

LMH1228RTVT

UHD Reclocker 32-Pin WQFN EP T/R

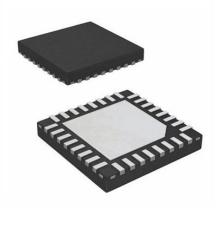
Manufacturer: <u>Texas Instruments, Inc</u>

Package/Case: WQFN32

Product Type: Discrete Semiconductor Modules

RoHS: RoHS Compliant/Lead free RoHS

Lifecycle: Active



Images are for reference only

Inquiry

General Description

The ISO774x devices are high-performance, quad-channel digital isolators with 5000 V_{RMS} (DW package) and 3000 V_{RMS} (DBQ package) isolation ratings per UL 1577. This family includes devices with reinforced insulation ratings according to VDE, CSA, TUV and CQC. The ISO7741B device is designed for applications that require basic insulation ratings only.

The ISO774x devices provide high electromagnetic immunity and low emissions at low power consumption, while isolating CMOS or LVCMOS digital I/Os. Each isolation channel has a logic input and output buffer separated by a double capacitive silicon dioxide (SiO₂) insulation barrier. These devices come with enable pins which can be used to put the respective outputs in high impedance for multi-master driving applications and to reduce power consumption. The ISO7740 device has all four channels in the same direction, the ISO7741 device has three forward and one reverse-direction channels, and the ISO7742 device has two forward and two reverse-direction channels. If the input power or signal is lost, default output is *high* for devices without suffix F and *low* for devices with suffix F. See the *Device Functional Modes* section for further details.

Used in conjunction with isolated power supplies, these devices help prevent noise currents on data buses, such as RS-485, RS-232, and CAN, or other circuits from entering the local ground and interfering with or damaging sensitive circuitry. Through innovative chip design and layout techniques, electromagnetic compatibility of the ISO774x devices have been significantly enhanced to ease system-level ESD, EFT, surge, and emissions compliance. The ISO774x devices are available in 16-pin SOIC and QSOP packages.

Key Features

100 Mbps data rate

Robust isolation barrier:

>100-year projected lifetime at 1500 V_{RMS} working voltage

Up to 5000 V_{RMS} isolation rating

Up to 12.8 kV surge capability

±100 kV/μs typical CMTI

Wide supply range: 2.25 V to 5.5 V

2.25-V to 5.5-V level translation

Default output high (ISO774x) and low (ISO774xF) options

Wide temperature range: -55°C to 125°C

Low power consumption, typical 1.5 mA per channel at 1 Mbps

Low propagation delay: 10.7 ns typical

(5-V Supplies)

Robust electromagnetic compatibility (EMC) System-level ESD, EFT, and surge immunity

 $\pm 8~kV$ IEC 61000-4-2 contact discharge protection across isolation barrier

Low emissions

Wide-SOIC (DW-16) and QSOP (DBQ-16) package options

Automotive version available: ISO774x-Q1

Safety-related certifications: DIN VDE V 0884-11:2017-01

UL 1577 component recognition program

CSA, CQC, and TUV certifications

Recommended For You

LMI1881N LMH1981MT/NOPB LMH1981MTX/NOPB

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

DIP8 TSSOP14 TSSOP14

LMH0002TMA/NOPB LMH0046MH/NOPB LMH0302SQ/NOPB

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

SOIC-8 TSSOP20 WQFN16

LM1881MX/NOPB

Texas Instruments, Inc

SOP8

LMH0002MA/NOPB

Texas Instruments, Inc

SOIC-8

LM1296N

Texas Instruments, Inc

DIP

LM1881N/NOPB

Texas Instruments, Inc

DIP

LMH0346SQE/NOPB

Texas Instruments, Inc

24WQFN

LMH1980MW/NOPB

Texas Instruments, Inc

VSSOP10

LMH0303SQ/NOPB

Texas Instruments, Inc

WQFN16

LMH0002SQ/NOPB

Texas Instruments, Inc

16-WQFN

LMH0001SQ/NOPB

Texas Instruments, Inc

QFN16