

LVDS Serializer 3000Mbps Automotive 32-Pin VQFN EP T/R

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: VQFN-32

Product Type: Drivers

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

DS90UB935TRHBRQ1 Image

Images are for reference only

[Inquiry](#)

General Description

The DS90UB935-Q1 serializer is part of TI's FPD-Link III device family designed to support high-speed raw data sensors including cameras, satellite RADAR, LIDAR, and Time-of-Flight (ToF) sensors. The chip delivers a high-speed forward channel and an ultra-low latency, bidirectional control channel and supports power over a single coax (PoC) or STP cable. The DS90UB935-Q1 features advanced data protection and diagnostic features to support ADAS and autonomous driving. Together with a companion deserializer, the DS90UB935-Q1 delivers precise multi-camera sensor clock and sensor synchronization. The DS90UB935-Q1 is fully AEC-Q100 qualified with a -40°C to 105°C wide temperature range. AECQ100 qualification includes HBM ESD Classification Level 3A and CDM ESD Classification Level C6. The serializer comes in a small 5-mm × 5-mm VQFN package for space-constrained sensor applications.

Key Features

AEC-Q100 qualified for automotive applications:

Device temperature : -40°C to ambient operating temperature

ISO 10605 and IEC 61000-4-2 ESD compliant

Power-over-Coax (PoC) compatible transceiver

3-Gbps grade serializer supports high-speed sensors

D-PHY v1.2 and CSI-2 v1.3 compliant system interface

Up to 2.528-Gbps CSI-2 Bandwidth

Supports up to four virtual channels

Precision multi-camera clocking and synchronization

Flexible programmable output clock generator

Advanced data protection and diagnostics including CRC data protection, sensor data integrity check, I2C write protection, voltage and temperature measurement, programmable alarm, and line fault detection

Supports Single-ended coaxial or shielded-twisted-pair (STP) cable

Ultra-low latency bidirectional I2C and GPIO control channel enables ISP control from ECU

Single 1.8-V power supply

Low (0.25 W typical) power consumption

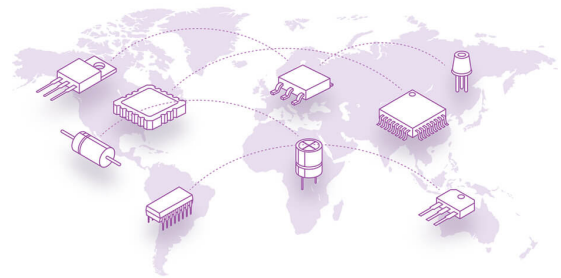
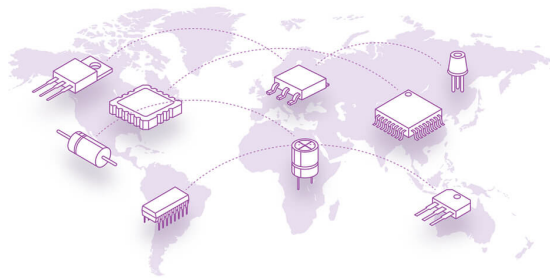
Functional Safety-Capable

Documentation available to aid ISO 26262 system design

Compatible With DS90UB936-Q1, DS90UB954-Q1, DS90UB960-Q1, DS90UB934-Q1, DS90UB914A-Q1 Deserializers

Wide temperature range: -40°C to 105°C

Small 5-mm × 5-mm VQFN package and PoC solution size for compact camera module designs



Recommended For You

SN65LVDS3486D

Texas Instruments, Inc

SOP-16

SN65LVDS3487D

Texas Instruments, Inc

SOP16

DS90C032TM

Texas Instruments, Inc

SOP16

DS90C031BTM

Texas Instruments, Inc

SOP16

SN65LVDS31PW

Texas Instruments, Inc

TSSOP-16

SN65LVDS33D

Texas Instruments, Inc

SOP-16

SN65LVDS32D

Texas Instruments, Inc

SOP-16

SN65LVDS31D

Texas Instruments, Inc

SOP

SN65LVDS32PW

Texas Instruments, Inc

TSSOP16

DS90UB954TRGZIQ1

Texas Instruments, Inc

QFN48

DS90UB954TRGZRQ1

Texas Instruments, Inc

VQFN48

SN6DSI83TPAPRQ1

Texas Instruments, Inc

HTQFP-64

DS90UB947TRGCTQ1

Texas Instruments, Inc

VQFN-64

DS90LV011AQM/NOPB

Texas Instruments, Inc

SOT23-5

DS90UB924TRHSTQ1

Texas Instruments, Inc

WQFN-48