

## Digital Isolator CMOS/LVCMOS 2-CH 50Mbps Automotive 8-Pin SOIC T/R



Images are for reference only

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOIC8

**Product Type:** Drivers

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

[Inquiry](#)

### General Description

The ISO672x-Q1 devices are high-performance, dual-channel digital isolators ideal for cost sensitive applications requiring up to 5000 V<sub>RMS</sub> (DWV package) and 3000 V<sub>RMS</sub> (D package) isolation ratings per UL 1577. These devices are also certified by VDE, TUV, CSA, and CQC.

The ISO672x-Q1 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 TI's double capacitive silicon dioxide (SiO<sub>2</sub>) insulation barrier. The ISO6720-Q1 device has 2 isolation channels with both channels in the same direction. The ISO6721-Q1 device has 2 isolation channels with 1 channel in each direction. In the event of input power or signal loss, the default output is *high* for devices without suffix F and *low* for devices with suffix F. See Device Functional Modes section for further details.

## Key Features

Functional Safety-Capable

Documentation available to aid functional safety system design: ISO6720-Q1, ISO6721-Q1

AEC-Q100 qualified with the following results:

Device temperature Grade 1: -40°C to +125°C ambient operating temperature range

Meets VDA320 isolation requirements

50-Mbps data rate

Robust isolation barrier:

High lifetime at 1060 V<sub>RMS</sub> working voltage

Up to 5000 V<sub>RMS</sub> isolation rating

±150 kV/μs typical CMTI

Wide supply range: 1.71 V to 1.89 V and 2.25 V to 5.5 V

1.71-V to 5.5-V level translation

Default output *High* (ISO672x-Q1) and *Low* (ISO672xF-Q1) Options

1.8 mA per channel typical at 1 Mbps

Low propagation delay: 11 ns typical

Robust electromagnetic compatibility (EMC)

System-Level ESD, EFT, and surge immunity

±8 kV IEC 61000-4-2 contact discharge protection across isolation barrier

Low emissions

Narrow-SOIC (D-8) and Wide-SOIC (DWV-8) package

Safety-Related Certifications:

DIN VDE V 0884-11:2017-01

UL 1577 component recognition program

IEC 62368-1, IEC 61010-1, IEC 60601-1

GB 4943.1-2011

## Recommended For You

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### ISO7221BDR

Texas Instruments, Inc

SOP8

### ISO7740FDWR

Texas Instruments, Inc

SOIC-16

### ISO1432BDWR

Texas Instruments, Inc

SOIC16

### ISO7341CQDWRQ1

Texas Instruments, Inc

SOP-16

### ISO7760FQDBQRQ1

Texas Instruments, Inc

SSOP-16

### ISO7421EDR

Texas Instruments, Inc

SOP8

**ISO7720DR**

Texas Instruments, Inc  
SOP8

**ISO7720FQDRQ1**

Texas Instruments, Inc  
SOP8

**ISO6721FBQDRQ1**

Texas Instruments, Inc  
SOIC-8

**ISO7721FQDRQ1**

Texas Instruments, Inc  
SOP8

**ISO7721FDR**

Texas Instruments, Inc  
SOP8

**ISO1540QDRQ1**

Texas Instruments, Inc  
SOP8

**ISO7760DBQR**

Texas Instruments, Inc  
SSOP-16

**ISO7421AQDRQ1**

Texas Instruments, Inc  
SOP8

**ISO7731FQDWRQ1**

Texas Instruments, Inc  
SOIC-16