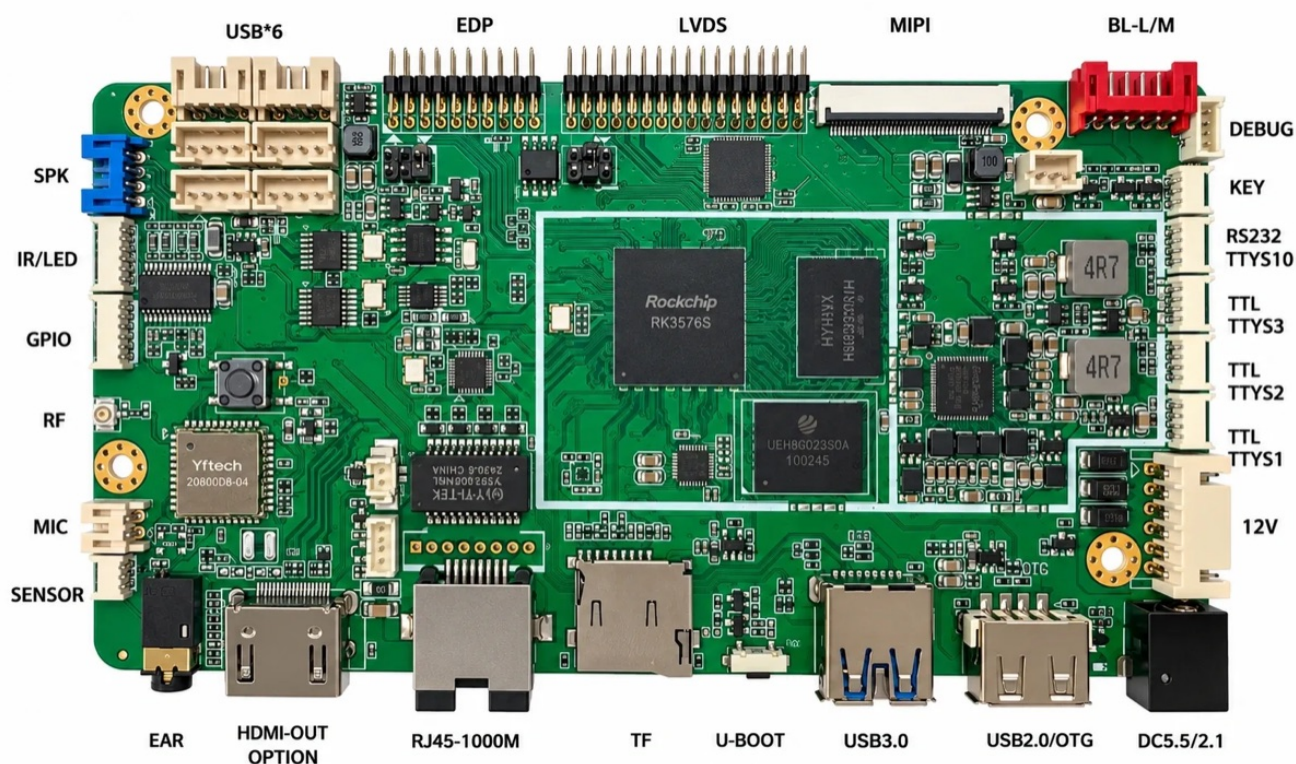


HYY

HYY-030B

6 TOPS AI Display Control Mainboard

Rockchip RK3576S octa-core with a 6 TOPS NPU, 4K@60fps decoding, 4 GB LPDDR5 as standard and Android 14 or Debian 12.



Chip platform
RK3576S

Category
Commercial Display
Mainboards

Document version
V1.0

Overview

The HYY-030B runs the Rockchip RK3576S octa-core big.LITTLE processor at up to 2.1 GHz with 4 GB LPDDR5 and 32 GB eMMC as standard, plus a 6 TOPS NPU and 4K@60fps decoding. MIPI, LVDS, eDP/HDMI display drivers, Gigabit Ethernet and Wi-Fi/BT are integrated — a balanced choice for volume production of smart display terminals.

Highlights

- **6 TOPS of AI**

INT4/INT8/INT16 mixed precision for image recognition, footfall counting and similar on-device tasks.

- **4 GB LPDDR5 as standard**

4 GB memory and 32 GB eMMC as standard, up to 256 GB storage, for comfortable multitasking.

- **Android or Debian**

Android 14.0 or Debian 12, for app ecosystems or custom development.

- **Six internal USB headers**

Six internal USB headers plus two standard ports (USB 3.0 / USB 2.0 OTG) for peripherals.

- **Built-in amplifier**

On-board dual-channel 8R/5W amplifier with left and right output, no external module needed.

- **Complete playback features**

Landscape and portrait playback, split screen, scrolling subtitles, timer on/off and USB import.

Specifications

Platform	
Processor	Rockchip RK3576S, octa-core 64-bit (4× Cortex-A72 + 4× Cortex-A53), up to 2.1 GHz
GPU	ARM Mali-G52 MC3
NPU	6 TOPS with INT4/INT8/INT16 mixed precision
Memory	4 GB LPDDR5 as standard
Storage	eMMC 32 GB / 64 GB / 128 GB / 256 GB, 32 GB as standard
OS	Android 14.0 / Debian 12

Audio and Video	
Video decoding	4K@60fps H.265 / H.264 / AV1 / VP9 / AVS2
Video encoding	4K@30fps H.264 / H.265
Audio	Dual-channel 8R/5W amplifier with left and right output; on-board microphone
Display	
HDMI	HDMI-OUT up to 3840×2160 (option)
eDP / LVDS / MIPI	eDP up to 3840×2160; LVDS up to 1920×1080; MIPI up to 2560×1440
Playback	Loop, scheduled and interrupt playback modes
Interfaces	
Network	1x Gigabit Ethernet (100/1000M), Wi-Fi + BT
USB	6x internal USB headers, 2x standard USB (USB 3.0 / USB 2.0 OTG)
Serial	3x TTL, 1x debug, 1x RS232
Other	RTC, hardware watchdog, scheduled power on/off, GPIO and ADC headers
Mechanical	
PCB	6-layer board, 142 × 75.3 × 1.6 mm
Mounting	4x $\varnothing$ 3.2 mm mounting holes

Applications

- Digital signage**

Advertising screens in buildings, lifts, supermarkets and retail chains, in landscape or portrait.

- AI security and footfall**

Face recognition, footfall statistics and behaviour analysis on the built-in NPU.

- Self-service kiosks**

Queue displays, information terminals and smart vending cabinets.

- Menu boards**

Menus and prices switch by time of day and update remotely from the signage system.

- **Transport and campus displays**

Information boards for stations, airports, campuses and production lines.

Software

- **Digital Signage Publishing System**

layout design, scheduling and remote publishing

- **OTA System**

remote firmware and app updates with device management

- **Industry Test Software**

one-tap production-line testing and reports

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Specifications are subject to change; the delivered product prevails.