


LVDS Deserializer 1300Mbps 1.1V Automotive 64-Pin TQFP
T/R

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



Images are for reference only

[Inquiry](#)

General Description

The DS90URxxx-Q1 chipset translates a 24-bit parallel bus into a fully transparent data/control FPD-Link II LVDS serial stream with embedded clock information. This chipset is ideally suited for driving graphical data to displays requiring 18-bit color depth: RGB666 + HS, VS, DE + three additional general-purpose data channels. This single serial stream simplifies transferring a 24-bit bus over PCB traces and cable by eliminating the skew problems between parallel data and clock paths. The device saves system cost by narrowing data paths that in turn reduce PCB layers, cable width, and connector size and pins. The DS90URxxx-Q1 incorporates FPD-Link II LVDS signaling on the high-speed I/O. FPD-Link II LVDS provides a low-power and low-noise environment for reliably transferring data over a serial transmission path. By optimizing the Serializer output edge rate for the operating frequency range, EMI is further reduced.

In addition, the device features pre-emphasis to boost signals over longer distances using lossy cables. Internal DC-balanced encoding and decoding is used to support AC-coupled interconnects. Using TI's proprietary random lock, the parallel data of the Serializer are randomized to the Deserializer without the need of REFCLK.

Key Features

Supports Displays With 18-Bit Color Depth

5-MHz to 43-MHz Pixel Clock

Automotive-Grade Product AEC-Q100 Grade 2
Qualified

24:1 Interface Compression

Embedded Clock With DC Balancing Supports
AC-Coupled Data Transmission

Capable to Drive up to 10 Meters Shielded
Twisted-Pair Cable

No Reference Clock Required (Deserializer)

Meets ISO 10605 ESD – Greater than 8 kV HBM
ESD Structure

Hot Plug Support

EMI Reduction – Serializer Accepts Spread
Spectrum Input; Data Randomization and
Shuffling on Serial Link; Deserializer Provides
Adjustable PTO (Progressive Turnon) LVCMOS
Outputs

@Speed BIST (Built-In Self-Test) to Validate
LVDS Transmission Path

Individual Power-Down Controls for Both
Transmitter and Receiver

Power Supply Range 3.3 V \pm 10%

48-Pin TQFP Package for Transmitter and 64-Pin
TQFP Package for Receiver

Temperature Range: -40°C to 105°C

Backward-Compatible Mode With
DS90C241/DS90C124



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

SN65DS183TPAPRQ1

Texas Instruments, Inc

HTQFP-64

DS90UB947TRGCTQ1

Texas Instruments, Inc

VQFN-64

DS90LV011AQM/NOPB

Texas Instruments, Inc

SOT23-5

DS90UB924TRHSTQ1

Texas Instruments, Inc

WQFN-48