HD3SS3212RKSR

High Speed Differential Switch 2:1/1:2 MUX/DEMUX USB 3.1 3.3V T/R 20-Pin VQFN EP

Manufacturer:	Texas Instruments, Inc
Package/Case:	VQFN20
Product Type:	Interface ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

HD3SS3212RKSR Image

Images are for reference only

Inquiry

General Description

The HD3SS3212 is a high-speed bidirectional passive switch in mux or demux configurations suited for USB Type-C application supporting USB 3.1 Gen 1 and Gen 2 data rates. Based on control pin SEL, the device provides switching on differential channels between Port B or Port C to Port A.

The HD3SS3212 is a generic analog differential passive switch that can work for any high-speed interface applications requiring a common mode voltage range of 0 to 2 V and differential signaling with differential amplitude up to 1800 mVpp. It employs adaptive tracking that ensures the channel remains unchanged for the entire common mode voltage range.

Excellent dynamic characteristics of the device allow high-speed switching with minimum attenuation to the signal eye diagram with very little added jitter. It consumes <2 mW of power when operational and has a shutdown mode exercisable by OEn pin resulting <20 µW.

Key Features

Provides MUX/DEMUX Solution for USB Type-C? Ecosystem for USB 3.1 Gen 1 and Gen 2 Data Rates

Compatible With MIPI DSI/CSI, FPDLinkIII, LVDS, and PCIE Gen II, III

Operates up to 10 Gbps

Wide –3-dB Differential BW of over 8 GHz

Excellent Dynamic Characteristics (at 5 GHz)
Crosstalk = –32 dB

Off Isolation = –19 dB

Insertion Loss = –1.6 dB

Return Loss = –12 dB

Bidirectional "Mux/De-Mux" Differential Switch

Supports Common Mode Voltage 0 to 2 V

Single Supply Voltage VCC of 3.3 V

Commercial Temperature Range of 0°C to 70°C (HD3SS3212RKS)

Industrial Temperature Range of –40°C to 85°C (HD3SS3212IRKS)

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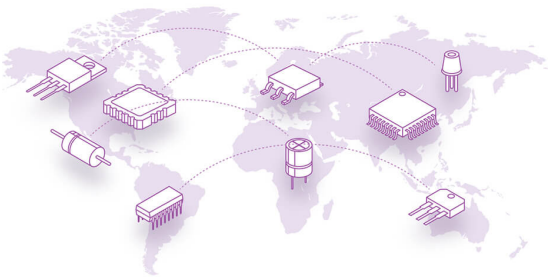

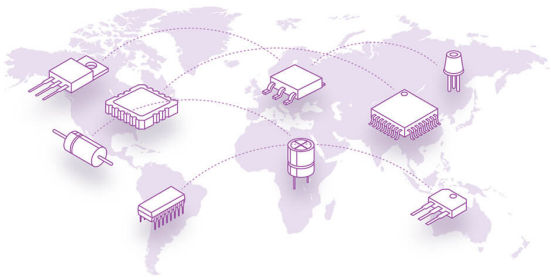

Recommended For You

HD3SS460IRHRR

Texas Instruments, Inc

WQFN28

HD3SS460IRNHR

Texas Instruments, Inc

WQFN30

HD3SS3411TRWARQ1

Texas Instruments, Inc

WQFN14

HD3SS3411IRWAR

Texas Instruments, Inc

WQFN-14

HD3SS460RNHR

Texas Instruments, Inc

WQFN30

HD3SS460RNHT

Texas Instruments, Inc

WQFN-30

HD3SS3411IRWAT

Texas Instruments, Inc

WQFN-14

HD3SS460RHRT

Texas Instruments, Inc

WQFN28

HD3SS3411RWARQ1

Texas Instruments, Inc

WQFN-14

SN74HC4066N

Texas Instruments, Inc

DIP14

SN74CBTD3384DW

Texas Instruments, Inc

SOIC

SN74CBT3306PWR

Texas Instruments, Inc

TSSOP8

CD74HC4066E

Texas Instruments, Inc

DIP

CCB3T16210QDGGRQ1

Texas Instruments, Inc

TSSOP48

SN74CBT3244PWR

Texas Instruments, Inc

TSSOP20