



## FlowDirector-640v2 FlowDirector-3200v2 FlowDirector-12K Network Packet Broker Datasheet




### Product Overview

The FlowDirector V2 appliances are fourth-generation Network Packet Brokers designed for advanced network visibility applications. Built on the success of InfiniCORE's NextIO Visibility Platform, the V2 series integrates Broadcom's cutting-edge Trident 3 and Trident 5 switch ASICs, delivering exceptional performance and scalability. The series includes three models: FlowDirector-640v2, FlowDirector-3200v2 and FlowDirector-12K models, each designed to provide identical functions across different networking port speeds.

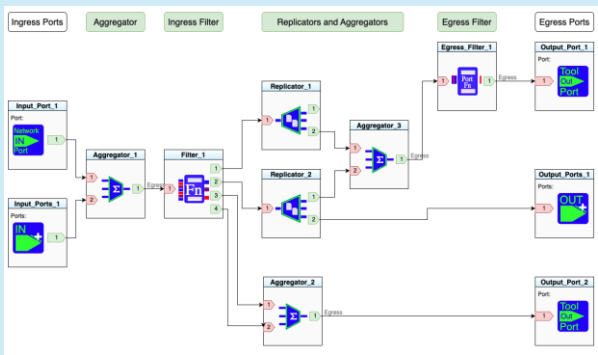
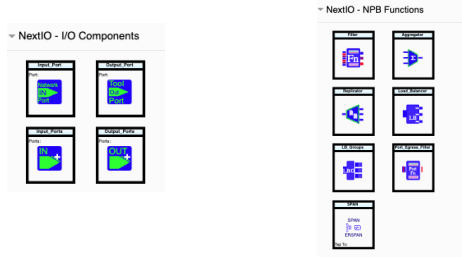

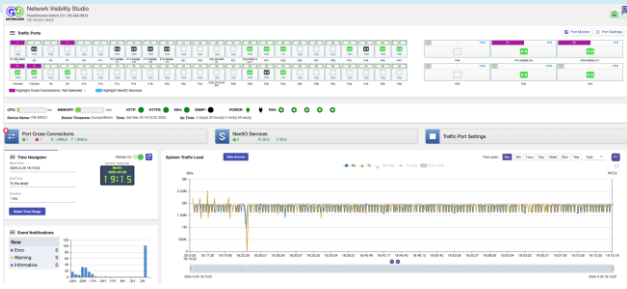
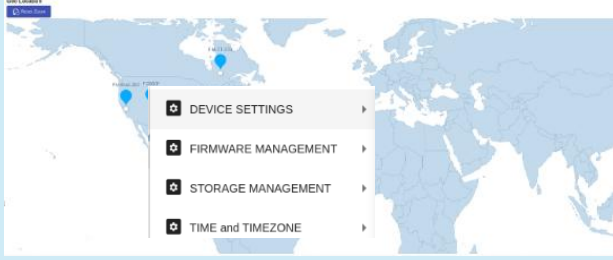
At the core of FlowDirector V2 is InfiniCORE's NextIO Visibility Operating System, which provides a unified, web-based environment for operating and managing visibility services. This intuitive platform simplifies network operations and enhances efficiency. NextIO Visibility Studio delivers an industry-leading, diagram-based service creation environment, allowing network administrators to effortlessly create, edit, activate, and monitor packet processing services from the components —reducing operational complexity associated with traditional configuration-centric approaches. With the V2 series, users can apply tagging, filtering, tapping, aggregation, replication, ingress filtering, egress filtering, and load balancing functions to enhance their visibility applications. The FlowDirector v2 series supports high availability clusters and can be managed by NextIO Device Center.

FlowDirector-640v2, FlowDirector-3200v2 and FlowDirector-12K are 1U rack mountable appliances. FlowDirector-640v2 features 48x 1G/10G/25G ports and 6x 40G/100G ports while the FlowDirector-3200v2 offers 32x 40G/100G breakout-capable ports. The highest-throughput model, FlowDirector-12K, features 32x 400G breakout-capable ports for next-generation data center performance. All models deliver true line-rate packet processing across all ports, leveraging switch chip-based architecture and hardware acceleration for maximum throughput, minimal latency, and optimal resource efficiency.

### Product Models

Model	Traffic Ports	1U Form Factor
640v2	48 1/10/25G SFP/SFP28	
	6 40/100G QSFP+/QSFP28	
3200v2	32 40/100G QSFP+/QSFP28	
12K	32 100/400G QSFP-DD	

# Main Features

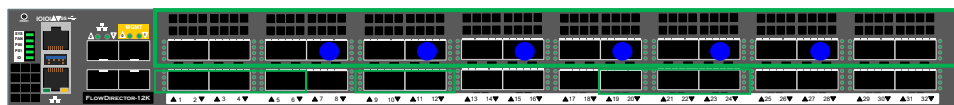
Features	Description
<p><b>High Performance Hardware Accelerated NextIO Data Path Designer</b></p>	<p>The NextIO Data Path Designer empowers network architects with a powerful, intuitive platform for designing advanced packet processing pipelines.</p> <p>Whether building complex service chains or fine-tuning visibility functions, the Data Path Designer provides a flexible, drag-and-drop interface for creating and deploying high-performance data paths with ease.</p> 
<p><b>Rich Set of Network Packet Broker Components</b></p>	<p>FlowDirector V2 offers comprehensive suite of Network Packet Broker (NPB) components, enabling modular and scalable traffic manipulation. These components include tap, filter, tag, aggregation, replication, load balancing, advanced ingress/egress filtering, and forced-link-up for data diode applications.</p> 
<p><b>Integrated Lossless Connection Matrix over 1/10/25/40/100/400G</b></p>	<p>The Integrated Lossless Connection Matrix is engineered for ultra-low latency and zero-packet-loss operation to manage connectivity between network ports and tool ports.</p> 
<p><b>Innovative, State of the Art management framework for both Web and CLI based OAM&amp;P</b></p>	<p>Designed for flexibility and ease of use, it empowers operators to configure, monitor, and manage all visibility functions through an intuitive graphical interface or powerful CLI for a comprehensive system management functions including Authentication, SNMP, Logging, and more</p> 
<p><b>Centralized Single Pane of Glass Management System</b></p>	<p>The FlowDirector V2 platform can be managed through a centralized, single pane of glass system called NextIO Device Center that unifies visibility, control, and monitoring across all deployed appliances.—reducing complexity and enabling faster, more informed decision making for network teams.</p> 

## FlowDirector v2 Series External Interface Specification

Functions	Compliance	Type	Quantity
1GbE/10GbE/25GbE Ports	IEEE 802.3z – 1 Gigabit Ethernet over optical fiber (1000BASE-X) IEEE 802.3ae – 10 Gigabit Ethernet IEEE 802.3aq – 10GBASE-LRM (Long Reach Multimode) IEEE 802.3by – 25 Gigabit Ethernet (including optical fiber and backplane)	1G SFP Fiber Optics 10G SFP+ Fiber Optics 10G SFP+ Passive DAC Cable 25G SFP28 Fiber Optics 25G SFP28 DAC	<ul style="list-style-type: none"> <li>640v2: 48</li> <li>3200v2: Up to 128</li> <li>12K: Up to 128</li> </ul>
40GbE/100GbE Ports	SFF-8436, SFF-8635 QSFP+ 40GbE Ports; SFF-8665 QSFP28 100GbE Ports	QSFP+/QSFP28 Fiber Optics QSFP+/QSFP28 DAC	<ul style="list-style-type: none"> <li>640v2: 6</li> <li>3200v2: 32</li> <li>12K: Up to 128</li> </ul>
400GbE Ports	IEEE 802.3bs / IEEE 802.3cd – 400 Gigabit Ethernet (QSFP-DD) Note1	QSFP-DD8 Fiber Optics QSFP-DD DAC QSFP-DD SR LR Up to 12W QSFP-DD ER Up to 15W Up to 16 Ports QSFP-DD ZR Up to 24W Up to 6 Ports	<ul style="list-style-type: none"> <li>640v2: 0</li> <li>3200v2: 0</li> <li>12K: 32</li> </ul>
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	
LED For SFP+/SFP28 Traffic Ports	Combo LED for Link and Activity	Amber for SFP+ Green for SFP28	
LED For QSFP+/QSFP28 Traffic Ports	Combo LED for Link and Activity	Amber for QSFP+ Green for QSFP28	

### Note 1 Optical Module Thermal Placement Guidelines

Standard modules consuming less than 12W, such as SR, DR, XDR4, LR, and standard ER optics (<12W), may be installed in any of the 32 ports. To ensure optimal thermal performance and long-term operational stability, higher power optical modules should be installed in the recommended port locations shown below.



- ≤ 24W High-power ER/ZR/ZR+ optical modules with power consumption up to 24W must be installed only in the six designated ports highlighted in blue: Ports 7, 11, 15, 19, 23, and 27.
- ≤ 16W Top row, LR/ER optical modules with power consumption up to 16W should be installed within the optimized thermal region of top row ports. Ports 7, 11, 15, 19, 23, and 27 are recommended for best thermal performance.
- ≤ 16W Bottom row, additional sites that are thermal optimized for 16W transceivers.

## FlowDirector v2 Series External Interface Specification

10/100/1000Mbps Management Port	10/100/1000BASE-T Category 5, Category 5e, Category 6 UTP	Copper RJ-45
Visible LED for RJ-45 Management Port	LED for Link LED for Activity	Green/Orange LED Green LED
USB Port	USB 2.0 High Speed 480Mbps port	USB Type A
Air Flow and Fans	PWM Controlled Long Endurance Fan	Front to Back Air Flow
Redundant Power Supply	Dual High Efficiency 100-240V AC 50/60Hz Class I	1+1 Redundant Power Supply <ul style="list-style-type: none"> <li>640v2: 400W</li> <li>3200v2: 550W</li> <li>12K: 1200W</li> </ul>

## FlowDirector v2 Series Standard Items in Package

Item	Quantity
Serial Console Cable	1
UTP Cat 6. Ethernet Cable	1
Rack Mounting Kit	1
User Manual	1

## FlowDirector v2 Series Physical Specification

Model	Net Weight	Dimension	Environment
<b>FlowDirector-640v2</b>	19 pounds 8.6 Kilograms	19 x 18.3x 1.75 (inches) 483 x 465 x 44 (millimeters)	Operating: 0–40°C (32–104°F) Storage: -40–70°C (-40–158°F) Humidity: 20–90% (non-condensing)
<b>FlowDirector-3200v2</b>	21.5 pounds 10 Kilograms	19 x 20.3x 1.75 (inches) 483 x 516 x 44 (millimeters)	Operating: 0–40°C (32–104°F) Storage: -40–70°C (-40–158°F) Humidity: 20–90% (non-condensing)
<b>FlowDirector-12K</b>	38 pounds 17 Kilograms	19 x 25.6x 1.75 (inches) 483 x 650 x 44 (millimeters)	Operating: 0–40°C (32–104°F) Storage: -40–70°C (-40–158°F) Humidity: 20–90% (non-condensing)

## FlowDirector v2 Series Order Information

Part Number	Traffic Ports	Port Specification	Software Package
<b>FD-640v2-R2</b>	48x SFP+/SFP28 + 6x QSFP+/QSFP28	48x 10G/25G SFP+/SFP28 Ports with DAC Support; 6x 40G/100G QSFP+/QSFP28 Ports	InfiniCORE NextIO Visibility OS V5, V26
<b>FD-3200v2-R2</b>	32x QSFP+/QSFP28	32x 40G/100G QSFP+/QSFP28 Ports	InfiniCORE NextIO Visibility OS V5, V26
<b>FD-12K-R2</b>	32x QSFP-DD	32x 400G QSFP-DD Ports	InfiniCORE NextIO Visibility OS V5, V26