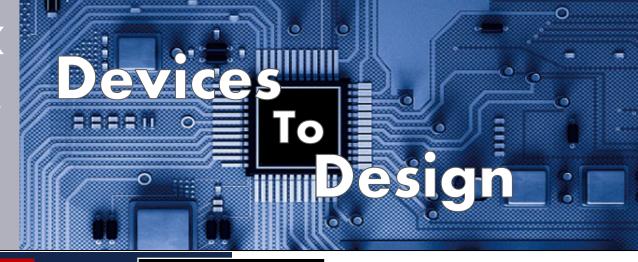


Product Newsletter

Sept 2024 - Volume #4

- Analog Signal Chain
- Power Management
- Embedded Processors



Analog Signal Chain - Converters

TPC5161

Available in MSOP10

16 Bit SAR ADC

Supports Unipolar, Pseudo Differential Input

Features:

- 16bit SAR ADC without zero latency at 600 KSPS
- Analog input 0V to VREF, External VREF 2.5V to VDD
- High Linearity
 - o INL: ±1.5 LSB typical
 - DNL: ±0.5 LSB typical
 - o THD: -102dB at 1kHz
- High dynamic range and noise performance
 - o SNR: 89.9dB at 1kHz
 - o Dynamic range: 90dB at 1kHz
- Serial interface SPI compatible
- Daisy-chain supported



Applications:

- Data Acquisition
- Instruments
- Automated Test Equipment
- Industry Measurement and Control
- Medical Equipment

TPC5161 Quick Links

Product Page | Datasheet | Buy on DigiKey

Available in ETSSOP16

Applications:

- Relays, Solenoids, Unipolar Stepper Motors
- Electric Expansion Valves, Linear Valves
- LEDs and Heaters
- PLC Digital Outputs
- Electromagnetic Loads

Related Parts: TPM8866

TPM8860

Power Management - Drivers

Low-side Driver Array

48V, 8-Ch, Driver w/ Protection & Diagnostics

Features:

- $500 m\Omega$ Low-RDS (ON) with Maximum 1.5A Driver Capability
- Integrated Free-wheeling Diodes for Inductive Loads
- Parallel Channel Driving Capability
- 10MHz High-speed 16-bit Shift Register Interface
 - o Input Noise Filtering with Daisy Chain Communication
- Diagnostics and Protection:
 - o Power On Reset
 - Over-Current Protection
 - Short-Circuit Protection
 - o Over-Temperature Protection
 - Open-drain Fault Alarm

TF110000 Quick Liliks

Product Page | Datasheet | Buy on DigiKey

TPT4032

Available in SOP16, TSSOP16

RS422 Receiver

Analog Signal Chain - Interface

High Speed Quad Channel Differential Receiver

Features:

- High speed, up to 50Mbps data rate, and tPLH = tPHL = 17ns typical
- Low pulse distortion, tsk(p) = 0.7ns typical
- -7V ~ +12V Common-Mode Range With ±200mV sensitivity
- Input Hysteresis: 40 mV typical
- Wide power supply voltage 3.0V to 5.5V
- Bus-Pin Protection:
 - o ±18 kV HBM protection
 - o ±10 kV IEC-Contact ESD
 - o ±15 kV IEC-Air Charge ESD



Applications:

• Field Transmitters:

Temperature and Pressure Sensors

- Motor Controller
- Position Encoder Systems
- Factory Automation
- Industrial Control Networks

TPT4032 Quick Links

Product Page | Datasheet | Buy on DigiKey



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ESPEAK Devices To Design

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 – Special Function

TPA8101

Isolated Delta-Sigma Modulator

5000VRMS Isolation, Low Offset and Gain Error

Features:

- CMTI: 100kV/µs
- 5000VRMS Isolation Rating per UL 1577
- Input Voltage Range: ±250mV
- Very Low Offset Error: Maximum 150µV at 25°C
- Very Low Gain Error: 0.15% Maximum at 25°C
- System-level Diagnostic Features
- Wide Temperature Range: -40°C to +125°C



Available in WSOP8, TSSOP8

Applications:

- Industrial Automation
- Motor Control
- Power Supplies

Related Parts:

• TPA8000, TPA8003

Product Page | Datasheet | Buy on DigiKey

Available in SOP8

Applications:

- Automatic Test Equipment
- Industrial Process Control
- Data Acquisition Systems

Related Parts:

• TPC2161, TPC2161M

Product Page | Datasheet | Buy on DigiKey

TPC2160



Analog Signal Chain - Converter

Precision DAC

16-Bit, 1MSPS, Low Noise, R-2R Architecture

Features:

- Up to 1MSPS
- 2.7-V 5.5-V Single-Supply Operation
- High Accuracy: INL 1LSB
- Fast Settling Speed: 1 µs
- 10-nV/√Hz Output Noise Density
- SPI Compatible Interface
- Power-On Reset to 0 V
- Low Glitch: 10 nV-sec

Power Management - Drivers

TPM8803

Low-side Driver Array

48V, 4-Ch, 3A, Driver w/ Protection & Fault Flag

Features:

- 40-V Max Recommended Operating Voltage, 48-V Absolute Max Voltage
- 250-m Ω Low-RDS(ON) with Maximum 3-A Driver Capability
- Parallel Channel Driving Capability
- Dual Supply VM and VCLAMP for Inductive Loads
- - Power On Reset
 - **Over-Current Protection**
 - **Short-Circuit Protection**
 - **Over-Temperature Protection**
 - Open-drain Fault Alarm

Available in ETSSOP16

Applications:

- Relays, Solenoids, Unipolar Stepper Motors
- Electric Expansion Valves, Linear Valves
- LEDs and Heaters
- PLC Digital Outputs
- Electromagnetic Loads

TPM8803 Quick Links

Product Page | Datasheet



3PEAK 2024 Product Newsletter Part Summary:

Part Series	Product Description	Package	Quality	Datasheet	Buy On DigiKey
TPA191	Current Sensing Amplifier	SOT363	Industrial	<u>Link</u>	<u>Link</u>
TPL8032	Linear Voltage Regulator IC Fixed Output	SOT23-5	Industrial	<u>Link</u>	<u>Link</u>
TPL910Q	Linear Voltage Regulator IC Positive Adjustable 1 Output	DFN3X3-8	Automotive	<u>Link</u>	Contact Sales
TPR50	Low-Drift Precision Fixed Voltage Reference	SOP8	Industrial	<u>Link</u>	<u>Link</u>
TPT1042	Automotive grade, High-Speed CAN Transceiver IC, standby mode	DFN3X3-8	Automotive	<u>Link</u>	<u>Link</u>
TPA8001	Isolated Amplifier	WSOP8	Automotive	<u>Link</u>	<u>Link</u>
TPA9151	Difference Amplifier	SOP8	Industrial	<u>Link</u>	<u>Link</u>
TPAFE411	Hall Sensor Signal Conditioning	QFN4X4-20	Industrial	<u>Link</u>	<u>Link</u>
TPC5180	18 Bit 300KSPS Analog to Digital Converter 8 Input SAR	MSOP10	Industrial	<u>Link</u>	<u>Link</u>
TPQ05100	Step-Up Synchronous Regulator	WLCSP	Industrial	<u>Link</u>	<u>Link</u>
TPT1021Q	High-Speed LIN Transceiver IC, 40V LIN BUS	SOP8	Automotive	<u>Link</u>	<u>Link</u>
TPA5582	Precision Operational Amplifier, 2 Circuit	MSOP8	Industrial	<u>Link</u>	<u>Link</u>
TPAFEA008	Optical EML driver with 4 channel VDAC and 4 channel IDAC	WLCSP	Industrial	<u>Link</u>	<u>Link</u>
TPA5511	Low-Dropout Linear Regulator 8-ESOP	DFN2X2-8	Industrial	<u>Link</u>	<u>Link</u>
TPC5120Q	12 Bit Analog to Digital Converter 16 Input SAR	TSSOP38	Automotive	<u>Link</u>	<u>Link</u>
TPA2031	General-Purpose Comparator, Push-Pull, 1 Circuit	SOT23-5	Automotive	<u>Link</u>	<u>Link</u>
TPH2861Q	High Speed Operational Amplifier, 2 Circuit	DFN2X2-8	Automotive	<u>Link</u>	<u>Link</u>
TPE15017	PoE PD Solution with PSR or SSR Active Clamp Flyback Converter	QFN3X4-19	Industrial	<u>Link</u>	<u>Link</u>
TPR8601A	Matched Resistor Network, 8-EMSOP	EMSOP8	Industrial	<u>Link</u>	<u>Link</u>
TPC5161	16 Bit 600KSPS Analog to Digital Converter 8 Input SAR 10-MSOP	MSOP10	Industrial	<u>Link</u>	<u>Link</u>
TPM8860	IC LOW SIDE DRIVER 48v 16-ETSSOP	ETSSOP16	Industrial	<u>Link</u>	<u>Link</u>
TPT4032	0/4 Receiver RS422, RS423 16-SOP	SOP16	Industrial	<u>Link</u>	<u>Link</u>
TPA8101	Isolated Modulator, 8-WSOP	WSOP8	Industrial	<u>Link</u>	<u>Link</u>
TPC2160	16-Bit High Accuracy DAC, SOP8	SOP8	Industrial	<u>Link</u>	<u>Link</u>
TPM8803	IC LOW SIDE DRIVER 48v 16-ETSSOP	ETSSOP16	Industrial	<u>Link</u>	Available soon!