

# DS90UB929TRGCRQ1

### LVDS Serializer 3360Mbps Automotive 64-Pin VQFN EP T/R

Manufacturer:	Texas Instruments, Inc.			
Package/Case:	VQFN64			
Product Type:	Drivers			
RoHS:	RoHS Compliant/Lead free W			
Lifecycle:	Active			



mages	are	for	reference	only

### **General Description**

The DS90UB929-Q1 is an HDMI to FPD-Link III bridge device which, in conjunction with the FPD-Link III DS90UB926Q-Q1/DS90UB928Q-Q1 deserializers, supplies 1-lane high-speed serial stream over cost-effective  $50-\Omega$  single-ended coaxial or  $100-\Omega$  differential shielded twisted-pair (STP) cable. It serializes an HDMI v1.4b input supporting video resolutions up to WXGA and 720p with 24-bit color depth. The DS90UB929-Q1 is also compatible with the DS90UB940-Q1/DS90UB948-Q1 deserializers.

The FPD-Link III interface supports video and audio data transmission and full duplex control, including I2C communication, over the same differential link. The consolidation of video data and control over one differential pair can reduce the interconnect size and weight and can simplify system design. EMI is minimized by the use of low-voltage differential signaling, data scrambling, and randomization.

The DS90UB929-Q1 supports multi-channel audio received through HDMI or an external I2S interface. The device also supplies an optional auxiliary audio interface.

### **Key Features**

AEC-Q100 qualified for automotive applications Device temperature grade 2:  $-40^{\circ}$ C to  $+105^{\circ}$ C, T<sub>A</sub>

Supports TMDS clock up to 96 MHz for WXGA and 720p60 or 1080i60 resolutions with 24-bit color depth

FPD-Link III outputs

High-definition multimedia (HDMI) v1.4b inputs HDMI-mode DisplayPort (DP++) inputs

HDMI audio extraction for up to 8 channels

Supports up to 15 meters of cable with automatic temperature and aging compensation

Monitors spread-spectrum input clock to reduce EMI

I2C (master/slave) with 1-Mbps fast-mode plus

Compatible with DS90UB926Q-Q1 and DS90UB928Q-Q1 FPD-Link III deserializers

## **Recommended For You**

SN65LVDS3486D

Texas Instruments, Inc SOP-16

DS90C031BTM Texas Instruments, Inc SOP16

SN65LVDS32D Texas Instruments, Inc SOP-16

DS90UB954TRGZTQ1 Texas Instruments, Inc QFN48

#### DS90UB947TRGCTQ1

Texas Instruments, Inc VQFN-64 SN65LVDS3487D

Texas Instruments, Inc SOP16

SN65LVDS31PW Texas Instruments, Inc TSSOP-16

SN65LVDS31D Texas Instruments, Inc SOP

DS90UB954TRGZRQ1 Texas Instruments, Inc VQFN48

DS90LV011AQMF/NOPB Texas Instruments, Inc SOT23-5 DS90C032TM Texas Instruments, Inc SOP16

SN65LVDS33D Texas Instruments, Inc SOP-16

SN65LVDS32PW Texas Instruments, Inc TSSOP16

SN65DS183TPAPRQ1 Texas Instruments, Inc HTQFP-64

Texas Instruments, Inc WQFN-48

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