

Top Display Optoelectronics Released Round Knob Screen

In the rapidly evolving era of smart technology, convenient and efficient human-machine interaction has become a critical benchmark for product user experience. Knob screens, with their unique interactive design and user-friendly operation, are emerging as a new trend in smart home appliance control panels. From smart refrigerators, washing machines, to ovens and air fryers, knob screens are now ubiquitous.

TDO remains committed to innovation, dedicated to creating smarter and more intuitive interactive experiences. Our newly launched next-generation knob screen revolutionizes user interaction across smart home systems, kitchen appliances, industrial controls, medical devices, and more!

Key Upgrades



TR230M

- Inbuilt with TR230M Chip, featuring 400MHz main frequency, RISC-V CPU architecture, equipped with a high-performance 2D graphics accelerator and PNG/JPEG decoding engines for smooth, lag-free touch control.
- 16MBytes flash.
- Upgraded from single-layer to triple-layer rendering for smoother, richer animations.
- Supports 26 customizable elements, including buttons, text, images, progress bars, lists, and GIFs.
- Support simulation with real-time PC preview of UI effects, eliminating repetitive debugging on physical boards—50% faster development!

- Drag-and-drop controls via Giraffe IDE to implement complex UI logic with minimal coding.

Size	1.28"	2.1"
Display Type	TFT LCD	TFT LCD
Viewing Angle	IPS (Full View)	IPS (Full View)
Resolution	240×240	480×480
Color	262K	262K
Brightness (cd/m²)	170	300
Active Area (mm)	32.4×32.4	53.28×53.28
Communication	3.3V TTL	3.3V TTL
Touch Type	None	CTP
Interaction	Knob + Press	Knob + Press + Touch
Storage	16MB	16MB
Image Formats	JPG/PNG	JPG/PNG
Firmware Update	TF Card	TF Card
Input Voltage	3.3–5.5V (Typ. 5V)	3.3–5.5V (Typ. 5V)
Dimensions (mm)	50×50×30.2	79×79×41.3
Operating Temperature	-20°C to 70°C	-20°C to 70°C
Backlight Lifespan	30,000 hours	30,000 hours

Product Video

<https://youtu.be/kNMP4vHH59o?feature=shared>

TDO's next-gen knob screen delivers comprehensive advancements in core performance, display quality, and interactive experience. Whether for smart home control, precision adjustments in kitchen appliances, or industrial automation, it effortlessly meets diverse demands across scenarios.