



AL320 Flyer

(Analog LCD Display Controller)

Preliminary
Version 0.10

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Doc Number: 1-F-PMK132-0001

Amendments

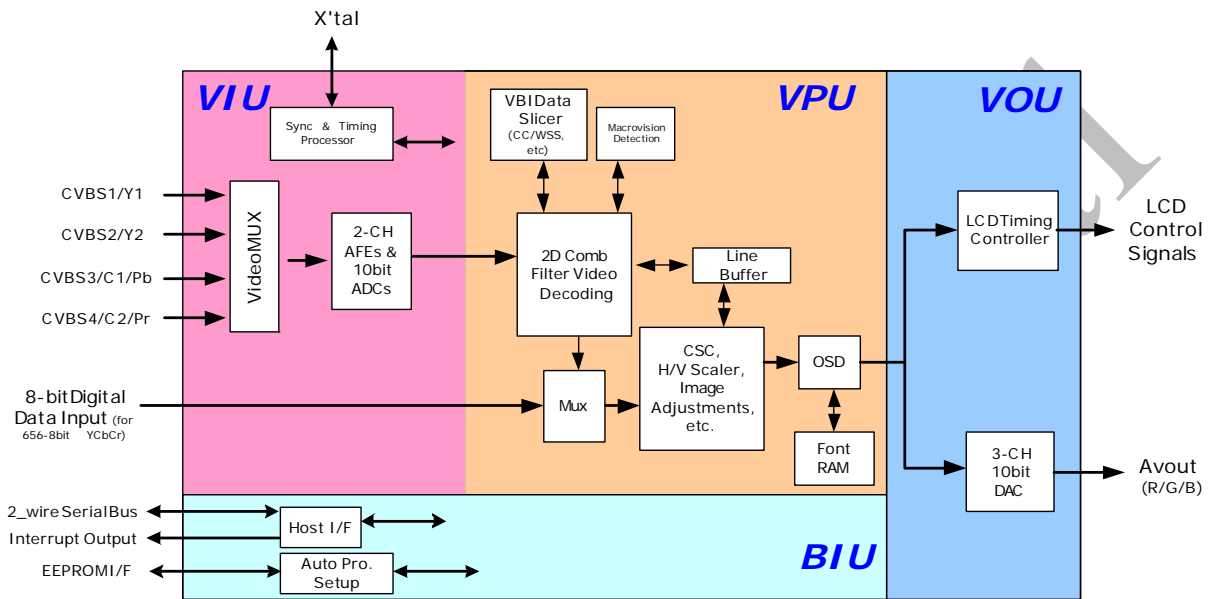
05.08.06 Preliminary version 0.10

Confidential

1. FEATURES

- ◆ **Analog Input:**
 - Support multiple analog video inputs
 - Support CVBS, S-Video & YPbPr inputs
 - Support 10bit ADC, AGC & ACC
 - Support Auto Multi-Standard NTSC/PAL/SECAM mode detection
 - Support Weak & Non-Standard Signal mode detection
 - Adaptive 2D Comb-Filter video decoding for Y/C separation
- ◆ **Digital Input:**
 - Support ITU-R BT-656 Digital Input
- ◆ **Video Processing & Scalar:**
 - Closed Caption/V-Chip/WSS/WSS-J VBI decoding
 - Macrovision copy protection detection
 - Contrast/Brightness/Hue/Saturation adjustment
 - Sharpness adjustment for Edge Enhancement
 - Digital Chrominance Transient Improvement (DCTI)
 - YCbCr to RGB Color Space Conversion
 - Programmable H/V Up & Down Scaling
 - 4:3 to/from 16:9 conversion
 - Programmable 3-Channel Gamma Correction
- ◆ **OSD**
 - Built-in internal OSD 4K bytes RAM for programmable OSD function
 - Support up to 4 OSD colors
 - Support OSD Blinking & Blending
 - Support Programmable OSD window Position
 - Support Programmable OSD window Size
- ◆ **Analog Output & Tcon**
 - Support Analog LCD panels: 960x234, 1200x234, 1440x234, 1920x234, etc.
 - Low Power 3-CH DACs for Analog RGB Output
 - Programmable TCON for various Analog LCD panels
 - Support Image Mirror and Flip functions
- ◆ **Miscellaneous**
 - Support Master Mode with EEPROM I/F to save a MCU cost (**N/A at rev.A**)
 - Support three PWM generators for general purpose control
 - Support interrupt output pin for hardware mode detection
 - Built-in Test Pattern Generator (Color Bar, Grey Scale, etc.)
 - Low power design
 - Small footprint package, 80pin LQFP 10x10mm.

2. FUNCTION BLOCK DIAGRAM



3. APPLICATIONS

- Portable DVD Player
- In-Car TV & Entertainment System
- Portable TV/DTV
- Portable Video Display

4. ORDERING INFORMATION

Part number	Package	PB Free	Operating Temp.
AL320A-LF-PBF	80-pin LQFP (10x10mm)	Yes	0°C ~ +70°C
AL320A-LF (By Request)	80-pin LQFP (10x10mm)	No	0°C ~ +70°C

Note: AverLogic Technologies PB-free products employ special PB-free material sets; molding compounds/die attach materials and 100% matte tin plate termination finish do not use materials containing PBB, PBDE or red phosphorus for green-product chips. AverLogic's PB-free products are MSL classified at PB-free peak reflow temperatures that meet or exceed the PB-free requirements of IPC/JEDEC J Std-020C."