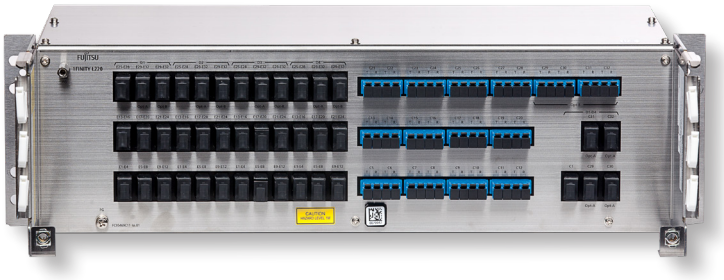
Data Sheet
1FINITY L220 4-Degree CDC Add/Drop Blade

Flexible, economical expansion options for scaling metro/regional networks

1FINITY™ L220 Blade at a Glance

- 4-degree × 28-port CDC add/drop blade
- Cost-effectively adds up to 4 degrees when paired with the L130
- Passive blade for up to 28 CDC add/drops
- Integrated fiber shuffle for L130 ROADM degree interconnection
- 5 expansion ports for L140 to increase add/drop capacity to 144 (future release)



Product Overview

The 1FINITY L220 is a passive blade that provides an original and novel way to support gridless, Colorless, Directionless, and Contentionless (CDC) add/drops in a cost-effective manner. Traditional CDC ROADM add/drop hardware remains expensive because it requires complex circuits to support contentionless functionality. Using the Wavelength Selective Switch (WSS) capability, the high number of ports, and the intelligent software on the 1FINITY L130, the L220 blade is a simple coupler/splitter approach to support up to 28 CDC add/drops cost-effectively.

A standalone 3RU passive blade, the L220 also provides interconnectivity for up to four degrees. This simplifies deployment and avoids cost and space requirements for a fiber distribution panel using a fiber shuffle. In addition, to maximize flexibility for growth, five of the ports can be used for expansion that, when paired with the upcoming 1FINITY L140 blade, increases maximum add/drops to 144.

A Novel Path to CDC ROADM

The 1FINITY L220 maximizes flexibility and scalability with five expansion ports for additional add/drop blades. When combined with the WSS on the 32-port 1FINITY L130 and L140 blades, the L220 can provide a means to minimize upfront capital investment.

This versatile blade also offers an economical solution for 4-degree sites that need the option to grow up to 144 CDC add/drop channels. The 3RU height and internal fiber shuffle, meanwhile, saves rack space and the associated expense required by an external fiber distribution panel. The L220 replaces the multicast switch and integrates gridless CDC functionality.

1FINITY CDC ROADM Solution

To stay competitive, operators need the flexibility to start small to reduce CAPEX, while maintaining the flexibility to scale to meet unpredictable growth. They must also leverage new technologies without compromising budget or margins. For operators facing limits to C-band capacity, L-band expansion is a game-changer.

The 1FINITY CDC ROADM solution is ideal for creating flexible ROADM networks with centralized software that supports autonomous control and management, such as the Virtuora® NC Solution. With CDC ROADM technology and flex-grid architecture, the solution provides optimal flexibility at the optical layer.

The 1FINITY CDC ROADM solution comprises four blades.

- 1FINITY L130 32-port CDC ROADM blade
- 1FINITY L140 8-degree × 24 CDC add/drop blade
- 1FINITY L220 4-degree × 28 CDC add/drop blade
- 1FINITY L160 backward Raman amplifier blade

Technical Specifications

Base System	
System Configuration	3RU standalone passive blade
Line Interface	
Degrees per Blade	4
Flexible Grid Support	Yes
Tx Wavelength	1528.58-1566.93 nm, 4.8 THz
Rx Wavelength	1528.58-1566.93 nm, 4. 8 THz
Physical Characteristics	
Blade Physical Dimensions (H × W × D)	5.2 × 19 × 11.82" (133 × 483 × 194 mm)
Rack Compatibility	19" and 23", 2- and 4-post
Supported in Housing	Yes
Weight	16.4 lbs (7.4 kg)
Operating Environment	
Operating Temperature	+5 to +40 ℃
Short-Term Temperature	-5 to +50℃
Operating Humidity	5% to 85%
Power	
Power Supply	Passive

Regulatory and Compliance	
FCC	FCC Part 15, Class A
NEBS	NEBS Level 3
UL/CSA	UL/IEC60950-1, UL/IEC62368-1
CE	CE
RoHS	RoHS
CISPR	CISPR 24 & CISPR 32
ETSI	EN 300-019, EN 300-132, EN 300-753, EN 300-386
WEEE	WEEE
RCM	RCM
CDRH	FDA CDRH
ROADM Capacity and Functions	
Configuration	CDC (colorless, directionless, contentionless)
ROADM degrees	Up to 4 Degrees with L130
Topology	Point-to-point, linear, ring, mesh
Maximum Number of Channels and Capacity	28 channels (expandable up to 144 channels with L140)

LASER SAFETY CLASSIFICATION & CAUTION
Compliant with IEC/EN 60825-1, -2 laser standards

CLASS 1M CAUTION
Invisble laser radiation
Do not view directly with optical instruments
Class 1M laser product

HAZARD LEVEL 1M CAUTION
Hazard level 1M laser radiation
Do not view directly with non-attenuating optical instruments

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