Histogrammer/Accumulating Buffer

The Intersil HSP48410/883 is an 84 lead Histogrammer IC intended for use in image and signal analysis. The on board memory is configured as 1024 x 24 array. This translates to a pixel resolution of 10 bits and an image size of 4k x 4k with no possibility of overflow.

In addition to *4*-Histogramming, the HSP48410 can generate and store the Cumulative Distribution Function for use in Histogram Equalization Applications. Other capabilities of the HSP48410 include: Bin Accumulation, Look Up Table, 24-bit Delay Memory, and Delay and Subtract Mode.

A flash clear pin is available in all modes of operation and performs a single cycle reset on all locations of the internal memory array and all internal data paths.

The HSP48410 includes a fully asynchronous interface which provides a means for communications with a host, such as a microprocessor. The interface includes dedicated Read/Write pins and an address port which are asynchronous to the system clock. This allows random access of the Histogram Memory Array for analysis or conditioning of the stored data.

Features

- This Circuit is Processed in Accordance to MIL-STD-883 and is Fully Conformant Under the Provisions of Paragraph 1.2.1.

- 10-Bit Pixel Data

- 4k x 4k Frame Sizes

- Asynchronous Flash Clear Pin

- Fully Asynchronous 16-Bit or 24-Bit Host Interface

- DC to 33MHz Clock Rate

Applications

- Histogramming

- Histogram Equalization

- Image and Signal Analysis

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HSP48410GM-33/883	-55 to 125	84 Ld PGA	G84.A
HSP48410GM-25/883	-55 to 125	84 Ld PGA	G84.A

Block Diagram