

Extended Temperature Guide



Amplifiers and Linear
Data Converters
Logic
Processor Platforms
Power Management



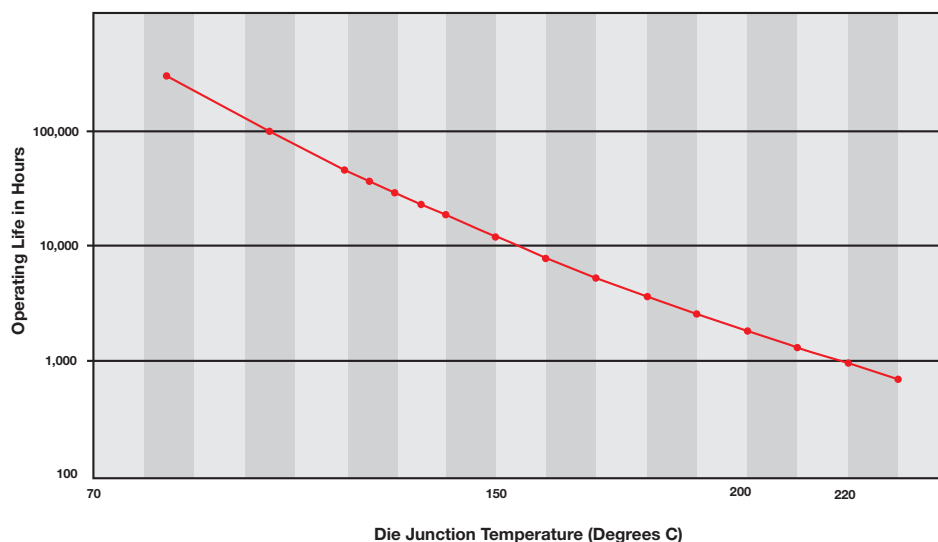
→ Overview

Texas Instruments offers a wide range of qualification options for industrial customers whose application must work in harsh environments. TI's Enhanced Products are qualified over extended temperatures and come with an assurance that TI, not a third party, is manufacturing the product to datasheet specifications. Qualification and reliability reports are available on line for every Enhanced Product. Industry standard packaging options are supported with Nickel-palladium lead finishes and SnPb solder balls for BGAs which eliminates "tin whisker" reliability issues. Additional packaging options can support higher temperatures with new mold compound materials and special materials sets optimized for extreme temperatures. Bare die and Known Good Die are also available for integrating multiple functions in applications with severe space limitations.

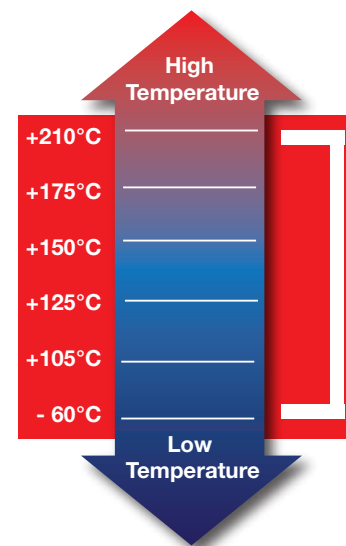
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IC Operating Life Curve



Supported Extended Temperature Ranges



Featured Products

→ Ultra-Low-Power Microcontrollers

MSP430F2013-EP

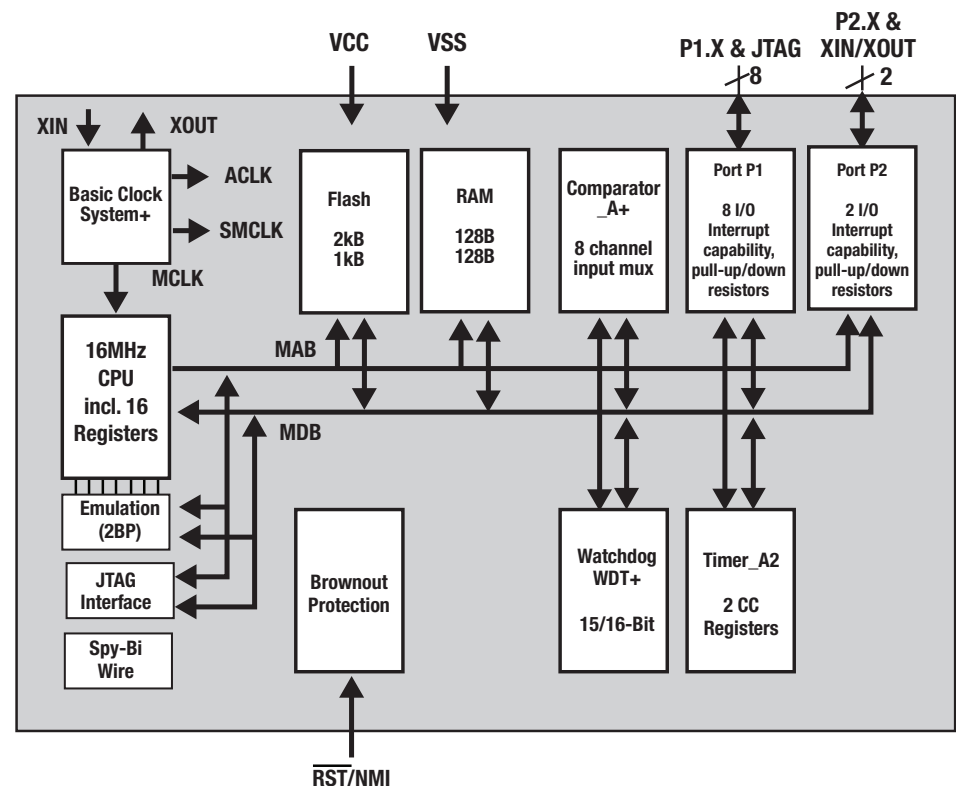
Enhanced Product 16-bit Ultra-Low-Power Microcontroller, 2kB Flash, 128B RAM, 16-Bit Sigma-Delta A/D

Get samples, datasheets and evaluation modules at www.ti.com/sc/device/MSP430F2013-EP

Key Features

- Low supply voltage range 1.8 V to 3.6 V
- Ultra-low power consumption
 - Active Mode: 220 μ A at 1 MHz, 2.2 V
 - Standby Mode: 0.5 μ A
 - Off mode (ram retention): 0.1 μ A
- Five power-saving modes
- Ultra-fast wake-up from standby mode in less than 1 μ s
- 16-bit RISC architecture, 62.5-ns Instruction cycle time
- Basic clock module configurations:
 - Internal frequencies up to 16 MHz with four calibrated frequencies to $\pm 1\%$
 - Internal very low-power low-frequency oscillator
 - 32-kHz crystal
 - External digital clock source
- 16-bit timer_a with two capture/compare registers
- 16-bit sigma-delta A/D converter with differential pga inputs and internal reference
- Universal serial interface (USI) supporting SPI and I²C
- Brownout detector
- Serial onboard programming, no external programming voltage needed, programmable code protection by security fuse
- On-chip emulation logic with spy-bi-wire interface
- 2KB + 256B flash memory; 128B RAM

The Texas Instruments MSP430 family of ultra-low-power microcontrollers consist of several devices featuring different sets of peripherals targeted for various applications. The architecture, combined with five low-power modes is optimized to achieve extended battery life in portable measurement applications. The device features a powerful 16-bit RISC CPU, 16-bit registers, and constant generators that contribute to maximum code efficiency. The digitally controlled oscillator (DCO) allows wake-up from low-power modes to active mode in less than 1 μ s. The MSP430F2013 is an ultra-low-power mixed signal microcontroller with a built-in 16-bit timer and ten I/O pins. In addition, the MSP430F2013 has a built-in communication capability using synchronous protocols (SPI or I2C) and a 16-bit sigma-delta A/D converter.



Featured Products

→ Low-Power Applications Processor

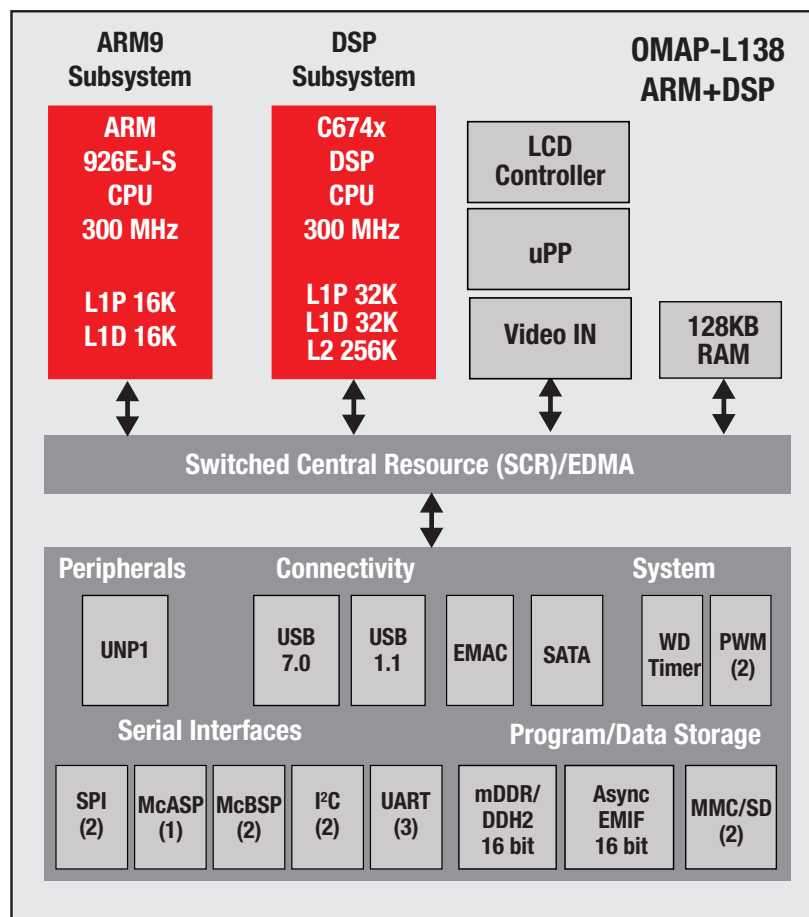
OMAPL138B-EP

Get samples, datasheets and evaluation modules at www.ti.com/sc/device/OMAPL138B-EP

Key Features

- Dual Core SoC
 - 345-MHz ARM926EJ-S™ RISC MPU345-MHz
 - C674x fixed/floating-point VLIW DSP
- Supports TI's basic secure boot
- Enhanced direct-memory-access controller (EDMA3)
- Serial ATA (SATA) controller
- DDR2/mobile DDR memory controller
- Two Multimedia card (MMC)/secure digital (SD) card interface
- LCD controller
- Video port interface (VPIF)
- 10/100 Mb/s ethernet MAC (EMAC)
- Programmable real-time unit subsystem
- Three configurable UART modules
- USB 1.1 OHCI (Host) with integrated PHY
- One multichannel audio serial port
- Two multichannel buffered serial ports
- Dual core SoC
 - 345-MHz ARM926EJ-S™ RISC MPU
 - 345-MHz C674x fixed/floating-point VLIW DSP

The OMAPL138B C6-Integra™ DSP+ARM® processor is a low-power applications processor based on an ARM926EJ-S™ and a C674x DSP core. It provides significantly lower power than other members of the TMS320C6000™ platform of DSPs. The device enables OEMs and ODMs to quickly bring to market devices featuring robust operating systems support, rich user interfaces, and high processing performance life through the maximum flexibility of a fully integrated mixed processor solution. The dual-core architecture of the device provides benefits of both DSP and Reduced Instruction Set Computer (RISC) technologies, incorporating a high-performance TMS320C674x DSP core and an ARM926EJ-S core. The ARM926EJ-S is a 32-bit RISC processor core that performs 32-bit or 16-bit instructions and processes 32-bit, 16-bit, or 8-bit data.



→ Amplifiers and Linear

Comparators

Part Number	Description	Pin/Package(s)
LM211-EP	Differential comparator with strobes	8SOIC
LM239A-EP	Quad differential comparator	14SOIC, 14TSSOP
LM293-EP	Dual differential comparator	8SOIC
TLC3702-EP	Micropower LinCMOS™ technology-based voltage comparator	8SOIC
TLC372-EP	LinCMOS dual differential comparator, nanopower	8SOIC
TLV3011-EP	1.8-V, SOT-23 comparator with voltage reference	6SOT-23
TLV3492A-EP	Nanopower, push-pull output comparator	8SOIC
TLV3701-EP	Nanopower, push-pull output comparator	5SOT-23

Operational Amplifiers

Part Number	Description	Pin/Package(s)
INA159-EP	Precision gain of 0.2 level translation difference amplifier	8MSOP
INA193A-EP	Current shunt monitor: -16 V to +80 V common-mode range	5SOT-23
LM258A-EP	Dual operational amplifier	8SOIC
LM2902-EP	Quad operational amplifier	14TSSOP
LT1014D-EP	Quad precision operational amplifier	16SOIC
MC33078-EP	Dual high-speed, low-noise operational amplifier	8SOIC
OPA2333A-EP	1.8-V micropower CMOS operational amplifier, zero-drift series	8SOIC
OPA333A-EP	1.8-V micropower CMOS operational amplifier, zero-drift series	5SC70, 5SOT-23
OPA336-EP	Single-supply micropower CMOS MicroAmplifier™ operational amplifier in miniature packages	5SOT-23
OPA340-EP	Single-supply rail-to-rail MicroAmplifier operational amplifier in miniature packages	5SOT-23
THS3201-EP	1.8-GHz, low-distortion current, feedback amplifier	8MSOP PowerPAD™
THS4503-EP	Wideband, low-distortion, fully differential amplifier	8MSOP PowerPAD
TLC2252A-EP	Advanced LinCMOS™ technology-based rail-to-rail very low-power operational amplifier	8SOIC
TLC2252-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	8SOIC
TLC2254A-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	14SOIC
TLC2254-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	14SOIC
TLC2272A-EP	Advanced LinCMOS technology-based rail-to-rail dual operational amplifier	8SOIC
TLC2274A-EP	Advanced LinCMOS technology-based rail-to-rail operational amplifier	14SOIC, 14TSSOP
TLC2274-EP	Advanced LinCMOS technology-based rail-to-rail operational amplifier	14SOIC, 14TSSOP
TLE2021A-EP	Excalibur™ high-speed, low-power precision operational amplifier	8SOIC
TLE2021-EP	Excalibur high-speed, low-power precision operational amplifier	8SOIC
TLE2022A-EP	Excalibur high-speed, low-power precision operational amplifier	8SOIC
TLE2022-EP	Excalibur high-speed, low-power precision operational amplifier	8SOIC
TLE2024A-EP	Excalibur high-speed, low-power precision operational amplifier	16SOIC
TLE2024-EP	Excalibur high-speed, low-power precision operational amplifier	16SOIC

Selection Tables

→ Amplifiers and Linear

Operational Amplifiers (continued)

Part Number	Description	Pin/Package(s)
TLE2027-EP	Excalibur™, low-noise, high-speed, precision operational amplifier	8SOIC
TLE2141-EP	Excalibur low-noise high-speed precision operational amplifier	8SOIC
TLE2144-EP	Excalibur low-noise, high-speed precision quad operational amplifier	16SOIC
TLV2252A-EP	Advanced LinCMOS™ technology-based rail-to-rail very low-power operational amplifier	8SOIC
TLV2252-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	8SOIC
TLV2254-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	14SOIC
TLV2254A-EP	Advanced LinCMOS technology-based rail-to-rail very low-power operational amplifier	14SOIC
TLV2371-EP	550- μ A/ch, 3-MHz, rail-to-rail input/output operational amplifier	5SOT-23
TLV2374-EP	550- μ A/ch, 3-MHz, rail-to-rail input/output operational amplifier	14SOIC
TLV2462A-EP	Low-power, rail-to-rail input/output operational amplifier with shutdown	8SOIC
TLV2464A-EP	Low-power, rail-to-rail, input/output operational amplifier with shutdown	14SOIC, 14TSSOP
TLV2772A-EP	2.7-V high-slew-rate rail-to-rail output operational amplifier with shutdown	8SOIC
TLV2774A-EP	2.7-V, high slew rate rail-to-rail output operational amplifier with shutdown	14SOIC
TLV2774-EP	2.7-V, high slew rate rail-to-rail output operational amplifier with shutdown	14SOIC
TLV4113-EP	Dual high-output drive operational amplifier with shutdown	10MSOP PowerPAD

High-Speed Operational Amplifiers

THS4032-EP	100-MHz low-noise high-speed amplifier	8MSOP-PowerPAD™
THS4271-EP	Low-noise, high slew rate, unity gain, stable voltage feedback amplifier	8MSOP-PowerPAD

Instrumentation Amplifier

Part Number	Description	Pin/Package(s)
INA129-EP	Precision, low-power instrumentation amplifier	8SOIC

Special Functions

Part Number	Description	Pin/Package(s)
OPA4872-EP	4:1 high-speed multiplexer	14SOIC
TL441-EP	Logarithmic amplifier	16SO

→ Interface

Clocks and Timers

Part Number	Description	Pin/Package(s)
CDC2351-EP	1- to 10-line clock driver with three state outputs	24SSOP
CDCP1803-EP	1:3 LVPECL clock buffer with programmable divider	24VQFN

Interface Isolators

Part Number	Description	Pin/Package
ISO721M-EP	Single 150 MBSPS digital isolator	8SOIC
ISO7241A-EP	1-MBPS quad ch, 3/1 digital isolator	16SOIC

Selection Tables

→ Data Converters

Analog-to-Digital Converters

Part Number	Description	Pin/Package(s)
ADS1258-EP	16-channel, 24-bit analog-to-digital converter	48QFN, 48QFP
ADS5440-EP	13-bit, 210-MSPS analog-to-digital converter	80HTQFP
ADS5444-EP	13-bit, 250-MSPS analog-to-digital converter	80HTQFP
ADS5463-EP	12-bit, 500-MSPS analog-to-digital converter	80HTQFP
ADS5500-EP	14-bit, 125-MSPS analog-to-digital converter	64HTQFP
ADS6445-EP	Quad-channel, 14-bit, 125-/105-/80-/65-MSPS ADC with serial LVDS outputs	64VQFN
THS1206-EP	12-bit, 6-MSPS, ADC quad-channel (config.), DSP/up if, integrated 16x FIFO	32TSSOP
THS1401-EP	14-bit, 1-MSPS, DSP-compatible analog-to-digital converter	48HTQFP
THS1403-EP	14-bit, 3-MSPS, DSP-compatible analog-to-digital converter	48HTQFP
THS1408-EP	14-bit, 8-MSPS, DSP-compatible analog-to-digital converter	48HTQFP
TLC1543-EP	10-bit analog-to-digital converters with serial control and 11 analog inputs	20SOIC
TLC2543-EP	12-bit ADC with serial control and 11 analog inputs 12-bit 200-kSPS ADC ser.	20SOIC, 20SSOP
TLV1548-EP	Low-voltage 10-bit ADC with serial control and 8 analog inputs	20SSOP
TLV2548-EP	12-bit, 200-kSPS ADC serial output, auto powerdown (software and hardware), low power with 8x FIFO with 8 channels	—
TLV2556-EP	12-bit, 200-kSPS, 11-channel, low-power serial ADC with internal reference	20TSSOP

Audio Analog-to-Digital Converters

Part Number	Description	Pin/Package(s)
PCM4202-EP	118-dB SNR stereo audio analog-to-digital converter (extended qualification)	28SSOP

Digital-to-Analog Converters

Part Number	Description	Pin/Package(s)
DAC5652-EP	10-bit, 275-MSPS, dual digital-to-analog converter	48TQFP
DAC5662-EP	Dual 12-bit, 200-MSPS	48TQFP
DAC5672-EP	Dual 14-bit, 200-MSPS	48TQFP
DAC5675-EP	14-bit, 400-MSPS	48HTQFP
DAC5687-EP	16-bit, 500-MSPS, 2x-8x interpolating dual-channel DAC	100HTQFP
DAC8830-EP	16-bit, ultra-low-power voltage output	8SOIC
DAC8831-EP	16-bit, ultra-low-power voltage output	14SOIC
TLV5614-EP	Quad, serial-in, programmable settling time, low power, hardware or software powerdown	16TSSOP
TLV5618A-EP	Digital-to-Analog Converter with Power Down	8SOIC
TLV5619-EP	12-bit, single-channel DAC, parallel, voltage out, low power	20SOIC
TLV5638-EP	12-bit, 1- μ s serial input dual DAC, programmable internal reference, settling time 12-bit, 1 or 3.5 μ s	8SOIC

Digital to Analog Audio Converters

Part Number	Description	Pin/Package(s)
PCM4104-EP	118dB SNR 4-channel audio DAC	48TQFP
PCM4202-EP	118dB SNR stereo audio ADC	28SSOP

Video Decoder

Part Number	Description	Pin/Package
TVP5150AM1-EP	Ultra-low-power NTSC/PAL/SECAM video decoder w/robust sync detector	32TQFP

Selection Tables

→ Power Management

DC/DC Controllers

Part Number	Description	Pin/Package(s)
TL1451A-EP	Dual pulse-width-modulation control circuits	16SOIC
TPS40055-EP	Wide-input synchronous buck controller	16HTSSOP
TPS40200-EP	Wide-input-range non-synchronous voltage-mode controller	8SOIC
TPS5120-EP	Dual-output two-phase synchronous buck DC/DC controller	30TSSOP

LDOs

Part Number	Description	Pin/Package(s)
TPS70345-EP	Dual-output low-dropout voltage regulators with power-up sequencing	24HTSSOP
TPS70751-EP	Dual-output low-dropout voltage regulators with power-up sequencing	20HTSSOP
TPS71202-EP	Dual, 250-mA output, ultra-low-noise, high PSRR, low-dropout linear regulator	10SON
TPS71501-EP	50-mA, 24-V, 3.2- μ A supply current, low-dropout linear regulator	5SC70
TPS72118-EP	Low-input voltage, cap-free, 150-mA low-dropout linear regulators	5SOT-23
TPS731xx-EP	Cap-free NMOS 150-mA low-dropout regulator with reverse current protection	5SOT-23
TPS732xx-EP	Cap-free NMOS 250-mA low-dropout regulator with reverse current protection	5SOT-23
TPS736xx-EP	Cap-free NMOS 400-mA low-dropout regulator with reverse current protection	5SOT-23, 6SOT-223, 8SON
TPS75125-EP	Fast transient response 1.5-A low-dropout voltage regulator with power good	20HTSSOP
TPS752xx-EP	Fast transient response voltage regulators	20HTSSOP
TPS752xxM-EP	Fast transient response voltage regulators	20HTSSOP
TPS753xx-EP	Fast transient response 1.5-A low-dropout voltage regulator	20HTSSOP
TPS767xx-EP	Fast transient response 1-A low-dropout voltage regulators	20HTSSOP
TPS767D301-EP	Dual-output low-dropout voltage regulators	28HTSSOP
TPS768xx-EP	Fast transient response 1-A low-dropout voltage regulators	20HTSSOP
TPS76901-EP	Ultra-low-power, 100mA low-dropout linear regulator	5SOT
TPS77401-EP	250-mA low-dropout voltage regulator with power-good output	8MSOP
TPS775xx-EP	Fast transient response 500-mA low-dropout voltage regulators	20HTSSOP
TPS776xx-EP	Fast transient response 500-mA low-dropout voltage regulators	20HTSSOP
TPS791xx-EP	Ultra-low-noise, high PSRR, fast RF, 100-mA low-dropout linear regulator	6SOT-23
TPS79318-EP	Ultra-low-noise, high PSRR, fast RF, 200-mA low-dropout linear regulator	5SOT-23
TPS793xx-EP	Ultra-low-noise, high PSRR, fast RF, 200-mA low-dropout linear regulator	6SOT-23
TPS79718-EP	Ultra-low-power, 10 mA low-dropout linear regulators with power good	5SC70
TPS79730-EP	Ultra-low-power, 10-mA low-dropout linear regulators with programmable output	5SC70
UC2832-EP	Precision low-dropout linear controllers	16SOIC
UCC284-EP	Single-output LDO, 500-mA, fixed (5 V), low quiescent current, wide input voltage range	8SOIC

MOSFET Drivers

Part Number	Description	Pin/Package(s)
TPS2818-EP	Inverting high-speed MOSFET driver with internal regulator	5SOT-23
TPS2819-EP	Non-inverting high-speed MOSFET driver with internal regulator	5SOT-23
UCC27423-EP	Dual 4A, MOSFET driver with enable	8SOIC
UCC27424-EP	Dual 4A, high-speed, low-side MOSFET driver with enable	8MSOP-PowerPAD™

Selection Tables

→ Power Management

Multi-Channel IC (PMIC) Solutions

Part Number	Description	Pin/Package(s)
TPS75003-EP	Triple supply power management IC for powering FPGAs and DSPs	20QFN

Power Factor Correction ICs

Part Number	Description	Pin/Package(s)
UC2854B-EP	Advanced high-power factor preregulator	16SOIC
UCC2818-EP	BiCMOS power factor preregulator	16SOIC

PWM Power Driver

Part Number	Description	Pin/Package(s)
DRV401-EP	Sensor signal conditioning for close-loop magnetic current sensor	20SO PowerPAD 20VQFN

PWM Power Supply Controllers

Part Number	Description	Pin/Package
UC1842A-EP	Current-mode PWM controller	8SOIC
UC1843-HIREL	Current-mode PWM controller	
UC1843A-EP	Current-mode PWM controller	8SOIC
UC1844A-EP	Current-mode PWM controller	8SOIC
UC1846-EP	Current-mode PWM controller	16SOIC
UCC2800-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2801-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2802-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2803-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2804-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2805-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC2808A-1EP	Low-power current mode push-pull PWM	8SOIC
UCC2808A-2EP	Low-power current mode push-pull PWM	8SOIC
UC2825A-EP	High-speed PWM controller	16SOIC
UC2875-EP	Phase shift resonant controller	28SOIC
UCC2895-EP	BiCMOS advanced phase shift PWM controller	20SOIC
UCC28C43-EP	Low-power BiCMOS current-mode PWM	8SOIC
UCC28C45-EP	Low-power BiCMOS current-mode PWM	8SOIC

SWIFT™ DC/DC Converters

Part Number	Description	Pin/Package(s)
TPS5410-EP	5.5V to 36-V, 1A, 500-kHz step-down SWIFT converter	8SOIC
TPS5420-EP	5.5V to 36V, 2A, 500-kHz step-down SWIFT converter	8SOIC
TPS5430-EP	5.5V to 36V, 3A, 500-kHz step-down SWIFT converter	8SO, PowerPAD™
TPS54310-EP	3V to 6V, 3A Synchronous Step Down SWIFT converter	20HTSSOP
TPS54311-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP
TPS54312-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP
TPS54313-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP
TPS54314-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP

Selection Tables

→ Power Management

SWIFT™ DC/DC Converters (continued)

Part Number	Description	Pin/Package(s)
TPS54315-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP
TPS54316-EP	3V to 6V, 3A output synchronous-buck PWM switcher with integrated FETs	20HTSSOP
TPS54350-EP	4.5V to 20V input, 3A output synchronous PWM switcher with integrated FET	16HTSSOP
TPS54354-EP	4.5V to 20V input, 3A output synchronous PWM switcher with integrated FET	16HTSSOP
TPS54356-EP	4.5V to 20V input, 3A output synchronous PWM switcher with integrated FET	16HTSSOP
TPS5450-EP	5.5V to 36V, 5A, 500kHz Step Down SWIFT converter	8SO PowerPAD
TPS54610-EP	3V to 6V, 6A output synchronous buck PWM switcher with integrated FETs	28HTSSOP
TPS54613-EP	3V to 6V input, 6A output synchronous buck PWM switcher with integrated FETs	28HTSSOP
TPS54615-EP	3V to 6V input, 6A output synchronous buck PWM switcher with integrated FETs	28HTSSOP
TPS54680-EP	3V to 6V Input, 6A output tracking synchronous buck PWM switcher	28HTSSOP
TPS62110-EP	17V, 1.5A synchronous step-down converter	16QFN
TPS62111-EP	17V, 1.5A synchronous step-down converter	16QFN
TPS62112-EP	17V, 1.5A synchronous step-down converter	16QFN

Supervisory Circuits (Voltage Supervisors)

Part Number	Description	Pin/Package(s)
TLC7701-EP	Micropower supply voltage supervisor	8SOIC, 8TSSOP
TLC7705-EP	Micropower supply voltage supervisor	8TSSOP
TLC7733-EP	Micropower supply voltage supervisor	8TSSOP
TPS3106-EP	Ultra-low supply-current/supply-voltage supervisory circuit	6SOT-23
TPS3307-18-EP	Triple processor supervisors	8SOIC
TPS3307-33-EP	Triple processor supervisors	8MSOP-PowerPAD™
TPS3619-33-EP	Backup-battery supervisors for RAM retention	8MSOP
TPS3620-33-EP	Backup-battery supervisors for RAM retention	8MSOP
TPS3803-01-EP	Single voltage detector	5SC70
TPS3803G15-EP	Single voltage detector	5SC70
TPS3805H33-EP	Dual voltage detector	5SC70
TPS3808-EP	Low-quiescent current, programmable delay supervisory circuit	6SOT-23
TPS3809I50-EP	3-pin supply voltage supervisor	3SOT-23
TPS3809K33-EP	3-pin supply voltage supervisor	3SOT-23
TPS3809L30-EP	3-pin supply voltage supervisor	3SOT-23
TPS3813K33-EP	Processor supervisory circuit with window watchdog	6SOT-23
TPS3836J25-EP	Nanopower supervisory circuit	5SOT-23
TPS3836L30-EP	Nanopower supervisory circuit	5SOT-23
TPS3837K33-EP	Nanopower supervisory circuit	5SOT-23

Power Management

Voltage References

Part Number	Description	Pin/Package
REF3212-EP	4 Ppm/Degreesc 100 Ua Sot23-6 series voltage references	6SOT-23
REF3220-EP	4 Ppm/Degreesc 100 Ua Sot23-6 series voltage references	6SOT-23
REF3225-EP	4 Ppm/Degreesc 100 Ua Sot23-6 series voltage references	6SOT-23
REF3230-EP	4 Ppm/Degreesc 100 Ua Sot23-6 series voltage references	6SOT-23
REF3233-EP	4 Ppm/Degreesc 100 Ua Sot23-6 Series Voltage References	6SOT-23
REF3240-EP	4 Ppm/Degreesc 100 Ua Sot23-6 series voltage references	6SOT-23
TL1431-EP	Precision adjustable (programmable) shunt reference	8SOIC

Selection Tables

→ Processor Platforms

Digital Signal Processors

Part Number	Description	Pin/Package(s)
DaVinci™ Video Processors		
SM320DM355-EP	Digital media system-on-chip (DMSoC)	337NFBGA
SM320DM642-EP	Video/imaging fixed-point DSP	548GDK, 548ZDK
Fixed-Point Digital Signal Processors		
SM320C6201-EP	Fixed-point DSP	352FC/CSP
SM320C6202-EP	Fixed-point DSP	352FCBGA
SM320C6424-EP	Fixed-point DSP	376BGA
SM320C6455-EP	Fixed-point DSP	697BGA
SM320VC5409-EP	Fixed-point DSP	144BGA MicroStar™
SM320VC5416-EP	Digital signal processor	144LQFP, 144BGA MicroStar
SM320VC5421-EP	Digital signal processor	144LQFP
SM320VC5507-EP	Fixed-point DSP	144LQFP
SM320VC5510A-EP	Fixed-point DSP	240BGA MicroStar
SM320C6414-EP	Fixed-point DSP	—
SM320C6415-EP	Fixed-point DSP	—
SM320C6416-EP	Fixed-point DSP	—
Floating-Point Digital Signal Processors		
SM320C6701-EP	Floating-point DSP	352FC/CSP
SM320C6711D-EP	Floating-point DSP	272BGA
SM320C6712D-EP	Floating-point DSP	272BGA
SM320C6713B-EP	Floating-point DSP	272BGA
OMAP™ Processors		
OMAP3530-HIREL	Applications processor	515 POP-FCBGA
OMAP3525-HIREL	Applications processor	515 POP-FCBGA

Digital Signal Processors (continued)

Part Number	Description	Pin/Package(s)
C2000™ Microcontrollers		
SM320F2801-EP	32-bit, digital signal controller with flash	100LQFP
SM320F2808-EP	32-bit, digital signal controller with flash	100LQFP
SM320F2812-EP	32-bit, digital signal controller with flash	176LQFP, 179BGA MicroStar™
SM320F28335-EP	Delfino microcontroller	176BGA, 176HLQFP, 179BGA MicroStar
SM320LF2407A-EP	DSP controller	144LQFP

MSP430™ Microcontrollers

Part Number	Description	Pin/Package(s)
MSP430F2013-EP	16-bit Ultra-Low-Power Microcontroller, 2kB Flash, 128B RAM, 16-Bit Sigma-Delta A/D	16QFN
MSP430F2274-EP	16-bit ultra-low-power microcontroller, 32-KB flash, 1-K RAM	40QFN
MSP430F249-EP	16-bit ultra-low-power microcontroller, 60-KB flash, 2-KB RAM, 12-bit ADC, 2 USCIs	64LQFP
MSP430F2618-EP	16-bit ultra-low-power MCU, 92-KB flash, 8-KB RAM, 12-bit ADC, dual DAC, 2 USCIs	113BGA, MicroStar™ Junior

Selection Tables

→ Logic

Buffers, Drivers and Transceivers

Part Number	Description	Pin/Package(s)
Buffers and Drivers		
SN74ABT244A-EP	Octal buffer/driver with 3-state outputs	20SSOP
SN74ABT541B-EP	Octal buffer/driver with 3-state outputs	20TSSOP
SN74AC04-EP	Hex inverter	14SOIC
SN74AC244-EP	Octal buffer/driver with 3-state outputs	20SO, 20SOIC
SN74ACT04-EP	Hex inverter	14SOIC
SN74ACT244-EP	Octal buffer/driver with 3-state outputs	20SO, 20SOIC
SN74AHC04-EP	Hex inverter	14SOIC, 14TSSOP
SN74AHC125-EP	Quadruple bus buffer gates with 3-state outputs	14SOIC, 14TSSOP
SN74AHC14-EP	Hex Schmitt-Trigger inverter	14SOIC, 14TSSOP
SN74AHC244-EP	Quadruple bus buffer gate with 3-state outputs	20SOIC, 20TSSOP
SN74AHC245-EP	Octal bus transceiver with 3-state outputs	20SOIC, 20TSSOP
SN74AHCT125-EP	Quadruple bus buffer gate with 3-state outputs	14SOIC, 14TSSOP
SN74AHCT126-EP	Quadruple bus buffer gate with 3-state outputs	14SOIC, 14TSSOP
SN74AHCT14-EP	Hex Schmitt-Trigger inverter	14SOIC, 14TSSOP
SN74AHCT244-EP	Octal buffer/driver with 3-state outputs	20SOIC, 20TSSOP
SN74AHCT541-EP	Octal buffer/driver with 3-state outputs	20SOIC
SN74AHCU04-EP	Hex inverter	14TSSOP
SN74ALVC244-EP	Octal buffer/driver with 3-state outputs	20TSSOP
SN74ALVCH16827-EP	20-bit buffer/driver with 3-state outputs	56SSOP
SN74AUC1G125-EP	Single bus buffer gate with 3-state output	5SC70
SN74AUC1G14-EP	Single Schmitt-Trigger inverter	5SOT-23
SN74AUC1G14-EP	Single Schmitt-Trigger inverter	5SOT-23
SN74AUP1G17-EP	Low-power single Schmitt-Trigger buffer	5SC70
SN74BCT760-EP	Octal buffer/driver with open-collector outputs	20SOIC
SN74HC244-EP	Octal buffer and line driver with 3-state outputs	20SOIC, 20TSSOP
SN74HCT04-EP	Hex inverter	14SOIC
SN74HCT244-EP	Octal buffer and line driver with 3-state outputs	20TSSOP
SN74LV04A-EP	Hex inverter	14TSSOP
SN74LV14A-EP	Hex Schmitt-trigger inverter	14SOIC, 14TSSOP
SN74LV244A-EP	Octal buffer and line driver with 3-state outputs	20SOIC
SN74LVC04A-EP	Hex inverter	14SOIC, 14TSSOP
SN74LVC06A-EP	Hex inverter buffer/driver with open-drain outputs	14SOIC
SN74LVC07A-EP	Hex buffer/driver with open-drain outputs	14TSSOP
SN74LVC125A-EP	Quadruple bus buffer gate with 3-state outputs	14SOIC, 14TSSOP
SN74LVC14A-EP	Hex Schmitt-Trigger inverter	14SOIC, 14TSSOP
SN74LVC16244A-EP	16-bit buffer/driver with 3-state outputs	48TSSOP
SN74LVC1G04-EP	Single inverter gate	5SOT-23
SN74LVC1G06-EP	Single inverter buffer/driver with open-drain output	5SC70

Buffers, Drivers and Transceivers (continued)

Part Number	Description	Pin/Package(s)
Buffers and Drivers (continued)		
SN74LVC1G126-EP	Single bus buffer gate with 3-state outputs	5SC70
SN74LVC1G14-EP	Single Schmitt-Trigger inverter	5SOT-23
SN74LVC1G17-EP	Single Schmitt-Trigger buffer	5SC70, 5SOT-23
SN74LVC1G97-EP	Configurable multiple-function gate	6SC70
SN74LVC1G98-EP	Configurable multiple-function gate	6SC70
SN74LVC1GX04-EP	Crystal oscillator driver	6SOT
SN74LVC2G04-EP	Dual inverter gate	6SC70
SN74LVC2G06-EP	Dual inverter buffer/driver with open-drain output	6SC70
SN74LVC2G07-EP	Dual buffer/driver with open-drain output	6SC70
SN74LVC2G17-EP	Dual Schmitt-Trigger buffer	6SC70
SN74LVC2G34-EP	Dual buffer gate	6SC70
SN74LVC3G07-EP	Triple buffer/driver with open-drain output	8US8
SN74LVC540A-EP	Octal buffer/driver with 3-state outputs	20SOIC, 20TSSOP
SN74LVC541A-EP	Octal buffer/driver with 3-state outputs	20SOIC, 20TSSOP
SN74LVT125-EP	3.3-V ABT quadruple bus buffers with 3-state outputs	14TSSOP
SN74LVTH125-EP	3.3-V ABT quadruple bus buffers with 3-state outputs	14TSSOP
SN74LVTH162240-EP	3.3-V ABT, 16-bit buffer/driver with 3-state outputs	48TSSOP
SN74LVTH162244-EP	3.3-V ABT, quadruple bus buffer with 3-state outputs	48TSSOP
SN74LVTH16240-EP	3.3-V ABT, 16-bit buffer/driver with 3-state outputs	48TSSOP
SN74LVTH16244A-EP	3.3-V ABT, 16-bit buffer/driver with 3-state outputs	48SSOP, 48TSSOP, 48TVSOP, 56BGA MicroStar™ Junior
SN74LVTH240-EP	3.3-V ABT, octal buffer/driver with 3-state outputs	20TSSOP
SN74LVTH241-EP	3.3-V ABT, octal buffer/driver with 3-state outputs	20TSSOP
SN74LVTH244A-EP	3.3-V ABT, octal buffer/driver with 3-state outputs	20SSOP, 20TSSOP
SN74LVTH32244-EP	3.3-V ABT, 32-bit buffer/driver with 3-state outputs	96LFBGA
Transceivers		
SN74ABT16245A-EP	16-bit bus transceiver with 3-state outputs	48SSOP
SN74ABT245B-EP	Octal bus transceivers with 3-state outputs	20SSOP
SN74AC245-EP	Octal bus transceivers with 3-state outputs	20SOIC
SN74ACT16245-EP	16-bit bus transceiver with 3-state outputs	48SSOP
SN74LVC245A-EP	Octal bus transceiver with 3-state outputs	20TSSOP
SN74ALVCH16245-EP	16-bit bus transceiver with 3-state outputs	48SSOP
SN74LVCH16652A-EP	16-bit bus transceiver and register with 3-state outputs	56TSSOP
SN74LVTH162245-EP	3.3-V ABT, 16-bit bus transceiver with 3-state outputs	48SSOP, 48TSSOP
SN74LVTH16245A-EP	3.3-V ABT, 16-bit bus transceiver with 3-state outputs	48SSOP, 48TSSOP, 48TVSOP, 56BGA MicroStar Junior
SN74LVTH16543-EP	3.3-V ABT, 16-bit registered transceiver with 3-state outputs	56SSOP, 56TSSOP
SN74LVTH16646-EP	3.3 V ABT, 16-bit bus transceiver and register with 3-state outputs	56TSSOP
SN74LVTH16652-EP	3.3 V ABT, 16-bit bus transceiver and register with 3-state outputs	56TSSOP
SN74LVTH16952-EP	3.3-V ABT, 16-bit registered transceiver with 3-state outputs	56TSSOP

Selection Tables

→ Logic

Buffers, Drivers and Transceivers (continued)

Part Number	Description	Pin/Package(s)
Transceivers (continued)		
SN74LVTH543-EP	3.3-V ABT, octal registered transceiver with 3-state outputs	24TSSOP
SN74LVTH646-EP	3.3-V ABT, octal bus transceiver and register with 3-state outputs	24TSSOP
SN74LVTH652-EP	3.3-V ABT, octal bus transceiver and register with 3-state outputs	24TSSOP

Flip-Flop Latches and Registers

Part Number	Description	Pin/Package(s)
Flip-flops		
SN74ACT16374-EP	16-bit, D-type edge-triggered flip-flop with 3-state outputs	48SSOP
SN74ACT74-EP	Dual positive-edge-triggered, D-type flip-flop with clear and preset	14SOIC
SN74AHC74-EP	Dual positive-edge-triggered, D-type flip-flop with clear and preset	14SOIC, 14TSSOP
SN74AHCT74-EP	Dual positive-edge-triggered, D-type flip-flop with clear and preset	14SOIC, 14TSSOP
SN74HC74-EP	Dual positive-edge-triggered, D-type flip-flop with clear and preset	14TSSOP
SN74LV374A-EP	Octal edge-triggered D-type flip-flop with 3-state outputs	20TSSOP
SN74LVC1G175-EP	Single D-type flip-flop with asynchronous clear	6SC70
SN74LVC1G79-EP	Single positive-edge-triggered D-type flip-flop	5SC70
SN74LVC2G74-EP	Single positive-edge-triggered D-type flip-flop with clear and preset	8US8
SN74LVC374A-EP	Octal edge-triggered D-type flip-flop with 3-state outputs	20SOIC, 20TSSOP
SN74LVC574A-EP	Octal edge-triggered D-type flip-flop with 3-state outputs	20SOIC, 20TSSOP
SN74LVC74A-EP	Dual positive-edge-triggered, D-type flip-flop with clear and preset	14SOIC, 14TSSOP
SN74LVTH16374-EP	3.3-V ABT, 16-bit edge-triggered D-type flip-flop with 3-state outputs	48SSOP, 48TSSOP
SN74LVTH273-EP	3.3-V ABT, octal D-type flip-flops with clear	20SO, 20TSSOP
SN74LVTH32374-EP	3.3-V ABT, 32-bit edge-triggered D-type flip-flop with 3-state outputs	96LFBGA
SN74LVTH374-EP	3.3-V ABT, octal edge-triggered D-type flip-flop with 3-state outputs	20TSSOP
SN74LVTH574-EP	3.3-V ABT, octal edge-triggered D-type flip-flops with 3-state outputs	20TSSOP
Latches		
SN74ABT16373A-EP	16-bit, transparent D-type latches with 3-state outputs	48SSOP
SN74AC373-EP	Octal D-type transparent latches with 3-state outputs	20SOIC
SN74ACT16373-EP	16-bit, transparent D-type latches with 3-state outputs	48SSOP
SN74ACT373-EP	Octal D-type transparent latches with 3-state outputs	20SOIC
SN74LVC16373A-EP	D-type latch with 3-state outputs	48SSOP
SN74LVC373A-EP	D-type latch with 3-state outputs	20SOIC, 20SSOP, 20TSSOP
SN74LVC573A-EP	D-type latch with 3-state outputs	20SOIC, 20TSSOP
SN74LVTH162373-EP	3.3-V ABT, 16-bit transparent D-type latches with 3-state outputs	48SSOP

Selection Tables

→ Logic

Flip-Flop Latches and Registers (continued)

Part Number	Description	Pin/Package(s)
Latches (continued)		
SN74LVTH16373-EP	3.3-V ABT, 16-bit transparent D-type latch with 3-state outputs	48SSOP, 48TSSOP, 56BGA Microstar™ Junior
SN74LVTH32373-EP	3.3-V ABT, 32-bit transparent D-type latch with 3-state outputs	96LFBGA
SN74LVTH373-EP	3.3-V ABT, octal transparent D-type latch with 3-state outputs	20TSSOP
SN74LVTH573-EP	3.3-V ABT, octal transparent D-type latch with 3-state outputs	20TSSOP
Registers		
SN74HC165-EP	8-bit parallel-load shift registers	16SOIC, 16TSSOP
SN74LV165A-EP	8-bit parallel-load shift registers	16TSSOP
SN74HC166A-EP	8-bit parallel-load shift registers	16SOIC
SN74LV595A-EP	8-bit shift register with 3-state output register	16TSSOP
SN74LV74A-EP	8-bit shift register with 3-state output register	16TSSOP

Dual-Supply Translators and Transceivers

Part Number	Description	Pin/Package(s)
CD4504B-EP	CMOS hex voltage-level shifter for TTL-to-CMOS or CMOS-to-CMOS operation	16TSSOP
SN74ALVC164245-EP	16-bit 2.5-V to 3.3-V/3.3-V to 5-V level-shifting transceiver, 3-state output	48SSOP, 48TSSOP
SN74AVCH4T245-EP	4-bit dual-supply bus transceiver with configurable voltage translation and 3-state outputs	16QFN
SN74LV1T45-EP	Single-bit dual-supply bus transceiver, configurable voltage translation and 3-state outputs	6SC70
SN74LVC2T45-EP	Dual-bit dual supply transceiver with configurable voltage translation and 3-state outputs	8SM8
SN74LVC4245A-EP	Octal bus transceiver and 3.3-V to 5-V shifter with 3-state outputs	24TSSOP
SN74LVC8T245-EP	8-bit dual-supply bus transceiver with configurable voltage translation and 3-state outputs	24TSSOP
SN74LVCC3245A-EP	Octal bus transceiver with adjustable output voltage and 3-state outputs	24SOIC, 24SSOP, 24TSSOP
SN74LVCC4245A-EP	Octal dual-supply bus transceiver with configurable output voltage and 3-state outputs	24TSSOP
SN74LVCH16T245-EP	16-bit dual-supply bus transceiver, configurable voltage translation, 3-state outputs	48TSSOP, 48TVSOP

Line Drivers, Receivers and Transceivers

Part Number	Description	Pin/Package
AM26C31-EP	Quadruple differential line driver	16SOIC
AM26C32-EP	Quadruple differential line receiver	16SOIC
AM26LS32AM-EP	Quadruple differential line receiver	16SOIC
AM26LV31E-EP	Low-voltage high-speed quad differential line driver, +/-15-kV IEC ESD protection	16SOIC
AM26LV32E-EP	Low-voltage high-speed quad differential line receiver, +/-15-kV IEC ESD	16SOIC
MAX3221-EP	3-V to 5.5-V single-channel RS-232 line driver/receiver with +/-15-Kv ESD	16SSOP
MAX3223-EP	3-V to 5.5-V multichannel RS-232 line driver/receiver with +/-15-Kv ESD	20SSOP

Selection Tables



Line Drivers, Receivers and Transceivers (continued)

Part Number	Description	Pin/Package(s)
MAX3232-EP	3-V to 5.5-V multichannel RS-232 line driver/receiver with +/-15-Kv ESD	16SSOP, 16TSSOP
MAX3243-EP	3-V to 5.5-V multichannel RS-232 line driver/receiver with +/-15-Kv ESD	28SSOP, 28TSSOP
PCI1520-EP	PC card controllers data manual	208LQFP, 209BGA MicroStar™
SN65HVD1050-EP	EMC-optimized CAN transceiver	8SOIC
SN65HVD10-EP	3.3-V RS-485 transceiver	8SOIC
SN65HVD12-EP	3.3-V RS-485 transceiver	8SOIC
SN65HVD21M-EP	Extended common-mode RS-485 transceiver	8SOIC
SN65HVD230M-EP	3.3-V CAN transceiver with standby mode	8SOIC
SN65HVD233-EP	3.3-V CAN transceiver	8SOIC
SN65HVD30-EP	3.3-V full-duplex RS-485 driver and receiver	8SOIC
SN65HVD33-EP	3.3-V full-duplex RS-485 drivers and receiver	14SOIC
SN65LBC174A-EP	Quadruple RS-485 differential line driver	20SOIC
SN65LBC176A-EP	Differential bus transceivers	8SOIC
SN65LV1023A-EP	10:1 LVDS SERDES transmitter 100-660 Mbps	28SSOP
SN65LV1224B-EP	1:10 LVDS SERDES receiver 100-660 Mbps	28SSOP
SN65LVDS179-EP	High-speed differential line drivers and receivers	8MSOP
SN65LVDS33-EP	High-speed differential receivers	16SOIC
SN65LVDS95-EP	23:1 LVDS SERDES transmitter	48TSSOP
SN65LVDT14-EP	Memorystick interconnect extender chipset	20TSSOP
SN65LVDT41-EP	Memorystick interconnect extender chipset	20TSSOP
SN75976A-EP	9-channel differential transceiver	56TSSOP
TFP401A-EP	PanelBus DVI receiver 165 MHz, HSYNC fix	100HTQFP
TFP410-EP	PanelBus digital transmitter	64HTQFP
TL16C752B-EP	3.3-V dual UART with 64-byte FIFO	48LQFP

Selection Tables

→ Logic

Gates

Part Number	Description	Pin/Package(s)
Single Input Gates		
SN74AHC1G02-EP	Single 2-input positive-NOR gate	5SC70
SN74AHC1G86-EP	Single 2-input exclusive-OR gate	5SC70
SN74LVC1G00-EP	Single 2-input positive-NAND gate	5SC70, 5SOT-23
SN74LVC1G02-EP	Single 2-input positive-Nor gate	5SC70
SN74LVC1G08-EP	Single 2-input positive-AND gate	5SC70, 5SOT-23
SN74LVC1G11-EP	Single 3-input positive-AND gate	6SC70
SN74LVC1G32-EP	Single 2-input positive-OR gate	5SC70, 5SOT-23
SN74LVC1G86-EP	Single 2-input exclusive-OR gate	5SC70
Dual Input Gates		
SN74LVC2G00W-EP	Dual 2-input positive-NAND gate	8SM*
SN74LVC2G02-EP	Dual 2-input positive-NOR gate	8US8
SN74LVC2G08-EP	Dual 2-input positive-AND gate	8US8
SN74LVC2G32-EP	Dual 2-input positive-OR gate	8US8
Triple Input Gates		
SN74AC11-EP	Triple 3-input positive-AND gate	14TSSOP
SN74HC10-EP	Triple 3-input positive-NAND gate	14SOIC, 14TSSOP
SN74LV11A-EP	Triple 3-input positive-AND gate	14TSSOP
Quadruple Input Gates		
CD74ACT86-EP	Quadruple 2-input exclusive-OR gate	14SOIC
CD74HC08-EP	Quadruple 2-input positive-AND gate	14SOIC
SN74AC08-EP	Quadruple 2-input positive-AND gate	14SOIC
SN74AC32-EP	Quadruple 2-input positive-OR gate	14SOIC
SN74ACT08-EP	Quadruple 2-input positive-AND gate	14SOIC
SN74AHC00-EP	Quadruple 2-input positive-NAND gate	14SOIC, 14TSSOP
SN74AHC02-EP	Quadruple 2-input positive-NOR gate	14TSSOP
SN74AHC08-EP	Quadruple 2-input positive-AND gate	14SOIC, 14TSSOP
SN74AHC32-EP	Quadruple 2-input positive-OR gate	14SOIC, 14TSSOP
SN74AHCT00-EP	Quadruple 2-input positive-NAND gate	14SOIC, 14TSSOP
SN74AHCT08-EP	Quadruple 2-input positive-AND gate	14SOIC, 14TSSOP
SN74AHCT32-EP	Quadruple 2-input positive-OR gate	14SOIC, 14TSSOP
SN74LV08A-EP	Quadruple 2-input positive-AND gate	14TSSOP
SN74LV32A-EP	Quadruple 2-input positive-OR gate	14TSSOP
SN74LV86A-EP	Quadruple 2-input exclusive-OR gate	14TSSOP
SN74ALVC00-EP	Quadruple 2-input positive-NAND gate	14SOIC
SN74ALVC08-EP	Quadruple 2-input positive-AND gate	14SOIC
SN74LVC08A-EP	Quadruple 2-input positive-AND gate	14SOIC, 14TSSOP

Gates (continued)

Part Number	Description	Pin/Package(s)
SN74LVC86A-EP	Quadruple 2-input exclusive-OR gate	14SOIC, 14TSSOP
SN74LVC00A-EP	Quadruple 2-input positive-NAND gate	14SOIC, 14TSSOP
SN74LVC02A-EP	Quadruple 2-input positive-NOR gate	14TSSOP
SN74LVC32A-EP	Quadruple 2-input positive-OR gate	14SOIC, 14TSSOP

Signal Switches

CD74HC4051-EP	High-speed CMOS logic analog multiplexer/demultiplexer	16SOIC
SN74LV4051A-EP	8-channel analog multiplexer/demultiplexer	16SOIC, 16TSSOP
SN74LV4052A-EP	Dual 4-channel analog multiplexer/demultiplexer	16SOIC, 16TSSOP
SN74LV4053A-EP	Triple 2-channel analog multiplexer/demultiplexer	16SOIC, 16TSSOP
TS5A3159-EP	1-Ohm Spdt analog switch	6SOT-23
SN74CBTLV3257-EP	Low-voltage, 4-bit, 1-Of-2 FET multiplexer/demultiplexer	16TSSOP

Selection Tables

→ Logic

Specialty Logic

Part Number	Description	Pin/Package
SN74LVTH182512-EP	3.3-V ABT, scan test device with 18-bit universal bus transceiver	64TSSOP
SN74LVTH18502A-EP	3.3-V ABT, scan test device with 18-bit universal bus transceiver	64LQFP
SN74LVTH18646A-EP	3.3-V ABT, scan test device with 18-bit universal bus transceiver	64LQFP
SN74LVT8980A-EP	Test-bus controller IEEE Std 1149.1 (Jtag) tap master	24SOIC
SN74LVT8996-EP	3.3-V ABT, 10-bit multidrop-addressable IEEE Std 1149.1 tap transceiver	24TSSOP
SN74SSTV32852-EP	24- to 48-bit registered buffer with Sstl_2-inputs and outputs	114BGA MICROSTAR
SN74SSTV32867-EP	26-bit registered buffer with Sstl_2-inputs and LvCMOS outputs	96LFBGA
SN74AHC123A-EP	Dual retriggerable monostable multivibrator	16SOIC
SN74LV123A-EP	Dual retriggerable monostable multivibrator	16TSSOP
SN74V263-EP	8192 X 18 synchronous FIFO memory	80LQFP
SN74V273-EP	16384 X 18 synchronous FIFO memory	80LQFP
SN74V283-EP	32768 X 18 synchronous FIFO memory	80LQFP
SN74V293-EP	65536 X 18 synchronous FIFO memory	80LQFP

MSI Functions

Part Number	Description	Pin/Package(s)
CD74HC40103-EP	High-speed CMOS logic 8-stage synchronous down counter	16SOIC
SN74LV393A-EP	Dual 4-bit binary counter	14 TSSOP
SN74LV8154-EP	Dual 16-bit binary counter with 3-state output register	20TSSOP
SN74HC253-EP	Dual 4- to 1-line data selector/multiplexer with 3-state output	16SOIC
SN74LVC157A-EP	Quadruple 2- to 1-line data selector/Multiplexer	16SOIC, 16TSSOP
SN74LVC257A-EP	Quadruple 4- to 1-line data selector/multiplexer with 3-state output	16SOIC, 16TSSOP
CD74HC4017-EP	Decade counter/driver with 10 decoded outputs	16SOIC
SN74AHCT138-EP	3- to 8-line decoder/demultiplexer	16SOIC, 16TSSOP
SN74LVC138A-EP	3- to 8-line decoder/demultiplexer	16SOIC, 16TSSOP
SN74LV4040A-EP	12-bit asynchronous binary counter	16TSSOP

Universal Bus Functions

Part Number	Description	Pin/Package(s)
SN74LVTH16835-EP	3.3-V ABT, 18-bit universal bus driver with 3-state outputs	56TSSOP
SN74LVTH16500-EP	3.3-V ABT, 18-bit universal bus transceiver with 3-state outputs	56TSSOP
SN74LVTH16501-EP	3.3-V ABT, 18-bit universal bus transceiver with 3-state outputs	56TSSOP
SN74VMEH22501A-EP	8-bit universal bus transceiver and a 1-bit bus transceiver	48TSSOP, 48TVSOP

Temperature Sensors

Part Number	Description	Pin/Package
TMP100-EP	Digital temperature sensor with I2C interface	6SOT-23
TMP121-EP	1.5°C accurate digital temperature sensor with SPI interface	6SOT-23
TMP122-EP	1.5°C accurate programmable remperature sensor with SPI interface	6SOT-23

Selection Tables

→ High Temperature

High Temperature Plastic Products 150-175°C

Part	Description	Package/Temperature
Signal Conditioning		
INA128-HT	Low Power Instrumentation Amplifiers	D - 175°C
THS4521-HT	Low Power Differential Amplifier	D - 175°C
Data Converters		
ADS1282-HT	Ultra High Resolution Delta Sigma ADC	PW - 175°C
Interface		
SN65HVD233-HT	3.3-V CAN Transceiver	D - 175°C
SN65HVD111-HT	3.3-V RS-485 Transceiver	D - 175°C
ISO7221C-HT	Dual Channel, 1/1, 25Mbps Digital Isolator	D - 175°C
Power		
TPS76901-HT	Low-Power 100-mA LDO Regulator	DBV - 175°C
TPS40200-HT	Wide Input Buck DC/DC Controller	D - 175°C
TPS62110-HT	17-Vin, 1.5-A, Synchronous Step-Down Converter	PWP - 175°C
Microcontrollers / Processors		
MSP430F2619S-HT	16-Bit Ultra-Low-Power MCU (150°C max)	PM - 150°C
OMAPL137-HT	Low Power Dual-Core Processor (ARM9+DSP)	PTP - 175°C

Selection Tables

→ High Temperature

High Temperature Products 210°C

Part	Description	Pin/Package(s)
Signal Conditioning		
OPA2333-HT	1.8-V Micropower CMOS Op Amp	HKJ, KGD
OPA211-HT	Low Noise, Low Power, Precision Op Amp	HKJ, KGD
OPA820-HT	Unity-Gain Stable, Low Noise, Voltage-Feedback Operational Amplifier	HKJ, KGD
INA129-HT	Low Power Instrumentation Amplifier	HKJ, KGD
INA333-HT	Low Power, Precision Instrumentation Amplifier	HKJ, KGD
INA271-HT	Voltage Output Current-Shunt Monitor	HKJ, KGD
THS4521-HT	Low Power Differential Amp	HKJ, KGD
Data Converters		
ADS1243-HT	24-Bit ADC, 8 Ch, PGA 1:128, 50/60 Hz Notch	KGD
ADS1278-HT	Octal, 24-Bit Analog-to-Digital Converters	HFQ, KGD
ADS1282-HT	Ultra High Resolution Delta Sigma ADC	JDJ, KGD
ADS6142-HT	14-bit 65MSPS ADC with selectable parallel CMOS or LVDS outputs	KGD
ADS8320-HT	16-Bit, 100kSPS, Analog-to-Digital Converter	HKJ, KGD
Interface		
SN65HVD233-HT	3.3-V CAN Transceiver	HKJ, KGD
SN65HVD11-HT	3.3-V RS-485 Transceiver	HKJ, KGD
Power		
REF5025-HT	Low Noise, Very Low Drift, 2.5V Voltage Reference	HKJ, KGD
TPS76901-HT	Low-Power 100-mA LDO Regulator	HKJ, KGD
TPS40200-HT	Wide Input Buck DC/DC Controller	HKJ, KGD
TPS40210-HT	Wide Input Range Current Mode Boost Controller	HKK, KGD
TPS62000-HT	Step-Down Low Power DC-DC Converter	HKK, KGD
Microcontrollers / Processors		
SM470R1B1M-HT	ARM7TDMI(tm) Flash Microcontroller	HFQ, KGD
SM320F2812-HT	Digital Signal Controller	HFG, KGD
SM320F28335-HT	Delfino Digital Signal Controller	GB, KGD

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	Domestic	www.tij.co.jp/pic

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Domestic	<u>Toll-Free Number</u>

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New Zealand	0800-446-934
Philippines	1-800-765-7404
Singapore	800-886-1028
Taiwan	0800-006800
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