

# i7520N

## 2.5Gbps Burst Mode Laser Driver & Post Amplifier

### General Description

The i7520 is a combined burst mode laser driver and limiting amplifier for use within fiber optic modules for FTTx applications. Used with a low cost serial EEPROM or microcontroller it forms a complete PON diplexer silicon solution.

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 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 i7520 is housed in a 32pin, 5x5mm, RoHS compliant, QFN package.

### Applications

GEAPON/GPON ONU Transmitters

Passive Optical Network (PON) Transmitters

Fiber-to-the-Home(FTTH) and Fiber-to-the-Premises(FTTP) Broadband Access Systems

### Features

- Burst-Mode common anode laser driver with up to 90mA modulation and 100mA bias current
- 4ns output switching in Burst Mode operation.
- Closed or open loop bias mode with temperature lookup table.
- Temperature compensated modulation current setting stored in look up table
- Limiting amplifier with programmable low pass filter and output swing
- Device settings stored in external 2k EEPROM or MCU
- Support TX-SD function
- Lock APC Loop in 1 burst signal
- Support SPI interface and I2C interface
- Integrate APD voltage control
- Full compliance with SFF8472 and SFP MSA