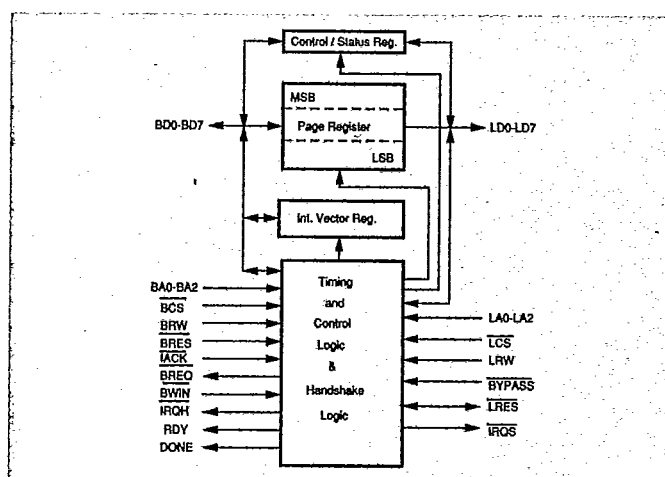
**GS81 ICA****GESPAC INTELLIGENT  
CONTROLLER ARBITRATOR**

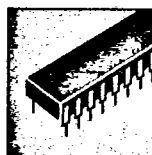
With the continuous evolution of technology, the need for intelligent peripheral controllers in board based applications became essential. Thus GESPAC decided to build a common architecture for these controllers. Thanks to the gate array concept it has become possible to simplify the hardware of intelligent controllers. The GS81 ICA is already used on the GESCSI-1 board and can be used as such on boards using the same architecture. ICA is a gate-array built in  $2\mu$  CMOS technology using 880 gates. It is packaged in a 44 pins PLCC package.

**Technical features**

- Allows inter-processor communication through six hardware registers
- Interlocked protocols using hardware interrupts
- Internal interrupt vector register (vectored interrupt mode)
- 8-bit data bus interface
- TTL I/O compatible

**Reference**

GS81 ICA: Intelligent Controller Arbitrator PLCC Package

**GS01 ITC****GESPAC INTERRUPT  
CONTROLLER**

T-52-33-05

T-52-33-13

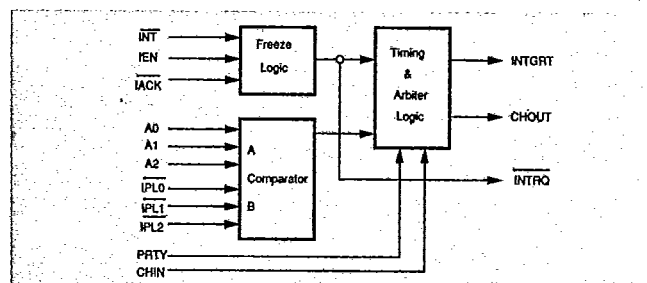
When one or more I/O devices generate an interrupt request on the G-64/G-96 bus, the processor services the interrupt during the Interrupt acknowledge operation. The interrupting device identifies itself by issuing its interrupt vector when its logic has recognized the interrupt acknowledge. The contention between several interrupt requesters is resolved by a daisy-chain structure.

During an Interrupt acknowledge the CPU master reads an 8 bit vector on the data bus. This vector allows the processor on the CPU to branch to the specific interrupt routine.

The GS01 ITC is a 20 pin plastic DIL circuit which controls all the operations related to interrupts on a CPU board.

**Technical features**

- Supports G-64/G-96 priority interrupt structure
- Supports either autovectored or vectored interrupt mode
- Provides all required signals for daisy chain handling and interrupt vector generation
- Operation mode selectable by jumpers or straps
- TTL I/O compatible

**Reference**

GS01 ITC: Interrupt Controller DIL Package