

Description

The GX76473 is a low-power, high-performance, quad-channel linear driver chip that is designed for 400G/600G optical integrated transmitter small-form factor (SFF) modules for metro and long-haul applications.

The GX76473 integrated quad lanes of driver with SPI circuitry for DC controls on a single die. Each channel of driver has 100Ω differential AC-coupled input and 100Ω differential DC-coupled output, and linear output voltage of 1.8V_{ppd} suitable for InP multi-level modulations.

Typical Applications

- 400/600Gbps 16QAM/64QAM advanced multi-level modulation systems
- High bandwidth SFF optical integrated modules

Features

- Data rate up to 64Gbps per channel for 400G/600G DP-mQAM applications
- > 40GHz Bandwidth
- > 10dB dynamic range of gain control
- 2.1W (typical) at linear 1.8V_{ppd}
- 1.6W (typical) for 43Gbps application
- AC-coupled 100Ω differential input/DC-coupled 100Ω differential output
- Ultra-low inter-channel cross-talk
- Peaking adjustment functionality
- Analog control for gain and output voltage setting, and analog monitor for peak detector and gain control monitor
- OIF compliant SPI digital interface integration

Block Diagram

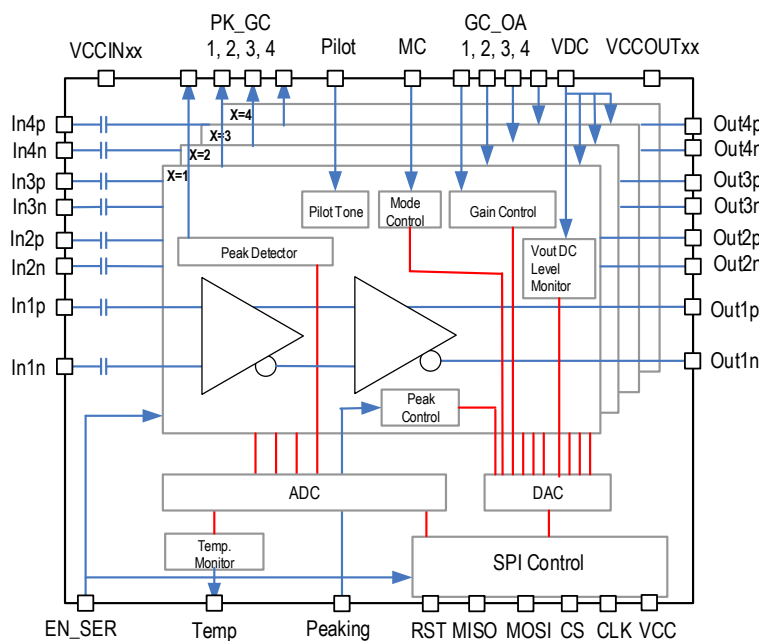


Figure 1: Block Diagram

**Corporate Headquarters**

6024 Silver Creek Valley Road
San Jose, CA 95138
www.IDT.com

Sales

1-800-345-7015 or
408-284-8200
Fax: 408-284-2775
www.IDT.com/go/sales

Tech Support

www.IDT.com/go/support

DISCLAIMER Integrated Device Technology, Inc. (IDT) and its affiliated companies (herein referred to as "IDT") reserve the right to modify the products and/or specifications described herein at any time, without notice, at IDT's sole discretion. Performance specifications and operating parameters of the described products are determined in an independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of IDT's products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of IDT or any third parties.

IDT's products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of an IDT product can be reasonably expected to significantly affect the health or safety of users. Anyone using an IDT product in such a manner does so at their own risk, absent an express, written agreement by IDT.

Integrated Device Technology, IDT and the IDT logo are trademarks or registered trademarks of IDT and its subsidiaries in the United States and other countries. Other trademarks used herein are the property of IDT or their respective third party owners. For datasheet type definitions and a glossary of common terms, visit www.idt.com/go/glossary. All contents of this document are copyright of Integrated Device Technology, Inc. All rights reserved.