ASUS Tinker Board series

The small, powerful way to unleash IoT performance

ASUS Tinker Board series is an ultrasmall, single-board computer (SBC) that offers class-leading performance, outstanding mechanical compatibility and superb reliability – making it the perfect platform for diverse commercial, industrial and IoT applications.

1 — Superior performance powered by ARM processor

Embedded with powerful and modern multi-core ARM-based processor, Tinker Board series offers significantly improved performance with saving energy versus other popular SBC boards. And powered by an ARM-based Mali GPU, Tinker Board series processors allow for a wide range of visual and audio uses, including digital signage, self-service kiosk, gaming machine, AI vision computing, object and face recognition and more.

2 — Industry-leading operating system support

Engineered to run on both Debian and Android, Tinker Board series ensures powerful performance, system stability and trusted security.

3 — Accessories for easy expandability

Designed with expandability in mind, Tinker Board series opens the door for embedded solutions. With accessories that include ASUS Tinker 2 Fanless Aluminum Case, ASUS MIPI Converter Board and ASUS PoE Splitter Board, plus more besides, the Tinker Board platform offers ready-made solutions for enhanced convenience and functionality.

Tinker 2 Fanless Aluminum Case   MIPI Converter   POE Splitter Board

4 — Comprehensive documentation and vibrant support community

As a platform, Tinker Board series benefits from an abundance of tried, tested and trusted resources, from detailed documentation and open-source code to a thriving user community. All this and more is ready and waiting to accelerate the development of any project.

User Guide   Tinker Forum   Developer Guide

Primed for industrial applications

Smart City	Retail	Logistics & Warehouse	Transportation
• Surveillance • Public security • Air-quality monitoring	• Mask detection • Facial recognition • Audience analysis • Object recognition • Cyber security	• Inventory control • Package tracking	• Automatic License Plate Recognition (ALPR) • Parking management • Public transport payment

Product Selection

Model	Tinker Board R2.0 / Tinker Board S R2.0	Tinker Board 2 / Tinker Board 2S	Tinker Edge T	Tinker Edge R
SoC	Rockchip RK3288-CG.W	Rockchip RK3399	NXP i.MX 8M	Rockchip RK3399Pro
GPU	Arm® Mali™-T760 MP4 GPU @ 600 MHz	Arm® Mali™-T860 MP4 GPU @ 800 MHz	GC7000 Lite	Arm® Mali™-T860 MP4 GPU @ 800 MHz
Memory	Dual-CH LPDDR3 2/4GB	Dual-CH LPDDR4 2/4GB	Dual-CH LPDDR4 1GB	Dual-CH LPDDR4 4GB (SYSTEM) + LDPPR3 2GB (NPU) or Dual-CH LPDDR4 2GB (SYSTEM) + LDPPR3 1GB (NPU)
Storage	16/32GB eMMC* (*Only available on S model)	16/32GB eMMC* (*Only available on S model)	8GB eMMC	16GB eMMC
	1 x Micro SD (TF) card slot (push & pull)	1 x Micro SD (TF) card slot (push & pull)	1 x Micro SD (TF) card slot (push & pull)	1 x Micro SD (TF) card slot (push & pull)
Operating System	Support Debian 10/ Android 11	Support Debian 10/ Android 11	Mendel	Support Debian 10/ Android 9
Dimension	3.37" x 2.125" (85 × 56 mm)	3.37" x 2.125" (85 × 56 mm)	3.37" x 2.125" (85 × 56 mm)	Pico-ITX, 3.9" x 2.8" (100 × 72 mm)

Tinkerboard Website

ASUS IoT