TI Bare Die Solutions



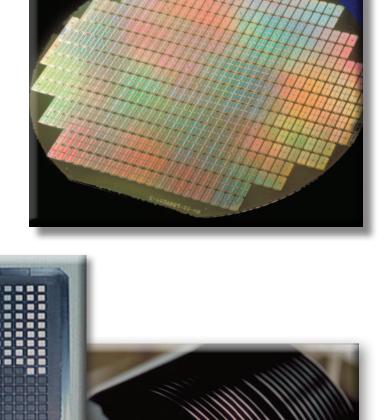
Texas Instruments Incorporated has expanded package options with the additional availability of bare die. With new small volume waffle pack quantities TI provides the capability to prototype bare die applications quickly without the need to purchase a full wafer. TI's bare die enables customers to design end equipments with smaller form factors by implementing multi-chip modules (MCM) or system in package (SiP). Moving to more integrated packaging solutions provides both weight and power dissipation savings while improving overall system-level reliability in space-constrained applications.

TI offers these categories of die products:

- Tested die (TD)
- Known Good Die (KGD)
- Special offerings of commercial wafers

Special processing can include:

- Extended temperature -55° C to 210° C
- Shipping options
- · Inspection criteria
- Wafer thickness



For more information regarding TI's Bare Die offerings, and to request a Bare Die product, fill out the Bare Die Request Form at www.ti.com\baredie.

Selection Tables

Tested Die

Tested Die (25° C Tested Die)

lested Die (25 °C lested Die)				
Device	Description			
DAC7822-DIE	12-bit, dual channel, parallel input, multiplying digital-to-analog converter			
MSC1201-DIE	8051 CPU with 8kB memory, 24-bit ADC, current DAC, and on-chip oscillator			
MSP430F417-DIE	16-bit ultra-low-power microcontroller, 32kB flash, 1kB RAM, comparator, 96 segment LCD			
MSP430F5326-DIE	Mixed signal microcontroller, 96kB flash, 8kB RAM			
MSP430G2252-DIE	Mixed signal microcontroller, 2kB flash, 256B RAM			
OPA140A-DIE	11MHz, single supply, low noise, precision, rail-to-rail output, JFET amplifier			
OPA2277-DIE	Dual high precision operational amplifiers			
OPA4350-DIE	High-speed, single-supply, rail-to-rail operational amplifiers			
OPA656-DIE	Wideband, unity gain stable FET-input operational amplifier			
REF3140-DIE	20ppm/degrees C max, 100uA, series voltage reference			
REF3325A-DIE	30ppm/C drift, 3.9uA, voltage reference			
TLC555-DIE	Low power LinCMOS timer			
TPS62203-DIE	3.3-V output, 300-mA, 95% efficient step-down converter			
TPS71525-DIE	Single output LDO, 50mA, fixed (2.5V)			
TPS71530-DIE	Single output LDO, 50mA, fixed (3.0V), high input voltage, low quiescent current			
TPS71550-DIE	Single output LDO, 50mA, fixed (5.0V), high input voltage, low quiescent current			
XTR108-DIE	4-20mA, two-wire transmitter 'smart' programmable with signal conditioning			

Selection Tables

Nown Good Die

Known Good Die

Device	Description	Tempature Range
ADS1243SKGD1	High Temperature 24-Bit ADC, 8 Ch, PGA 1:128, 50/60 Hz notch	(-55°C/210°C)
ADS1278SKGDA	Octal, 144kHz, simultaneous sampling 24-bit delta sigma ADC	(-55°C/210°C)
ADS1282SKGDA	Ultra-high resolution delta sigma ADC with PGA for seismic and energy exploration	(-55°C/210°C)
ADS6142SKGD1	High Temp 14-bit 65MSPS ADC with selectable parallel CMOS or LVDS outputs	(-40°C/210°C)
ADS8320SKGD1	High Temperature 16-bit, high-speed, 2.7V to 5V micro power sampling analog-to-digital converter	(-55°C/210°C)
INA129SKGD1	Precision, low power instrumentation amplifiers	(-55°C/210°C)
INA271SKGD1	High Temperature voltage output high-side measurement current-shunt monitor	(-55°C/210°C)
INA333SKGD1	High Temperature low power, precision instrumentation amplifier	(-55°C/210°C)
LT1009MKGD1	2.5-V integrated reference circuit	(-55°C/125°C)
MSP430F2619SKGD1	High Temp 16-bit ultra-low-power MCU, 120KB flash, 4KB RAM, 12-bit ADC, dual DAC, 2 USCI, HW mult, DMA	(-55°C/150°C)
OPA211SKGD1	1.1nV/rtHz noise, low power, precision operational amplifier	(-55°C/210°C)
OPA2333SKGD1	1.8-V micropower CMOS operational amplifier zero-drift series	(-55°C/210°C)
OPA2348CKGD4	1MHz, 45uA, RRIO, dual op amp	(0°C/70°C)
OPA820SKGD1	High Temp unity-gain stable, low noise, voltage-feedback operational amplifier	(-55°C/210°C)
REF5025SKGD1	Low noise, very low drift, precision voltage references	(-55°C/210°C)
SM320F2812KGDS150A	32-bit digital signal controller with flash	(-55°C/220°C)
SM320F28335KGDS1	High Temperature digital signal controller	(-55°C/210°C)
SM470R1B1MKGDS1	16- /32-bit RISC flash microcontroller	(-55°C/220°C)
SN65HVD1040SKGD3	High Temp industrial CAN transceiver with ultra low power sleep mode and remote bus wake-up	(-55°C/210°C)
SN65HVD11SKGDA	3.3-V RS-485 transceiver	(-55°C/210°C)
SN65HVD233SKGDA	3.3-V CAN transceiver	(-55°C/210°C)
THS4521SKGD1	Negative rail input, rail-to-rail output, differential amp	(-55°C/210°C)
TPS40200SKDG1	Wide input non-synchronous buck DC/DC controller	(-55°C/210°C)
TPS40200SKGD1	Wide input non-synchronous buck DC/DC controller	(-55°C/210°C)
TPS62000SKGD1	High-efficiency, step-down, low power DC/DC converter	(-55°C/210°C)
TPS76901SKGD1	Ultra low-power 100-mA low-dropout line regulators	(-55°C/210°C)
UC1843MKGD1	Current mode PWM controller	(-55°C/125°C)

TI Worldwide Technical Support

Internet

TI Semiconductor Product Information Center Home Page

support.ti.com

TI E2E™ Community Home Page

e2e.ti.com

Product Information Centers

Americas Phone +1(972) 644-5580

Brazil Phone 0800-891-2616

Mexico Phone 0800-670-7544

Fax +1(972) 927-6377

Internet/Email support.ti.com/sc/pic/americas.htm

Europe, Middle East, and Africa

Phone

European Free Call 00800-ASK-TEXAS

(00800 275 83927)

International +49 (0) 8161 80 2121 Russian Support +7 (4) 95 98 10 701

Note: The European Free Call (Toll Free) number is not active in all countries. If you have technical difficulty calling the free call number, please use the international number above.

Fax +(49) (0) 8161 80 2045

Internet support.ti.com/sc/pic/euro.htm

Direct Email asktexas@ti.com

Japan

Phone Domestic 0120-92-3326

Fax International +81-3-3344-5317

Domestic 0120-81-0036

Internet/Email International support.ti.com/sc/pic/japan.htm

Domestic www.tij.co.jp/pic

Asia

Phone

International +91-80-41381665

Domestic Toll-Free Number

Note: Toll-free numbers do not support

mobile and IP phones.

Australia 1-800-999-084 China 800-820-8682 Hong Kong 800-96-5941 India 1-800-425-7888 Indonesia 001-803-8861-1006 Korea 080-551-2804 1-800-80-3973 Malaysia New Zealand 0800-446-934 **Philippines** 1-800-765-7404 Singapore 800-886-1028 Taiwan 0800-006800

Fax +8621-23073686

Thailand

Email tiasia@ti.com or ti-china@ti.com Internet support.ti.com/sc/pic/asia.htm

Important Notice: The products and services of Texas Instruments Incorporated and its subsidiaries described herein are sold subject to TI's standard terms and conditions of sale. Customers are advised to obtain the most current and complete information about TI products and services before placing orders. TI assumes no liability for applications assistance, customer's applications or product designs, software performance, or infringement of patents. The publication of information regarding any other company's products or services does not constitute TI's approval, warranty or endorsement thereof.

001-800-886-0010

A122010

The platform bar and E2E are trademarks of Texas Instruments. All other trademarks are the property of their respective owners.



IMPORTANT NOTICE

Texas Instruments Incorporated and its subsidiaries (TI) reserve the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are used to the extent TI deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

TI does not warrant or represent that any license, either express or implied, is granted under any TI patent right, copyright, mask work right, or other TI intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information published by TI regarding third-party products or services does not constitute a license from TI to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

Reproduction of TI information in TI data books or data sheets is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. Reproduction of this information with alteration is an unfair and deceptive business practice. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Resale of TI products or services with statements different from or beyond the parameters stated by TI for that product or service voids all express and any implied warranties for the associated TI product or service and is an unfair and deceptive business practice. TI is not responsible or liable for any such statements.

TI products are not authorized for use in safety-critical applications (such as life support) where a failure of the TI product would reasonably be expected to cause severe personal injury or death, unless officers of the parties have executed an agreement specifically governing such use. Buyers represent that they have all necessary expertise in the safety and regulatory ramifications of their applications, and acknowledge and agree that they are solely responsible for all legal, regulatory and safety-related requirements concerning their products and any use of TI products in such safety-critical applications, notwithstanding any applications-related information or support that may be provided by TI. Further, Buyers must fully indemnify TI and its representatives against any damages arising out of the use of TI products in such safety-critical applications.

TI products are neither designed nor intended for use in military/aerospace applications or environments unless the TI products are specifically designated by TI as military-grade or "enhanced plastic." Only products designated by TI as military-grade meet military specifications. Buyers acknowledge and agree that any such use of TI products which TI has not designated as military-grade is solely at the Buyer's risk, and that they are solely responsible for compliance with all legal and regulatory requirements in connection with such use.

Applications

TI products are neither designed nor intended for use in automotive applications or environments unless the specific TI products are designated by TI as compliant with ISO/TS 16949 requirements. Buyers acknowledge and agree that, if they use any non-designated products in automotive applications, TI will not be responsible for any failure to meet such requirements.

Following are URLs where you can obtain information on other Texas Instruments products and application solutions:

Products

OMAP Mobile Processors

Wireless Connectivity

www.ti.com/omap

www.ti.com/wirelessconnectivity

Audio	www.ti.com/audio	Automotive and Transportation	www.ti.com/automotive
Amplifiers	amplifier.ti.com	Communications and Telecom	www.ti.com/communications
Data Converters	dataconverter.ti.com	Computers and Peripherals	www.ti.com/computers
DLP® Products	www.dlp.com	Consumer Electronics	www.ti.com/consumer-apps
DSP	dsp.ti.com	Energy and Lighting	www.ti.com/energy
Clocks and Timers	www.ti.com/clocks	Industrial	www.ti.com/industrial
Interface	interface.ti.com	Medical	www.ti.com/medical
Logic	logic.ti.com	Security	www.ti.com/security
Power Mgmt	power.ti.com	Space, Avionics and Defense	www.ti.com/space-avionics-defense
Microcontrollers	microcontroller.ti.com	Video and Imaging	www.ti.com/video
RFID	www.ti-rfid.com		

TI E2E Community Home Page

e2e.ti.com