

## All About 0.6" Micro Display Display Drive Solution

Microdisplays are traditionally used in applications such as thermal imaging, night vision devices, and scopes. With technological advancements and emerging application demands, the AR field has also become a trending market for Micro OLEDs. Requirements for display quality, power consumption, and performance often differ between these two sections.

TDO offers 0.6" microdisplay drive solutions tailored for different fields, providing terminal manufacturers with high-performance, flexibly compatible display cores to facilitate the rapid deployment of new visual products.

### Display Parameters Comparison

Parameter	SY060WDM01	SY060LDM01
Resolution	1920 * 1080	1920 * 1080
Outline (mm)	17.67 * 10.48	17.67 * 10.48
Active Area (AA)	13.22mm x 7.43mm / 0.6" diagonal	13.22mm x 7.43mm / 0.6" diagonal
Brightness	3000 nits	6000 nits
Contrast Ratio	100000:1	100000:1
Power Consumption	660 mW	710 mW
Display Interface	MIPI DSI	MIPI DSI
Refresh Rate	Up to 120 Hz	Up to 120 Hz
Optical Configuration	No lens on display surface No emission angle adjustment	Lens on display surface With emission angle modulation
Driver Compatibility	Drive parameters are identical; solutions are directly compatible.	

### Drive Solutions

TDO offers flexible drive solutions to facilitate customer preliminary verification and development:

- **HDMI Monocular Direct Drive Solution**

Ideal for rapid prototyping of monocular display devices. Receives video signals via an HDMI interface to drive a single display.



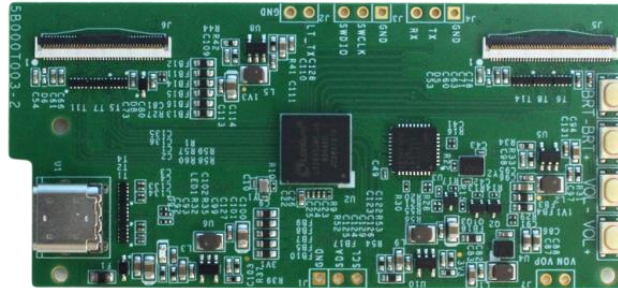
### Solution Advantages:

- ✓ Plug-and-play, supports 1920×1080@60Hz high-definition output
- ✓ On-board high-performance processor ensures ultra-low latency

- ✓ Compact design suitable for lightweight, portable devices
- ✓ Supports brightness adjustment and firmware upgrade for easy integration and debugging
- ✓ MIPI DSI interface, supports max. resolution 1920x1080@60Hz

- **Type-C Binocular Drive Solution**

Targets applications requiring binocular stereoscopic display (e.g., AR/VR headsets).



**Solution Advantages:**

- ✓ Single-cable for power, video, and data
- ✓ Supports MCU and firmware updates via USB
- ✓ Supports 2D/3D switching, supports max. resolution 3840×1920@75Hz
- ✓ On-board controls for brightness and audio
- ✓ Aligns with trends for integrated, lightweight equipment; simplifies head-mounted device design by handling video signal, data transfer, and power with one cable

- ◆ *Key Component*

*In practical circuit design, customers need to incorporate the dedicated 0.6" power management IC (PMIC). This helps optimize display performance and shorten debugging time.*

**Selection Guide**

The choice of drive solution primarily depends on the specific application scenario:

- ◆ AR/VR Applications: Recommend the 6000 nits display solution.
- ◆ Scopes, Thermal Imaging, Medical Fields, etc.: The 3,000 nits solution provides an ideal balance of performance and efficiency.

TDO not only provides displays but also offers complete solutions and in-depth technical support, assisting you throughout the entire product development process from the display to the final solution.