ISO7720DR

Digital Isolator CMOS 2-CH 100Mbps Automotive 8-Pin SOIC T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOP8
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

ISO7720DR Image

Images are for reference only

Inquiry

General Description

The ISO772x devices are high-performance, dual-channel digital isolators with 5000 V_{RMS} (DW and DWV packages) and 3000 V_{RMS} (D package) isolation ratings per UL 1577. This family includes devices with reinforced insulation ratings according to VDE, CSA, TUV and CQC. The ISO7721B device is designed for applications that require basic insulation ratings only.

The ISO772x 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 (SiO_2) insulation barrier. The ISO7720 device has both channels in the same direction while the ISO7721 device has both channels in the opposite 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 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, from damaging sensitive circuitry. Through innovative chip design and layout techniques, the electromagnetic compatibility of the ISO772x devices has been significantly enhanced to ease system-level ESD, EFT, surge, and emissions compliance. The ISO772x family of devices is available in 16-pin SOIC wide-body (DW), 8-pin SOIC wide-body (DWV), and 8-pin SOIC narrow-body (D) packages.

Key Features

100 Mbps data rate

Robust isolation barrier:
>100-Year projected lifetime at 1.5 kV_{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* (ISO772x) and *Low* (ISO772xF) Options

Wide temperature range: –55°C to +125°C

Low power consumption, typical 1.7 mA per channel 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

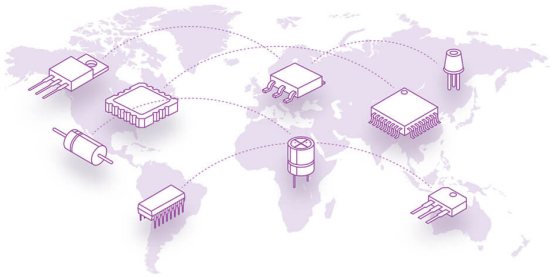
Wide-SOIC (DW-16, DWV-8) and Narrow-SOIC (D-8) package options

Automotive Version Available: *ISO772x-Q1*

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

UL 1577 component recognition program

CSA, CQC and TUV certifications



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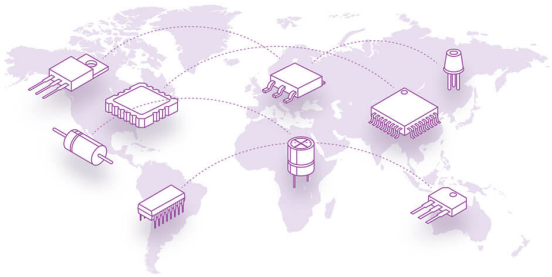

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Recommended For You

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

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

ISO7710FQDRQ1

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SOP8