SVGA –800S+
OLEDs Driver Board Module Datasheet *Rev 1.1*

Features and Benefits

Single OLED Driver
Multiple Configurations
Multiple Video Inputs
- HDMI
- DVI
- Analog RGB
- Digital RGB
- Monochrome/Color Composite Video

OLED Brightness and Color Control
Built in EDID
Supports: SVGA-XL & SVGA-3D OLEDs
Built-in DC/DC Power Conversion
Low Input Voltage Range
Very Low Power Consumption
USB Calibration Software Via PC
Compatibility: WLLV Wireless Video Products*

SVGA-XL & SVGA-3D OLED Driver

With support for HDMI, DVI, Digital RGB, Analog RGB, and NTSC/PAL composite video inputs (both color & monochrome), makes the SVGA-800S+ the most versatile driver board for the SVGA-3D and SVGA-XL OLEDs by eMagin. Video can be transmitted to the OLEDs wirelessly using our WLLV wireless low latency technology or via a cable if required.

The SVGA-800S+ OLED driver is designed for monocular, applications where having support multiple video input formats is paramount.

For those applications that have very tight space requirements, the SVGA-800+ is also available with a remote cable option that allows the OLED to be located up to 5 feet away from the main driver board. The PCB board for this option is the same size as the OLED. The remote cable is available in both round jacket or a ribbon style.

Our USB base PC application and configuration cable provides calibration adjustment for, color gain/offset, brightness, image orientation, firmware upgrades and other register values.

The SVGA-800S+ driver is available with a micro controller to allow for custom applications features, such as the addition of dials, push buttons etc.

Power Consumption

Input Voltage	3.5 – 5.5 V DC
Power Consumption	350mW (Depends on Configuration)

Input Video Format

HDMI	800 x 600 @ 60 Hz
DVI	
Analog RGB	
NTSC/PAL - Composite (Color & Monochrome)	640 x 480

EDID

Default	800 x 600 @ 60Hz

Software Configuration

USB - PC Application	Control Brightness
	Color: Gain/Offset control
	Firmware Upgrades
	Auxiliary Input/Outputs

Mechanicals

Dimension (L x W)	1.2 x 1.5 inches

Auxilarry Features

4 Digital Inputs/Outputs

3 Analog/ Digital Inputs/Outputs

Additional Software Features via On board Micro-controller

Video Input: Digital RGB

Pin	Type	Signal
1	No Connect	No Connect
2	No Connect	No Connect
3	Ground	Ground
4	No Connect	No Connect
5	No Connect	No Connect
6	Ground	Ground
7	Ground	Ground
8	Ground	Ground
9	No Connect	No Connect
10	Ground	Ground
11	Ground	Ground
12	Digital Input	Red0
13	Ground	Ground
14	Digital Input	Red1
15	Digital Input	Data Enable
16	Digital Input	Red2
17	Digital Input	VSYNC
18	Digital Input	Red3
19	Digital Input	HSYNC
20	Digital Input	Red4
21	Digital Input	VCLK
22	Digital Input	Red5
23	Digital Input	Green0
24	Digital Input	Red6
25	Digital Input	Green1
26	Digital Input	Red7
27	Digital Input	Green2
28	Digital Input	Blue0
29	Digital Input	Green3
30	Digital Input	Blue1
31	Digital Input	Green4
32	Digital Input	Blue2
33	Digital Input	Green5
34	Digital Input	Blue3
35	Digital Input	Green6
36	Digital Input	Blue4
37	Digital Input	Green7
38	Digital Input	Blue5
39	Digital Input	Blue7
40	Digital Input	Blue6

MicroHDMI connector – Pinout

Pin #	Description
1	Hot Plug Detect
2	Not connected
3	Data 2 P
4	GND
5	Data 2 N
6	Data 1 P
7	GND
8	Data 1 N
9	Data 0 P
10	GND
11	Data 0 N
12	CLK P
13	GND
14	CLK N
15	Not connected
16	GND
17	SCL
18	SDA
19	5v Power

Video Input: NTSC/PAL (Color / Monochrome)

U.FL	Custom Coaxial Connectors Available

Wireless Low Latency Video (WLLV)

Wireless Low Latency Video – Make your OLED based product wireless by using MRA Digital wireless video technology. Transmitting up to 1080p with 1-2 frame of latency at ranges over 100 meters with Wi-Fi and miles using microwave or Wi--Max. Contact us for more info.
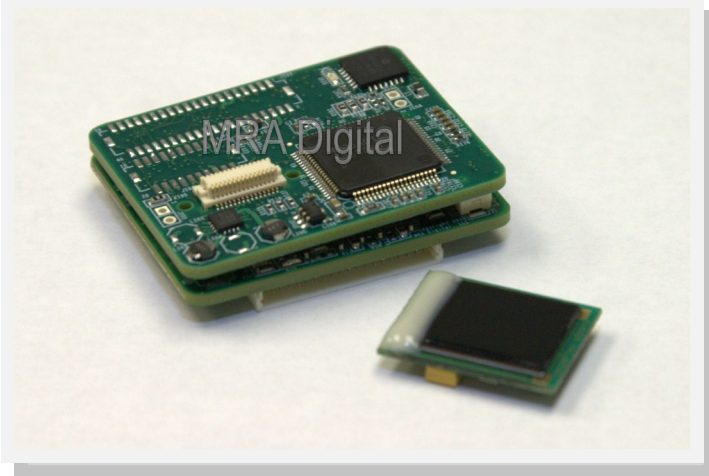
Ordering Information

Part Number	Description
SVGA-800S+HDMI	HDMI/DVI OLED Driver
SVGA-800S+DRGB	Digital RGB OLED Driver
SVGA-800S+ARGB	Analog RGB OLED Driver
SVGA-800S+COMP	Composite (NTPC/PAL) RGB OLED Driver
SVGA-1001	USB Configuration Cable
SVGA-ANALOG-C	Analog RGB Video & Power Cable
SVGA-COMP-C	Composite Video & Power Cable
SVGA-DVI-C	DVI Video & Power Cable
SVGA-HDMI-C	HDMI Video & Power Cable
-R Option	The Remote (-R) can be added to any of the above part number and enables the OLED to be located up to 5 feet away from the drive electronics.

Contact Information

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Product Photo

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