

2.5 Gbps Burst Mode Laser Driver & Post Amplifier

● General Description

The i7525BN is a combined burst mode laser driver and limiting amplifier for use within fiber optic modules for FTTX applications.

The transmit block includes a high frequency modulator and a bias current generator. The bias current can be controlled either by a fast settling APC loop, dual close loop or in open loop mode which uses a temperature lookup table.

The receiver includes a limiting amplifier with programmable bandwidth. A Signal Detect/Loss Off Signal function is implemented using the input signal modulation amplitude with user selectable threshold and hysteresis.

Operating with a 3.3V supply and rated from -40 to +85°C ambient, the i7525N is housed in a 28pin, 4X4mm, ROHS compliant, QFN package.

● Features

1. Burst-Mode common anode laser driver with up to 90mA modulation and 100mA bias current
2. 5ns output switching in Burst Mode operation.
3. Single Closed, dual closed or open loop bias mode with temperature lookup table.
4. Limiting amplifier with programmable low pass filter and output swing
5. Eye safety for Laser Diode shutdown voltage control
6. Device settings stored in external 8Kb EEPROM
7. Slave I2C internal pull up 10K resistance enable/Disable option
8. Integrate Sample and Hold circuit for TX power monitor.
9. Support TX-SD , TSSI function and Rogue ONU function
10. Integrate Digital Filter for abnormal Los pulse output.
11. Support TX power leveling (0dB,-3dB,-6dB)
12. Full compliance with SFF-8472 and SFP MSA
13. Provide I2C slave interface with speed up to 400KHz
14. Support CSFP multi-slave device address

