

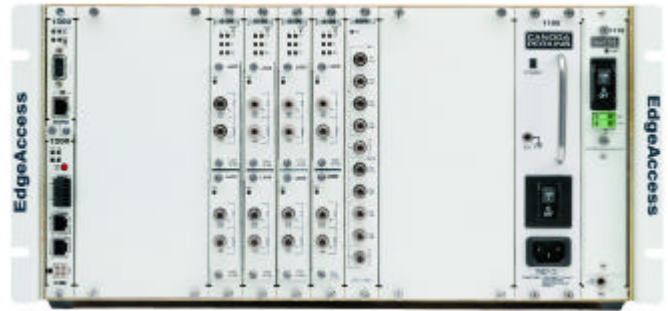
Fiber Optic Transponder L600 Series

The L600 Transponder Line Interface Module (TLIM) Series in conjunction with the 6100 Access Module creates a mode converter or a repeater that is protocol independent and supports speeds from 8Mbps to 1250Mbps.

With optional Clock Recovery, the transponder can de-jitter a degraded input signal and retransmit a cleaner signal. Service Providers may choose rate-agile modules with the SpeedCop™ bandwidth monitor option. This allows Service Providers to monitor bandwidth-specific services with one rate agile module, while remaining transparent to protocols used by the end user. Fiber path redundancy is also available.

The L600 Series TLIM can be accommodated by the 6100 Access Module stand alone unit or rack mount card. Optional management in the 6100 Access Module allows physical layer monitoring, control and alarming of each optical channel. The status of key receiver and transmitter operations, such as the quality of the input optical signal or the health of the transmitter, can be monitored

Using the L600 Series as a wavelength converter in conjunction with Canoga Perkins' 6000 Series Widely-spaced Wavelength Division Multiplexers (WDM), low-density WDM applications can be satisfied. A 1300nm to 1550nm multimode or single mode optical signal is converted by the L600 Series Transponder to a specific wavelength that is inserted into the WDM element.



4-Channel WDM System Using L600 Series Transponders

Key Features

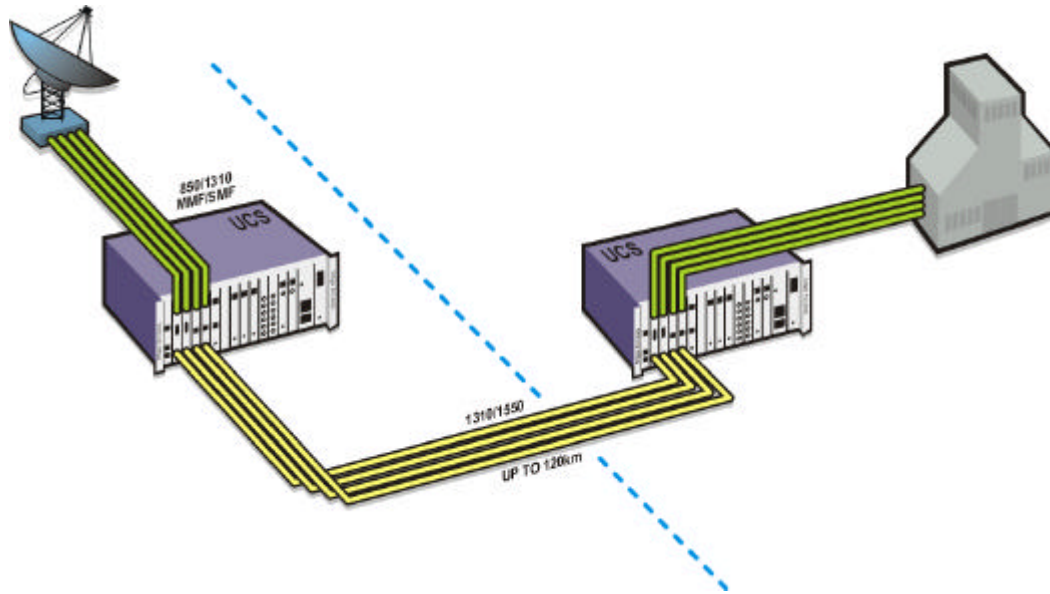
- Easy Migration from a Standard Transponder to a 2/3/4 Channel WDM System
- Ideal for Point-to-Point, Metro, Access, and Campus Applications
- Protocol Transparent Modules
- Enhanced Clocking and Management
- Optional "SpeedCop™" Bandwidth Monitor
- 8Mbps to 1.25Gbps per Channel
- Low-Cost, Wide-Spaced WDM Lasers
- Up to 30 Transponders in a single EdgeAccess® UCS Model 1000 Chassis
- Redundant Fiber Path Support



Model 6100 Stand Alone Access Module

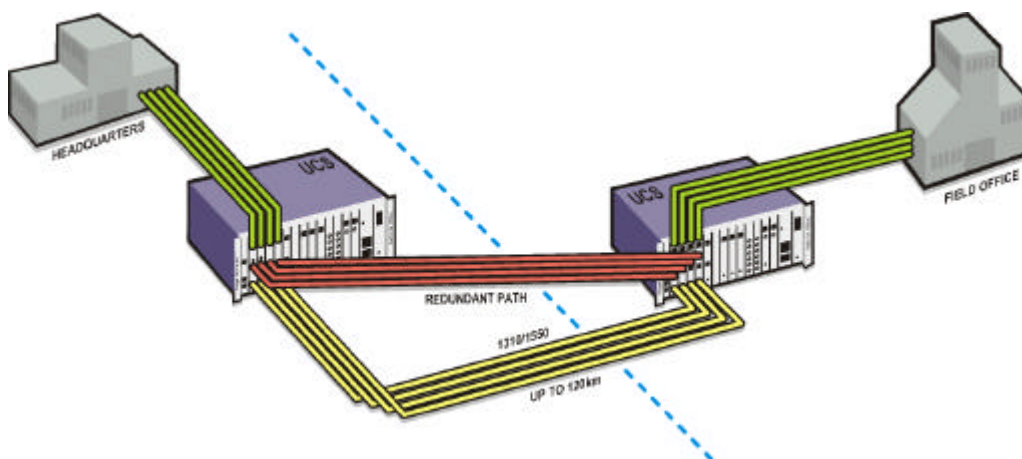


Multimode to Single Mode Conversion



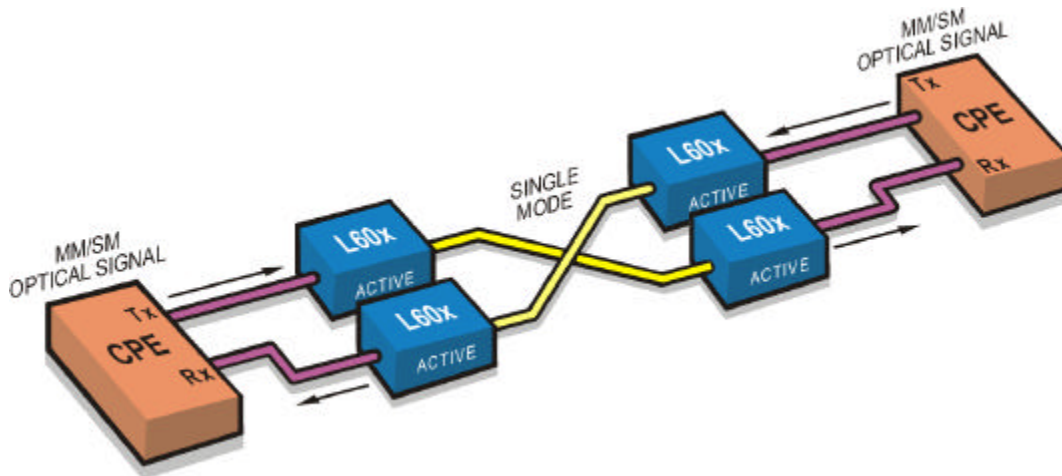
Up to thirty fiber optic transponder modules (L600) can be installed in the EdgeAccess™ UCS Model 1000 Chassis. The L600 Series transponder can convert from multimode to single mode fiber, short reach to long reach lasers, and/or 850/1310nm to 1550nm wavelengths. Each transponder module is protocol transparent and operates fully independent of the adjacent channels.

Redundant Fiber Path



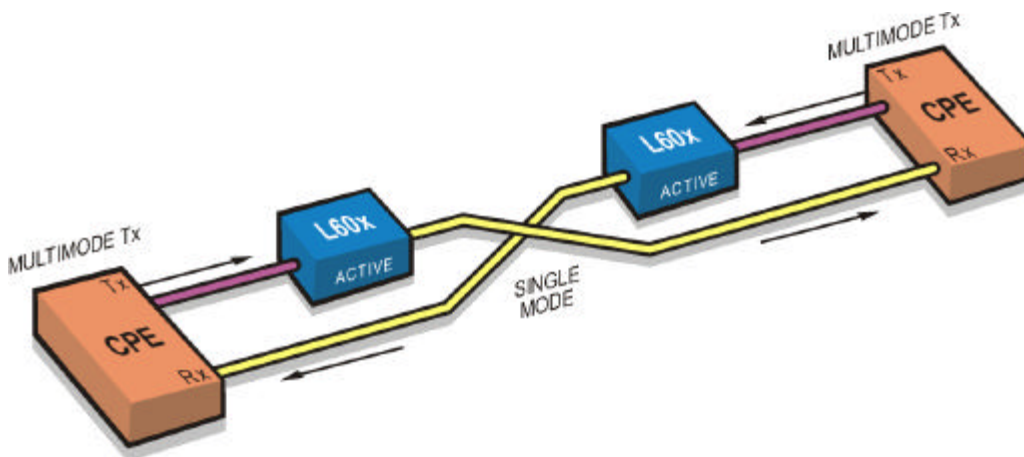
Each transponder module can also include a redundant fiber path option for extra protection. The redundant fiber option transmits the source signal over two different optical paths to two redundant receivers at the other end. If the primary path is lost, the backup receiver is switched on. Because this is done electronically rather than mechanically, it is much faster and more reliable.

Repeater



As an optical repeater, the L600 effectively extends an optical signal to cover the desired distance. With the Clock Recovery option, a degraded signal can be dejittered and retransmitted to optimize signal quality.

Mode Conversion



Mode conversion is one of the quickest and simplest ways of extending multimode optical signals over greater distances on single mode fiber optics. Applications requiring mode conversion are easily solved by using the L600. Note: Most receivers are capable of receiving both multimode and single mode optical signals.

Specifications

Local Channels

Data Rates

Low Speed Module	8 to 300Mbps
Mid Speed Module	32 to 622Mbps
High Speed Module	100 to 1250Mbps

Protocols

10/100/1000Mbps Ethernet, Token Ring, FDDI, T3/E3, ATM or SONET/SDH at OC1, OC3, or OC12, Fibre Channel, and other proprietary protocols

Low Speed Module 1310nm

Transmitter Output	-4dBm to -10dBm*
Receiver Sensitivity	-1dBm to -28dBm

Mid Speed Module 1310nm

Transmitter Output	-4dBm to -10dBm*
Receiver Sensitivity	-1dBm to -26dBm

High Speed Module 1310nm

Transmitter Output	-4dBm to -10dBm*
Receiver Sensitivity	-1dBm to -24dBm

High Speed Module 850nm - TBD

Wavelengths (Single mode or multimode)

1310nm (850nm Special Order - High Speed only)

Remote Channel

Transmitter Output

1310nm DFB Laser	-1 to -8dBm*
1480nm DFB Laser	-1 to -6dBm*
1543nm DFB Laser	-1 to -6dBm*
1550nm DFB Laser	-1 to -6dBm*

*Dependent on position of the optical power level (OPL) switch

Wavelengths (Single mode only)

Standard converters 1557nm or 1310nm
WDM converters 1310nm, 1480nm, 1543nm, 1557nm

Clock Recovery

Optional

Bandwidth Monitor

SpeedCop™

System Performance

Bit Error Rate

$<1 \times 10^{-12}$

Management

SNMP, PPP, SLIP, Telnet, TFTP
10BASE-T, EIA-232

Physical

Dimensions

Stand Alone

1.72"H x 8.45"W x 11.5"D
(44 x 215 x 292 mm)

Rack Mount

7.9"H x 1.0"W x 10.4"D
(201 x 25 x 264 mm)

Weight

Stand Alone 3.2 lb (1.45kg)

Rack Mount 1.2 lb (.54kg)

Optical Interfaces

ST, SC, FC/PC
APC Special order

Power

90 to 275VAC; 47 to 63Hz autoranging,
38 to 72VDC

Rack Mount

10W max.

Stand Alone

10W max.

Operating Environment

Temperature

0°C to 50°C

Humidity

0 to 95% (Non-condensing)

Regulatory Compliance

UL 1950/CSA C22.2 No. 950
IEC 60950
IEC 60825-1
FCC Part 15 Class A
CISPR22
AS/NZS 3548
NEBS Level 3 pending



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