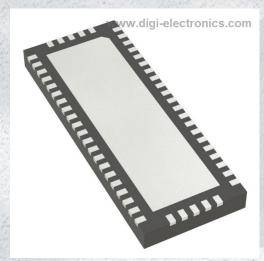


PI3WVR13612ZLEX Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number PI3WVR13612ZLEX-DG

Manufacturer Diodes Incorporated

Manufacturer Product Number PI3WVR13612ZLEX

Description DISPLAY SWITCH W-QFN3590-52

Detailed Description DisplayPort Switch IC 4 Channel 52-TQFN (3.5x9)



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:	Manufacturer:
PI3WVR13612ZLEX	Diodes Incorporated
Series:	Product Status:
DisplayPort™	Active
Applications:	Multiplexer/Demultiplexer Circuit:
DisplayPort	2:1
Switch Circuit:	Number of Channels:
SPDT	4
On-State Resistance (Max):	Voltage - Supply, Single (V+):
	3V ~ 3.6V
Voltage - Supply, Dual (V±):	-3db Bandwidth:
	7GHz
Features:	Operating Temperature:
HDMI	-40°C ~ 105°C
Grade:	Qualification:
Mounting Type:	Package / Case:
Surface Mount	52-WFQFN Exposed Pad
Supplier Device Package:	Base Product Number:
52-TQFN (3.5x9)	PI3WVR13612

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	

8542.39.0001





PI3WVR13612

DisplayPort 1.3/1.4, HDMI 2.0 Video Switch

Description

The PI3WVR13612 is a multi-standard video switch with wide voltage range capability. It supports DisplayPort 1.3/1.4, HDMI 2.0, and emerging and proprietary standards.In addition to four high-speed lanes, PI3WVR13612 also switches AUX, DDC, and HPD signals.

PI3WVR13612 can pass high-speed signals up to 1.2 V peak-to-peak differential with a common-mode voltage from 0 to 3.4V. The wide voltage range allows DC-coupled multi-standard operation. Eliminating AC coupling capacitors saves board space and improves signal integrity for dense PCB designs.

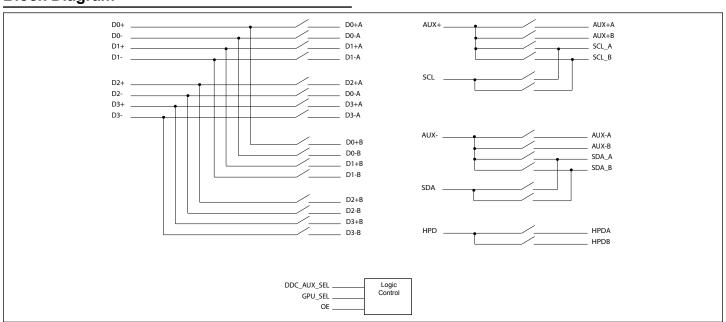
Applications

→ Routing of DisplayPort and HDMI signals with low signal attenuation between source and sink.

Features

- → DisplayPort 1.3/1.4, HDMI 2.0 Electrical standard compatible
- → 4-lane, 1:2 and 2:1 switches that support RBR, HBR1, HBR2 and HBR3
- → Data rate: 8.1 Gbps for high-speed channels
- → 1-channel 1:2 and 2:1 switches for HPD signal
- → Differential switch matrix for DP AUX and HDMI DDC
- → Supports 720 Mbps high-speed DP AUX
- → -1.6 dB Insertion Loss for high-speed channels @ 4.05 GHz
- → -3 dB Bandwidth for high-speed channels: 7 GHz
- → Return loss for high-speed channels @ 4.05 GHz: -11 dB
- → Low Crosstalk for high-speed channels: -35 dB@ 4.05 GHz
- → Low Off Isolation for high-speed channels: -20dB@ 4.05 GHz
- → Low channel-to-channel skew, 35ps max
- → Low Bit-to-Bit Skew, 5ps typ (between '+' and '-' bits)
- → VDD Operating Range: 3.3V +/-10%
- → ESD Tolerance: 1.5kV HBM
- → Packaging (Pb-free & Green): -52-pin TQFN (ZL)

Block Diagram



Ordering Information

Part Number	Package	Description
PI3WVR13612ZLEX	ZL	52-Pin, 3.5 x 9.0 mm (TQFN)

Notes:

- 1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
- See http://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimonyfree, "Green" and Lead-free. Thermal characteristics can be found on the company web site at www.diodes.com/design/support/packaging/
- 3. E = Pb-free and Green
- 4. X suffix = Tape/Reel



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Tel: +00 852-30501935

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