



## ISOLATOR SELECTION GUIDE

### 隔离产品选型



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思瑞浦微电子科技(苏州)股份有限公司  
3PEAK INCORPORATED





# ABOUT 3PEAK

## 关于思瑞浦

思瑞浦微电子科技(苏州)股份有限公司(英文:3PEAKINCORPORATED, 股票代码:688536),成立于2012年,2020年9月21日在上海证券交易所科创板上市。

公司始终坚持研发高性能、高质量和高可靠性的集成电路产品,包括信号链模拟芯片、电源管理模拟芯片和数模混合模拟前端,并逐渐融合嵌入式处理器,为客户提供全方面的解决方案。

其应用范围涵盖信息通讯、工业控制、监控安全、医疗健康、仪器仪表、新能源和汽车等众多领域。

Established in 2012, 3PEAK was listed on the Shanghai Science and Technology Innovation Board on September 21, 2020. The company is committed to the research and development of high-performance, high-quality, and highly reliable integrated circuit products, including signal chains, power analog chips, mixed-signal front-ends, and embedded processors to provide customers with all-around solutions. The applications of the products cover many fields such as communication, industrial, security monitoring, medical and health, instrumentation, new energy, and automotive industry.

# DIGITAL ISOLATOR NAMING RULE

TPT 7XYZFQ—ABCR

**X** SERIES  
7: Basic  
8: Reinforced

**Y** NUMBER OF CHANNEL  
1: 1 channel  
2: 2 channel  
3: 3 channel  
4: 4 channel  
6: 6 channel

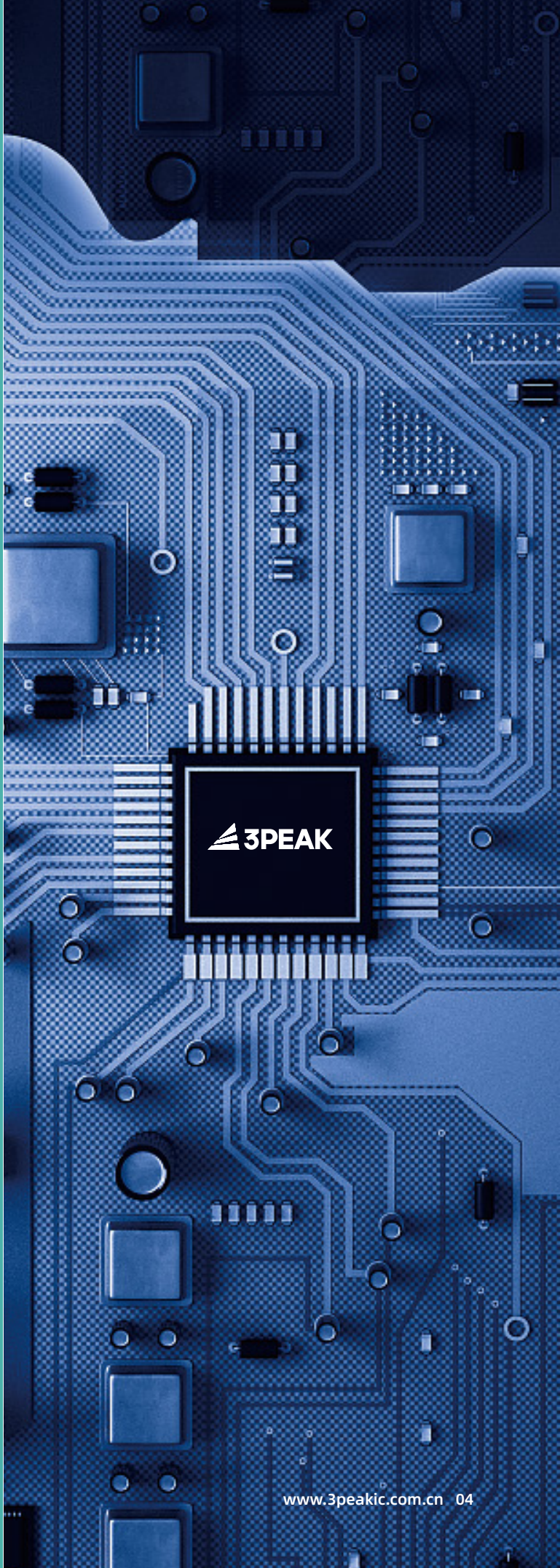
**Z** NUMBER OF REVERSE CHANNEL  
0: 0 reverse channel  
1: 1 reverse channel  
2: 2 reverse channel  
3: 3 reverse channel

**PRODUCT RATING**  
**Q**  
Without Q suffix: Industrial  
With Q suffix: Automotive

**DEFAULT OUTPUT**  
**F**  
Without F suffix: Default output high  
With F suffix: Default output low

**PACKAGE**  
**ABC**

**S01:** SOP-8      **S03:** SOP-16  
**SOA:** WSOP-8    **SOB:** WSOP-16  
**SSA:** QSOP-16   **SOF:** WWSOP-16



# ISOLATED SYSTEM SOLUTION

## DIGITAL ISOLATOR

- Basic
- Reinforced

## ISOLATED INTERFACE

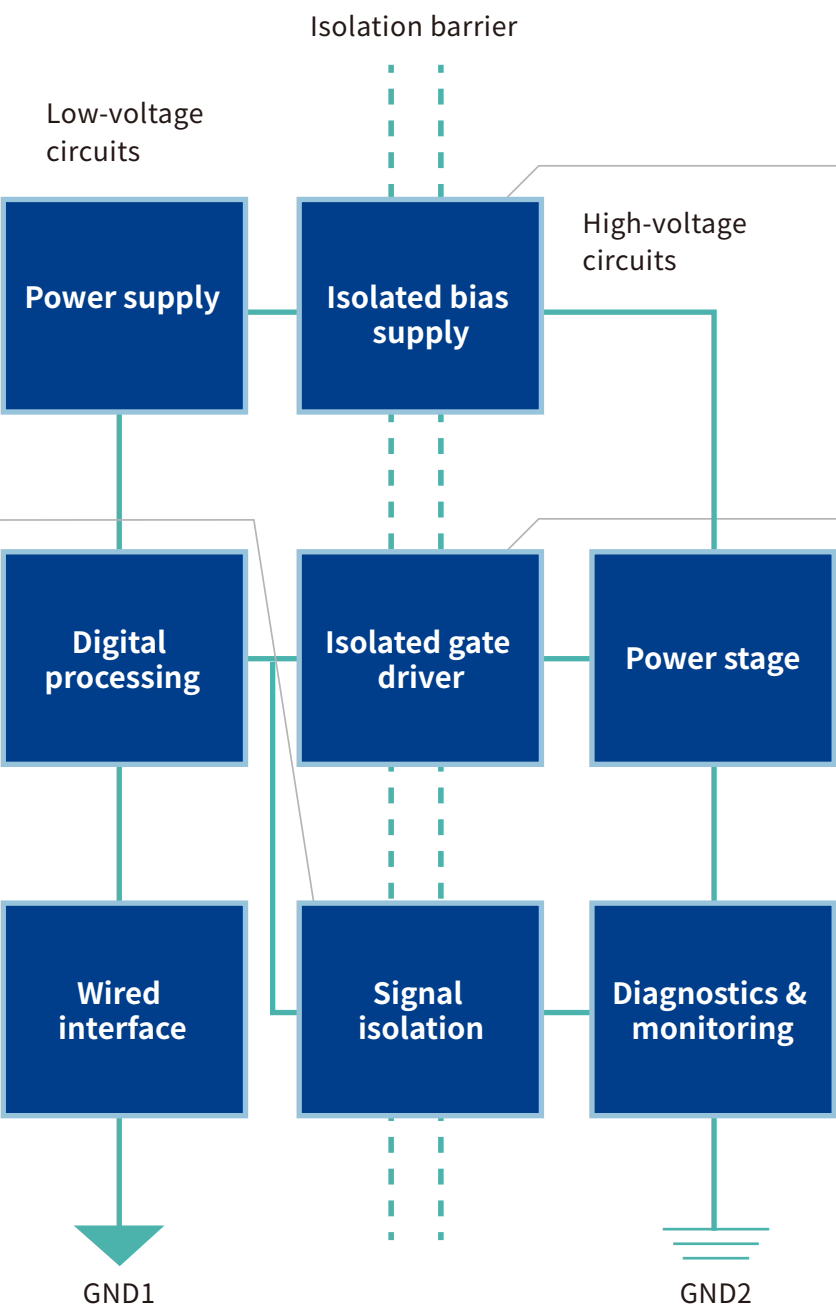
- ISO-CAN
- ISO-485
- ISO-I2C

## ISOLATED AMPLIFIER

- Differential-ended output
- Single-ended output

## ISOLATED ADC

- Clock in
- Clock out



## ISOLATED BIAS SUPPLY

- Transformer driver
- Isolated power

## ISOLATED GATE DRIVER

- Single-channel
- Dual-channel / half-bridge

## DIGITAL ISOLATOR + GATE DRIVER

- Single-channel
- Dual-channel / half-bridge

DIGITAL ISOLATOR



ISOLATED INTERFACE



DIGITAL ISOLATOR

| Part Number | Number of Channels | Forward/Reverse Channels | Isolation Rating(V rms) | Surge Voltage Capability(Vpk) | CMTI(kV/us) |         | Max Data Rate(Mbps) | Default Output | Package                |
|-------------|--------------------|--------------------------|-------------------------|-------------------------------|-------------|---------|---------------------|----------------|------------------------|
|             |                    |                          |                         |                               | Static      | Dynamic |                     |                |                        |
| TPT7710     | 1                  | 1/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP8, WSOP8, WSOP16    |
| TPT7720     | 2                  | 2/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP8, WSOP8, WSOP16    |
| TPT7721     | 2                  | 2/1                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP8, WSOP8, WSOP16    |
| TPT7722*    | 2                  | 2/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7730     | 3                  | 3/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7731     | 3                  | 3/1                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7740     | 4                  | 4/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7741     | 4                  | 4/1                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7742     | 4                  | 4/2                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7760     | 6                  | 6/0                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7761     | 6                  | 6/1                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7762     | 6                  | 6/2                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7763     | 6                  | 6/3                      | 5000                    | 10000                         | 200         | 150     | 150                 | High/Low       | SOP16, QSOP16, WSOP16  |
| TPT7820*    | 2                  | 2/0                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP8, WSOP16, WWSOP16 |
| TPT7821*    | 2                  | 2/1                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP8, WSOP16, WWSOP16 |
| TPT7822*    | 2                  | 2/0                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP8, WSOP16, WWSOP16 |
| TPT7840     | 4                  | 4/0                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP16, WWSOP16        |
| TPT7841     | 4                  | 4/1                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP16, WWSOP16        |
| TPT7842     | 4                  | 4/2                      | 5700                    | 12800                         | 200         | 150     | 150                 | High/Low       | WSOP16, WWSOP16        |

\*样品请联系销售

ISOLATED CAN

高ESD性能，高共模耐压，支持CAN FD高速率隔离CAN

| Part Number | Isolation Rating(V rms) | Surge Voltage Capability(Vpk) | CMTI(kV/us) |         | Max Data Rate(Mbps) | Bus Fault Protection Voltage | Package       |
|-------------|-------------------------|-------------------------------|-------------|---------|---------------------|------------------------------|---------------|
|             |                         |                               | Static      | Dynamic |                     |                              |               |
| TPT71050    | 5000                    | 10000                         | 200         | 150     | 5                   | 42V                          | WSOP8, WSOP16 |
| TPT71044    | 5000                    | 10000                         | 200         | 150     | 5                   | 42V                          | WSOP8, WSOP16 |
| TPT71042*   | 5000                    | 10000                         | 200         | 150     | 5                   | 70V                          | WSOP8, WSOP16 |

\*样品请联系销售

ISOLATED 485

高ESD性能全双工/半双工隔离485

| Part Number | Isolation Rating(V rms) | Surge Voltage Capability(Vpk) | CMTI(kV/us) |         | Max Data Rate(Mbps) | Mode             | Package       |
|-------------|-------------------------|-------------------------------|-------------|---------|---------------------|------------------|---------------|
|             |                         |                               | Static      | Dynamic |                     |                  |               |
| TPT7487     | 5000                    | 10000                         | 200         | 150     | 0.5                 | Half/Full Duplex | WSOP8, WSOP16 |
| TPT7488     | 5000                    | 10000                         | 200         | 150     | 0.5                 | Half/Full Duplex | WSOP8, WSOP16 |
| TPT7481     | 5000                    | 10000                         | 200         | 150     | 20                  | Half/Full Duplex | WSOP8, WSOP16 |
| TPT7482     | 5000                    | 10000                         | 200         | 150     | 20                  | Half/Full Duplex | WSOP8, WSOP16 |

ISOLATED I2C

高ESD性能隔离I2C

| Part Number | Isolation Rating(V rms) | Surge Voltage Capability(Vpk) | CMTI(kV/us) |         | Max Data Rate(Mbps) | Clock Direction  | Package |
|-------------|-------------------------|-------------------------------|-------------|---------|---------------------|------------------|---------|
|             |                         |                               | Static      | Dynamic |                     |                  |         |
| TPT72616*   | 3750                    | 10000                         | 200         | 150     | 1                   | Bidirection      | SOP8    |
| TPT72617*   | 3750                    | 10000                         | 200         | 150     | 1                   | Single Direction | SOP8    |

\*样品请联系销售

# ADVANTAGES

- 01 全自主研发  
Fully Independent Research and Development
- 02 高隔离耐压,抗浪涌电压能力>10kV  
High Isolation Voltage and Surge Voltage > 10kV
- 03 完整TDDb实验,超长隔离使用寿命>60years  
Isolation Lifetime Proved by TDDb Results > 60years
- 04 VDE, TUV, UL, CSA, CQC ,CB 全系列安规认证证书  
All Series of VDE, TUV, UL, CSA, CQC, and CB Safety Certification
- 05 高抗共模干扰能力CMTI达到200kV/us,适用于SiC/GaN应用  
200kV/us High CMTI Suitable for SiC/GaN Application
- 06 高ESD能力,IEC61000-4-2 ESD 8kV  
IEC61000-4-2 ESD >8kV



| VDE                                                                | TUV                                                | UL                                     | CSA                                                 | CQC                                              | CB                                            |
|--------------------------------------------------------------------|----------------------------------------------------|----------------------------------------|-----------------------------------------------------|--------------------------------------------------|-----------------------------------------------|
| Verband Deutscher<br>Elektrotechniker<br>VDE 0884-17 / IEC60747-17 | Technischer<br>Überwachungsverein<br>EN IEC62368-1 | Underwriters<br>Laboratories<br>UL1577 | Canadian Standards<br>Association<br>IEC 60601:2005 | China Quality<br>Certification<br>GB 4943.1-2011 | Certification<br>Bodies' Scheme<br>IEC62368-1 |

# APPLICATIONS



变频器



通信



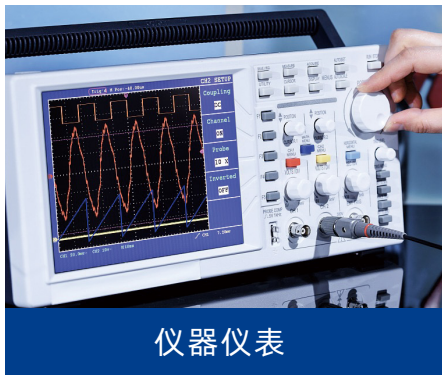
工业自动化



光伏逆变器



医疗设备



仪器仪表



风 电



新能源汽车

# FEATURES

- 150 Mbps data rate supported
- Typical propagation delay: 12 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part Skew: <5ns
- Power: 3mA @1Mbps/ channel typical (3.3V)
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRms Isolation Rating
- Surge: 10 kVPEAK (WSOP), 6kVPEAK(SOP)
- 1000VRms Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- SOP8, WSOP8, WSOP16 with 8 mm creepage

# BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- Precise timing characteristics for low latency and high speeds

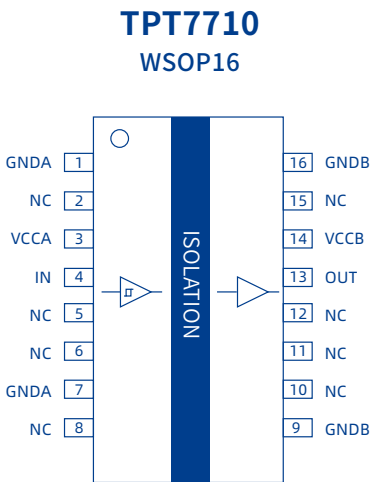
# APPLICATIONS

- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment
- Automotive - Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation - RS485, RS232/422, CAN SPI etc. and Gate drive interfaces

## TPT771x

### 1-ch Enhanced Isolator

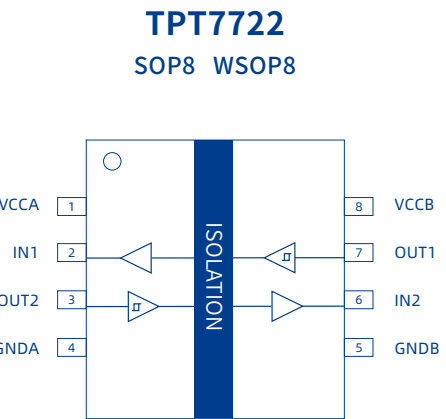
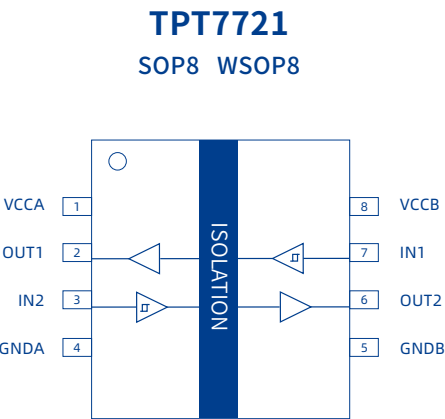
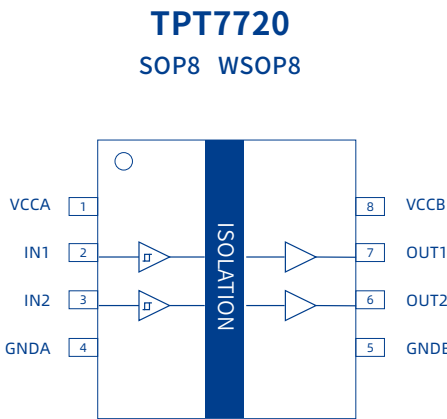
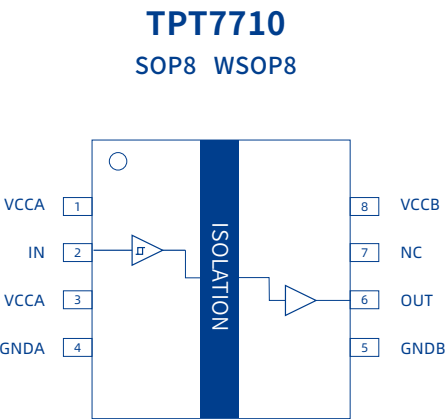
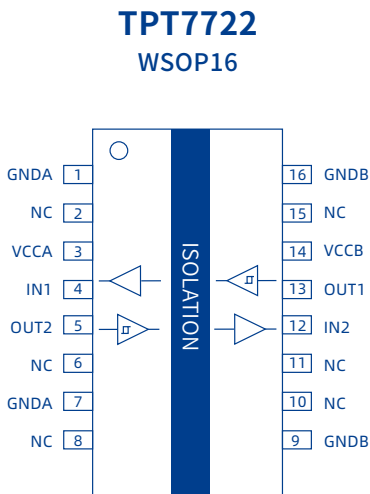
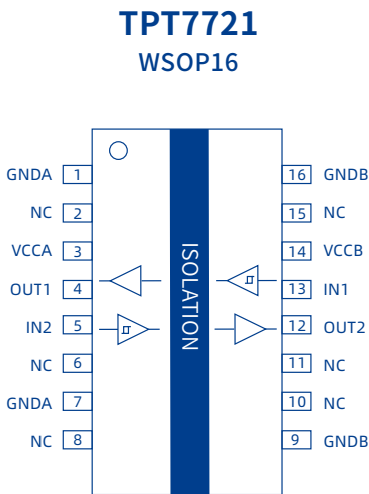
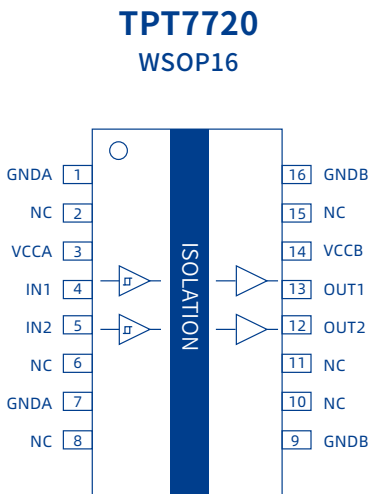
High-Reliability, 5000 VRms Enhanced Digital Isolator, 150Mbps



## TPT772x

### 2-ch Enhanced Isolator

High-Reliability, 5000 VRms Enhanced Digital Isolator, 150Mbps



## FEATURES

- 150 Mbps data rate supported
- Typical propagation delay: 12 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part Skew: <5ns
- Power: 3mA @1Mbps/ channel typical (3.3V)
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kV<sub>PEAK</sub> (WSOP), 6kV<sub>PEAK</sub>(SOP)
- 1000VRMS Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- SOP16, QSOP16, WSOP16 with 8 mm creepage

## BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- Precise timing characteristics for low latency and high speeds

## APPLICATIONS

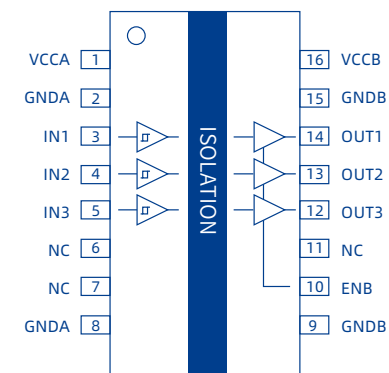
- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment
- Automotive - Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation - RS485, RS232/422, CAN SPI etc. and Gate drive interfaces

## TPT773x

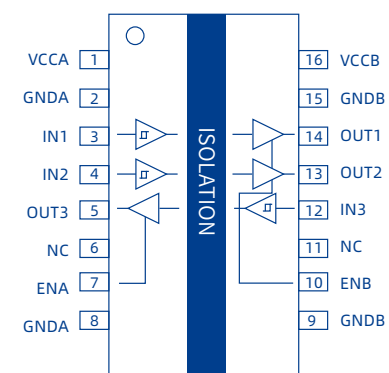
### 3-ch Enhanced Isolator

High-Reliability, 5000 VRMS Enhanced Digital Isolator, 150Mbps

**TPT7730**  
SOP16 QSOP16 WSOP16



**TPT7731**  
SOP16 QSOP16 WSOP16

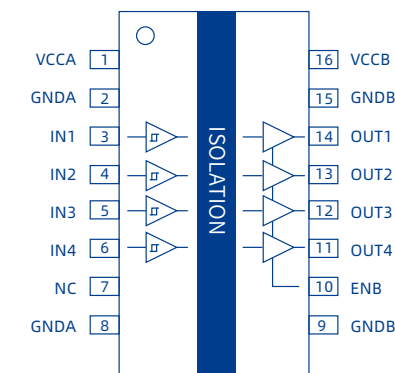


## TPT774x

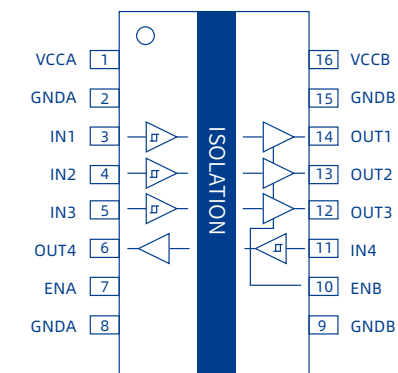
### 4-ch Enhanced Isolator

High-Reliability, 5000 VRMS Enhanced Digital Isolator, 150Mbps

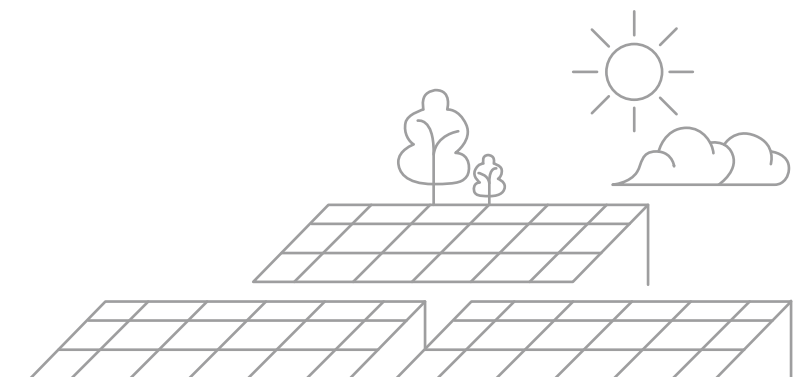
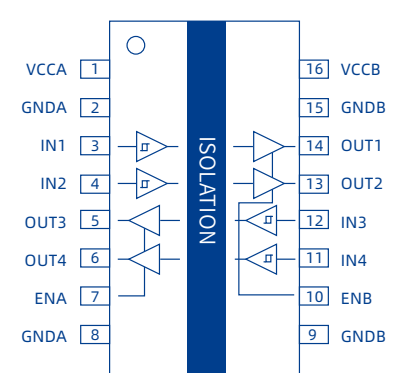
**TPT7740**  
SOP16 QSOP16 WSOP16



**TPT7741**  
SOP16 QSOP16 WSOP16



**TPT7742**  
SOP16 QSOP16 WSOP16



## FEATURES

- 150 Mbps data rate supported
- Typical propagation delay: 12 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part Skew: <5ns
- Power: 3mA @1Mbps/ channel typical (3.3V)
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kV<sub>PEAK</sub> (WSOP), 6kV<sub>PEAK</sub>(SOP)
- 1000VRMS Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- SOP16, QSOP16, WSOP16 with 8 mm creepage

## BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- Precise timing characteristics for low latency and high speeds

## APPLICATIONS

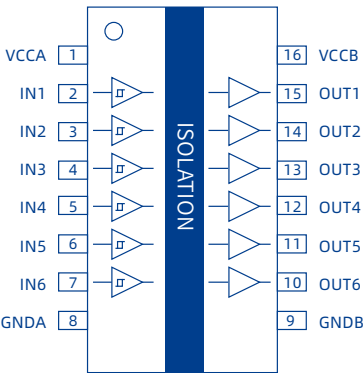
- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment
- Automotive - Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation - RS485, RS232/422, CAN SPI etc. and Gate drive interfaces

# TPT776x

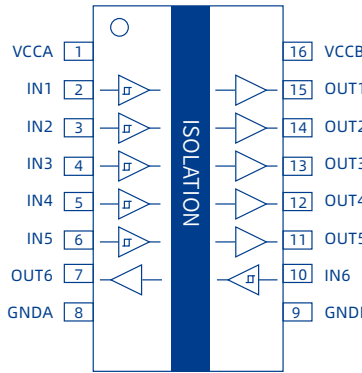
## 6-ch Enhanced Isolator

High-Reliability, 5000 VRMS Enhanced Digital Isolator, 150Mbps

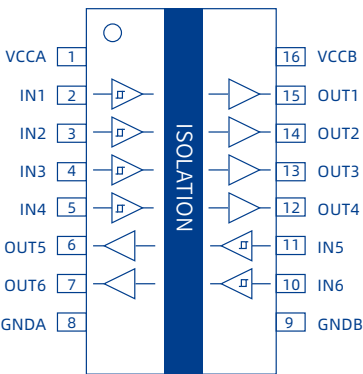
**TPT7760**  
SOP16 QSOP16 WSOP16



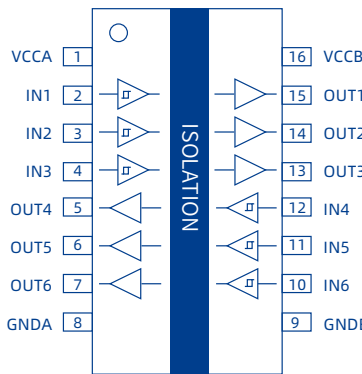
**TPT7761**  
SOP16 QSOP16 WSOP16



**TPT7762**  
SOP16 QSOP16 WSOP16



**TPT7763**  
SOP16 QSOP16 WSOP16



# FEATURES

- 150 Mbps data rate supported
- Typical propagation Delay: 10 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part-Skew: <5ns
- Power: 1mA @1Mbps/ channel typical (3.3V)
- CMTI: 150kV/μs
- UL 1577: 6000 VRMS Isolation Rating
- Surge: 12 kVPEAK (WSOP, WWSOP)
- 1500VRMS Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- WSOP16, WWSOP16 with 14 mm creepage

# BENEFITS

- Reinforced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- Precise timing characteristics for low latency and high speeds

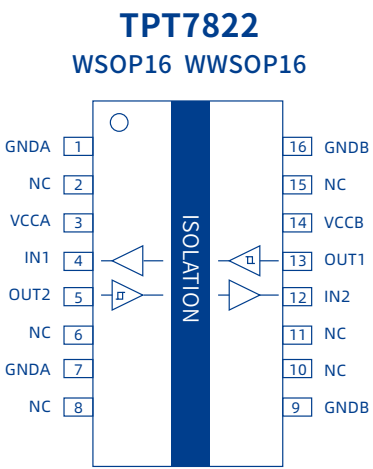
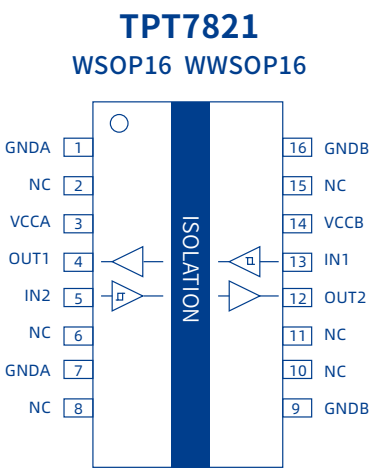
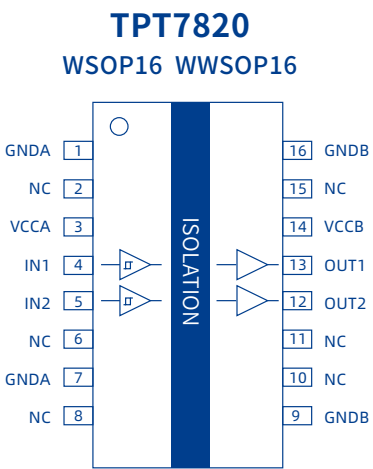
# APPLICATIONS

- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment
- Automotive – Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation – RS485, RS232/422, CAN SPI etc and Gate drive interfaces

# TPT782x

## 2-ch Reinforced Isolator

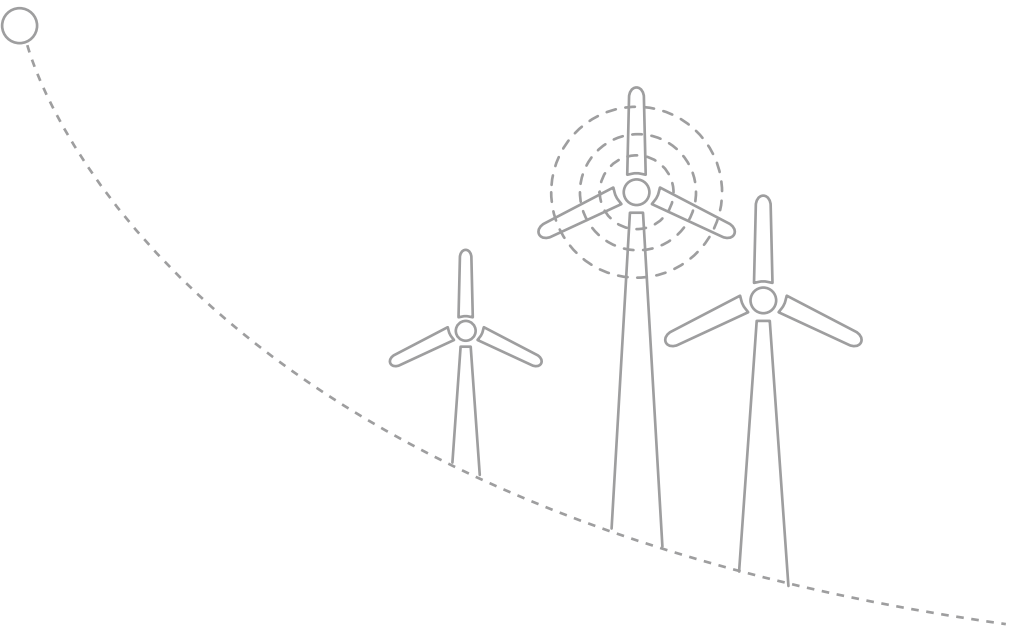
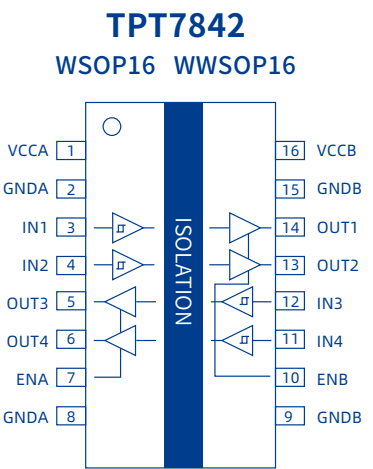
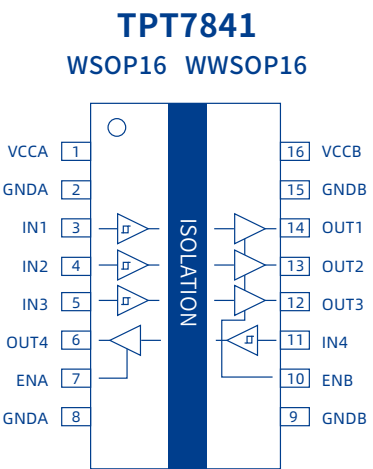
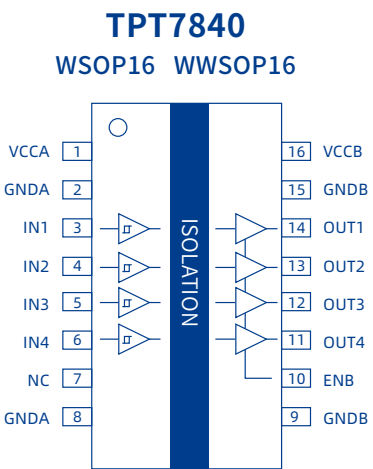
High-Reliability, 6000 VRMS Reinforced Digital Isolator, 150Mbps



# TPT784x

## 4-ch Reinforced Isolator

High-Reliability, 6000 VRMS Reinforced Digital Isolator, 150Mbps



# FEATURES

- Exceeds Requirements of EIA-485 Standard
- 500 Kbps data rate Isolated RS485
- Support Half Duplex(TPT7487) and Full Duplex(TPT7488) mode
- 3.0V to 5.5V Wide Supply Range
- Support -7 ~ 12V common mode voltage
- Static CMTI: 200 kV/μs, Dynamic CMTI: 150 kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kVPEAK(WSOP)
- Bus-Pin Protection:
  - ±20 kV HBM protection
  - ±15 kV IEC61000-4-2 Contact Discharge
- WSOP16 with 8 mm creepage

# BENEFITS

- Enhanced Isolation Rating
- Robust reliability with 50% higher working voltage for 60 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- P2P replacement ISO3082/ISO3086, ISO1410/1412

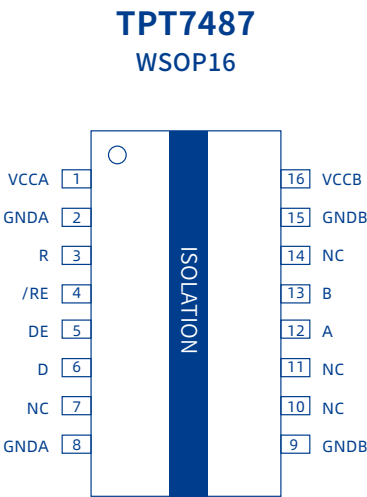
# APPLICATIONS

- PLC, Servo, Motor Control, Sensors
- Grid infrastructure
- Solar inverter
- Automotive - Electric Vehicles(EV) & Hybrid EV

# TPT7487

## Enhanced Isolated RS485

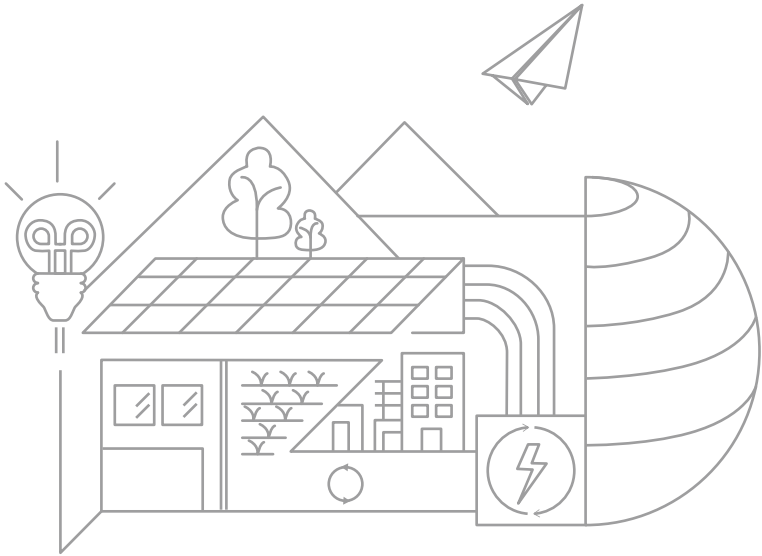
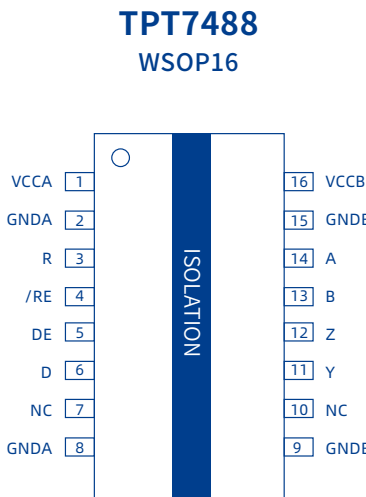
High-Reliability, 5000 VRMS Enhanced Isolated RS485, 500Kbps



# TPT7488

## Enhanced Isolated RS485

High-Reliability, 5000 VRMS Enhanced Isolated RS485, 500Kbps



## FEATURES

- Exceeds Requirements of EIA-485 Standard
- 20 Mbps data rate Isolated RS485
- Support Half Duplex(TPT7481) and Full Duplex(TPT7482) mode
- 3.0V to 5.5V Wide Supply Range
- Support -7 ~ 12V common mode voltage
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kVPEAK(WSOP)
- Bus-Pin Protection:
  - ±20 kV HBM protection
  - ±15 kV IEC61000-4-2 Contact Discharge
- WSOP16 with 8 mm creepage

## BENEFITS

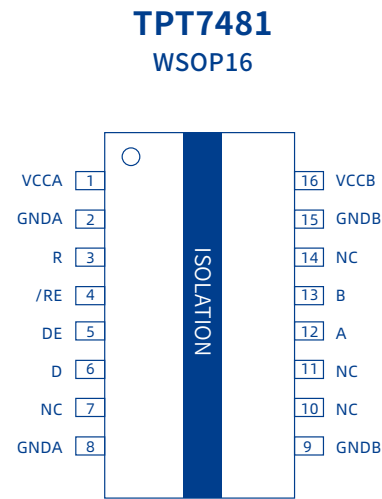
- Enhanced Isolation Rating
- Robust reliability with 50% higher working voltage for 60 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- P2P replacement ISO3082/ISO3086, ISO1410/1412

## APPLICATIONS

- PLC, Servo, Motor Control, Sensors
- Grid infrastructure
- Solar inverter
- Automotive - Electric Vehicles(EV) & Hybrid EV

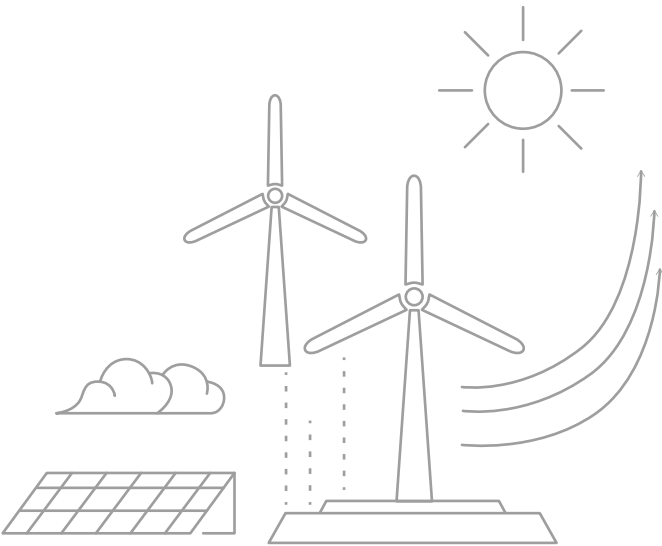
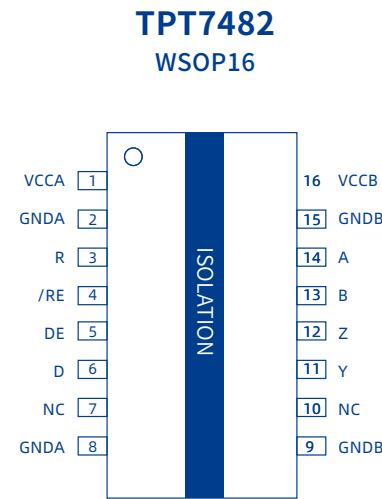
## TPT7481 Enhanced Isolated RS485

High-Reliability, 5000 VRMS Enhanced  
Isolated RS-485, 20Mbps



## TPT7482 Enhanced Isolated RS485

High-Reliability, 5000 VRMS Enhanced  
Isolated RS-485, 20Mbps



## FEATURES

- 150 Mbps data rate supported
- Typical propagation delay: 12 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part Skew: <5ns
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kVPEAK (WSOP), 6kVPEAK(SOP)
- 1000VRMS Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- Fully automotive process, AEC-Q100 qualification
- SOP8, WSOP8, WSOP16 with 8 mm creepage

## BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required.
- Precise timing characteristics for low latency and high speeds

## APPLICATIONS

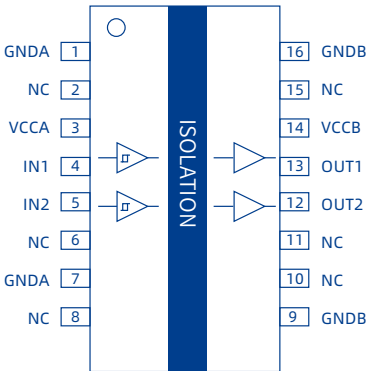
- Automotive – Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation – RS485, RS232/422, CAN SPI etc. and Gate drive interfaces
- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment

# TPT772xQ

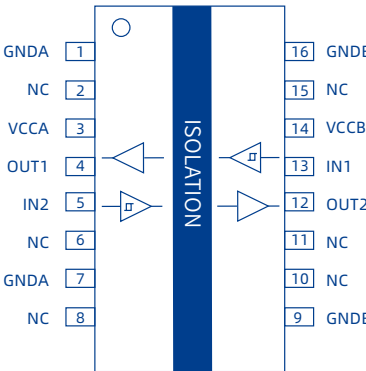
## 2-ch Automotive Enhanced Isolator

High-Reliability, 5000 VRMS Enhanced Digital Isolator, 150Mbps

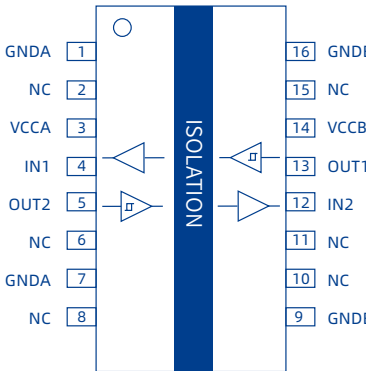
**TPT7720**  
WSOP16



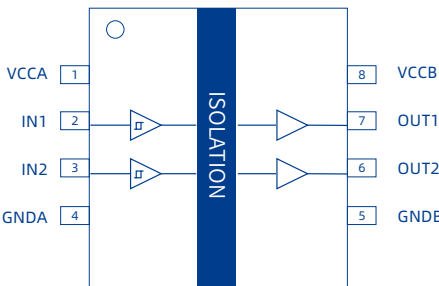
**TPT7721**  
WSOP16



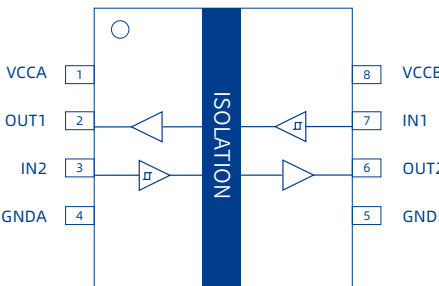
**TPT7722**  
WSOP16



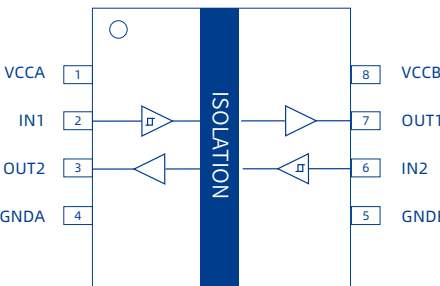
**TPT7720**  
SOP8 WSOP8



**TPT7721**  
SOP8 WSOP8



**TPT7722**  
SOP8 WSOP8



## FEATURES

- 150 Mbps data rate supported
- Typical propagation delay: 12 ns
- Max Ch-Ch Skew: 2.5ns, MAX Part-Part Skew: <5ns
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kVPEAK (WSOP), 6kVPEAK(SOP)
- 1000VRMS Working Voltage (DIN V VDE V 0884-11)
- 2.5V to 5.5V Wide Supply Range
- Fully automotive process, AEC-Q100 qualification
- SOP16, QSOP16, WSOP16 with 8 mm creepage

## BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 20 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- Precise timing characteristics for low latency and high speeds

## APPLICATIONS

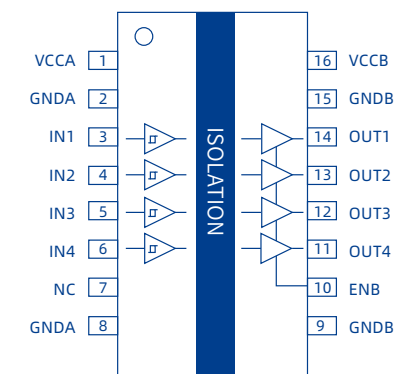
- Automotive – Electric Vehicles(EV) & Hybrid EV
  - Digital field bus isolation – RS485, RS232/422, CAN, SPI etc. and Gate drive interfaces
- PLC, Servo, Motor Control, Sensors
- Power Supplies Equipment & Solar Inverters
- Medical Equipment

## TPT774xQ

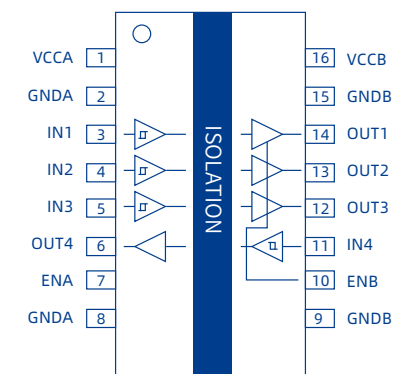
### 4-ch Automotive Enhanced Isolator

High-Reliability, 5000 VRMS Enhanced Digital Isolator, 150Mbps

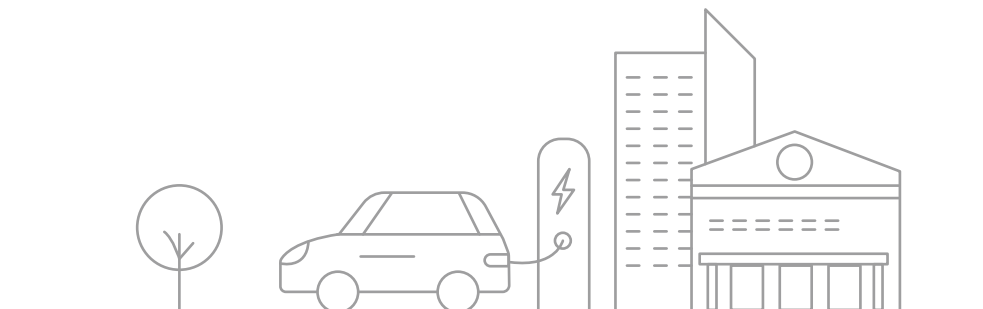
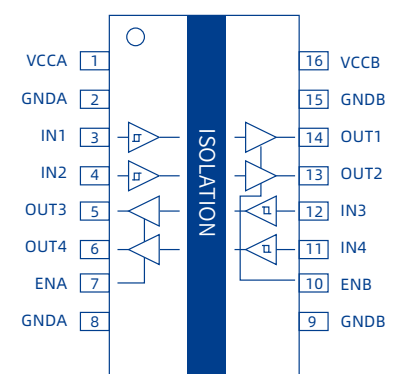
**TPT7740**  
SOP16 QSOP16 WSOP16



**TPT7741**  
SOP16 QSOP16 WSOP16



**TPT7742**  
SOP16 QSOP16 WSOP16



## FEATURES

- Meet ISO11898 Standard
- Support CAN FD and data rate up to 5 Mbps
- 3.0V to 5.5V Wide Supply Range
- Support -30 ~ +30V common mode voltage
- Static CMTI: 200 kV/μs, Dynamic CMTI: 150 kV/μs
- UL 1577: 5000 VRMS Isolation Rating
- Surge: 10 kV<sub>PEAK</sub>(WSOP)
- Bus-Pin Protection:
  - ±20 kV HBM protection
  - ±15 kV IEC61000-4-2 Contact Discharge
- WSOP16 with 8 mm creepage

## BENEFITS

- Enhanced Isolation Rating
  - Robust reliability with 50% higher working voltage for 60 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- P2P replacement ISO1050, ISO1044

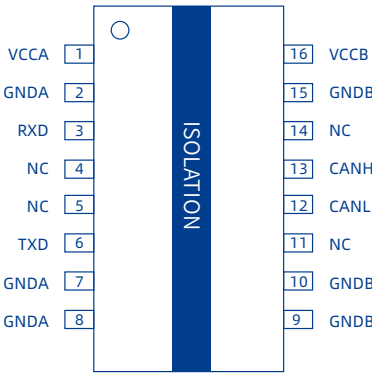
## APPLICATIONS

- PLC, Servo, Motor Control, Sensors
- Grid infrastructure
- Solar inverter
- Automotive – Electric Vehicles(EV) & Hybrid EV

## TPT71042 Isolated CAN Transceiver

High-Reliability, 5000 VRMS Enhanced  
Isolated CAN FD Transceiver, 5Mbps

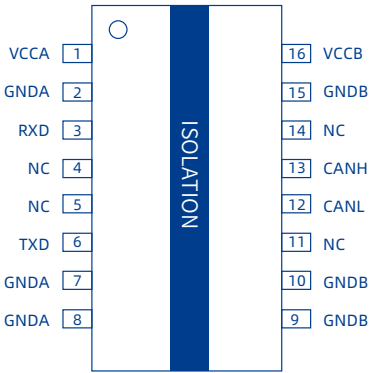
TPT71042  
WSOP16



## TPT71044 Isolated CAN Transceiver

High-Reliability, 5000 VRMS Enhanced  
Isolated CAN FD Transceiver, 5Mbps

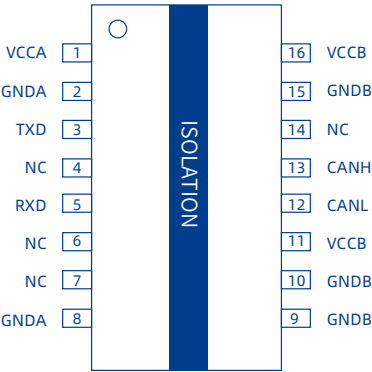
TPT71044  
WSOP16



## TPT71050 Isolated CAN Transceiver

High-Reliability, 5000 VRMS Enhanced  
Isolated CAN FD Transceiver, 5Mbps

TPT71050  
WSOP16



# FEATURES

- Isolated bidirectional I2C compatible communication
- Support up to 1MHz operation
- 3.0V to 5.5V Wide Supply Range
- TPT72616 unidirectional clock, TPT72617 directional clock
- Static CMTI: 200kV/μs, Dynamic CMTI: 150kV/μs
- UL 1577: 3750 VRMS Isolation Rating
- Surge: 6kVPEAK
- 1000VRMS Working Voltage (DIN V VDE V 0884-11)
- SOP16 Package

# BENEFITS

- Enhanced Isolation Rating
- Robust reliability with 50% higher working voltage for 60 years barrier lifetime
- Industry Leading Immunity
  - Higher immunity to disruptive CMTI events
  - Robust EMI for IEC61000-4-x ESD, EFT events
  - Class A; High Conducted & Radiated RF immunity
  - Glitch filters are not required
- P2P replacement ISO1540, ISO1541, ADuM1250, ADuM1251

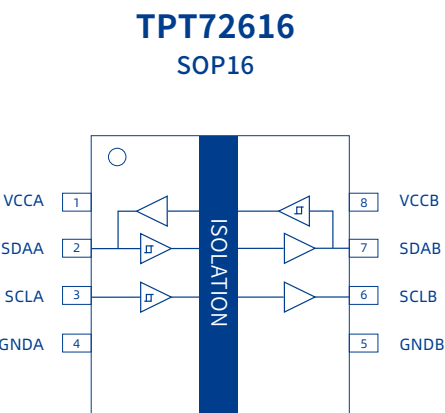
# APPLICATIONS

- Isolated I2C buses
- I2C level shifting
- SMBus and PMbus interfaces
- Open-drain networks
- Motor control systems

# TPT72616

## Isolated I2C Isolators

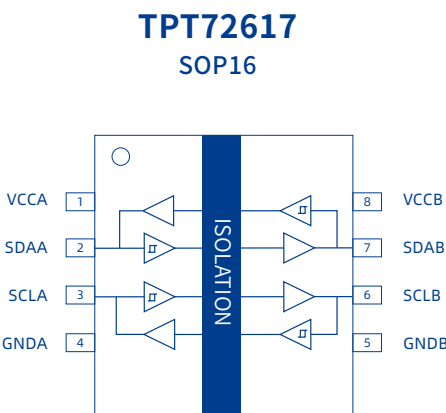
High-Reliability, 3750 VRMS Enhanced  
Bidirectional Isolated I2C



# TPT72617

## Isolated I2C Isolators

High-Reliability, 3750 VRMS Enhanced  
Bidirectional Isolated I2C





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