Passive Matrix OLED Driver for Home Appliance and AIoT Devices

The Ideal Human-Machine Interface and Display Solution for AIoTs

Solomon Systech's PMOLED driver is the market leading solution for small to mid-sized OLED displays. We offer drivers ranging from icon, dot matrix to character OLED panels, which support mono, grayscale and color displays. To support prerequisite OLED panel orientation, our OLED driver can be in either portrait or landscape orientation. Incorporated with highly integrated features, the driver operates in low input voltage level with low-power consumption.

Another distinctive feature is that PMOLED TDDI driver is capable of supporting touch detection on display panels. The technological advancement of display panel and Human-Machine Interfaces (HMI) help in integrating humans into complex technological systems for modern smart home appliance and AIoT applications.

*The image is for reference only.

Key Benefits of PMOLED for Home Appliance and AIoT Devices

Power Saving

- Self-emission nature of PMOLED eliminate the need of backlight and reduce power consumption

Thin Display Panel Thickness

- Portrait driver available to support curve and bendable display
- PMOLED display panel could be available with thickness in mm order
- Good fit for AIoT application which has limited space available for panel

Display Quality

- Maximum 18V HV voltage, 600uA segment current to support high brightness display
- Proprietary driving scheme available for cross-talk compensation and display quality enhancement
- Mono, Grayscale and Color available
- Transparent display available

Highly Integrated Features

- TDDI PMOLED driver available to recognize touch and slide gestures
- Integrated charge bump option available, saving cost of external component
- Advanced graphic command available (e.g. content scrolling)

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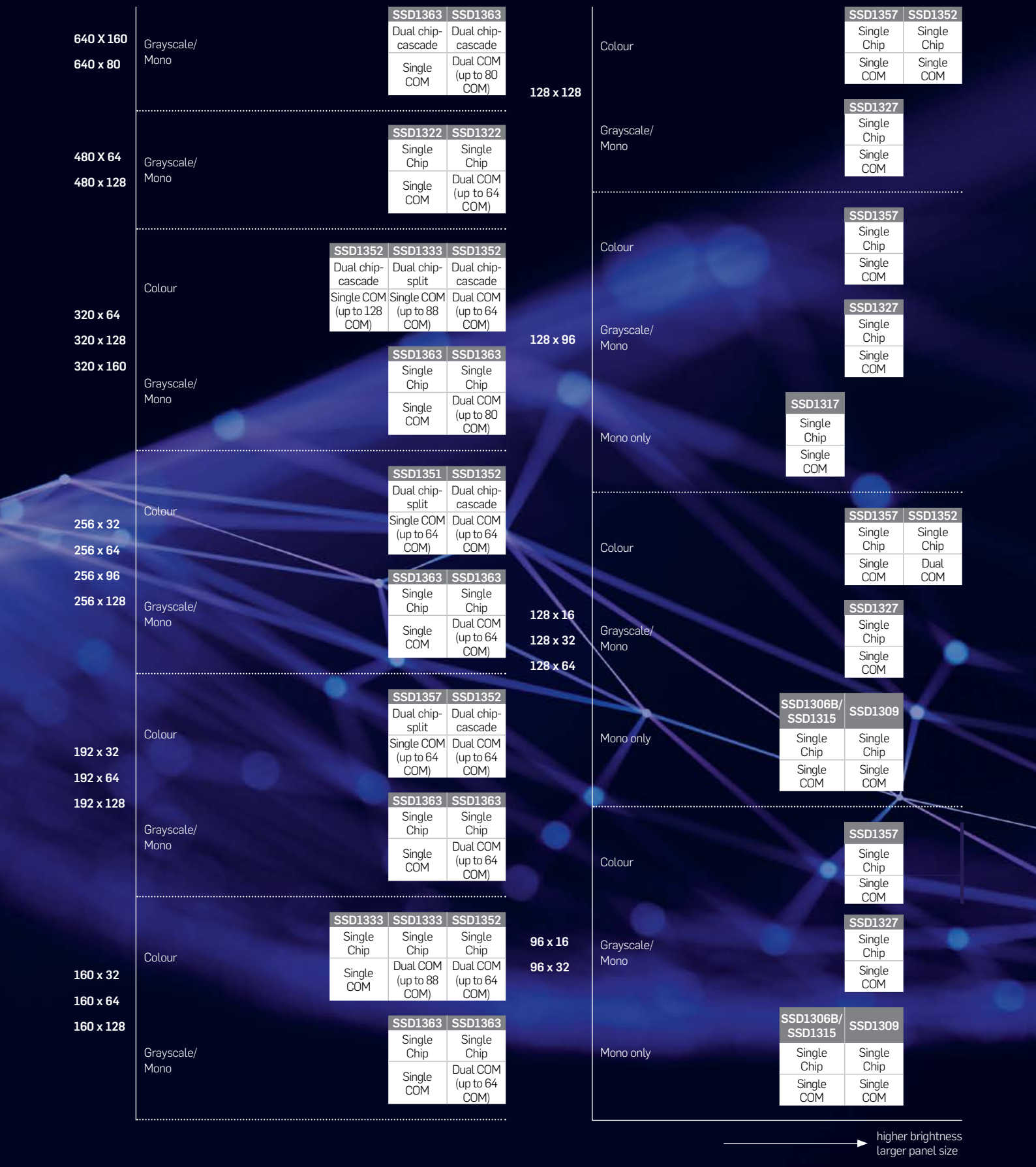
Landscape IC Panel Resolution



Portrait IC Panel Resolution

512 x 32
512 x 40
512 x 64

Grayscale/ Mono

SSD1362
Dual chip-split
S-C-S

Colour

SSD1333
Dual chip-split
Virtual (C<->S) (up to 176 line)

320 x 64
320 x 128
320 x 160
320 x 320

Grayscale/ Mono

SSD1363	SSD1320
Dual chip-split	Dual chip-split
Virtual (C<->S)	S-C-S (up to 160 line)

Mono

SSD1310	SSD1319
Dual chip-split	Dual chip-split
S-C-S (up to 72 line)	S-C-S (up to 160 line)

Colour

SSD1352	SSD1333
Dual chip-split	Dual chip-split
Virtual (C<->S) (up to 160 line)	Virtual (C<->S) (up to 176 line)

256 x 32
256 x 64
256 x 96
256 x 128
256 x 256
256 x 320

Grayscale/ Mono

SSD1362	SSD1363	SSD1320
Single Chip	Dual chip-split	Dual chip-split
S-C-S (up to 64 line)	Virtual (C<->S)	S-C-S (up to 160 line)

Mono only

SSD1316/ SSD1307	SSD1315	SSD1310	SSD1317	SSD1319
Dual chip-split	Dual chip-split	Dual chip-split	Dual chip-split	Dual chip-split
S-C-S (up to 32 line)	S-C-S (up to 64 line)	S-C-S (up to 72 line)	S-C-S (up to 96 line)	S-C-S (up tp 160 line)

Colour

SSD1357	SSD1352	SSD1333
Dual chip-split	Dual chip-split	Dual chip-split
Virtual (C<->S) (up to 128 line)	Virtual (C<->S) (up to 160 line)	Virtual (C<->S)

192 x 32
192 x 64
192 x 128
192 x 160

Grayscale/ Mono

SSD1362	SSD1320
Single Chip	Dual chip-split
S-C-S (up to 64 line)	S-C-S

Mono only

SSD1316/ SSD1307	SSD1315	SSD1310	SSD1317	SSD1319
Dual chip-split	Dual chip-split	Dual chip-split	Dual chip-split	Dual chip-split
S-C-S (up to 32 line)	S-C-S (up to 64 line)	S-C-S (up to 72 line)	S-C-S (up to 96 line)	S-C-S (up tp 160 line)

160 x 160

Colour

SSD1333
Single Chip
Virtual (C<->S)

Grayscale/ Mono

SSD1320
Single Chip
S-C-S

Mono only

SSD1319
Single Chip
S-C-S

160 x 64
160 x 72
160 x 80

Colour

SSD1333
Single Chip
Virtual (C<->S)

Grayscale/ Mono

SSD1320
Single Chip
S-C-S

Mono only

SSD1310
Single Chip
S-C-S (up to 72 line)

128 x 16
128 x 32
128 x 64
128 x 72
128 x 96

Colour

SSD1351	SSD1357
Single Chip	Single Chip
Virtual (C<->S)	Virtual (C<->S)

Grayscale/ Mono

SSD1327
Single Chip
Virtual (C<->S)

Mono only

SSD1316/ SSD1307	SSD1312	SSD1310	SSD1317
Single Chip	Single Chip	Single Chip	Single Chip
S-C-S (up to 32 line)	S-C-S (up to 64 line)	S-C-S (up to 72 line)	S-C-S (up to 96 line)

96 x 16
96 x 32
96 x 64
96 x 72
96 x 96

Colour

SSD1351	SSD1357
Single Chip	Single Chip
Virtual (C<->S)	Virtual (C<->S)

Grayscale/ Mono

SSD1327
Single Chip
Virtual (C<->S)

Mono only

SSD1316/ SSD1307	SSD1312	SSD1310	SSD1317
Single Chip	Single Chip	Single Chip	Single Chip
S-C-S (up to 32 line)	S-C-S (up to 64 line)	S-C-S (up to 72 line)	S-C-S (up to 96 line)

higher brightness
larger panel size

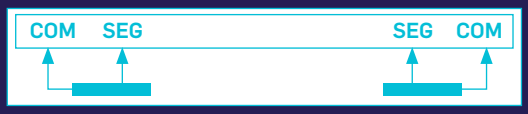
Panel Layout Illustration

Landscape IC

Single Chip
Single COM

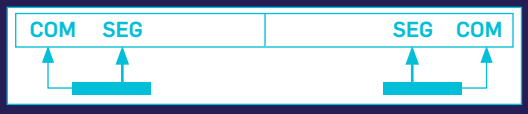
Single Chip
Dual COM

Dual chip-cascade
Dual COM



Dual chip cascade

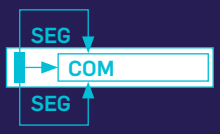
Dual chip-split
Single COM



Dual chip split screen

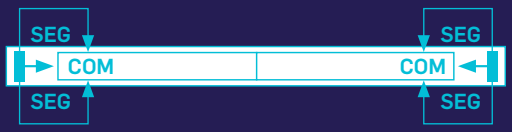
Portrait IC

Single Chip
S - C - S

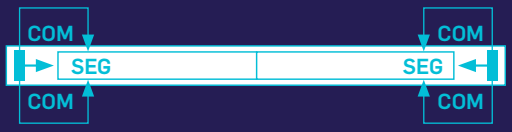


Single Chip
Virtual (C<->S)

Dual chip-split
S - C - S



Dual chip-split
Virtual (C<->S)



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