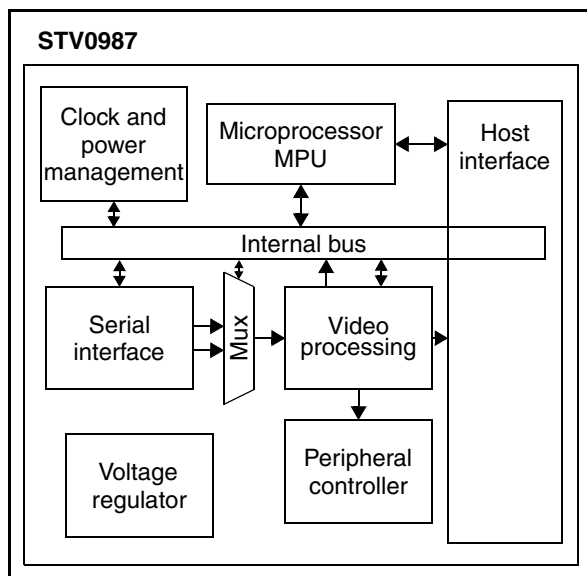


8 megapixel imaging processor

Data brief - production data



Features

- Enhanced video processing
 - Two video pipes
 - Face detection and tracking algorithm
 - Video stabilization
 - Adaptive 4-channel lens shading and barrel distortion correction
 - Statistics processor for advanced automatic exposure and white balance
 - Automatic contrast stretch
 - Nine-zone auto-focus with flexible actuator driver
 - Digital zoom
 - Advanced noise and defect filtering
 - Color reconstruction
 - Adaptive color correction matrix
 - Sharpness enhancement
 - Programmable gamma correction
 - Lighting frequency detection and automatic flicker reduction
- Image rotation/mirroring/flip for the viewfinder (up to 480 x 360)
- Special effects
- Supports 2 MIPI compliant sensors of up to 8 Mpixel resolution (1 sensor streaming at a time)
- Support for auto-focus (AF), extended depth of field (EDOF) and wide dynamic range (WDR) sensors
- Frame-rates up to 30 fps at 5 Mpixel resolution and up to 15 fps at 8 Mpixel
- Sensor interfaces: 2 x MIPI CSI-2 receivers
- Host interface: MIPI CSI-2 dual lane transmitter or ITU - all with independent variable transmitter clock (PLL)
- Versatile clock manager and internal buffer to accommodate a wide range of data rates between sensors and the STV0987 and between the STV0987 and the host
- Control interface: CCI (up to 400 kHz) or SPI
- Output formats: JPEG, YUV4:2:2, YUV4:2:0, Planar YUV4:2:0 (up to 480 x 360), RGB888, RGB565, RGB444
- JPEG compression with programmable quantization matrix and target file size
- Synchronized flash gun control with red-eye reduction (pre-flash and main-flash strobes) for high-power LED or Xenon strobe light
- Low power standby mode

Description

The STV0987 is a low-power digital image processor designed for mobile camera applications. The STV0987 performs advanced image correction and enhancement, resulting in excellent image quality in today's multi-megapixel cameras. Built-in high-level features include face tracking, video stabilization and a smooth digital zoom, bringing an outstanding user experience to camera systems. The STV0987 supports two MIPI sensors, flash gun (LED or Xenon), auto-focus and/or additional external actuators.

Ordering information

Table 1. Order codes

Part number	Package	Packing
STV0987B/TR	RoHS compliant (Leadfree) LFBGA 96+8 (cut1.3)	Tape and reel

Revision history

Table 2. Document revision history

Date	Revision	Changes
14-Aug-2012	1	Initial release.
06-Mar-2013	2	Minor updates throughout.

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