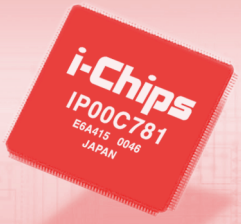


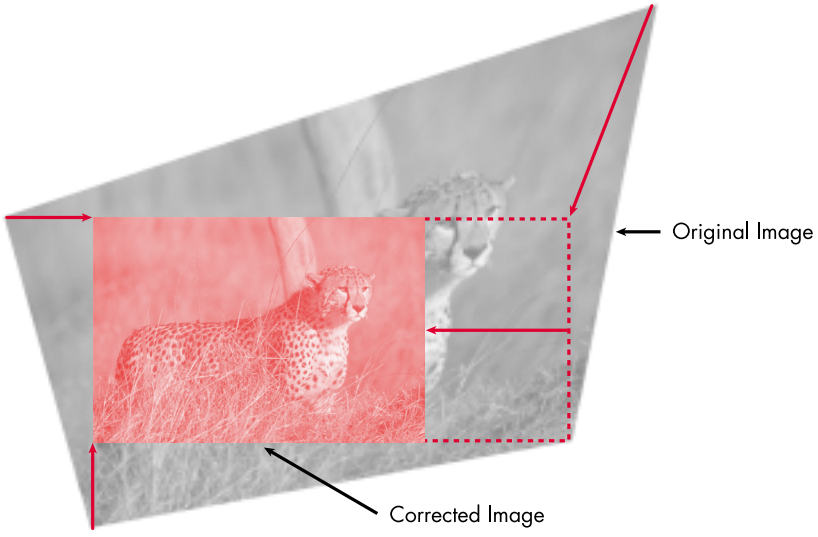
IP00C781

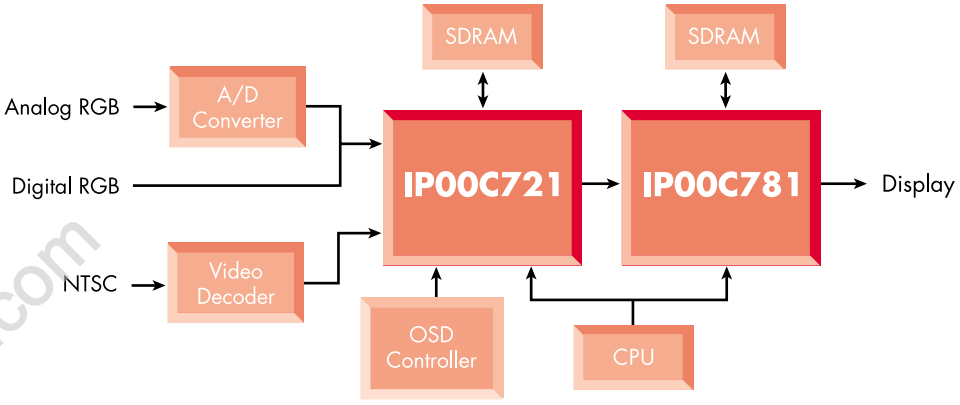
Horizontal and Vertical Keystone Correction Device

Output up to 85 Mpixels/sec., H and V keystone correction, single SDRAM operation

General Description

The IP00C781 device performs simultaneous horizontal and vertical corrections to compensate for the off-axis distortions introduced by the viewing angle in image projection systems. Combined with the IP00C721 precision video scaler, it forms a powerful combination for driving projection systems. The IP00C781 can support H and V keystone corrections of up to 2:1 on 1400x1018 pixels of active image size.





Support Tools

- Evaluation Board
- Local Technical Support

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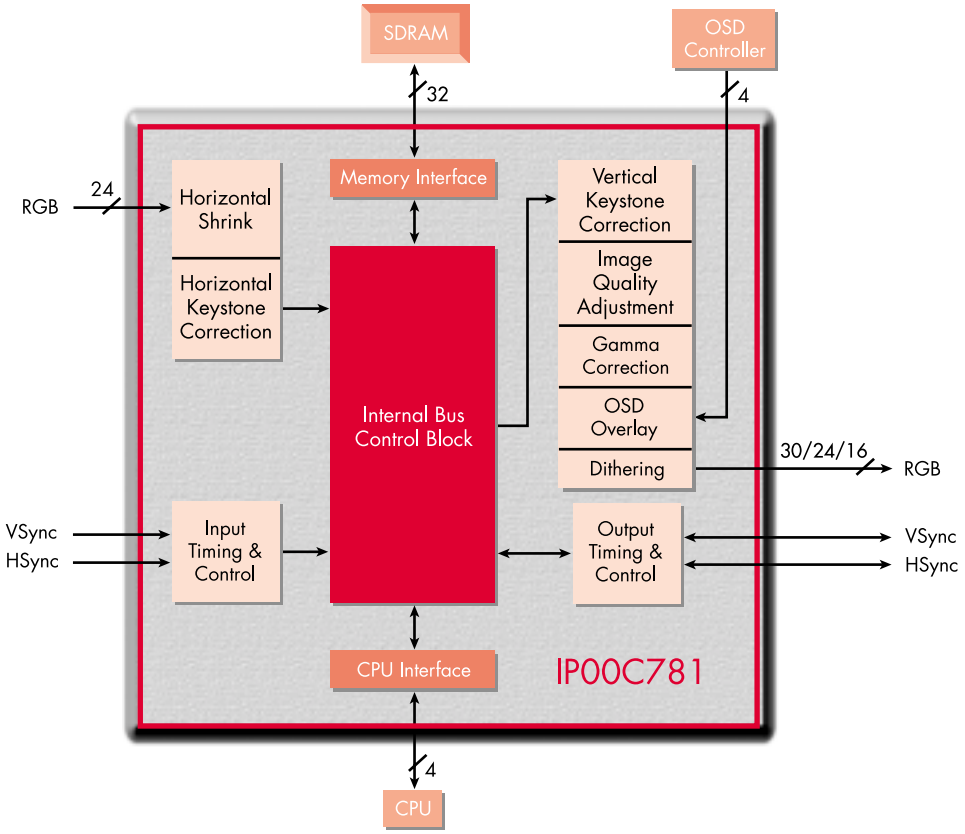

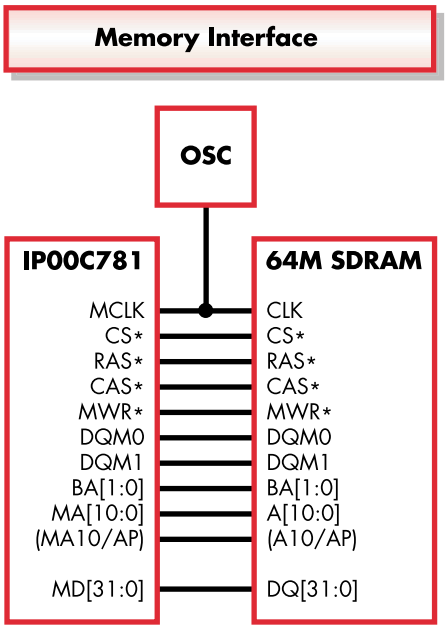

IP00C781 Features

Input Image Formats

- RGB 24-bit up to 85 MHz
- External synchronization (H Sync., V Sync., Clock)

Output Image Formats

- RGB (30)24-bit up to 85 MHz
- External or internal synchronization modes

Keystone Correction

- Image size up to 2400 pixels horizontally with 1400x1018 active pixels
- Max. correction ratio of 2:1 in horizontal direction
- Max. correction ratio of 2:1 in vertical direction

Frame Rate Conversion

- Independent sync. signals for the input and output image ports
- Frame synchronization function to avoid frame tearing

External Memory

- SDRAM (SGRAM) with 32-bit memory bus interface
- Can operate with a single memory device
- 112 MHz maximum memory clock

Other Features

- YUV-to-RGB conversion with 6 coefficients
- 16-color OSD overlay (16 million colors palette)
- Horizontal and vertical non-linear scaling
- Color dithering for 24-bit or 18-bit output
- Gamma Correction LUT (8-bit in, 10-bit out)
- Brightness and Contrast adjustments
- Edge enhancement function
- LVTTL-compatible inputs and outputs

CPU Interface

- 4-line serial

Power Supply Voltage

- Two sources: 3.3V and 2.5V

Package

- 208-pin Plastic QFP

i-Chips

i-Chips Technology Inc.

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