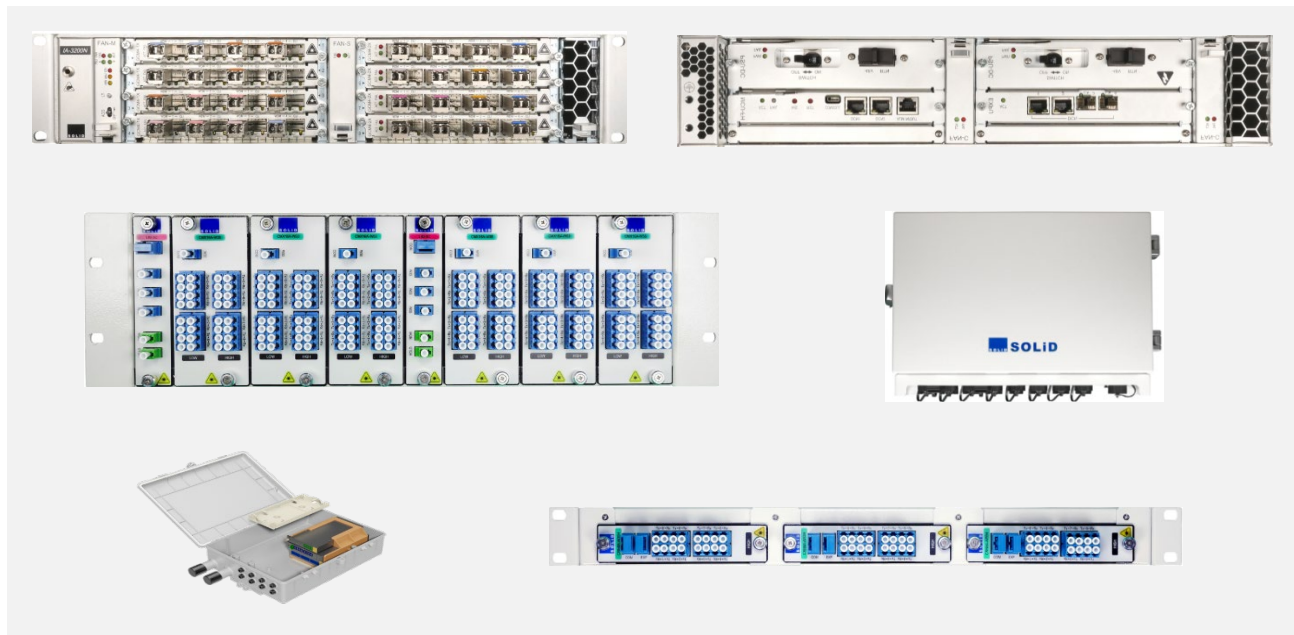# INFINITY ACCESS™
SOLiD Tunable Optical Access Platform
Product Specification / Parts List

SOLiD's INFINITY ACCESS™ platform unlocks network capacity within an existing fiber plant to achieve economies of scale, reduce capital expenditures and lower operational costs by creating simple, integrated and future-proof optical access networks.

The platform features the patented INFINITY TUNABLE LASER™ on top of wavelength-division multiplexing (WDM) and consists of both active and passive components. The active IA-3200N is installed at the Central Office (CO) and converts wavelength into C band DWDM grid as defined in ITU-T G.694.1. Passive multiplexers and demultiplexers are placed at the CO office and Remote Node (RN).

Each independent channel can carry Gigabit Ethernet and/or CPRI up to 25Gbps making INFINITY ACCESS™ a perfect fit for today's and tomorrow's mobile and enterprise access infrastructure.

INFINITY ACCESS™ supports multiple topologies including point-to-point, linear chain, and ring.

Key Features

- Cost effective access WDM platform in converging wireline and mobile environments
- Patented INFINITY TUNABLE LASER™ simplifies logistics and reduces inventory management costs
- Installation and commissioning are simplified thanks to self-tuning INFINITY optics
- Semi-active architecture can extend to fully active with outdoor transponder system
- Low system latency: fully symmetric and dedicated connections without traffic sharing or complex bandwidth control

INFINITY ACCESS™ System Overview

Item	Specifications
System Capacity	32 CPRI or eCPRI channels (i.e. 64 λs) over single fiber
Configuration	Active transponder in CO and passive in RN, tunable optics directly plugged into tail-end equipment
Topology	Point-To-Point / Point-To-Multipoint Linear / Protected Ring
Link Protection Switching Time	Less than 50ms
Interfaces	Protocol: CPRI 3/5/7/8/10, eCPRI 10G/25G Form factor: SFP+/SFP28
Wavelength Plan	Compliant to ITU-T G.694.1
Distance	10G up to 20km with 4 nodes in linear. 25G up to 10km with 4 nodes in linear
Tunable range	32 wavelengths tunable with 50GHz spacing Two SKU numbers for C band
Self-tuning	Supports MUX port aware and agnostic mode
EMS	TL1 over TCP/IP, Server-client architecture Graphical user interface for client Supports FCAPS
Power Supply	-48VDC 1+1 redundancy
Power Consumption	500W when fully loading the 10G transponder units
Operation Environment	CO: Temperature: -5 ℃ ~ +50 ℃ Humidity: 0 ~ 80% RN: Temperature: -30 ℃ ~ +70 ℃ Humidity: 0 ~ 80%

INFINITY ACCESS™ IA-3200N

- Up to 32 CPRI/GbE symmetric channels
- 19-inch 2RU height providing total eight slots for transponder units
- Two types of Transponder Unit: four ports of 10G or 25G
    - 10G Unit: CPRI Option 3/5/7/8 or 10G eCPRI
    - 25G Unit: CPRI Option 8/10 or 10G/25G eCPRI
- Line Switch Unit for ring protection
- Main Control Unit (MCU) and optional MCU expansion unit in rear side
- Power: -48VDC 1+1 redundancy / Operating Temperature: -5 ℃ ~ +50 ℃ (Ambient)

Front View

Rear View

INFINITY ACCESS™ Passive Equipment in the Central Office

- LGX form factors
- Two types of AWG modules having 50GHz channel spacing
    - 16 TX/RX Ports for 1531nm and 1551nm
- Two band (1531nm and1551nm) combining filter
- 14 slots, 3U Indoor LGX shelf

INFINITY ACCESS™ Outdoor Transponder System (OTS)

- Houses multiple transponders to support gray optic interface to client side
- Environmentally hardened outdoor enclosure
- Supports eight service channels
- Built in RN passive module
- Management by AMCC
- -48VDC or 110/220VAC power input

INFINITY ACCESS™ Passive Equipment in Remote Node (RN)

- LGX form factors
- Industrial temperature grade
- Four types of AWG modules having 50GHz channel spacing
    - Eight TX/RX ports for low and high band of 1531nm and 1551nm
- Four band (1531nm low & high and 1551nm low & high) combining filter
- Four types of ADD/DROP filter for linear (cascade) topology
    - Eight TX/RX ports for add/drop in node and one expansion port for linear connection
- Two different types of shelves:
    - Indoor 1U, 3 slots LGX shelf
   - Outdoor enclosure holds 2 RN AWG modules, IP53 rating


Indoor Remote Node
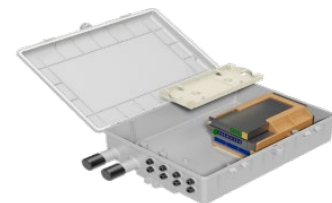
Outdoor Remote Node
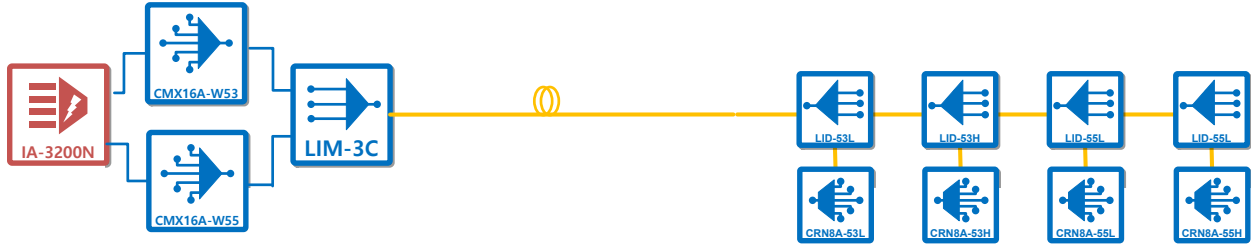
INFINITY ACCESS™ Tunable Optics

- Cost effective structure in polymer BR and EAM
- 10Gbps or 25Gbps data rate
- DWDM grid compliant to ITU-T G.694.1
- 50GHz spacing 32 wavelengths tunable transceiver
- Self-tuning for wavelengths
- Guaranteed wavelength stability using Software Wavelength Locking technology
- Remote Diagnostics by Auxiliary Massage Control Channel (AMCC)
- 21.5dB link budget at 20km (10G data rate)
- Full MSA compliant SFP+ and SFP28 form factor
- Compatible with major RAN's RU and Switch
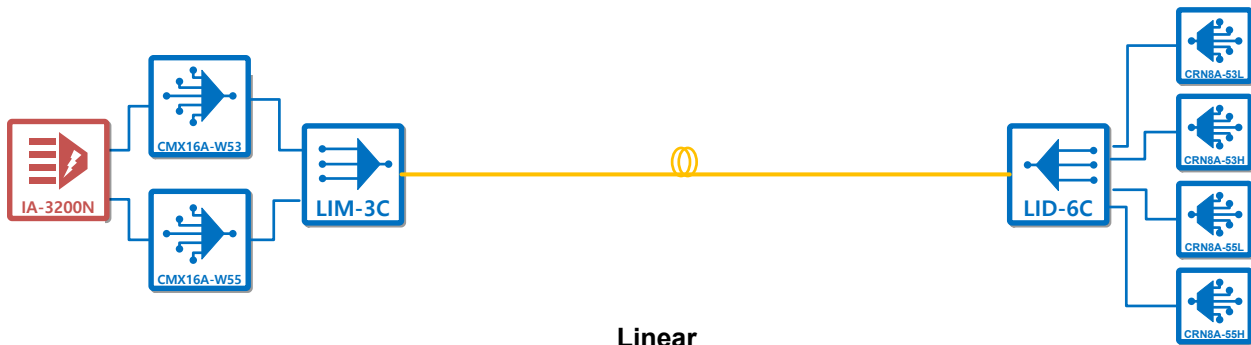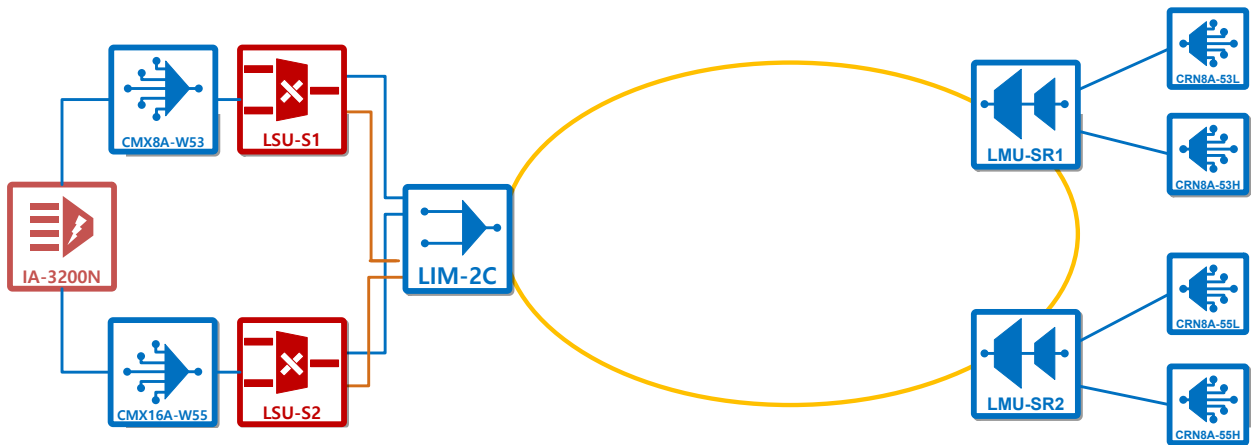- Duplex LC connector
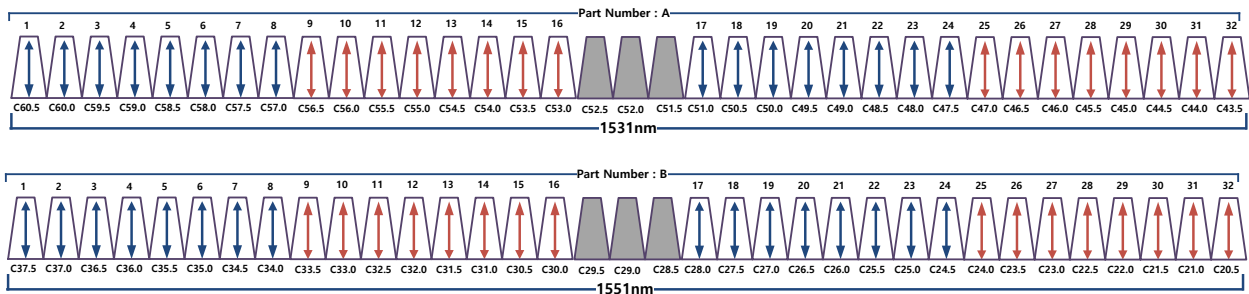
Network Application
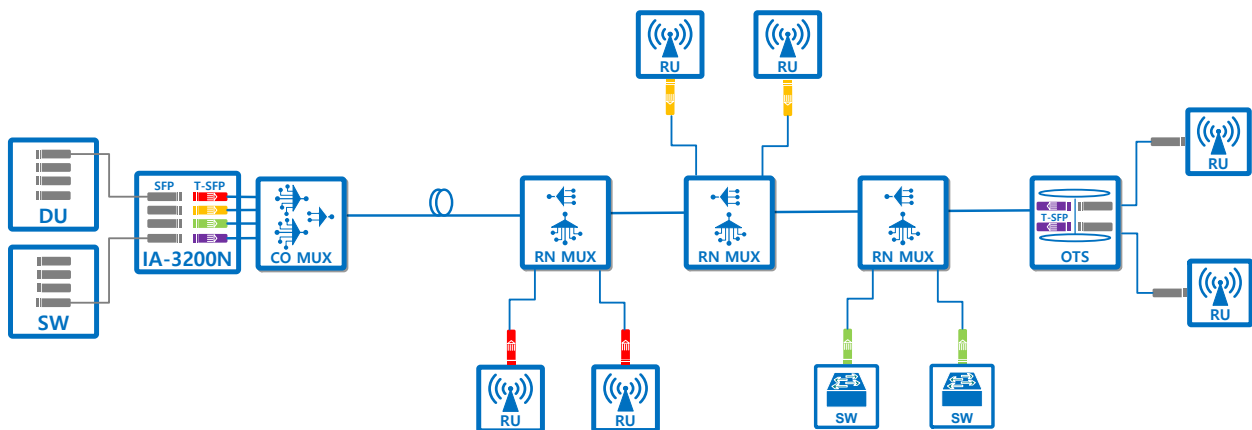
Network Topology

Point to Point

Linear

Ring