Analog Switch/Analog Multiplexer Dual 1:3 12-Pin UQFN T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	QFN
Product Type:	Switches
RoHS:	RoHS Compliant/Lead free RoHS
Lifecycle:	Active

TS3USBA225RUTR Image

Images are for reference only

Inquiry

General Description

The TS3USBA225 is a 2-channel single-pole triple-throw (SP3T) multiplexer that supports USB 2.0 High-Speed (480 Mbps) signals in all 3 differential channels. The first two high-speed differential channels also support Mobile High Definition Link (MHL) signaling with resolution and video frame rates up to 720p, 60 fps and 1080i, 30 fps. The remaining differential channel can also be used as an audio switch that is designed to allow analog audio signals to swing negatively. This configuration allows the system designer to use a common connector for audio and USB 2.0 or MHL data.

The TS3USBA225 has a VCC range of 2.7 V to 5.0 V with the capability to pass true-ground audio signals down to –1.8 V. The device also supports a power-down mode that can be enabled when both SEL1 and SEL2 controls are low to minimize current consumption when no signal is transmitting. The TS3USBA225 also features internal shunt resistors on the audio path to reduce clicks and pops that may be heard when the audio switches are selected.

Key Features

2.7-V to 5.0-V Operating Power Supply (VCC)

MHL/High-Speed USB (480 Mbps) Switch:
V I/O Accepts Signals up to 4.5 V (Independent of VCC)

6.5 ? rON Typical

3 pF CON Typical

1.9 GHz Bandwidth (–3 dB)

Audio Switch:
2.5 ? rON Typical

Negative Rail Capability down to –1.8 V

Low THD: < 0.05%

Internal Shunt Resistors for Click-and-Pop Reduction

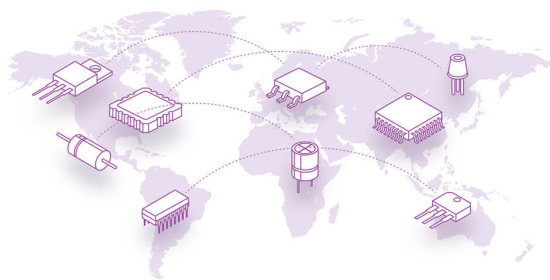1.8-V Compatible Control Input (SEL1 and SEL2) Threshold

Minimized Current Consumption (~5 μA) in Power-Down Mode

Power-Off Protection: All I/O Pins are High-Z when VCC= 0 V

12-Pin QFN Package (2 mm × 1.7 mm, 0.4 mm Pitch)

ESD Performance Tested per JESD 22
2000 V Human-Body Model(A114-B, Class II)

1000 V Charged-Device Model (C101)

Recommended For You

TS5A22362DGSR	**TS3USB221RSER**	**TS3A27518EIRTWRQ1**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
MSOP10	UQFN10	WQFN-24
TS3A27518EIRTWRQ1	**TS3USB221AQRSERQ1**	**TS3L110PWR**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
WQFN-24	UQFN10	TSSOP16
TS3L110DBQR	**TS5A3357DCUT**	**TS5A3159ADCKT**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
SSOP16	VSSOP-8	SC70-6
TS5A23166DCUR	**TS5A3159ADBVR**	**TS5A3159QDBVRQ1**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
VSSOP8	SOT23-6	SOT23-6
TS3A4741DGKR	**TS3A27518EPWR**	**DS25CP114TSQE**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
MSOP8	TSSOP24	QFN