

## Digital Isolator CMOS 4-CH 25Mbps Automotive 16-Pin SOIC T/R

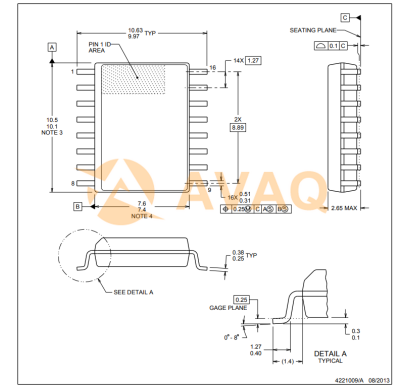
**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOP-16

**Product Type:** Drivers

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active



Images are for reference only

[Inquiry](#)

### General Description

The ISO734x family of devices provides galvanic isolation up to 3000 VRMS for 1 minute per UL 1577 and 4242 VPK per VDE V 0884-10. These devices have four isolated channels comprised of logic input and output buffers separated by a silicon dioxide (SiO<sub>2</sub>) insulation barrier.

The ISO7340x device has four channels in forward direction, the ISO7341x device has three forward and one reverse-direction channels, and the ISO7342x device has two forward and two reverse-direction channels. In case of input power or signal loss, the default output is for devices with suffix and for devices without suffix. See this section for further details.

Used in conjunction with isolated power supplies, these devices help prevent noise currents on a data bus or other circuits from entering the local ground and interfering with or damaging sensitive circuitry. The ISO734x device has integrated noise filter for harsh industrial environment where short noise pulses may be present at the device input pins. The ISO734x device has TTL input thresholds and operates from 3-V to 5.5-V supply levels. Through innovative chip design and layout techniques, electromagnetic compatibility of the ISO734x family of devices has been significantly enhanced to enable system-level ESD, EFT, surge, and emissions compliance.

For all available packages, see the orderable addendum at the end of the datasheet.

## Key Features

Signaling Rate: 25 Mbps

Integrated Noise Filter on the Inputs

Default Output and Options

Low Power Consumption, Typical ICC per Channel at 1 Mbps:

ISO7340x: 0.9 mA (5-V Supplies),

ISO7341x: 1.2 mA (5-V Supplies),

ISO7342x: 1.3 mA (5-V Supplies),

Low Propagation Delay: 31 ns

Wide Temperature Range: -40°C to 125°C

70-KV/ $\mu$ s Transient Immunity,

Robust Electromagnetic Compatibility (EMC)

System-level ESD, EFT, and Surge Immunity

Low Emissions

Operates from 3.3-V and 5-V Supplies

Wide-Body SOIC-16 Package

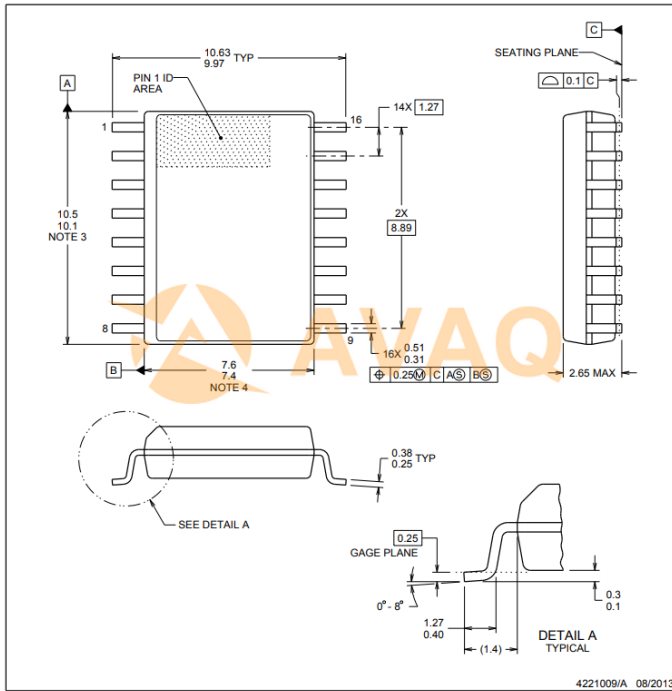
Safety-Related Certifications:

4242-VPK Basic Isolation per DIN V VDE V 0884-10 and DIN EN 61010-1

3-KVRMS Isolation for 1 minute per UL 1577

CSA Component Acceptance Notice 5A, IEC 60950-1 and IEC 61010-1 End Equipment Standards

GB4943.1-2011 CQC Certified



## 9.2 Functional Block Diagram

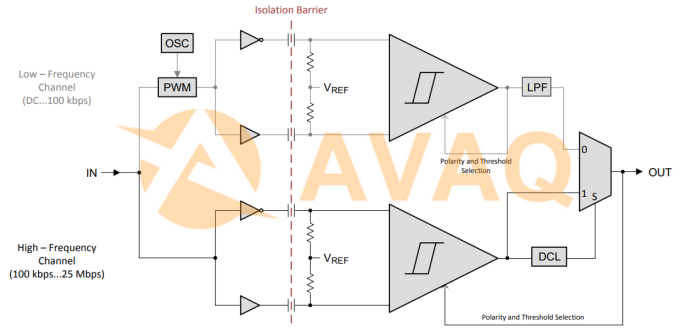


Figure 18. Conceptual Block Diagram of a Digital Capacitive Isolator

## Recommended For You

### ISO7221BDR

Texas Instruments, Inc

SOP8

### ISO7740FDWR

Texas Instruments, Inc

SOIC-16

### ISO1432BDWR

Texas Instruments, Inc

SOIC16

### 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

### ISO7710FQDRQ1

Texas Instruments, Inc

SOP8