

# MOBILE DISPLAY

## MIPI Interface Display Controller

World's Lowest Power Consumption MIPI 4-lane Transmitter

Pioneering in MIPI solutions for display, Solomon Systech is proud to present a series of proprietary MIPI-DSI Bridge Chips that support high-resolution, high-speed and low-power display of smart devices - **SSD2825**, **SSD2828** and **SSD2840**.

The **SSD2825** and **SSD2828** convert 24bit RGB interface into 4-lane MIPI-DSI to drive extremely high resolution display modules of up to 800x1366 or 1200x1920 for smartphone applications. The **SSD2828G44** which can transmit up to 1Gbps/lane, is the world's lowest power consumption MIPI 4-lane transmitter.

The **SSD2840** converts 4-lane MIPI-DSI interface into 12-lane MIPI-DSI to drive high resolution display modules up to 1200x1920 for tablet applications.

All these solutions support AMOLED, a-Si LCD, metal oxide TFT and LTPS LCD panel technologies for smart device applications.

**Applications:** Smartphones (HD720), Full HD Tablets, GPS, MID, etc.



## FEATURES

- « Support up to a total of 2.4 Gbps (**SSD2825** only) or 4 Gbps (**SSD2828** only) over the serial links
- « Support up to 4 data lanes
- « Number of signals significantly reduced compared to traditional RGB transfer
- « Support up to 1366 pixels per display row in video mode (**SSD2825** only)
- « Support up to 1920 pixels per display row in video mode, up to 60hz refresh rate (**SSD2828** only)
- « Support up to 2560 pixels per display row in video mode, up to 30hz refresh rate (**SSD2828** only)
- « Low power consumption and reduced EMI
- « Support parallel VISSI interface (DPI 2.0) of up to 24 bits
- « Support serial SPI interface (DBI 2.0) of up to 16 bits
- « Support video mode in MIPI DSI standard
- « Support independent bi-directional data transfer
- « Support ultra low power mode in idle state for each DSI
- « Support CABC function for video mode
- « On-chip PLL with variable output frequency
- « MIPI analog and digital power supply: (MDVDD and MAVDD) 1.2V +/-10%
- « IO Power supply: (VDDIO) 1.8 ~ 3.3V +/-10%
- « Support MIPI standard: DSI (v1.01.00), DCS (v1.02.00), D-PHY (v0.90.00)



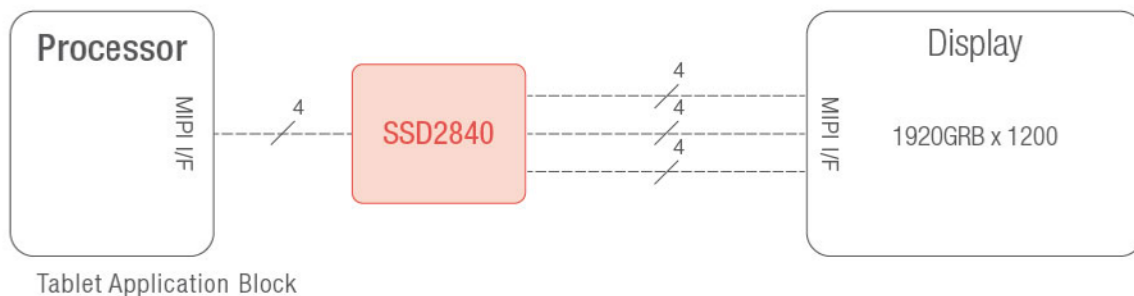
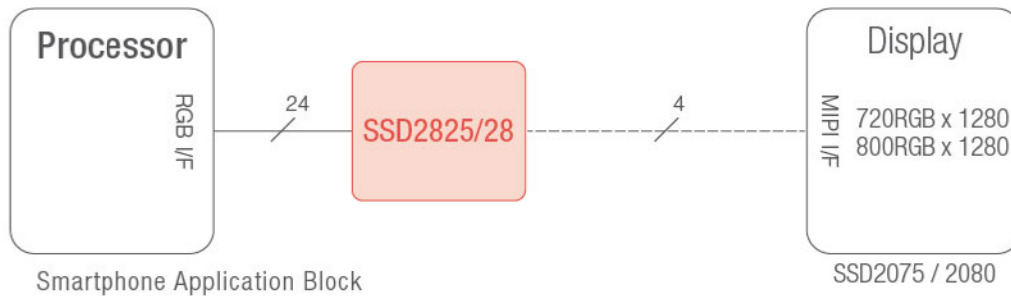
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### APPLICATION DIAGRAM



### SELECTION GUIDE

Part Number	Resolution	Rx Input signal	Tx output signal	Data rate
SSD2825G44	1280x720	24 bits RGB Rx	4 MIPI Lanes TX	600Mbps/lane
SSD2828G44	1920x1200	24 bits RGB Rx	4 MIPI Lanes TX	1Gbps/lane
SSD2840QL9	1920x1200	4 MIPI Lanes Rx	12 MIPI Lanes TX	1Gbps/lane

## SOLOMON SYSTECH LIMITED

Solomon Systech Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

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