



Optical OC3/OC12, STM1/STM4 LIM for High Speed ATM or Packet

Introduction

The operational capabilities of an Xedge switch is determined in part by the slot controller in use and the number and type of associated line interface modules (LIMs). The Xedge OC-N/STM-N is an 8-port optical LIM designed for high speed ATM connections and Packet over SDH/Sonet. The LIM supports a maximum cell rate of 1,412,830 cells per second, and a physical line rate of 622 Mbps.

The OC-N LIM is intended for use with the Xedge Packet Cell Switch (PCX) slot controller. Up to two LIMs can plug into one PCX, providing up to 16 ports. Each operable port requires a singlemode or multimode Small Form Pluggable (SFP) insert. Available SFPs are listed below:

- Singlemode: OC-N/STM-N SR (2K) 1310 nm
- Singlemode: OC-N/STM-N IR (15K) 1310 nm
- Singlemode: OC-N/STM-N LR (40K) 1310 nm
- Singlemode: OC-N/STM-N LR (80K) 1550 nm
- Multimode: OC3/STM1-SR (2k) 1310 nm

LIM Applications

The OC-N/STM-N LIM with the PCX can be configured to support a variety of LIM applications. The LIM card is physically divided into two parts of four links each. The Link Population Table below demonstrates the permitted link locations for each LIM application, including Automatic Protection Switching (APS) applications.

OC-N/STM-N Link Population Variables

LIM Application	Link0	Link1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7
Eight OC-3s	OC-3	OC-3	OC-3	OC-3	OC-3	OC-3	OC-3	OC-3
Four OC-3s with APS	OC-3	APS	OC-3	APS	OC-3	APS	OC-3	APS
Two OC-3s; One OC-12	OC-3	OC-3	--	--	OC-12	--	--	--
Two OC-3s with APS; One OC-12 with APS	OC-3	APS	OC-3	APS	OC-12	APS	--	--
Four OC-3s; One OC-12	OC-12	--	--	--	OC-3	OC-3	OC-3	OC-3
Two OC-3s with APS; One OC-12 with APS	OC-12	APS	--	--	OC-3	APS	OC-3	APS
Two OC-12s with APS	OC-12	APS	--	--	OC-12	APS	--	--

LIM Features

- Up to eight OC3 or STM1 connections or up to two OC12/STM4 connections
- Automatic Protection Switching
- Up to two OC-N/STM-N LIMs for each Xedge PCX slot controller.
- Supports a combination of OC3/OC12, STM1/STM4 links (See Link Population Table below.)

Diagnostics & Alarms

Loopbacks

The OC-N LIM supports line and digital loopbacks.

Status Indications

- IS (In Service)
- AL (Alarm condition)

Alarms & Performance

The OC-N LIM support the alarms and performance monitoring statistics:

LOS	PLM	UAS	ES
LOF	LOCD	HCS	SES
LOP	CV	FC	SEFS
AIS	RDI	UNEQ	EBER

