FlowDirector-680-F

48x 10Gb/25Gb SFP+/SFP28 and 8x 40Gb/100Gb QSFP+/QSFP28 Fabric Visibility Appliance

Product Overview

InfiniCORE Networks FlowDirector-680-F fabric visibility appliance is designed to empower network administrators to build their next generation visibility infrastructure. By leveraging the Intel's P4 programmable Tofino™ switch ASIC and InfiniCORE's Software defined Hardware Accelerated Visibility Operating System, the FlowDirector-680-F provides tap, aggregate, replicate, tag, strip, filter and load balance network traffic, with or without the expense of SPAN ports added to the switch or router.
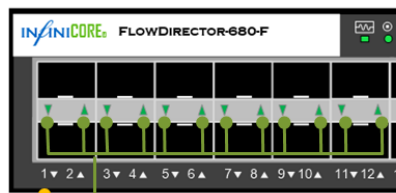
The FlowDirector-680-F has 48 10Gb/25Gb SFP+/SFP28 and 8 40Gbps/100Gbps QSFP+/QSFP28 ports. Each 40Gb/100Gb QSFP+/QSFP28 port can operate as 4x 10Gb/25Gb ports independently. Each of the 10Gb/25Gb SFP+/SFP28 port can also use 10G-BaseT transceiver to connect to 1G/10G RJ45 based ethernet.

The FlowDirector-680-F can be also deployed as a capture front end to the InfiniCORE FlowMagic Visibility appliance to provide unprecedent flexibility, performance and port densities for network monitoring applications.

Main Functions and Features

	Features	Benefits
Unprecedented Line Rate Packet Processing capability Over 56 Traffic Ports	Up to 4.0Tbps of hardware ensured line rate packet over 48 10G/25G SFP+/SFP28 ports and 8 40Gbps/ 100Gbps QSFP+/QSFP28 ports.	Provides the best connectivity to wide variety of networks; Abundant network interfaces for future expansion; Worry free line rate operation.
High Performance Software Defined Flow Manipulation Domains	Innovative Flow Domains provides the best flow manipulation with functional isolation for inline and/or offline tap, traffic aggregation, traffic replication, filter, tag and load balance applications.	Ideal for enterprises and service providers to create application specific data paths suited for their network visibility applications.
Integrated Lossless Connection Matrix over 10Gb, 25Gb, 40Gb and 100Gb Interfaces	FlowDirector provides an innovative Virtual Wire technology that can be used to cross connect from any port to any port with complete isolation and lossless traffic forwarding.	Virtual Wire Technology is ideal to be used in lab automation applications to cross connect ports with different speeds and media types without rewiring the cables.
Innovative, State of the Art, Web Based Management Framework	FlowDirector family has native state-of-the-art HTML 5 Web based user interface that can be accessed from any standard based web browser.	Access the management interface from anywhere any device that is equipped with a modern browsers such as Chrome, Firefox, Safari and Internet Explorer.
High Reliability, Cost Effective and Green Operation	Leveraging latest generation processor and switch technologies, FlowDirector is power efficient and equipped with redundant power supplies and hot serviceable fans.	• Reduce CAPEX and OPEX • High Availability by Design

FlowDirector-680-F Front Panel Features

40G/100G QSFP+/QSFP28 Status Lights

40G/100G Ethernet 49 to 54 Ports Status as below:

A Valid 100Gbps Link is established: Steady Green ▲

Transmit or Receive Packets at 100Gbps: Blinking Green ▲▲

A Valid 40Gbps Link is established: Steady Yellow ▲

Transmit or Receive Packets at 40Gbps: Blinking Yellow ▲▲
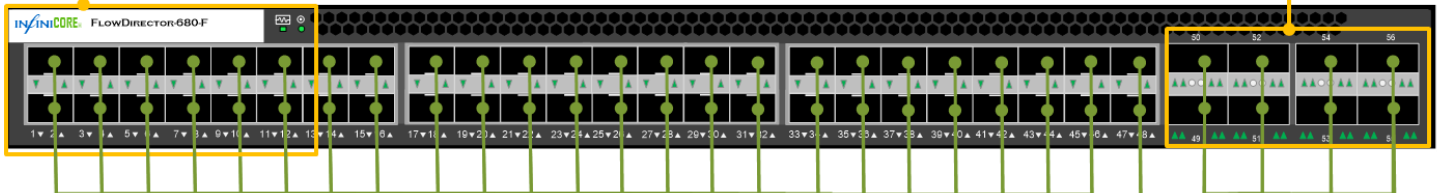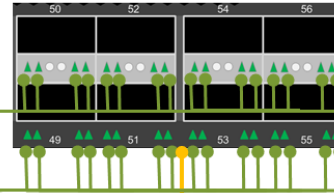
No link: OFF ▲

10G/25G SFP+ Status Lights

10G/25G Ethernet 1 to 48 Ports Status as below:

▲ Steady Green: 25Gbps link established
▲▲ Blinking Green: Transmit/receive at 25Gbps
▲ Steady Yellow: 10Gbps link established
▲▲ Blinking Yellow: Transmit/receive at 10Gbps
▲ OFF: No link

1G/10G/25G SFP+ Ports

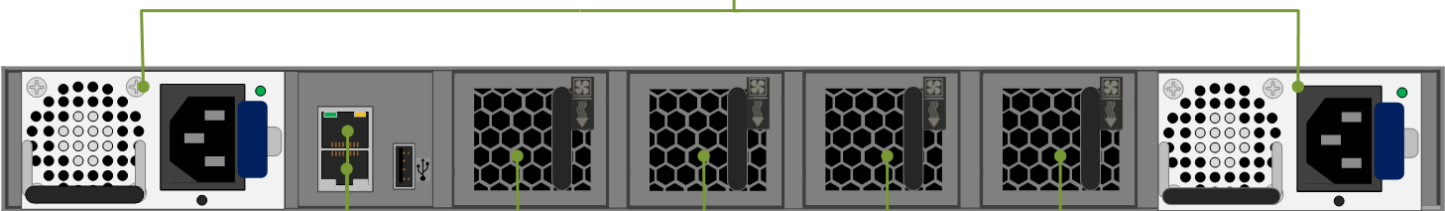Provide 1G/10G/25G SFP+ Connectivity

40G/100G QSFP+ Ports

Provide 40G/100G QSFP+ Connectivity

FlowDirector-680-F Rear Panel Features

AC Power Supply

AC power connection for use with the supplied power cords

Management Port
Console Port

Provide Ethernet connection for management interface
For connection to InfiniOS command line interface

Hot Swappable Fans

FlowDirector-680-F External Interfaces Specification

Functions	Compliance	Type	Quantity
Advanced Network Packet Broker functionalities	Packet replication up to 1:32; Packet aggregation across all ports; Filtering on fields found in VLAN, IP/TCP/UDP, VxLAN and GTP; Load balancer on L3 and L4 fields found in outer, VxLAN/GTP header or inner header; VLAN removal and insertion, port tagging function; Packet slice and timestamping;		All traffic ports
10Gb/25Gb Traffic Ports	IEEE 802.3by Optical fiber, backplane 25 Gigabit Ethernet IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3aq 10GBASE-LRM IEEE 802.3by 25 Gigabit Ethernet	25G SFP28 Fiber Optics 25G SFP28 DAC 10G SFP+ Fiber Optics 10G SFP+ Passive DAC Cable	48
40Gb/100Gb Traffic Ports	SFF-8436, SFF-8635 QSFP+ 40Gb Ports; SFF-8665 QSFP28 100Gb Ports	QSFP+/QSFP28 Fiber Optics; QSFP+/QSFP28 DAC	8
40Gb/100Gb Traffic Ports Breakout Capabilities QSFP+ QSFP28 → 4x SFP+/ SFP28 10Gb/25Gb	Each 40Gb/100Gb Traffic Port Can be Split into 4 Ports to Support 10Gb/25Gb Operation. IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3aq 10GBASE-LRM IEEE 802.3by 25 Gigabit Ethernet SFP+ MSA, Revision 4.1 Direct-Attach Copper Support up to 3 Meters	QSFP28 to 4xSFP28 Splitter Cable QSFP+ to 4xSFP+ Splitter Cable	8 QSFP+ to 32 SFP+ 8 QSFP28 to 32 SFP28
LED For the System	Power Module 1 Status LED Power Module 2 Status LED FAN Status LED STAT Status LED	Green/Amber Green/Amber Green/Amber Green/Amber	1 1 1 1
LED For SFP+/SFP28 Traffic Ports	Combo LED for Link and Activity	Amber for SFP+; Green for SFP28	1 Per Link; 1 Per Port
LED For QSFP+/QSFP28 Traffic Ports	Combo LED for Link and Activity	Amber for QSFP+; Green for QSFP28	1 Per Link; 1 Per Port
10/100/1000Mbps Management Port	10/100/1000BASE-T Category 5, Category 5e, Category 6 UTP	Copper RJ-45	1
Visible LED for RJ-45 Management Port	LED for Link LED for Activity	Green/Orange LED Green LED	2
Console Port	115200 Baud 8 Bit Data No Parity 1 Stop Bit	Serial	1
USB Port	USB 2.0 High Speed 480Mpbs Port	USB Type A	1
Air Flow and Fans	PWM Controlled Long Endurance Fan	Front to Back Air Flow	4
Redundant Power Supply	Dual 800W High Efficiency 100-240V AC 50-60Hz Class I	1+1 Redundant Power Supply	2
Rack Mount Kit	19 Inch Rack Mountable	19 Inch Rack Mountable	1
Chassis Dimension	Height X Width X Depth (inches)	1.75 x 17.3 x 19	NA

FlowDirector-680-F Standard Peripherals

Part Name	Quantity
DB-9 to RJ-45 Serial Console Cable	1
UTP Cat 6. Ethernet Cable	1
Rail Mounting Kit	1
CD (User Manual, software package)	0 or 1
USB System Recovery Thumb Drive	1 or Download

FlowDirector-680-F Physical and Environmental Specification

Item	Description
Dimension (Width x Depth x Height)	19 x 17.3x 1.75 (inches) 483 x 440 x 44 (millimeters)
Net Weight	19.5 (pounds) / 8.8 (kilograms)
Environment	Operating Temperature: 0º ~ 40º C (32º ~ 104º F) Non Operating Temperature: -40º ~ 70º C (-40º ~ 158º F) Humidity: 20 ~ 90% (Non-condensing)

FlowDirector-680-F Order Information

Please contact InfiniCORE regional distributors/resellers or InfiniCORE sales for further information.

Part Number	Traffic Ports	Port Specification	Software Package
FDS-680-F-R2	48 SFP+/SFP28 + 8 QSFP+/QSFP28	48x 10G/25G SFP+/SFP28 Ports with DAC Support; 8x 40G/100G QSFP+/QSFP28 Ports	Standard InfiniOS Software Package

Product Member In the FlowDirector Product Family

Part Number	Traffic Ports	Port Specification	Software Package
FDS-8B-R1 **FDS-8B+-R1**	6 10M/100M/1G RJ-45 6 10M/100M/1G RJ-45 + 2 1G/10G SFP/SFP+	6 10M/100M/1G copper ports; 6 10M/100M/1G copper ports; 2x 1G/10G SFP/SFP+ Ports with DAC Support	Standard InfiniOS Software Package
FDS-640Plus-R2	48 SFP/SFP+/SFP28 + 6 QSFP+/QSFP28	48x 1G/10G/25G SFP/SFP+/SFP28 Ports with DAC Support; 6x 40G/100G QSFP+/QSFP28	Standard InfiniOS Software Package
FDS-3200-R2	32 QSFP+/QSFP28	32x 40G/100G QSFP+/QSFP28 Ports	Standard InfiniOS Software Package
FDS-3200-F-R2	32 QSFP+/QSFP28	32x 40G/100G QSFP+/QSFP28 Ports	Standard InfiniOS Software Package
FDS-6400--F-R2	64 QSFP+/QSFP28	64x 40G/100G QSFP+/QSFP28 Ports	Standard InfiniOS Software Package