

Fact Sheet

Military Semiconductor Products

ASIC TGC2000 Family
SGYV047A November 1998

Highlights:

Many of today's military ASIC designs require a mature, cost-effective 5-volt technology. Optimized for high performance at 5-volt operation, TI's 0.55 μm CMOS ASIC family, TGC2000, is a perfect match for most of these designs.

Technology Features:

- 0.55 μm CMOS Process
- Double or Triple Level Metallization
- 10 Arrays With up to 245,000 Available Gates (171,000 Usable)
- Design Support for Synopsys™, Cadence™, and Mentor™ Tools
- Memory Compiler for Custom Memory Configurations
 - Single Port RAMs
 - Dual Port RAMs
 - Two Port RAMs
 - ROMs
- Metallized or Embedded Memories Available
- Full IEEE 1149.1 (JTAG) Support
- Clock Distribution Macros

TGC2000 Military CMOS Gate Arrays

Base Array	Available Gates	TLM Usable Gates	DLM Usable Gates	Bond Pads
TGC2245	245,000	171,000	98,000	416
TGC2191	191,000	134,000	76,000	368
TGC2154	154,000	108,000	62,000	320
TGC2113	113,000	79,000	45,000	272
TGC2086	86,000	60,000	34,000	240
TGC2068	68,000	48,000	27,000	208
TGC2053	53,000	37,000	21,000	196
TGC2036	36,000	25,000	14,000	160
TGC2019	19,000	13,000	8,000	120
TGC2016	16,000	11,000	6,000	104

Packages:

- All Standard Packages have Power and Ground Planes
Reduces Noise Created by Simultaneous Switching Outputs
Reduces Number of Power and Ground Pins Necessary
- High Performance Ceramic PGA and QFP Packages
- All Standard CQFP Packages Utilize Non-Conductive-Tie-Bars
Maintains Lead Coplanarity Throughout Manufacturing, Testing, and Shipping
Eliminates Need for Carriers
- Bare Die

Production Processing:

- MIL-PRF-38535 (QML)
DSCC SMD # 5962-96B01 & 5962-97B01
- Military Temperature (Packaged)
- Industrial Temperature (Packaged)
- Military Temperature (Die)
- Industrial Temperature (Die)

Contacts:

- TI Military Homepage : <http://www.ti.com/sc/docs/military>
- TI Military ASIC Homepage : <http://www.ti.com/sc/docs/military/product/asic/asic.htm>
- Product Information Center (PIC) 972-644-5580

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