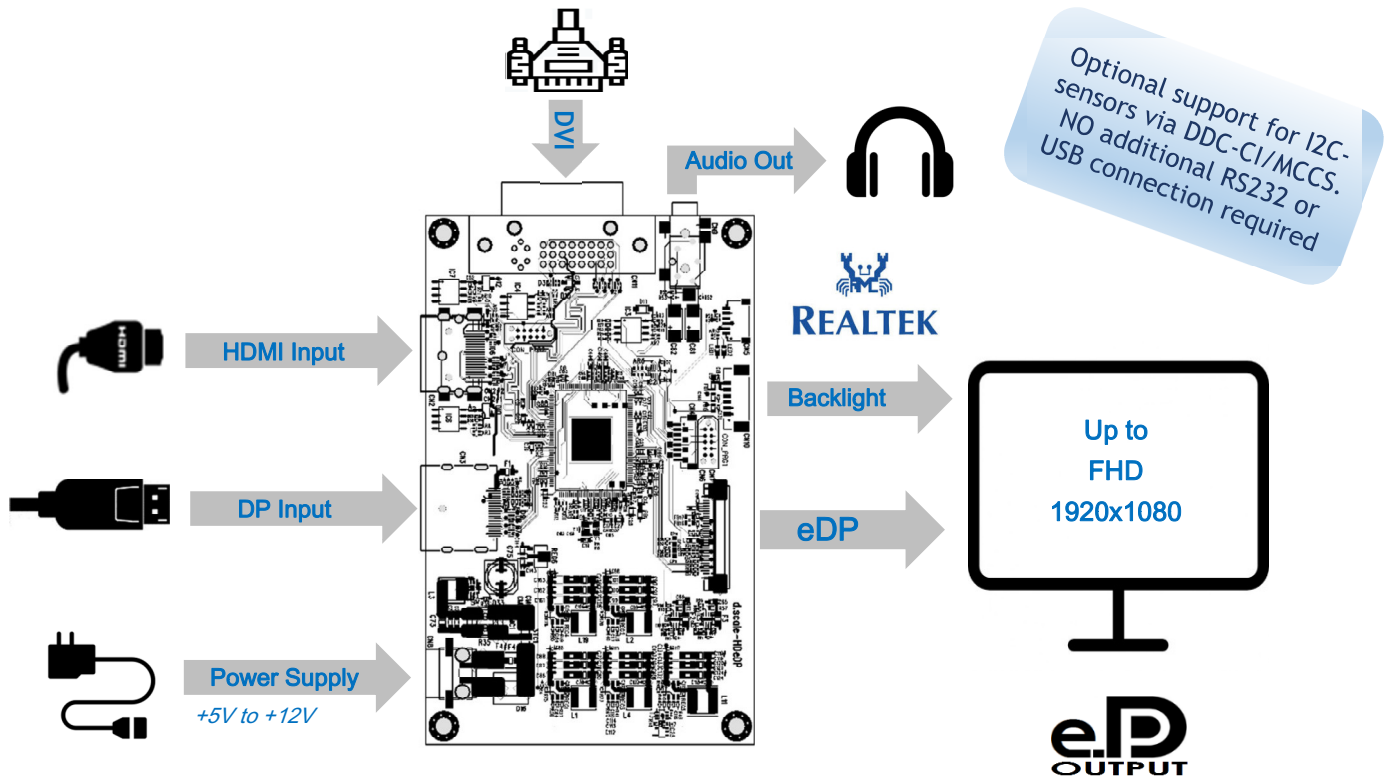


# d.scaleHDeDP

## DVI/DP/HDMI Controller Board for eDP-LCD-TFT Displays

The **d.scaleHDeDP** is a cost-effective, innovative scaler board solution providing HDMI/ DVI/DP input interfaces based on Realtek's RTD2556 scaler SOC. It is designed to act as a direct interface between HDMI, DVI and DP and LCD-TFT displays with eDP input interface from VGA up to Full-HD



### Benefits

- DDC/CI (MCCS) enables complete OSD control via DVI/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.
- Supports typical notebook panels perfectly

### Features

- Supports up to 4 lane eDP
- DDC/CI (MCCS) support enables complete OSD control via DVI, HDMI or DP without the need of an external keypad.
- Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3
- Provides optional analog audio output
- Supports 4+1 button keypad for OSD control



## Board Features

- Multiple digital input support
  - DVI
  - HDMI
  - DisplayPort
- Supports LCD-TFT displays with 1-/2- and 4-lane eDP input interface
- Single +5V to +12V power supply whereas Supports displays with 3.3V/5.0V logic supply configured via firmware
- Controls LCD-TFT-displays from VGA (640x480 up to FHD (1920x1080))
- Adjustable dot-clock spread-spectrum DPLL to reduce EMI
- Display Backlight support
  - Provides enable and brightness control
  - The backlight supply voltage is equal to the input supply voltage.
- Supports external 5-button key-pad
  - Power on/off
  - Menue/Enter
  - Left/right
  - Back/Exit
- Optional support for I2C-sensors (brightness, temperature, etc.) and actors (fan-control, etc.) via DDC-CI/MCCS. NO additional RS232 or USB connection required

## RTD2556 Core Features

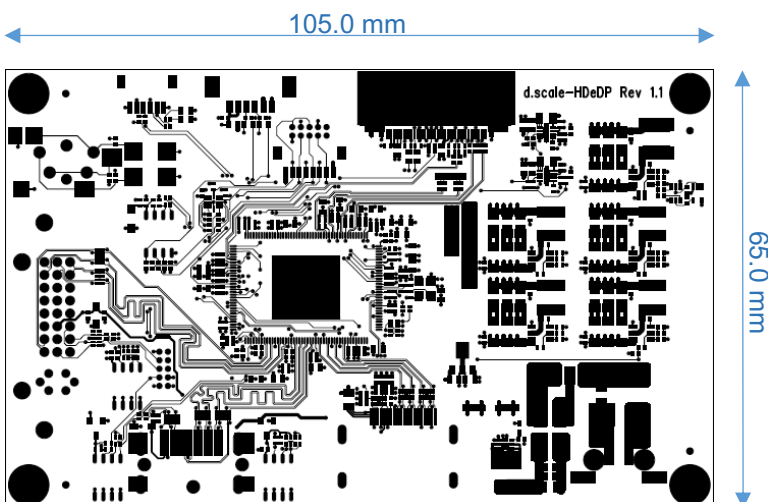


- DVI with optional HDCP 1.4 support
- HDMI 1.4 with optional HDCP 1.4/ HDCP 2.2
- DisplayPort 1.2
  - Supports up to 4 lanes with 5.4 GHz, HBR2,HBR and EBR support
  - 6-bit, 8-bit, 10-bit and 12-bit color depth transport
  - optional HDCP 1.4 / HDCP 2.2
- VividColorTM
  - Independent color management
  - Dynamic contrast control
- Extraction of HDMI/DP audio stream
- Advanced scaling
  - Sharpness/smooth filter enhancement
  - Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3
- Color Processor
  - True 10 bits color processing engine
  - Brightness and contrast control
  - sRGB compliance

## Applications

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

## Outline Dimensions



### Versions available

- HDMI Input, ONLY (horizontal/vertical)
- DP Input, ONLY
- HDMI & DP Input
- DVI & HDMI & DP input
- Optional Audio

### Environmental

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



For customized designs please ask your local sales representative