The d.scaleHD II is a cost-effective, innovative scaler board solution providing HDMI and/or DP input interfaces based on Realtek’s RTD2486 scaler family. It is designed to act as a direct interface between HDMI/DP and LCD-TFT displays from VGA up to Full-HD/WUXGA.

Benefits

- DDC/CI (MCCS) enables complete OSD control via HDMI/DP without the need of an external keypad.
- Reduced power dissipation by using very high efficient power circuitry
- Extended durability – avoidance of components with short life spans like e.g. electrolytic capacitors

Features

- HDMI and/or DP input
- Single +12V supply or single +24V supply to support larger displays
- Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3
- Supports displays with 3.3V/5.0V/12.0V logic supply and 5.0V/12.0V/24.0V backlight supply
- Temperature-dependent adjustment of the LED backlight current (optional)
Board Features

- HDMI and/or DP input support
- Supports LCD-TFT displays from VGA up to 1920x1080
  - Single/dual channel LVDS
  - 18-/24-bit color
  - Open-LDI & PSWG (VESA) data mapping
- Supports 3.3V/5V/12V LCD-TFT logic supply from a single +12V/+24V input

- Display Backlight support
  - Provides enable and brightness control
  - 5.0V/12.0V/24.0V supply
- Spread-Spectrum DPLL to reduce EMI
- Supports external 5-button key-pad
  - Power on/off
  - Left/Right
  - Back/Exit
  - Menu/Enter

RTD2486 Core Features

- HDMI 1.3 with optional HDCP support
- DisplayPort 1.2 with optional HDCP 1.3
  - Supports 4 lanes with up to 1.62Gbps and 2.7Gbps
  - 6-/8-/10-/12-bit color depth transport
- Color Processor
  - sRGB compliance
  - Brightness and contrast control

- ViviColorTM
  - Independent color management (ICM)
  - Dynamic contrast control (DCC)
  - Precise color mapping (PCM)
- Advanced Scaling
  - Sharpness/Smooth filter enhancement
  - Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3

Applications

- Cost efficient small size HDMI-displays with 5” -10.1”
- Mid size monitors with up to 28”/32” and single 12V /24V supply
- All-in-one HMI Displays

Outline Dimensions

- Dimensions: 95.00mm x 60.00 mm

Versions available

- HDMI Input, ONLY
- DP Input, ONLY
- HDMI & DP Input
- +12V or +24V Single Supply

Environmental

- Operating Temperature: 0°C to 70°C
- Relative Humidity: 5%-85%, non condensing

For customized designs please ask your local sales representative