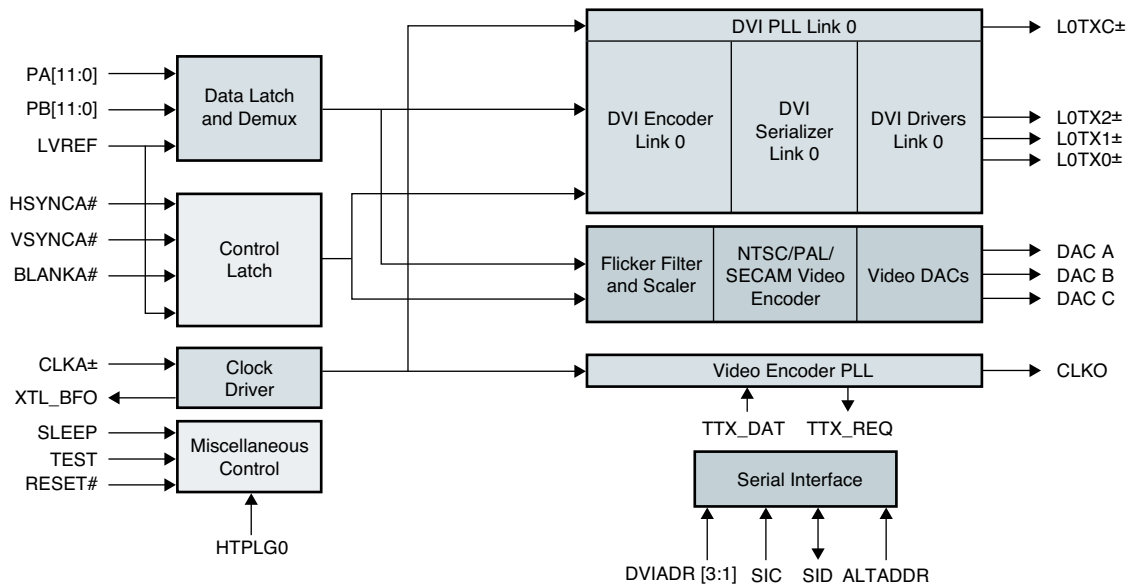


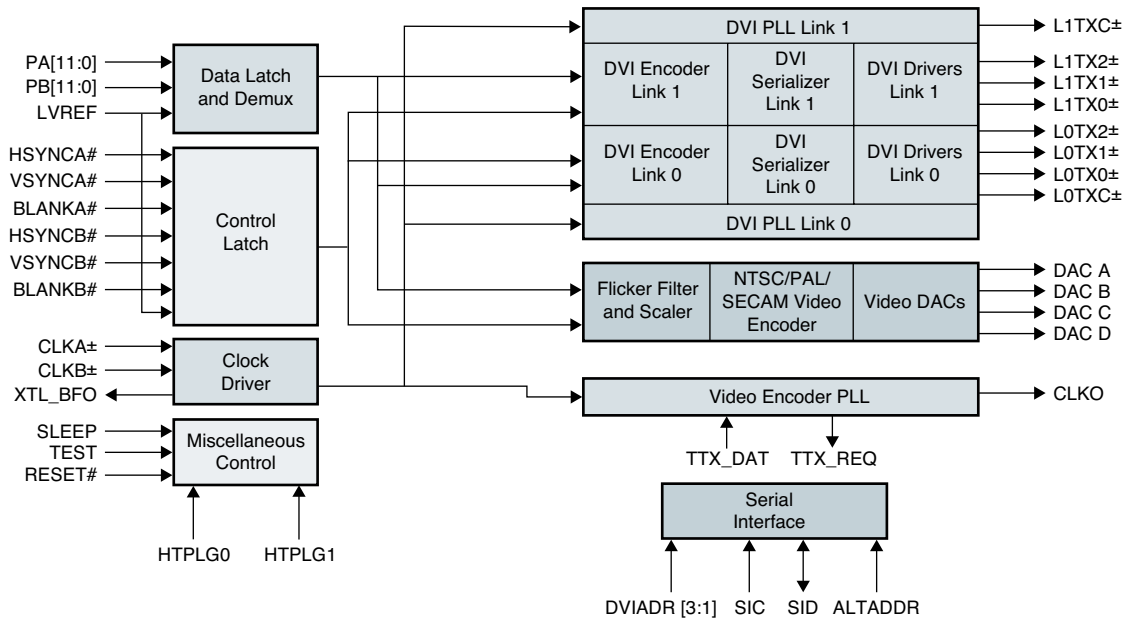


Feature Overview

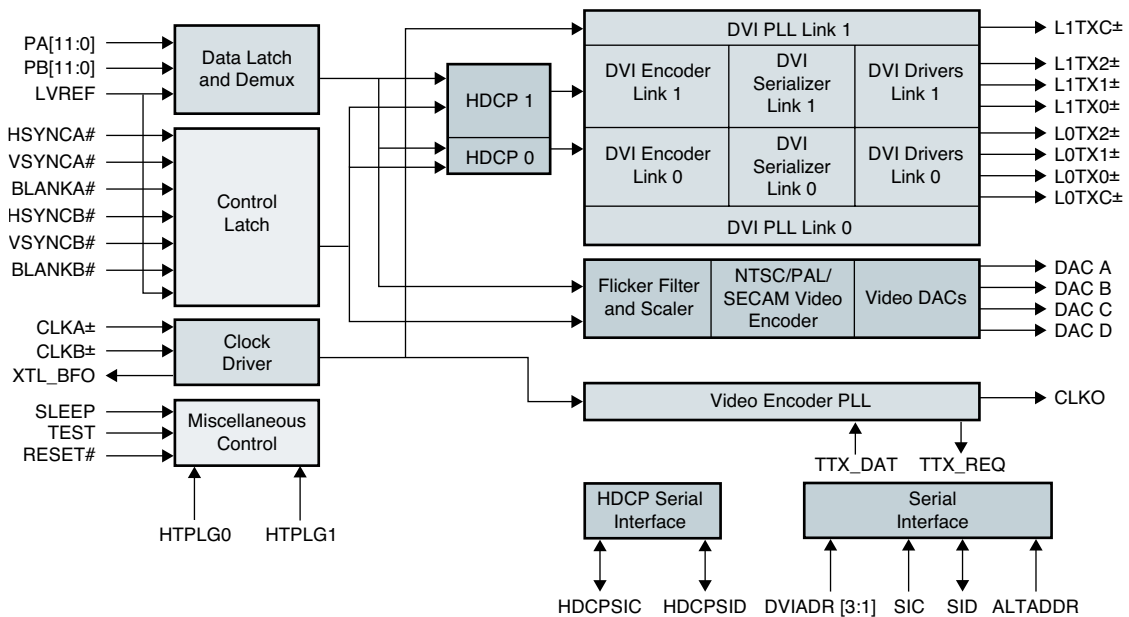
	TV Encoder	HDTV TV Out	Macrovision	Independent DVI Links (Channels)	HDCP 1.0	Concurrent Operation	Independent Resolutions on each channel
CX25890	Yes	No	Yes	1	No	Yes	Yes
CX25891	Yes	Yes	Yes	2	No	Yes	Yes
CX25892	Yes	Yes	Yes	2	Yes	Yes	Yes



CX25890 Block Diagram



CX25891 Block Diagram



CX25892 Block Diagram



CX25890/1/2 Features

CX25890

- Single-link DVI 1.0 transmitter
- DVI data rate from 25 MHz to 165 MHz
- DVI resolutions from 640 x 350 to 1600 x 1200 (60 Hz refresh)
- Hot-plug detection for DVI
- Multiple power-down modes for DVI
- 3.3 V operation with scalable low-voltage graphics controller interface from 3.3 V to 0.8 V
- Multiple industry-standard digital input formats:
 - 15/16-bit RGB multiplexed
 - 24-bit RGB multiplexed (standard and alternate)
 - 16-bit 4:2:2 YCrCb multiplexed (TV out only)
 - 24-bit 4:4:4 YCrCb multiplexed (TV out only)
 - CCIR601 and CCIR656 interlaced (TV out only)
- VGA in to TV out with resolutions from 320 x 200 to 1024 x 768
- Software compatible with CX25872/3/4/5 (TV out only)
- Worldwide video output support
 - NTSC-M, -J, and -4.43
 - PAL-B, -D, -G, -H, -I, -M, -N, -Nc, and -60
 - SECAM
- Interlaced and non-interlaced digital TV and DVI inputs
- Teletext encoding (WST system B) for various clock rates
- S-Video output (simultaneously with up to 1 Composite output NTSC, PAL, or SECAM)
- Closed caption encoding (NTSC and PAL)
- 5-line vertical filtering scaling for overscan compensation and flicker reduction
- Component YCrCb analog output
- Adaptive flicker filtering for enhanced image output
- Luma and chroma comb filtering
- Peaking filters for text sharpness
- Macrovision 7.1.L1 copy protection
- Programmable power management
- VGA RGB or YUV output
- Master or slave clocking and timing operation
- Auto detection of TV
- WSS and CGMS support for variable clock rates
- 48 auto configuration modes

(CX25890 Continued)

- 2-wire serial interface
 - TV out core has different device addresses and register bank than DVI transmitter core
- Lower power standby
- Simultaneous output of CVBS, S-video, and DVI single link, or VGA RGB/YUV and DVI single link

CX25891

Same features as the CX25890 plus:

- Dual-link DVI supports DVI resolutions from 1600 x 1200 to 2048 x 1536 (maximum)
- Two simultaneous concurrent DVI links (same content) up to 1600 x 1200
- Two concurrent DVI links (different content) up to 1600 x 1200
- High-Resolution DVI 1.0 Support
- HDTV output mode
 - Compliant with EIA770-3 and SMPTE274M/293M/296M
 - Component (YPrPb) or RGB HD outputs
 - Automatic tri-level sync and broad pulse generation
 - HDTV Macrovision copy protection for 525p(480p) and 625p
 - Support for Japan D1(525i), D2 (D1 and 525p), D3 (D2 and 750p), D4 (D3 and 1125i) HDTV format
- 1080i, 720p, 480p ATSC resolutions for both HDTV and DVI
- SCART RGB or Y/C output for Europe
- Component YUV analog output
- 4 x 10-bit DACs
- Simultaneous S-video with up to 2 Composite video outputs
- Standard PAL WSS and SECAM ITU-R TST.1119-1 wide-screen signaling
 - EIAJ CPR-1204-1 and CPR-1204-2 supported too
- Pin compatibility with CX25890 and CX25892

CX25892

Same features as the CX25891 plus:

- High-bandwidth Digital Content Protection (HDCP) 1.0 support
- Pin compatibility with CX25890 and CX25891

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