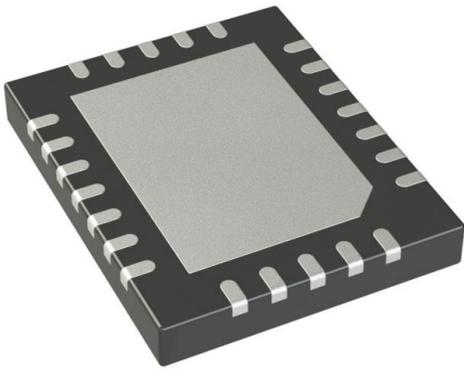


PI3DBS16222ZLEX Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	PI3DBS16222ZLEX-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	PI3DBS16222ZLEX
Description	PCIE SWITCH W-QFN2545-30
Detailed Description	PCI Express® Switch IC 1 Channel 30-TQFN (2.5x4.5)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

PI3DBS16222ZLEX

Series:

-

Applications:

PCI Express®

Switch Circuit:

8PST

On-State Resistance (Max):

-

Voltage - Supply, Dual (V±):

-

Features:

USB 3.1

Mounting Type:

Surface Mount

Supplier Device Package:

30-TQFN (2.5x4.5)

Manufacturer:

Diodes Incorporated

Product Status:

Active

Multiplexer/Demultiplexer Circuit:

1:1

Number of Channels:

1

Voltage - Supply, Single (V+):

2.97V ~ 3.63V

-3db Bandwidth:

-

Operating Temperature:

-40°C ~ 85°C

Package / Case:

30-WFQFN Exposed Pad

Base Product Number:

PI3DBS16222

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

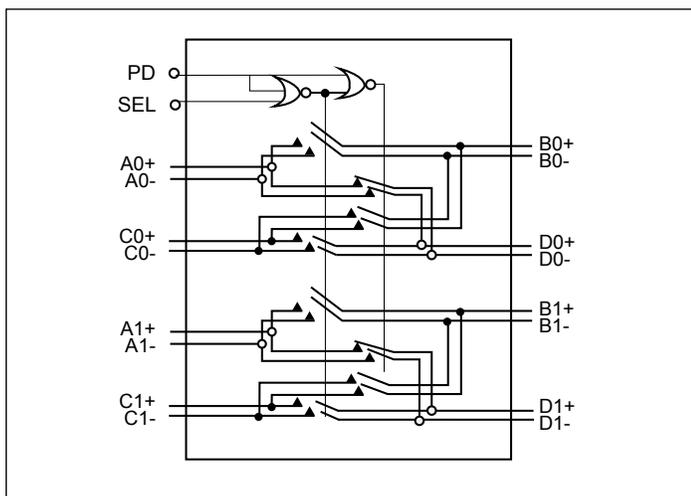
PI3DBS16222

3.3V 20Gbps 4 Channel 2x2 Exchange Switch

Features

- Four Differential Channel 2x2 Exchange Switch
- Data Rate 20Gbps Performance; Enable applications in PCI Express Gen 4, USB 3.1 Gen 2, Thunderbolt™ 3, 10G BASE-KR
- Bidirectional Operation
- Low Bit-to-Bit Skew: 10ps (Between ± Signals)
- Low Crosstalk:
 - -30dB @ 4.0GHz (8Gbps)
 - -19dB @ 8.0GHz (16Gbps)
- Low Insertion Loss:
 - -1.0dB @ 4.0GHz (8Gbps)
 - -1.5dB @ 8.0GHz (16Gbps)
 - -2.0dB @ 10 GHz
- V_{DD} Operating Range: 3.3V ± 10%
- Industrial Temperature Range: -40°C to 85°C
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. “Green” Device (Note 3)
- Packaging (Pb-free & Green):
 - 30-contact, TQFN (ZL30), 2.5mm × 4.5mm
 - 24-contact, X1QFN(XEA24), 2mm × 4mm

Block Diagram



Description

The PI3DBS16222 is a differential exchange switch featuring pass-through pinout. It supports 2x2 exchange switch operating at 20Gbps, enables applications in PCI Express Gen 4, USB 3.1 Gen 2, Thunderbolt 3, 10G BASE-KR.

With the select control input low, Port A connects to port B, and port C connects to port D for an 8-channel differential pass-through. When the select control input is high Port A connects to port D, and port B connects to port C.

Applications

- Server/Storage (PCIe Gen 4)
- PC/Notebook/Tablet/AIO (USB 3.1 Gen 2, Thunderbolt 3)
- Embedded (USB 3.1 Gen 2)
- Network Routers and Switch (10G BASE-KR)

Ordering Information

Part Number	Package	Description
PI3DBS16222ZLEX	ZL	30-contact, Thin Fine Pitch Quad Flat No-Lead Package (TQFN)
PI3DBS16222XEAEX	XEA	24-contact, Extra Thin Fine Pitch QFN (X1QFN)

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

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