mounted numbers up:*** | CN1NU |
| ***45 RU, front dual hinge door, rear perforated split doors, no side panels, #12-24 rails – mounted numbers up:*** | CN2NU |
| ***Net-Access™ Switch Cabinet Accessories*** | |
| ***Vertical blanking panel:*** | CNVBP |
| ***Net-Access™ Switch Cabinet for use with Vertical Exhaust Ducting*** | |
| ***45 RU, front dual hinge door, rear solid split door, no side panels, vertical blanking panels, #12-24 rails – mounted numbers up:*** | CN28HBNU |
| ***Vertical Exhaust Ducting*** | |
| ***Height adjustable – from 42" to 70" (1067mm to 1778mm):*** | CVED32VE |
| ***Height adjustable – from 21" to 45" (533mm to 1143mm):*** | CVED32VEN |
| ***Height adjustable – from 20" to 38" (508mm to 965mm):*** | CVED32VES |
| ***Net-Access™ Switch Cabinets for use in Cold Aisle Containment Applications*** | |
| ***45 RU, front dual hinge door, rear perforated split doors, no side panels, vertical blanking panels, #12-24 rails – mounted numbers up:*** | CN28BNU |
| ***45 RU, front dual hinge door, rear perforated split doors, (1) side panel – left side, vertical blanking panels, #12-24 rails – mounted numbers up:*** | CN28BLNU |
| ***45 RU, front dual hinge door, rear perforated split doors, (1) side panel – left side, vertical blanking panels, cage nut rails – mounted numbers up:*** | CN28BLCNNU |
| ***45 RU, front dual hinge door, rear perforated split doors, no side panels, vertical blanking panels, cage nut rails – mounted numbers up:*** | CN28BCNNU |
| ***42 RU, front dual hinge door, rear perforated split doors, no side panels, vertical blanking panels, cage nut rails – mounted numbers up:*** | CN282BCNNU |
| ***Net-Contain™ System for 1800mm/6 Foot Aisle***** | |
| ***Ceiling sections Net-Access™ 800mm Cabinets:*** | CC18RPN8 |
| ***End of row doors two single swing:*** | CC18DD |

*For additional information on Net-Access™ Cabinets, refer to brochure SA-RKCB19.
**No VED required.

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Figure 1. Full populated cabinet application

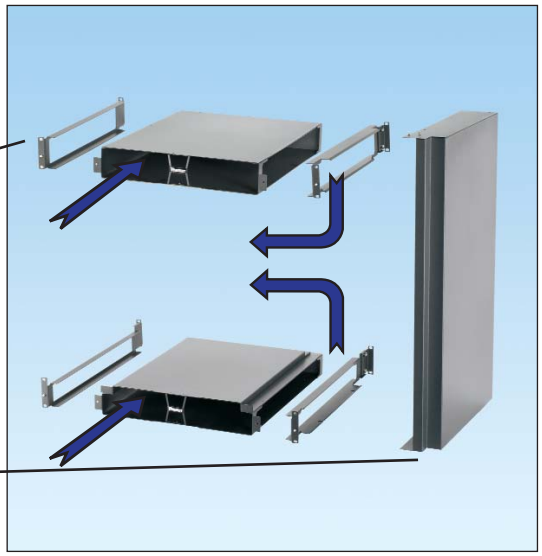
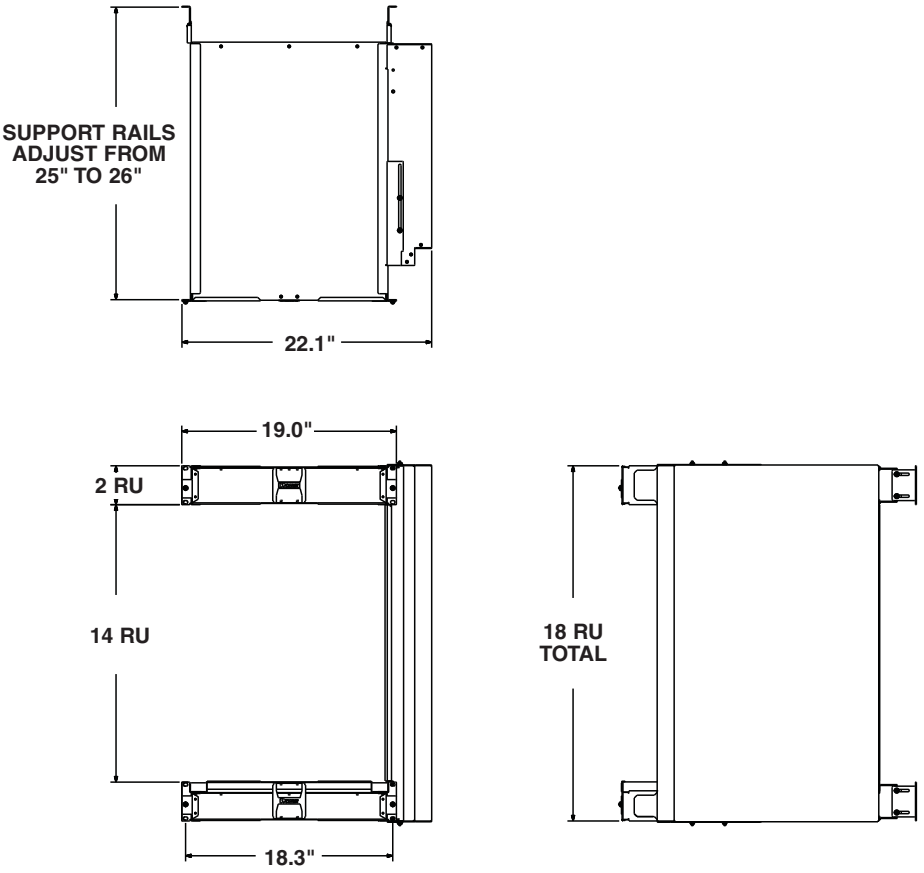


Figure 2. Inlet Duct Exploded View Showing Inlet Airflow Path





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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