

1550 nm externally modulated

Product information

The LTE153-6000 externally modulated laser transmitter for 1550 nm wavelengths is designed as a professional solution for long line CATV delivery. The unit delivers excellent performance on long-haul fibre with dispersion shifted to 1550 nm. The transmitter also operates very well in systems with legacy non-dispersion shifted fibres, optimised for 1310 nm. The transmitter provides a chirp-free mode of operation with a very narrow optical line width. This allows the use of 1550 nm wavelength for the transmission of broadband CATV, whilst maintaining excellent CNR, CSO and CTB performance throughout the network. The LTE153-6000 is packaged in a self-contained 19" sub rack housing of 1 RU, with lateral cooling and an option for dual, redundant, hot-swappable power supplies. The transmitter features field-adjustable SBS suppression to optimise performance for optical line drive levels between 14 dBm and 18 dBm. The standard unit operates on 1550 ± 5 nm with an option for DWDM lasers specified from the ITU grid. Multiple DWDM laser transmitters can be combined for transmission through a single optical amplifier. An integrated SNMP agent makes remote management and monitoring possible through an RJ45 network connection. A large LCD readout is provided for local management.



Features

- Externally-modulated transmitter with low dispersion distortion.
- RF pre-distortion circuit for excellent CSO and CTB performance with low distortion parameters.
- Designed for long-haul applications, as well as for short-haul FTTH customer access networks.
- Dual redundant universal mains hot-swappable power supplies.
- Field-adjustable Stimulated Brillouin Scattering (SBS) suppression.
- Integrated SNMP agent with RJ45 Ethernet port for remote monitoring.
- Flat RF frequency response for 45 ~ 1003 MHz.
- Dual optical outputs for 2 x 7 dBm.

| Item no. | Type no. | Output power |
|----------|---------------------|--------------|
| 64194 | LTE153-6000-SA-1013 | 2 x 7 mW |

| Optical and RF | Data |
|-----------------------------------|---|
| Optical wavelength | 1550 ± 5 nm, ITU-grid available |
| Optical output power options (mW) | 2 outputs 7.0/7.0 |
| Optical connectors | SC/APC |
| RF bandwidth (MHz) | 45 - 1003 |
| RF input level | 15-20 dBmV or 75-80dBuV |
| RF flatness (dB) | ± 0.75 @ 45 - 1003 MHz |
| RF input return loss | ≥ 16 dB |
| RF input (Ω) | 75 |
| RF test point | -20 dB ± 1 dB down from RF input |
| Link performance | (measured at 0 dBm optical input, 1550 nm 65 km SMF and 4% OMI) 60 PAL channels at 25 °C |
| SBS Suppression (dBm) | 16 |
| Carrier-to-Noise Ratio (CNR) (dB) | > 53 |
| Composite Second Order (CSO) (dB) | > 65 |
| Composite Triple Beat (CTB) (dB) | > 65 |
| General | |
| Power | Dual PSU, 90 - 265 VAC 50 - 60 Hz |
| Power Consumption (W) | max. 65 |
| Operating temperature (°C) | 0 - +45 |
| Dimensions (H x W x D mm) | 44 x 485 x 381 |
| Weight (kg) | 6 |
| Network port (SNMP/HTTP) | RJ45 with 10/100baseTx |
| Declaration of conformity | CE: EN50083-2 |