

PI7C1401

SPI/I²C Quad Port Expander

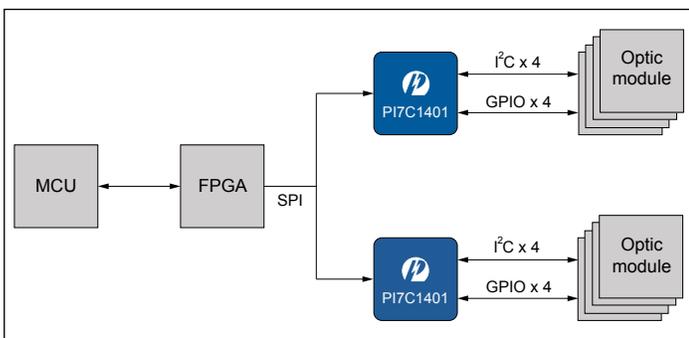
Features

- Support Low-speed signals management and I²C aggregation across four ports
- Support multiple PI7C1401s to control high-port-count through a single host interface
- Selectable I²C (up to 1Mhz) or SPI (up to 33Mhz) host control interface
- Automatic pre-fetching of critical, user-specified data from the modules
- Advanced LED features for port status indication, including programmable blinking and dimming
- Support standard SFF-8431, SFF-8472, SFF-8436, SFF-8679, INF-8074 and other such low-speed electrical interfaces, including a dedicated 100/400Khz I²C interface to each port
- Customizable events which trigger an interrupt to the host
- Broadcast Mode allows writes to all ports simultaneously
- Separate host-side I/O voltage: 1.8V to 3.3V
- Industrial Temperature Range: -40°C to 85°C
- ESD: (HBM) 4KV, (CDM) 2KV
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Packaging (Pb-free & Green):
 - 56ZF (TQFN) 5x11mm, 0.5mm pin pitch

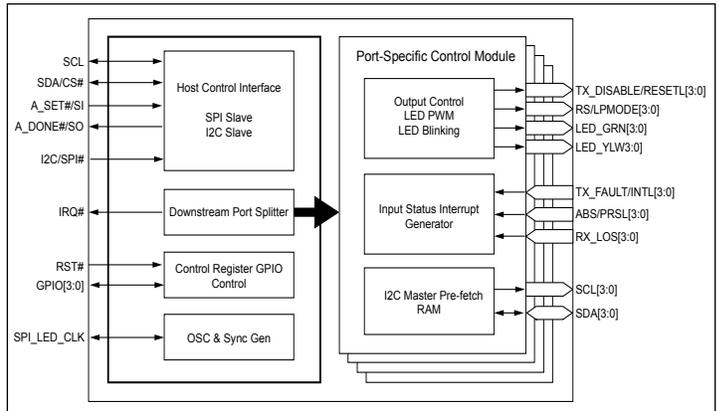
Applications

- Telecom, 5G LTE Base-Station
- Networking, Optic Switch/ Router
- Embedded, Industrial Controller
- Storage, Datacenter

Application Example



Block Diagram



Software Support

- PI7C1401 Programming Guide
- PI7C1401 Sample Code
- PI7C1401 Implementation Guide

Ordering Information

Part Number	Package	Description
PI7C1401AZFEX	ZF	56-contact, Thin Fine Pitch Quad Flat No-lead (TQFN)

Notes:

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. E = Pb-free and Green
5. X suffix = Tape/Reel