



RGB/LVDS-to-eDP Converter w/ Scaler

1 Features

Embedded-DisplayPort (eDP) Output

1/2/4-lane eDP @ 1.62/2.7Gbps per lane
 HD to WQXGA (2560*1600) supported
 Up to 6dB pre-emphasis

RGB Input

18/24bit RGB Interface
 Pixel clock up to 270MHz
 SDR/DDR supported
 Pin order reversal supported

LVDS Input

Single/dual-channel 6/8bit LVDS interface
 400Mbps to 1Gbps per data pair
 Built-in termination
 Channel and polarity swap supported

Scaler

Hi-Fidelity scaler
 Fractional scaling ratio from 2:1 to 1:2

Reference Clock

Any freq. between 19MHz and 100MHz

Crystal or single-ended clock input
 Built-in 5000ppm SSC generator

Misc

I²C for chip configuration
 Built-in eDP handshake protocol
 I²C-AUX channel for TCON/DPCD/EDID control
 Built-in video test pattern

Power

1.2V core supply
 2.5V or 3.3V IO supply
 RGB IO can go down to 1.8V
 Deep-sleep mode power <5mW
 ~150mW @2048*1536 w/o scaling
 ~300mW @2048*1536 w/ scaling

Package

QFN-56 (7mm x 7mm) package
 RoHS Compliant
 Sample available now

2 Block Diagram

