

## PREVIEW

## Radiation Hardened CMOS Programmable Interrupt Controller

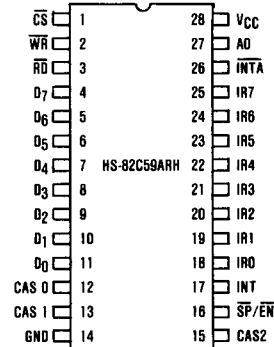
### Features

- Pin Compatible with NMOS 8259A and the Harris 82C59A
- High Speed, No "Wait State" Operation with 5MHz HS-80C86RH
- Radiation Hardened
  - ▶ Total Dose > 10<sup>5</sup> Rad (Si)
  - ▶ Transient Upset > 10<sup>8</sup> Rad (Si)/Sec
  - ▶ Latch-Up Free EPI-CMOS
- Eight Level Priority Controller
- Expandable to 64 Priority Levels
- Fully TTL Compatible
- Programmable Interrupt Modes
- HS-80C85RH and HS-80C86RH Compatible Operation
- Individual Request Mask Capability
- Fully Static Design
- Hardened Oxide SAJI IV Process
- Single 5V Power Supply
- Low Standby Power.....20µA
- Full Military Temperature Range

▶ Total Dose Capabilities Above 100K Rad (Si) are Available. Contact Factory for Details

### Pinout

TOP VIEW



### Description

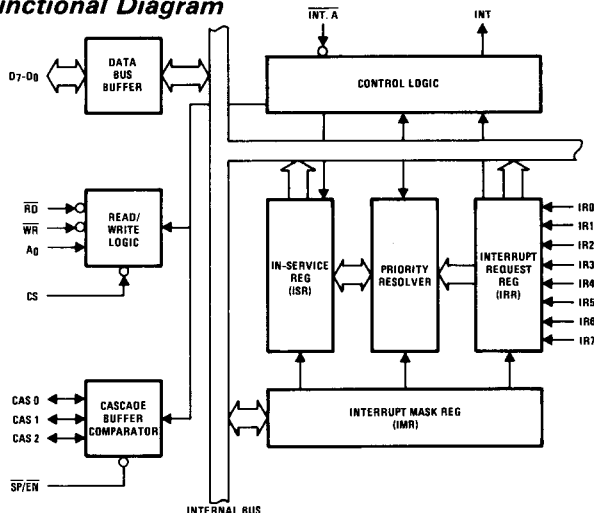
The Harris HS-82C59ARH is a high performance, radiation hardened CMOS Programmable Interrupt Controller manufactured using a hardened field, self-aligned silicon gate CMOS process. The HS-82C59ARH is designed to relieve the system CPU from the task of polling in a multi-level priority interrupt system. The high speed, radiation hardness, and industry standard configuration of the HS-82C59ARH make it compatible with radiation hardened microprocessors such as the HS-80C85RH and the HS-80C86RH.

with additional circuitry. Individual interrupting sources can be masked or prioritized to allow custom system configuration. Two modes of operation make the HS-82C59ARH compatible with either the HS-80C85RH or the HS-80C86RH interrupt format.

Static CMOS circuit design insures low operating power. Harris hardened field process results in performance equal to or greater than existing radiation resistant products at a fraction of the power.

The HS-82C59ARH can handle up to eight vectored priority interrupting sources and is cascadable to 64 sources

### Functional Diagram



D7 -- D0	Data Bus (Bi-Directional)
RD	Read Input
WR	Write Input
A0	Command Select Address
CS	Chip Select
CAS 2 -- CAS 0	Cascade Lines
SP/EN	Slave Program Input Enable
INT	Interrupt Output
INTA	Interrupt Acknowledge Input
IR0 -- IR7	Interrupt Request Inputs

CAUTION: Electronic devices are sensitive to electrostatic discharge. Proper I.C. handling procedures should be followed.