



# A/D Controller Board

## ARV-3100



ARV-3100



ARV-3102



ARV-3120



ARV-3122

### Overview

ARV-3100 series are compact size A/D converter boards designed for most industrial or customized display devices. This controller board can drive LCD panels from VGA (640 x 480) up to WSXGA (1680 x 1050) resolution in true color, one or two pixel/clock mode. The onboard Genesis controller is a high quality A to D converter with excellent scaler feature, capable of converting analog RGB, DVI signals to required digital signals for a wide range of LCD panels including AUO, CMO, Sharp, CPT, NEC, Toshiba, Samsung, and LG. ARV-3100 series are the best cost-efficient A/D product solutions for industrial users.

### Specifications

#### ADC Controller

Genesis GM5766  
Adaptive color and contrast enhancement  
(Genesis ACC & ACM-II features)  
8-bit triple-channel ADC/PLL  
Scaling engine  
OSD controller  
Hue, Saturation, Brightness, Contrast,  
Color Temperature adjustment

#### Input Port

Analog RGB  
Digital DVI-I (ARV-3120/3122 only)

#### On Screen Display (OSD)

Auto setup  
Brightness / Contrast adjustment  
ACC/ACM-II Color Enhancement & Contrast Adjustment  
Image V-Position / H-Position adjustment  
Auto Color Reset / Standard color Setup  
Hue / Saturation / Color Temperature Adjustment

#### Panel Support

TFT VGA 640 x 480  
TFT SVGA 800 x 600  
TFT XGA 1024 x 768  
TFT SXGA 1280 x 1024  
TFT WXGA 1440 x 900  
TFT WSXGA 1680 x 1050  
Single 18-bit or Dual 48-bit/36-bit LVDS panels  
Single 24-bit TTL panels

#### Jumper Switch

Jumper setting for various display timing

#### Image Processing Feature

Auto-detection (Input format detection)  
Auto-configuration (Input positioning & clock phase)

#### Power In Support

LCD Panel: +3.3V, +5V, +12V  
Backlight Inverter: +12V, +5V, +3.3V

#### Image Scaling

Scale up/down a lower/higher resolution image to fit higher/lower resolution panels

#### Panel Connection

One 30-pin LVDS connector  
One 40-pin TTL connector

#### VESA Standard

Supports VESA DDC2B and a subset of VESA DPMS standards  
On board EDID ROM compliant with VESA DDC2B 1.X (Optional)

#### Power Requirement

Single +12V/ 50W Power adapter

#### Board Dimension

100(L) x 90(W) mm

#### Operating Temperature & Humidity

-20 °C to 80°C; ~ 90%RH

#### Storage Temperature & Humidity

-30 °C to 90°C; ~ 95%RH

### Ordering Information

- ARV-3100 (RGB, LVDS)
- ARV-3102 (RGB, TTL)
- ARV-3120 (RGB, DVI-I, LVDS)
- ARV-3122 (RGB, DVI-I, TTL)

#### Spectrah Dynamics, Inc.

Tel: 886-2-86472026 | Fax: 886-2-86472201 | E-mail: spec\_info@spectrah.com  
Add: 5F-2, No. 188, Sec #3, Ta-tung Road, Hsi-Chi, Taipei Hsien 221, Taiwan.

[www.spectrah.com](http://www.spectrah.com)