

## Digital Isolator Logic 4-CH 25Mbps Automotive 16-Pin SOIC

T/R

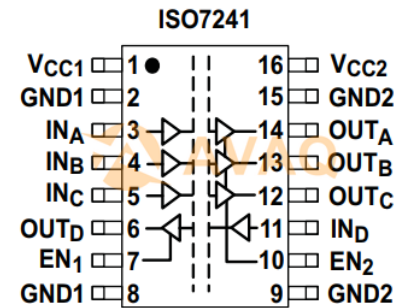
**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOP-16

**Product Type:** Drivers

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active



Images are for reference only

[Inquiry](#)

### General Description

The ISO7240x, ISO7241x, and ISO7242x devices are quad-channel digital isolators with multiple channel configurations and output-enable functions. These devices have logic-input and logic-output buffers separated by Texas Instrument's silicon-dioxide (SiO<sub>2</sub>) isolation barrier. Used in conjunction with isolated power supplies, these devices help block high voltage, isolate grounds, and prevent noise currents from entering the local ground and interfering with or damaging sensitive circuitry.

The ISO7240x family of devices has all four channels in the same direction. The ISO7241x family of devices has three channels in the same direction and one channel in the opposite direction. The ISO7242x family of devices has two channels in each direction.

The devices with the C suffix (C option) have TTL input thresholds and a noise-filter at the input that prevents transient pulses from being passed to the output of the device. The devices with the M suffix (M option) have CMOS VCC/2 input thresholds and do not have the input noise filter or the additional propagation delay.

The ISO7240CF device has an input disable function on pin 7, and a selectable high or low failsafe-output function with the CTRL pin (pin 10). The failsafe output is a logic high when a logic high is placed on the CTRL pin or it is left unconnected. If a logic low signal is applied to the CTRL pin, the failsafe output becomes a logic-low output state. The input disable function of the ISO7240CF device prevents data from being passed across the isolation barrier to the output. When the inputs are disabled or VCC1 is powered down, the outputs are set by the CTRL pin.

These devices can be powered from 3.3-V or 5-V supplies on either side, in any combination. The signal input pins are 5-V tolerant regardless of the voltage supply level that is used.

These devices are characterized for operation over the ambient temperature range of -40°C to +125°C.

## Key Features

25 and 150-Mbps Signaling Rate Options

Low Channel-to-Channel Output Skew;

Low Pulse-Width Distortion (PWD);

Low Jitter Content; 1 ns Typ at 150 Mbps

Selectable Default Output (ISO7240CF)

4-kV ESD Protection

Operates With 3.3-V or 5-V Supplies

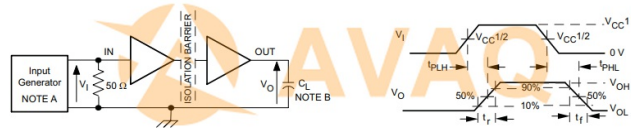
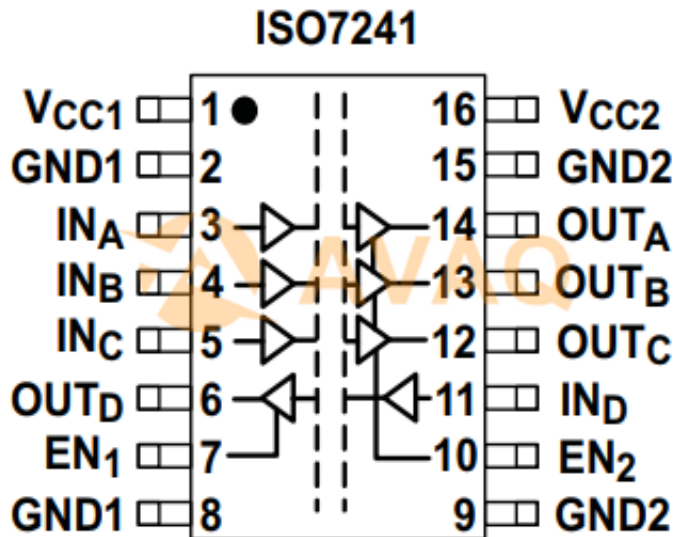
High Electromagnetic Immunity

Safety-Related Certifications:

VDE 4000 VPK Basic Insulation per DIN V VDE V 0884-10 (VDE V 0884-10):2006-12

2.5 kVRMS Insulation for 1 minute per UL 1577

CSA Component Acceptance Notice #5A and IEC 60950-1 End Equipment Standard



## 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**

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