SONY

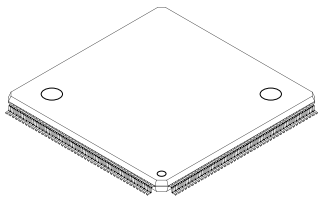
CXD3536R

Digital Signal Driver/Timing Generator

Description

The CXD3536R incorporates digital signal processor type RGB driver, color shading correction and timing generator functions onto a single IC. Operation is possible with a system clock up to 100 [MHz] (max.). This IC can process video signals in bands up to 100MHz standard, and can output the timing signals for driving various Sony LCD panels.

176 pin LQFP (Plastic)



Features

- Various picture quality adjustment functions such as user adjustment, white balance adjustment and gamma correction
- OSD MIX, black frame processing, mute and limiter functions
- LCD panel color shading correction function
- LCD panel vertical stripe correction function
- Drives various Sony data projector LCD panels
- Drives Sony dot/line inversion drive panel
- Controls the CXA3562AR and CXA7005R sample-and-hold drivers
- Line inversion and field inversion signal generation
- Supports AC drive of LCD panels during no signal
- On-chip serial interface
- The data of gamma correction and color shading correction can be downloaded automatically from the external EEPROM.

Applications

LCD projectors and other video equipment

Structure

Silicon gate CMOS IC

Absolute Maximum Ratings (V_{SS} = 0V)

• Supply voltage	V_{DD}	V_{SS} – 0.5 to +2.5	V
	V_{DE}	V_{SS} – 0.5 to +4.5	V
	V_{DDA}	V_{SS} – 0.5 to +4.5	V
• Input voltage	V_I	V_{SS} – 0.3 to V_{DE} + 0.3	V
• Output voltage	V_O	V_{SS} – 0.3 to V_{DE} + 0.3	V
• Storage temperature	Tstg	–55 to +125	°C
• Junction temperature	Tj	125	°C

Recommended Operating Conditions

• Supply voltage	V_{DD}	1.65 to 1.95	V
	V_{DE}	3.0 to 3.6	V
	V_{DDA}	3.0 to 3.6	V
• Operating temperature	Topr	–20 to +75	°C

E03314-PS

Block Diagram