

Exhibit A

TI Bare Die Solutions



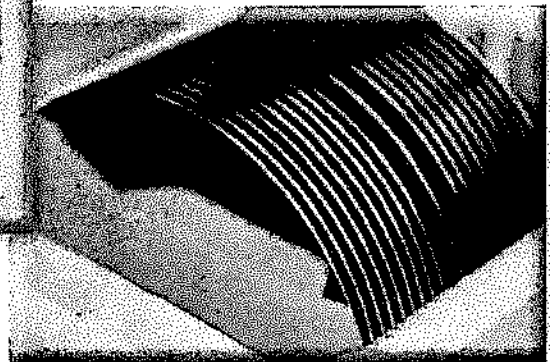
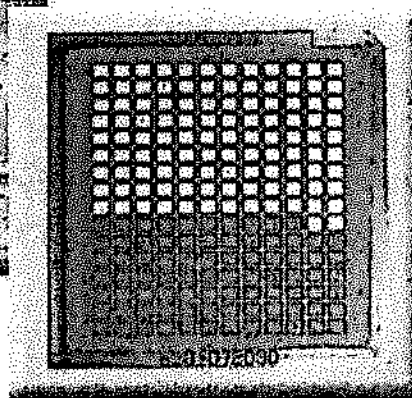
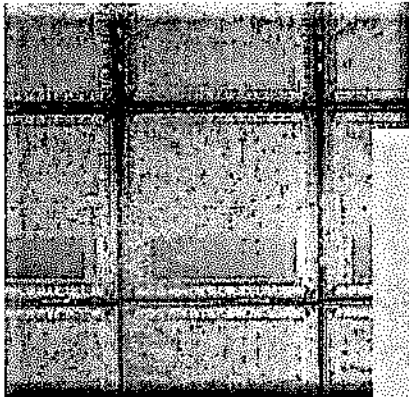
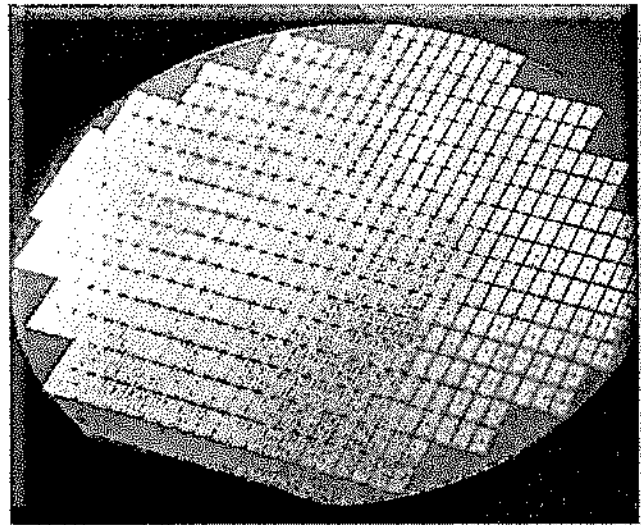
Texas Instruments Incorporated has expanded package options with the additional availability of bare die. With new small volume wafer pack quantities TI provides the capability to prototype bare die applications quickly without the need to purchase a full wafer. TI's bare die enables customers to design 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.

Special processing can include:

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

TI offers these categories of die products:

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



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)

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

Known Good Die

Known Good Die

Device	Description	Temperature 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)

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