

IPTA12G011 PRODUCT BRIEF

Introduction

IPTA12G011 is a quad, high performance, low power transimpedance amplifier for broadband optical interconnect.

It features four independent transimpedance amplifiers with a common digital management interface for control and monitoring.

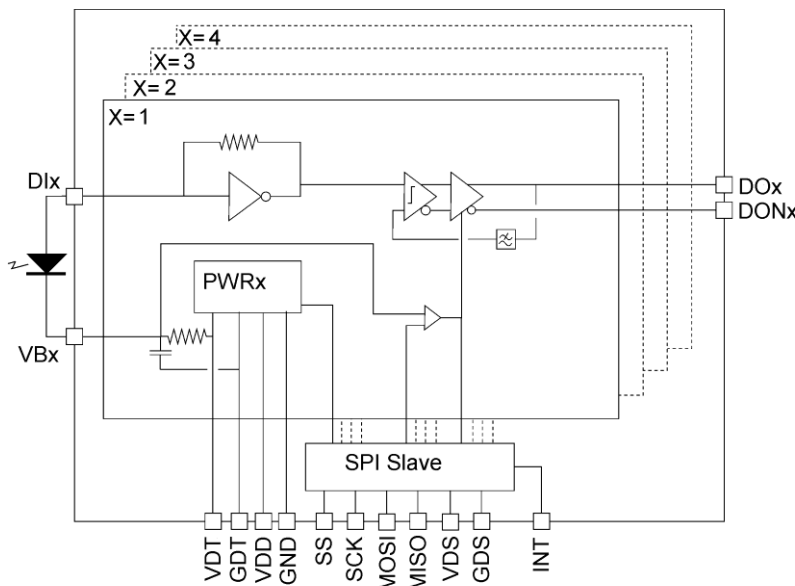


Figure 1 – Block Diagram

Each channel has a selectable squelch function which can turn off the output and generate an interrupt when no valid input signal is available.

The device is available as known-good-die. Evaluation boards are available for quick and easy performance verification

Features

- 4x12.5 Gbit/s TIA/LIA
- 10 GHz typical 3 dB BW
- 175kHz low frequency cut-off
- Power dissipation 69 mW per channel (total power including termination and PD)
- >17 kohm transimpedance
- Programmable pre-emphasis
- Integrated limiting amplifier
- Programmable output swing
- Serial digital management interface (SPI) for individual control and status read-out
- Automatic output squelch with interrupt flag
- 30dB isolation between channels
- Die size: 1850 x 2200 um

Applications

- Parallel Optical Interconnects
- 4-channel optical modules
- Active Cables

APPLICATION DIAGRAM:

IPTA12G011 features 4 individual TIA's that independently support multiple bitrates. Via the SPI control interface, each of the 4 TIA's can be configured with individual settings to accommodate the best possible performance for each of the 4 channels

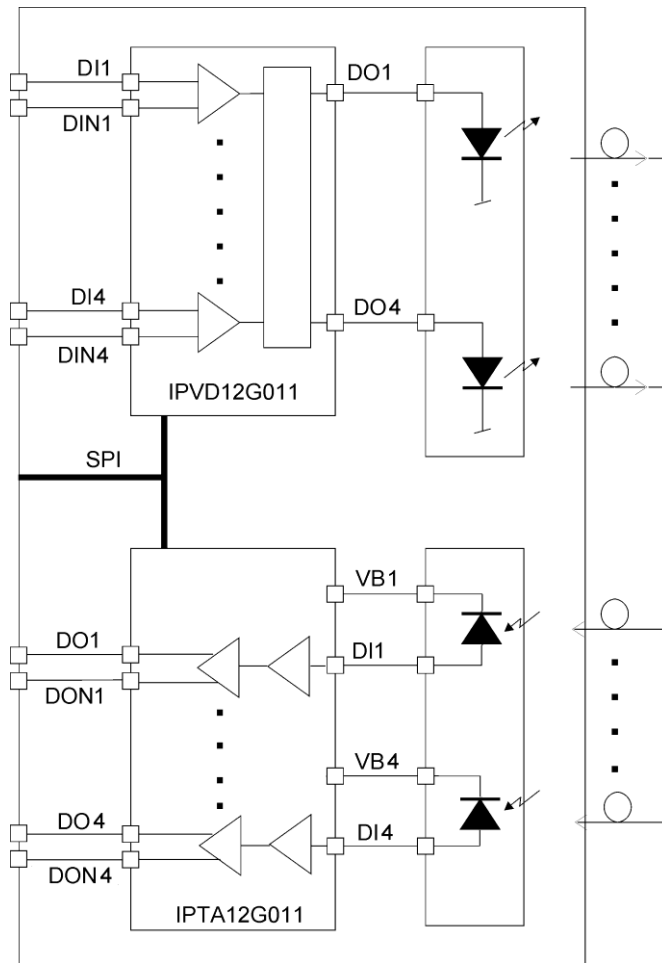


Figure 2 – Application using the IPTA12G011 and IPVD12G011

The IPTA12G011 and its counterpart the VCSEL driver IPVD12G011 form a complementary chip set for a 4-channel transceiver module.

No external components (except the optics) are required for using the IPxx12G011 transceiver devices.



IPTA12G011 PRODUCT BRIEF

Document Revision

Document ID: IPTA12G011 Product Brief

Revision number: 06

Release date: 2008-09-17

Document status: Released

For more information please visit our homepage at: www.iptronics.com

For technical support requests contact our technical support team at:
support@iptronics.com

For availability, pricing and full data sheets, please contact
sales@iptronics.com

IPTA12G011 Product Brief and this document are delivered subject to
IPtronics General Terms available at www.iptronics.com.

IPtronics A/S

Langebjergvænget 8 B, st. th.
DK-4000 Roskilde
Denmark

Phone: + 45 4632 8434
Fax: +45 4632 8433
www.iptronics.com