


Digital Isolator CMOS 6-CH 100Mbps 16-Pin SOIC Tube

Manufacturer:	Texas Instruments, Inc
Package/Case:	WSOP16
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The ISO776x devices are high-performance, six-channel digital isolators with 5000- V_{RMS} (DW package) and 3000- V_{RMS} (DBQ package) isolation ratings per UL 1577. This family of devices is also certified according to VDE, CSA, TUV and CQC.

The ISO776x family of devices provides 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 logic-output buffer separated by a double capacitive silicon dioxide (SiO_2) insulation barrier. The ISO776x family of devices is available in all possible pin configurations such that all six channels are in the same direction, or one, two, or three channels are in reverse direction while the remaining channels are in forward direction. If the input power or signal is lost, 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, this family of devices helps 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 ISO776x family of devices has been significantly enhanced to ease system-level ESD, EFT, surge, and emissions compliance. The ISO776x family of devices is available in 16-pin SOIC and SSOP packages.

Key Features

100 Mbps data rate

Robust isolation barrier:
>100-Year projected lifetime

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* (ISO776x) and *low* (ISO776xF) Options

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

Low power consumption, typical 1.4 mA per channel at 1 Mbps

Low propagation delay: 11 ns typical at 5 V

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) and SSOP (DBQ-16) package options

Automotive version available: *ISO776x-Q1*

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

UL 1577 component recognition program

CSA Certification per IEC 60950-1, IEC 62368-1, and IEC 60601-1

CQC Certification per GB4943.1-2011

TUV Certification according to EN 60950-1 and EN 61010-1

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

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