Super High Sensitivity 1.25Gbps / 2.5 Gbps CMOS TIA

1. Introduction

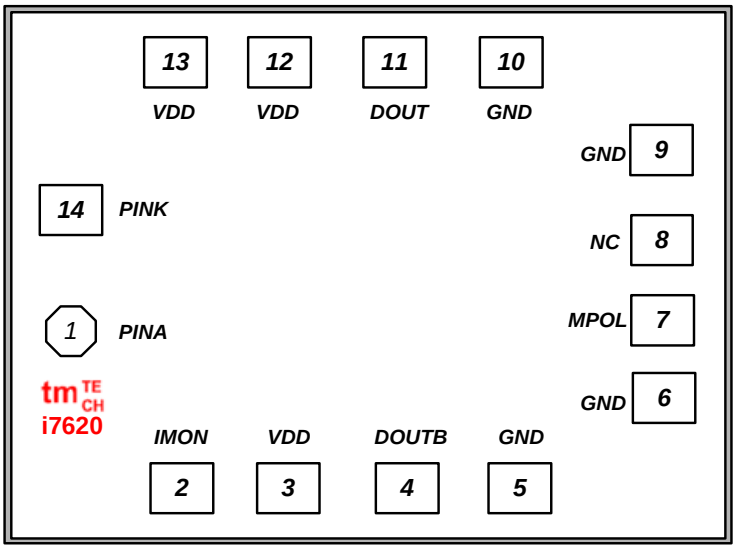
1.1 Description & Features

The i7620 is a high sensitivity transimpedance amplifier (TIA) with automatic gain control (AGC) manufactured in a low cost pure CMOS process. The AGC enables over 31 dB of dynamic operating range, resulting in a high performance TIA designed for high sensitivity 2.5 Gbps applications.

The i7620 is pad compatible with all popular 1.25 / 2.5Gbps TIAs whilst offering superior performance and additional features. The i7620 can be used in new applications or as a drop-in replacement for existing TIAs without major re-design effort.

Featuring photodiode monitor and monitor invert functions the i7620 offers the most flexible, high performance receiver solution for 1.25Gbps / 2.5 Gbps applications available.

1.2 Applications

- GPON ONT/ONU Transceivers
- GEPON ONT/ONU Transceivers
- 2.5 Gbps SFF/SFP Modules
- 1.25 Gbps SFF/SFP Modules

2. Die Pin configuration and Definition