

The LTE153-3000 is designed to deliver optimum performance on long-haul fiber with low dispersion. It is the ideal solution whenever the network requires long distance transmissions that support RF applications from 47 to 1003 MHz up to 120 km.

The LTE153-3000 provides a low chirp mode of operation with a very narrow spectrum. This allows the use of any 1550 nm DWDM wavelength for the transmission of broadcast and CATV, while maintaining excellent CNR, CSO, and CTB performance throughout the network.

The LTE153-3000 is packaged in a compact 19" sub-rack housing of 1RU, with dual redundant and hot-swappable power-supply modules.

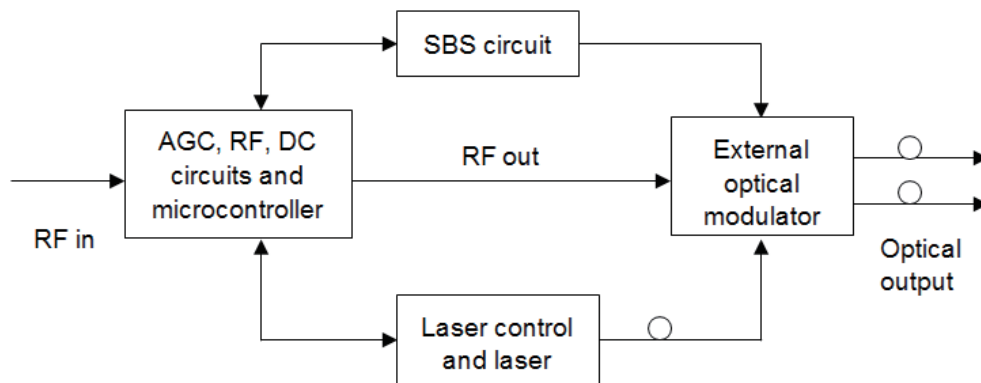
The transmitter features adjustable dispersion compensation to maximize performance for the channel plan in use.



Key Features and Functions

- RF pre-distortion circuit for excellent CSO and CTB performance together with a low distortion profile
- Versions for both long-haul applications and short-haul FTTH customer access networks
- Can be optimized for 60 PAL channels, 89 PAL channels, 80 NTSC channels or 110 NTSC channels. Flat response between 47~1003 MHz
- Dual redundant hot-swappable power supplies for universal mains or for telecom battery
- Field-adjustable Stimulated Brillouin Scattering (SBS) suppression for optimized CSO to suit 13~19 dBm fiber line drive levels.
- Front panel LCD for local monitoring. Integrated SNMP agent for Serial (RS-232) Ethernet (RJ-45) port and remote monitoring
- Front Panel RF Test Point for easy access

Block Diagram



Specifications

Optical Performance

Operating wavelength	1550 nm ± 5 nm ITU-DWDM grid channel 18~40
Output power	7.0 / 7.0 dBm output version 8.0 / 8.0 dBm output version 9.0 / 9.0 dBm output version 10.0 / 10.0 dBm output version
SBS suppression	13 to 19 dBm

RF Performance

RF bandwidth	47 ~ 1003 MHz
RF flatness	± 0.75 dB @ 47 ~ 1003MHz
RF input return loss	≥ 16 dB
RF input impedance	75 Ω
Front Panel RF test point	-20dB ± 1 dB down from RF input
RF connector	SCTE F-Type
Nominal RF input level per TV channel	Video mode
PAL 59 ch	20 ± 2 dBmV/ch
NTSC 77 ch	19 ± 2 dBmV/ch
CELENEC 42 ch	20 ± 2 dBmV/ch

SNMP Management

Network Port	RJ45-10/100baseTx
MIB	SCTE MIB for HFC optical transmitters, and associated MIBs

Link Performance *

Distance (km)	Noise (MHz)	SBS Suppression (dBm)	CNR	CSO	CTB (dB)
65	4	16.0	53	65	66

* All are measured with PBN referenced optical receiver with 65 km single-mode optical fiber 0 dBm, loaded with 77 NTSC channels.

General

Power supplies	2 slots for redundant and hot-swappable units, AC or DC: AC: 90~265 Vac 50~60 Hz; DC: -36~-72 Vdc
Power consumption	≤ 65 Watt
Operating temperature	-5 °C to +45 °C
Storage temperature	-20 °C to +70 °C
Dimensions (H x W x D)	44 x 485 x 483 mm (width includes 19" front panel ears, depth includes, connectors, fans & front panel)
Shipping size (H x W x D)	80 x 600 x 670 mm (107 dm ³)
Weight	6.0 kg
Shipping weight	6.5 kg

Order Details

LTE153-3000-[U][V1V2][W][X][Y][Z] Laser transmitter, externally modulated, 19" 1RU, with SNMP

Options:

U	Optical Output Power	X	Bandwidth
207	2x 7 dBm optical power	1G	1 GHz
208	2x 8 dBm optical power	Y	Power Supply
209	2x 9 dBm optical power	AC = 90~265 Vac 50~60 Hz, DC = -36~-72 Vdc	
210	2x 10 dBm optical power	2A	Dual mains power supplies 220 Vac
V1V2	Optical Channel	2D	Dual mains power supplies -48 Vdc
21	192.1 THz (1560.61 nm)	AD	One 220 Vac, one -48 Vdc
23	192.3 THz (1558.98 nm)	Z	Power Cable *
25	192.5 THz (1557.36 nm)	EU	Power Cable for Europe (not for use in UK)
27	192.7 THz (1555.75 nm)	CN	Power Cable for China
29	192.9 THz (1554.13 nm)	CH	Power Cable for Switzerland
31	193.1 THz (1552.52 nm)	US	Power Cable for USA
33	193.3 THz (1550.92 nm)	UK	Power Cable for UK
34	193.4 THz (1550.12 nm)	AU	Power Cable for Australia
35	193.5 THz (1549.32 nm)		
⋮	⋮		
40	194.0 THz (1545.32 nm)		
00	Standard 1550±5nm		
W	Optical Connector Type		
S	SC/APC		
E	E2000/APC		
F	FC/APC		
L	LC/APC		