HARRIS
SEMICONDUCTOR

HA457

ADVANCE INFORMATION

November 1996

**170MHz, A$_V$ = +2, 8 x 8
Video Crosspoint Switch**

Features

- Fully Buffered Inputs and Outputs (A$_V$ = +2)
- Routes Any Input Channel to Any Output Channel
- Switches Standard and High Resolution Video Signals
- Serial or Parallel Digital Interface
- Expandable for Larger Switch Matrices
- Wide Bandwidth 170MHz
- High Slew Rate 350V/µs
- Low Differential Gain/Phase . . . . . 0.01%/0.02 Degrees
- Low Crosstalk at 10MHz . . . . -60dB

Applications

- Professional Video Switching and Routing
- Security Systems
- Video Editing

Ordering Information

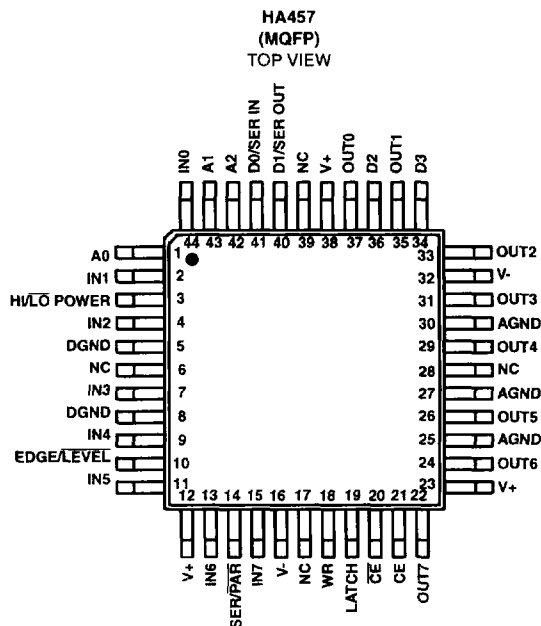| PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HA457CN	0 to 70	44 Ld MQFP	M44.10x10

Description

The HA457 is the first 8 x 8 video crosspoint switch suitable for high performance video systems. Its high level of integration significantly reduces component count, board space, and cost. The crosspoint switch contains a digitally controlled matrix of 64 fully buffered switches that connect eight video input signals to any, or all, matrix outputs. Each output connects to eight internal, high-speed (350V/µs), gain of two buffers capable of driving 150Ω and 20pF to ±2.0V.

The HI/$\overline{\text{LO}}$POWER lead may be strapped to GND for power critical applications that don't require "broadcast quality" video performance. In this low power mode, power dissipation decreases from 880mW to 560mW.

The HA457 will directly drive a double terminated video cable with some degradation of differential gain and phase. Applications demanding the best composite video performance should drive the cable with a unity gain video buffer, such as the HFA1412 quad buffer.

This crosspoint's three-state output capability, makes it feasible to parallel multiple HA457s and form larger switch matrices.

Pinout

HA457
(MQFP)
TOP VIEW

File Number **4231**