



# **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

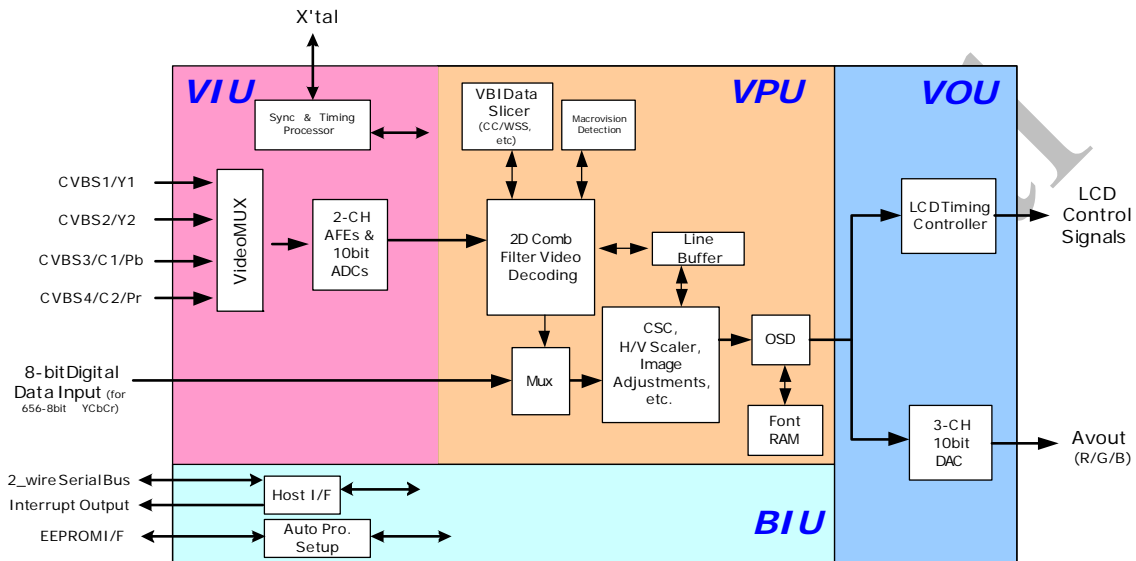
### ◆ **Analog Output & Tcon**

- 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."