

## Luxglo OTC 1550nm CATV Transmitter

The Luxglo TCDT15 transmitter module is a flexible, high quality forward path transmitter to support QAM or analog channel insertion onto HFC or FTTH networks. This low cost directly modulated transmitter supports both access and long distance video transport applications, with links up to 40Km. It has advanced distortion pre-compensation and SBS suppression to maintain high quality video over long distances. Automatic temperature control and automatic power control circuits along with a high quality cooled DFB laser insures that the Luxglo TCDT15 transmitter will be stable and dependable over the lifetime of the network. It is a member of the Luxglo OTC (Optical Transport Chassis) product family that includes Return Path Receivers, EDFAs, and CATV broadcast transmitters along with the 14 slot OTC chassis. Each

TCDT15 transmitter module houses one complete optical transmitter in a 1 slot wide package, allowing a single 4RU Luxglo OTC chassis to support as many as 14 optical links. The available high power versions allow optical splitting, and when paired with the Luxglo OTC EDFA, allows the one TCDT15 to support multiple optical links from a single Luxglo OTC shelf. As with all other OTC modules, the Luxglo TCDT15 transmitter may be configured and monitored locally via the OTC chassis controls, or remotely using SNMP, allowing it to be easily integrated to your network operations systems.



### Features and Benefits

- Fully automatic gain and power controls provide exceptional stability and linearity.
- Wide frequency range from 47 to 1000 MHz inserts content into the entire CATV band.
- Distortion pre-compensation allows high fidelity links over long distances for high video quality.
- Remote management using SNMP allows easy integration to standard operations systems.
- Automatic SBS suppression for superior quality video transmission.
- Advanced protection circuitry with alarms provides Automatic Laser Shutdown.
- Status indicators, RF monitor and Hot-swappable design for easy diagnostics & maintenance.
- Keyed laser shut-down switch allows safe maintenance of the optical network and components.
- Luxglo OTC Transport system allows flexible deployments and consistent operations.

### Applications

- Insert local content and services to broadcast stream
- Analog and digital channel support for transmission links up to 20Km
- Long distance digital transmission links (>40Km)

## Generic Specifications

### General

Dimensions W x H x D	1.2" x 5.12" x 14.6" (1 wide chassis slot)
Weight	2.5lbs. (1.13kg)
Receivers per module	1 independent transmitter per module
Optical connectors	SC/APC on front panel
RF Connectors	75Ohm, Female "F" connectors
Replacement	Plug-in, hot swappable
Modulation	Directly modulated

### Optical Performance

Wavelength	1529 to 1561nm
Output power	6-10 dBm (Optional)
CNR	>50dB
CSO	<-50 dBc
CTB	<-50 dBc

### RF Performance

RF Bandwidth	47 to 1000 MHz
RF input level	37dBmV
RF return loss	>16dB (into 75 ohm load)
RF Monitor	-20dB Referenced to RF input level

### Electrical Requirements

Power consumption	14 Watts Max
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### Environmental

Operating temp range	0 to 50 °C
Storage temp range	-30 to +70 °C
Humidity	5 to 85% (non-condensing)

### Management

The Luxglo TCDT15 transmitter is managed via OTC controller. Front panel controls on the transmitter provide local monitoring & diagnostics.	
Local management	Backlit LCD display with menus and navigation control buttons
Remote management	RJ45/LAN with SNMP

## Ordering Information

**(OTC Plug-in module, directly modulated, 1550nm CATV transmitter)**

Luxglo TCDT15 transmitter module can be ordered and customized to your specific needs as follows:

### TCDT15-pp

**pp = Optical output power/port dBm (6, 8, 10) No entry defaults to +6dBm**

## Mechanical Drawings

