

# Mobile Driver

**Highly Integrated,  
High Resolution,  
Single-Chip Solution**



Solomon Systech offers a series of single-chip **TFT Display Driver IC (DDI)** to support TFT display panels of a wide range of resolutions from QVGA to WQHD, which are ideal for smartphone applications, industrial devices and automotive products. To meet the growing demand for full screen, lower power, higher-resolution display for smart devices, most of our TFT LCD driver ICs are embedded with high speed MIPI bridge IC of up to 1Gbps/lane. Moreover, our TFT LCD driver series can support most TFT display technologies, including a-Si, metal oxide (IGZO) and LTPS.

We have successfully developed **In-Cell Touch Display Driver IC (TDDI)** for smartphone applications. We are also among the first to start mass production of In-Cell TDDI. Solomon Systech's In-Cell TDDI enables a compact-design LCD module to achieve high SNR. It is an ideal solution for high performance smart devices.

**Applications:** 4G/4.5G Smartphones, Tablets, Smart Watches, Automotive Devices, GPS, etc.

## Features

### High Integration

- Support a-Si, LTPS and IGZO TFT panels
- Support In-Cell Touch display panels
- 65K, 262K or 16M color depth
- OTP or MTP Memory for VCOM calibration, ID code and initialization

### Ultra Low Power Consumption for System Power Saving

- Knock On Gesture Mode (TDDI)
- Low current Sleep Mode and 8-color Display Mode for power saving
- Content Adaptive Brightness Control (CABC)
- Frame Skipping & Interlaced Mode technologies (IGZO)

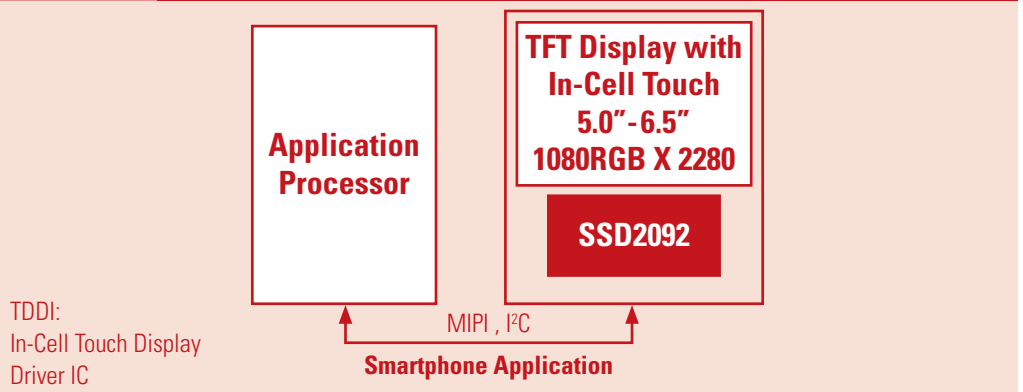
### Support Commonly Used MCU

- Display Interface: SPI, 8080/6800 PPI, RGB Interface and MIPI
- Touch Interface: I<sup>2</sup>C

### Advanced Features

- Support up to 21:9 full screen display design
- Support panels with a wide viewing angle
- Color Enhancement (CE)
- Sunlight Readability Enhancement (SRE)
- Abnormal power off (APO) handling
- With In-Cell touch display technology, high SNR can be achieved by parasitic capacitive compensation

## TDDI Application Diagram

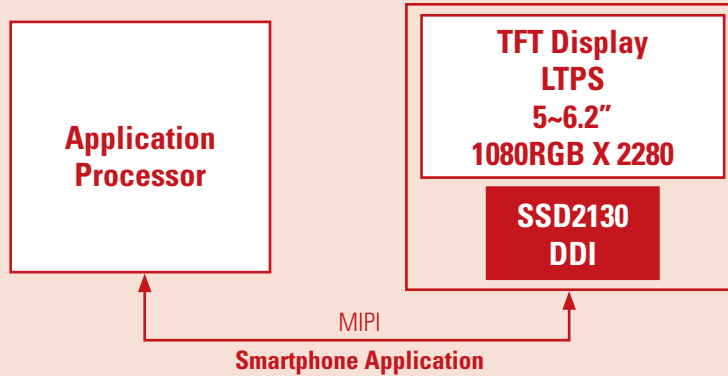


**SOLOMON  
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*solutions in silicon*

# Mobile Display

## DDI Application Diagram



DDI: Display Driver IC

## Selection Guide – Mobile / Tablet Application

Part Number	Display Size (Source x Gate)	Color Depth	Type	Panel Type			VPU (CABC / CE / SRE)	Interface
				a-Si	IGZO	LTPS		
SSD2068	480RGB x 854	16M	TDDI	✓	✓	-	✓	MIPI 2-lane, SPI
SSD2078A	720RGB x 1706	16M	TDDI	✓	✓	-	✓	MIPI 4-lane, I <sup>2</sup> C
SSD2092	1080RGB x 2280	16M	TDDI	-	-	✓ (3MUX)	✓	MIPI 4-lane, I <sup>2</sup> C
SSD2023	1080RGB x 2400	16M	TDDI	-	-	✓ (6MUX)	✓	MIPI 4-lane, I <sup>2</sup> C
SSD2025	1080RGB x 2560	16M	TDDI	-	-	✓ (3 or 6MUX)	✓	MIPI 4-lane, I <sup>2</sup> C
SSD2130	1080RGB x 2280	16M	DDI	-	-	✓	✓	MIPI 4-lane, SPI
SSD2201A	800RGB x 1872	16M	DDI	✓	✓	-	✓	MIPI 4-lane, SPI
SSD2211A	1080RGB x 2220	16M	DDI	✓	✓	-	✓	MIPI 4-lane, SPI

## Selection Guide – Automotive / Industrial / Consumer Application

Part Number	Display Size (Source x Gate)	Color Depth	RAM	a-Si TFT	CABC	Certificate	Interface
SSD1268	240RGB x 320	262K	✓	✓	-	-	SPI / MCU / RGB
SSD2118	320RGB x 240	262K	-	✓	-	-	SPI / RGB
SSD2119	320RGB x 240	262K	✓	✓	-	-	SPI / MCU / RGB
SSD2128	480 x 272RGB	262K	-	✓	✓	-	SPI / RGB
SSD2129	480 x 272RGB	262K	-	✓	-	AEC-Q100	SPI / RGB
SSD2165	800 x 480RGB	16M	-	✓	-	-	SPI / RGB / LVDS

## Solomon Systech Limited

Solomon Systech Limited is a leading semiconductor company providing display IC products and system solutions that enable a wide range of display and touch applications for smartphones, tablets, TVs/monitors, notebooks and other smart devices, including wearables, healthcare devices, smart home devices, as well as industrial appliances, etc. Solomon Systech (International) Limited's shares have been listed on the main board of the Stock Exchange of Hong Kong Limited since April 8th, 2004 (stock code: 2878). More information about the Group, its products and services may be obtained at <http://www.solomon-systech.com/>.



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