

Mobile Display Driver IC

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



Solomon Systech offers a series of single-chip **TFT LCD Driver ICs** to support TFT display panels of a wide range of resolutions from QVGA to QHD, which are ideal for smartphone applications, industrial devices and automotive products. To meet the growing demand for 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: 3G/4G 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

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

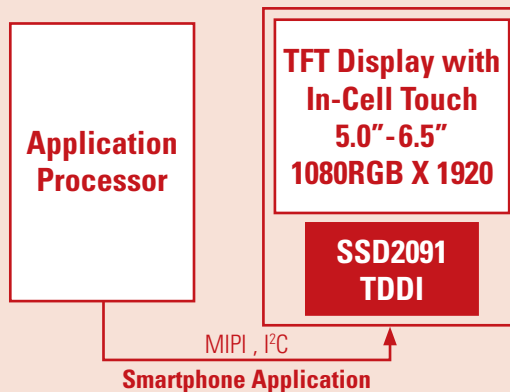
Support Commonly Used MCU

- Display Interface: SPI, 8080/6800 PPI, RGB Interface and MIPI
- Touch Interface: I²C

Advanced Features

- 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



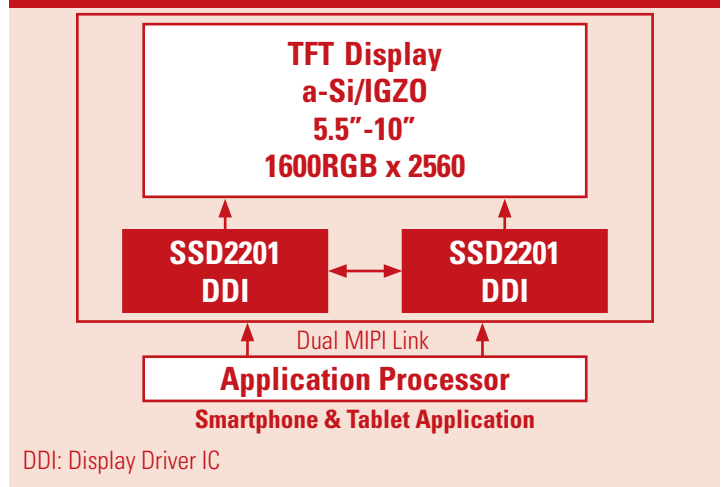
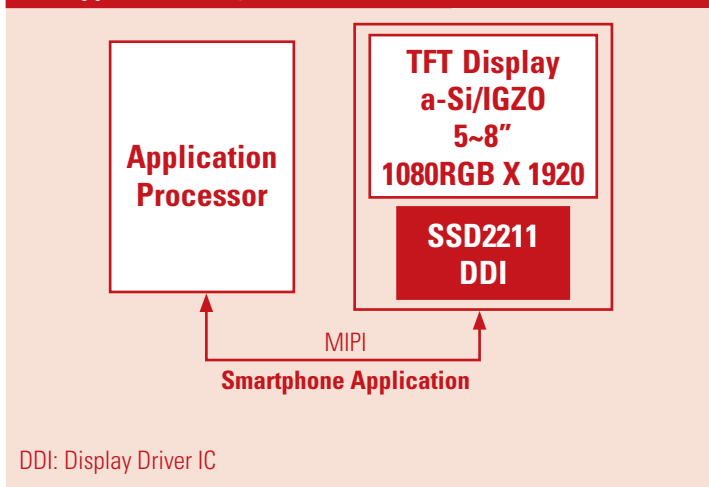
TDDI: In-Cell Touch Display Driver IC



solutions in silicon

Mobile Display Driver IC

DDI Application Diagram



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		
SSD2061	480RGB x 854	16M	TDDI	✓	✓	-	✓	MIPI 2-lane, SPI
SSD2091	1080RGB x 1920	16M	TDDI	-	-	✓	✓	MIPI 4-lane, I ² C
SSD2206	720RGB x 1280	16M	TDDI	✓	✓	-	✓	MIPI 4-lane, I ² C
SSD2201	800RGB x 1280	16M	DDI	✓	✓	-	✓	MIPI 4-lane, SPI
	1600RGB x 2560							Dual MIPI 4-lane, SPI
SSD2211	1080RGB x 1920	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 applications for smartphones, smart TVs and other smart devices including consumer electronics products, wearables, portable devices and industrial appliances.

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