

- Analog Signal Chain
- Power Management
- Embedded Processors

# Devices To Design

Analog Signal Chain - Amplifier

## TPA2296

Available in SOT23-5, SOT23-6

### Current Sense Amplifier

High-Side, High-Voltage, 0.5MHz Bandwidth

#### Features:

- Supply Voltage: 3.0V to 18V
- Small Voltage Offset:  $\pm 0.5\text{mV}$
- Wide CMRR through Common Voltage: 100dB
- Wide Common-Mode Voltage:  $-0.1\text{V}$  to 70V
- Three Gain Options for Voltage Output
  - TPA2296T: 20 V/V, 50 V/V, 100 V/V
- Accuracy and Zero-Drift Performance
  - $\pm 0.5\%$  Gain Error (Max,  $-40^\circ\text{C} \sim 125^\circ\text{C}$ )
  - $0.6\mu\text{V}/^\circ\text{C}$  Offset Drift (Max,  $-40^\circ\text{C} \sim 125^\circ\text{C}$ )
  - 5ppm/ $^\circ\text{C}$  Gain Drift (Max,  $-40^\circ\text{C} \sim 125^\circ\text{C}$ )



#### Applications:

- Current Sensing (High-Side/Low-Side)
- Battery Chargers & Power Management
- Automotive & Industrial Control
- Base Stations & Telecom Equipment

Related Parts: TPA2295C

TPA2296 Quick Links

[Product Page](#) | [Datasheet](#) | [Buy on DigiKey](#)

Available in WSOP6

## TPM23513

Power Management - Drivers

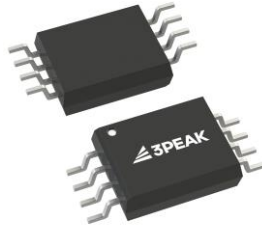
#### Applications:

- Industrial Motor-Control Drives
- Industrial Power Supplies, UPS
- Solar Inverters
- Induction Heating

Related Parts: TPM23513B

TPM23513 Quick Links

[Product Page](#) | [Datasheet](#)



### Isolated Gate Driver

1-Channel w/ Opto-Compatible Input

#### Features:

- 4.5A Source/5A Sink Peak Output Current with Rail-to-Rail Output
- 14V to 40V Output Driver Supply Voltage
- 8V and 12V VCC UVLO Options
- 5.7V Reverse Polarity Voltage Handling Capability on Input Stage
- Ultra-Fast Output Driving
  - 105ns Propagation Delay
  - 25ns Delay Matching
  - 35ns Pulse Width Distortion
- 5kV<sub>RMS</sub> Reinforced Isolation Rating
- $\pm 150\text{kV}/\mu\text{s}$  Common-Mode Transient Immunity (CMTI)
- Safety Certifications: VDE Reinforced Insulation, UL 1577, CSA, TÜV, CQC

Analog Signal Chain - Interface

## TPT1255

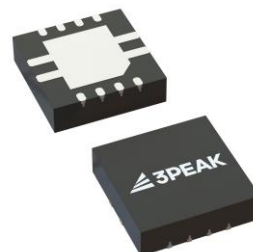
Available in DFN3X3-8, SOP8

### 5Mbps High-Speed CAN FD Transceiver

Bus Fault Protection w/ Silent Mode

#### Features:

- Meets ISO 11898-2:2016, SAE J2284-1 to SAE J2284-5 Physical Layer Standards
- Supports CAN FD and Data Rating up to 5Mbps
- Common-Mode Input Voltage:  $\pm 30\text{V}$
- Short Propagation Delay Times and Fast Loop Times
- Bus Fault Protection:  $\pm 42\text{V}$
- Thermal Shutdown Protection, Time-out Function
- 5V Power Supply, I/O Voltage Range Supports 2.8V to 5.5V MCU Interface
- Wide Temperature Range:  $-40^\circ\text{C}$  to  $+125^\circ\text{C}$



#### Applications:

- Industrial Automation
- Sensors & Drive Systems
- Building & Security Control Systems
- Energy Storage systems
- Telecom Base Station Status and Control

Related Parts: TPT1256

TPT1255 Quick Links

[Product Page](#) | [Datasheet](#) | [Buy on DigiKey](#)

- Analog Signal Chain
- Power Management
- Embedded Processors

Want to connect with 3PEAK or get product samples? **Contact our teams!**

[See our list of Sales Representatives](#)

[See our list of Global Distributors](#)

Analog Signal Chain – Isolation

## TPT7741F

Available in WSOP16, SOP16, QSOP16

### 4-Channel Digital Isolator

5000V<sub>RMS</sub> Isolation, 150Mbps Data Rate

**Features:**

- 150Mbps Data Rate
- 5kV RMS Isolation Rating (WSOP)
- ±200kV/μs typ Static CMTI, ±150kV/μs typ Dynamic CMTI
- Low Power Consumption, typ 3mA/Ch @1 Mbps
- Low Propagation Delay: 12ns Typical
- Default Output Low (TPT774xF) and High (TPT774x)
- Robust Electromagnetic Compatibility (EMC)
  - Low Emissions
  - System Level ESD, EFT, and Surge Immunity
- Safety Certifications: VDE, UL 1577, CSA, TÜV, CQC



**Applications:**

- Industrial Automation
- Motor Control
- Power Supplies
- General Purpose Isolation

**Related Parts:**

- TPT7740/F, TPT7742/F

[TPT7741 Quick Links](#)

[Product Page](#) | [Datasheet](#) | [Buy on DigiKey](#)

Available in SOP28, SSOP28, TSSOP28, QFN5X5-32

## TPT3243

Analog Signal Chain - Interface

### Multi-Channel RS-232 TRX

1Mbps, 3V to 5.5V, High ESD ±25kV, Low Power

**Applications:**

- Battery-Powered Equipment
- Industry Human Machine Interface
- Notebook, Computers
- Servers
- Printers



**Features:**

- Meets TIA/EIA-232-F Requirements and ITU V.28 Standards
- Wide Power Supply Range: Single +3V to +5.5V, Operates up to 1Mbps
- Three Drivers and Five Receivers
- Low Standby Current: 1uA typical
- Requires Only Four External 0.1μF Capacitors
- Automatic Power Down to Disable Driver Outputs Based on RS32 Signal Status
- ESD Protection for RS232 Bus Pins
  - ±18 kV (HBM)
  - ±20 kV (IEC61000-4-2, Contact Discharge)
  - ±25 kV (IEC61000-4-2, Air-Gap Discharge).

[TPT3243 Quick Links](#)

[Product Page](#) | [Datasheet](#) | [Buy on DigiKey](#)

Power Management - DCDC

## TPP60506

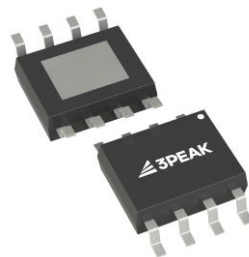
Available in ESOP8

### 60V, 5A, Step-Down Buck

Non-synchronous, Switch-mode Converter w/ Integrated High-side Power MOSFET

**Features:**

- 80mΩ High-Side MOSFET
- High Efficiency at Light Loads with Pulse Skipping
- 160μA Operating Quiescent Current and 1μA Shutdown Current
- 100kHz to 2.5MHz Adjustable Switching Frequency
- Integrated PLL to Synchronize with External Clock
- Adjustable UVLO Voltage and Hysteresis
- Soft-Start and Sequencing
- 0.8V, 1.5% Internal Voltage Reference



**Applications:**

- 12V, 24V, 48V Industrial Power
- Telecom Power Applications
- Communication Equipment

**Related Parts:** TPP60508

[TPP60506 Quick Links](#)

[Product Page](#) | [Datasheet](#)

### 3PEAK 2024 Product Newsletter Part Summary:

Part Series	Product Description	Product Type	Quality Grade	Datasheet	Buy On DigiKey
<b>TPL8032</b>	IC REG LINEAR 3.3V 300mA	LDO	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPR50</b>	IC VREF SERIES 2.5V .05%	REF	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPT1042</b>	IC TRANSCEIVER 1/1	CAN	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPA9151</b>	IC VOLTAGE DIFFERENCE AMP	DIFF AMP	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPC5180</b>	IC ADC 18BIT 8 CH SAR	ADC	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPQ05100</b>	IC REG BOOST ADJ 600mA	BOOST	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPL910Q</b>	IC REG LINEAR ADJ 1A	LDO	Automotive	<a href="#">Link</a>	Contact Sales
<b>TPA8001</b>	IC OPAMP ISOLATION 1 CIR	ISO AMP	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPAFE411</b>	IC HALL SENSOR AFE	HALL SENSOR	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPT1021Q</b>	IC TRANSCEIVER LIN	LIN	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPA5581</b>	IC OPAMP ZERO-DRIFT 1 CIR	OPA	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPAFEA008</b>	IC VOLTAGE/CURRENT DAC/ADC 4 CH	AFE	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPR8601</b>	RES ARRAY 4 RES 10K OHM	RES	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPE15017</b>	IC POE FLYBACK CONVERTER	POE DCDC	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPA5511</b>	IC OPAMP ZERO-DRIFT 1 CIR	OPA	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPC5120Q</b>	IC ADC 12BIT 16 CH SAR	ADC	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPA2031Q</b>	IC COMPARATOR GEN PUR 1	COMP	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPH2861Q</b>	IC OPAMP 8GHZ 1 CIR	OPA	Automotive	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPC5161</b>	IC ADC 16BIT 8 CH SAR	ADC	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPM8860</b>	IC LOW SIDE DRIVER 48V	STEPPER	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPT4032</b>	IC RECEIVER 0/4	RS485	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPA8101</b>	IC DELTA-SIGMA MODULATOR	ISO AMP	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPC2160</b>	IC 16-BIT HIGH ACCURACY DAC	DAC	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPM8803</b>	IC LOW SIDE DRIVER 48V 3A	STEPPER	Industrial	<a href="#">Link</a>	Available soon!
<b>TPA2296T</b>	IC OPAMP CURRENT SENSE	CS AMP	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPT1255</b>	IC TRANSCEIVER CAN	CAN	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPT7741F</b>	DGTL ISO 3750VRMS 4CH	ISO	Industrial	<a href="#">Link</a>	<a href="#">Link</a>
<b>TPP60506</b>	IC DCDC STEP-DOWN CONVERTER	BUCK	Industrial	<a href="#">Link</a>	Available soon!
<b>TPM23513</b>	IC ISO HS DRIVER	ISO	Industrial	<a href="#">Link</a>	Available soon!
<b>TPT3243</b>	IC TRANSCEIVER 2/2	RS232	Industrial	<a href="#">Link</a>	<a href="#">Link</a>