

TB1311AFG Analog Video Front-End Processor

Highlights

- Programmable audio/video switch provides maximum analog input design flexibility
- Integration reduces analog interface design complexity and space requirement
- Automatic sync mode simplifies software programming
- Real-time format recognition improves system performance
- Dummy HD/VD output maintains picture stability when no video signal is present
- Pre-filters for AD converters reduce aliasing noise from analog to digital conversion

Description

TB1311AFG is a programmable audio video and component switch that accepts all standard analog audio and video signals required for digital television, set top boxes and other AV products. The video block is programmable to accept a full variety of composite, S-video, component, RGB and SCART signals and output up to 2 video signals plus a monitor while the audio (L/R) block is capable of up to 10 inputs and 3 outputs. Additional I2C BUS controlled features include pre-filters for a video AD converter, an automatic sync processor, a real-time format detector for standard to high-resolution component or RGB video, and a no input signal detector that activates a dummy HD/VD output that stabilizes television picture display.

Features

Video Signal Path

- Programmable number/type of video inputs
- CVBS inputs: 12 channels max.
- Y/C inputs: 8 channels max.
- YPbPr (or RGB) inputs: 4 channels max.
- SCART inputs: 4 channels max.
- Video outputs: 2 channels
- Monitor (CVBS) output
- Pre-filter for AD converter (4.5 to 46 MHz variable)
- Gain switching (0 dB \pm 3 dB)

Audio Signal Path

- Audio (L/R) inputs: 10 channels max
- Audio (L/R) outputs: 3 channels
- Attenuator

Synchronization

- Sync separation on Y or G signal
- Automatic sync process switching mode
- Masking pseudo-sync for copyguard signal
- 1ch HD/VD input/output (pulse polarity selectable)
- No-input detection and dummy HD/VD output

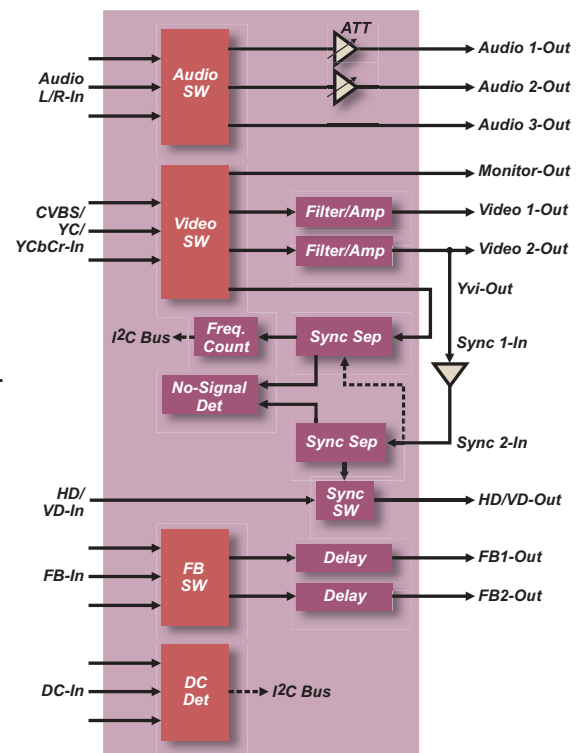
Format Detection

- Format detection for various input signals up to 1080p and UXGA
- Line detector for Japanese D-pin

Package (Lead-free)

- P-QFP80-1420-0.80C

TB1311AFG Block Diagram



Product Brief

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