

Rockchip SBC/SOM

Open Frame HMI Kits Assembly Solutions

RK3888S | RK3576 | RK3562

8-inch | 10.95-inch | 21-inch | 32-inch



R&D Excellence & ODM Capabilities

Flexible Design • Powerful Expansion • Customized Solutions



Flexible Interface Design

- ✓ Built-in motherboard with external interface board flexibility
- ✓ Custom power schemes (DC wide voltage, battery, fast charging)
- ✓ Audio amplifier and voice mic integration



Rich Expansion Interfaces

- ✓ UART / PWM / ADC / RS485 / I2C / GPIO
- ✓ Mini-PCIE for 4G/ LTE modules
- ✓ NFC, TF Card, SIM Card support



Connectivity & Media

- ✓ WIFI6 (802.11ax), Ethernet Bluetooth 5.4
- ✓ MIPI/eDP/LVDS displays, Type-C 3.0 with DP, HDMI out

Open Frame HMI Kits Assembly Solutions

Organized by Platform and Screen Size

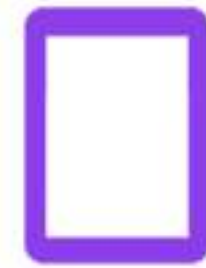
CPU	RK3588S	RK3576	RK3562
32 inch	H3588S-32	H3576-32	
21 inch	H3588S-21	H3576-21	
10.95 inch	SOD3588S-M-10.95 H3588S-10.95	SOD3576-M -10.95 H3576 -10.95	
8 inch	SOD3588S-M-8 H3588S-8	SOD-3576-M-8 H3576-8	M3562-8

Technical Specifications Comparison



8-inch
800x1280

SOD3588S-M-8
SOD3576-M-8
H3588S-8
H3576-8
M3562-8



10.95-inch
1200x1920

SOD3588S-M-10.95
SOD3576-M-10.95
H3588S-10.95
H3576-10.95



21-inch
1920x1080

H3588S-21
H3576-21



32-inch
1920x1080

H3588S-32
H3576-32

Technical Specifications Comparison



www.pretech-e.com

Model	SOD3588S-M-10.95 H3588S-10.95 H3588S-21	SOD3588S-M-8 H3588S-8 H3588S-32	SOD3576-M-10.95 H3576-32 H3576-10.95	SOD3576-M-8 H3576-21 H3576-8	M3562-8
Feature	RK3588S		RK3576		RK3562
CPU Architecture	4×A76 + 4×A55 8nm Process		4×A72 + 4×A53 8nm Process		4×A53 22nm Process
GPU	Mali-G610 MP4		Mali-G52 MC3		Mali-G52 2EE
NPU Performance	6.0 TOPS INT4/INT8/INT16, tf32		6.0 TOPS INT4/8/16, FP16, BF16, tf32		1 TOPS INT8/16, FP16, BF16, tf32
Video Decode	8K@60fps H.265/AVS2 4K@60fps AV1		8K@30fps or 4K@120fps H.265/HEVC/VP9/AV1		4K@30fps H.265/VP9/AVS2/AV1
Video Encode	8K@30fps 32-channel 1080P@30fps decode		4K@60fps H.265/H.264 Dual encoders		1080P@60fps H.265/H.264
RAM	LPDDR4 4/8/16GB		LPDDR5 4/8/16GB 5500Mbps		DDR4 2GB
Storage	eMMC 64/128/256GB		eMMC 64/128GB		eMMC 32/64GB
Operating System	Android / Debian		Android		Android / Linux
Connectivity	WIFI6, BT 5.4 Gigabit Ethernet		WIFI6, BT 5.2 Gigabit Ethernet		WIFI6, BT 5.2 Gigabit Ethernet
Operating Temperature	-20°C to 60°C		-20°C to 70°C		-20°C to 70°C

Industry Applications



Advanced embedded computing systems featuring RK3588S, RK3576, and RK3562 platforms. From 8" portable displays to 32" large-format industrial screens



Medical Devices

Diagnostic Displays



Retail POS

Payment terminals



Industrial HMI

Machine control



Transportation

In-vehicle systems



Education

Learning tablets



Digital Signage

Advertising displays



AI Robotics

Service robots



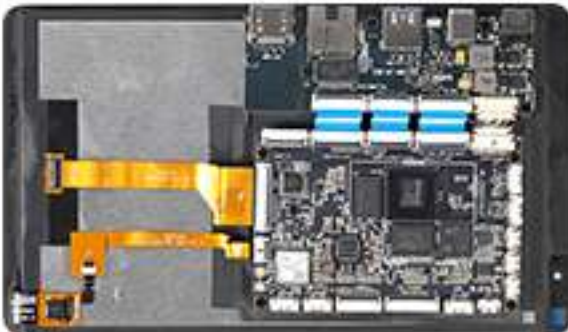
Smart Home

Control panels

S-Series

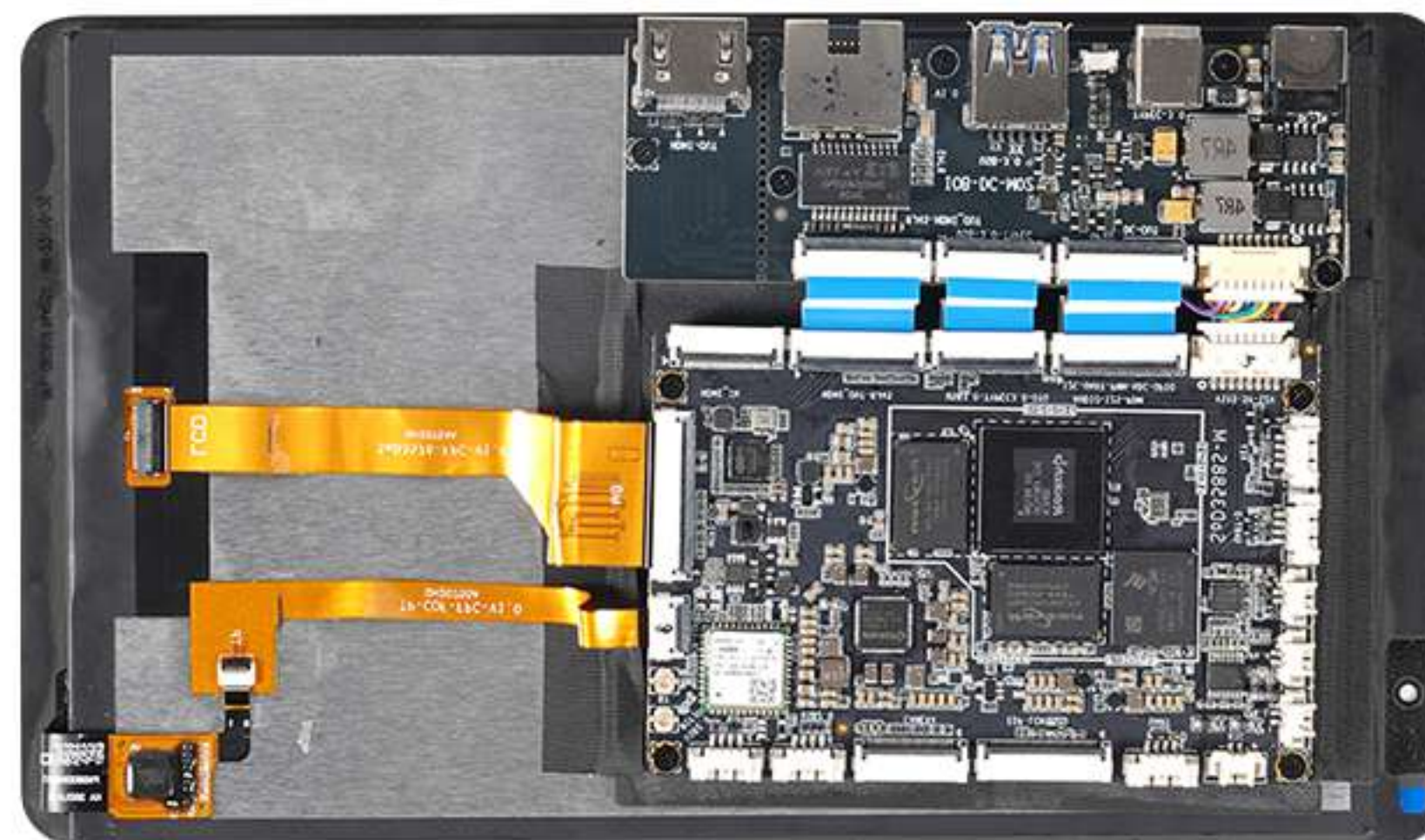
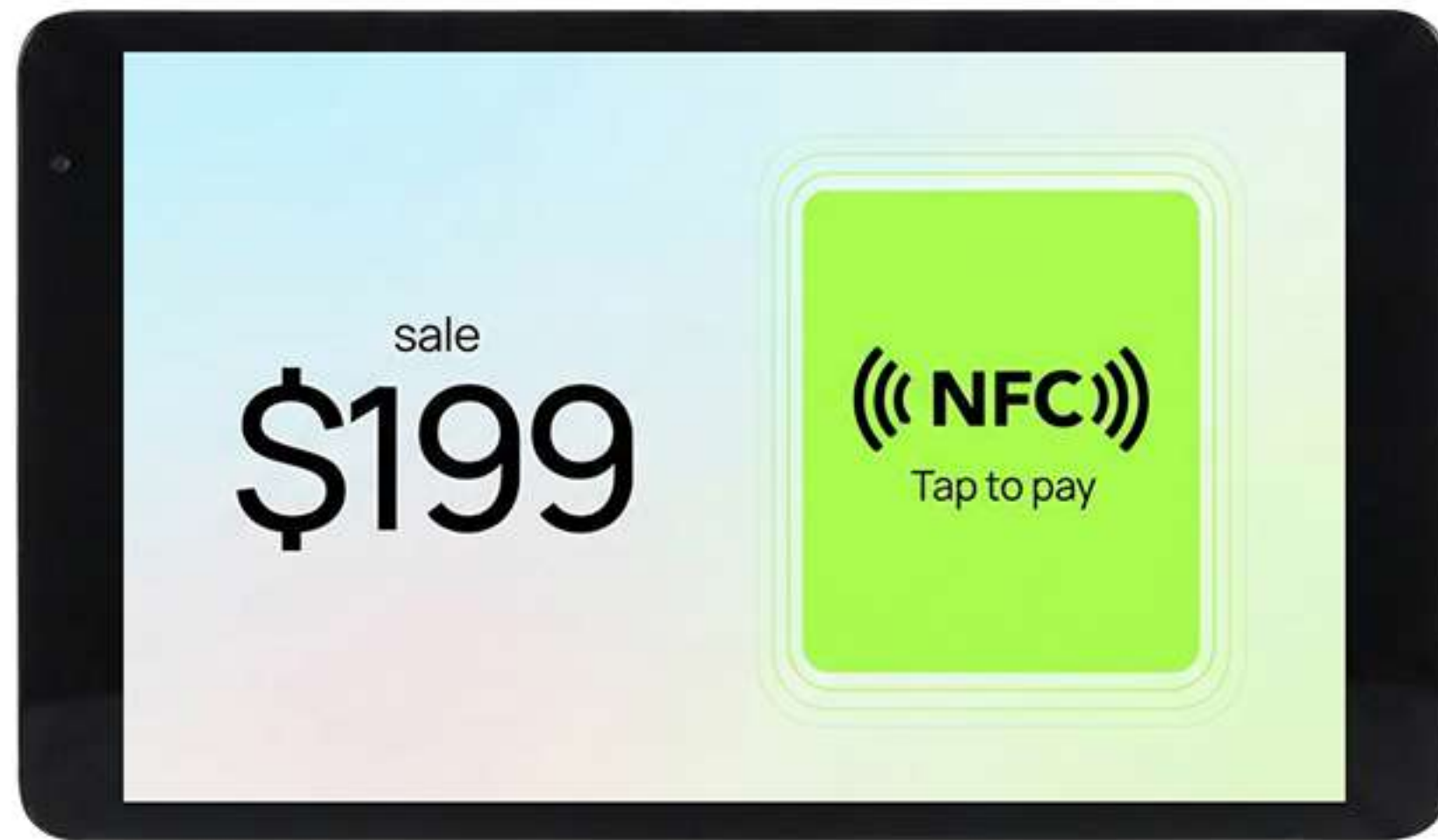
Portable Intelligence

Compact integrated SBC design • Perfect for handhelds and portable terminals

CPU	RK3588S	RK3576
8-inch	 SOD3588S-M-8	 SOD3576-M-8
10.95-inch	 SOD3588S-M-10.95	 SOD3576-M-10.95

RK3588S SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



SOD3588S-M-8



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



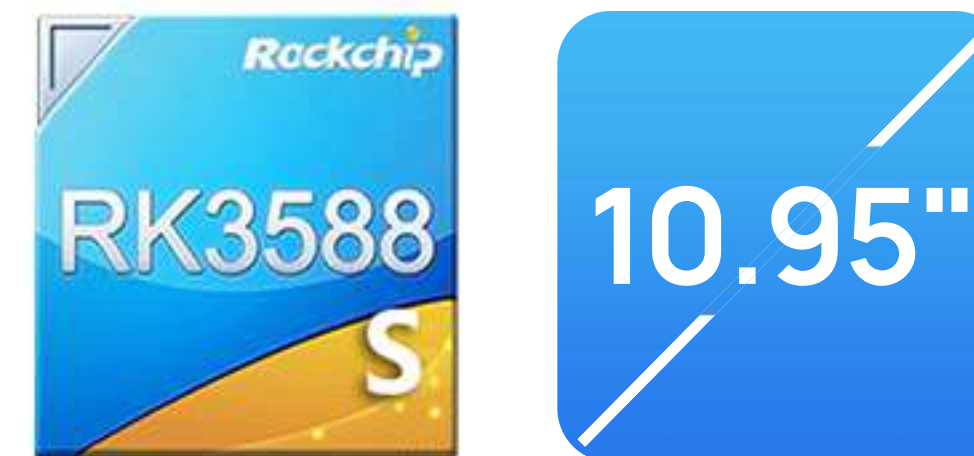
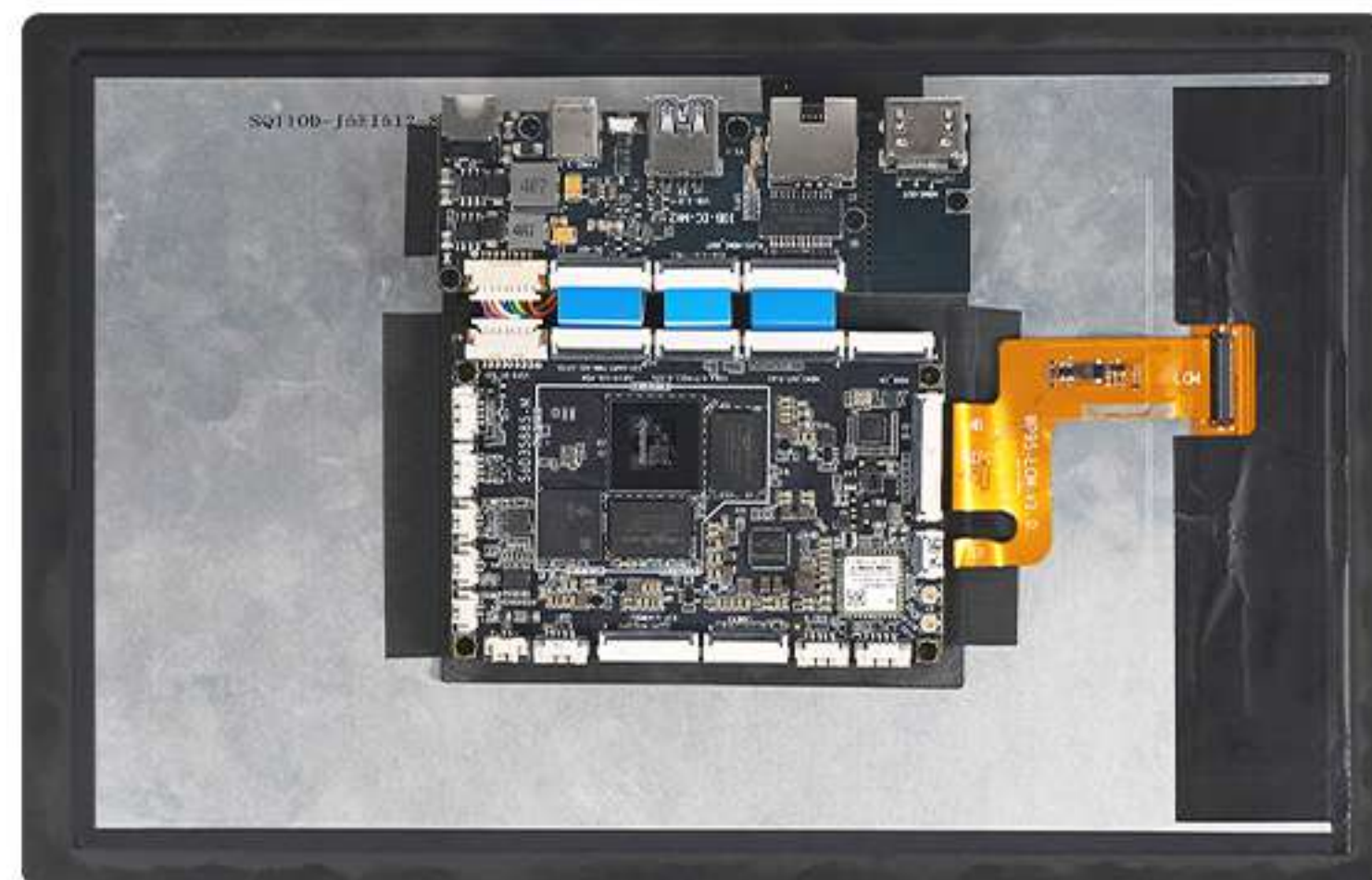
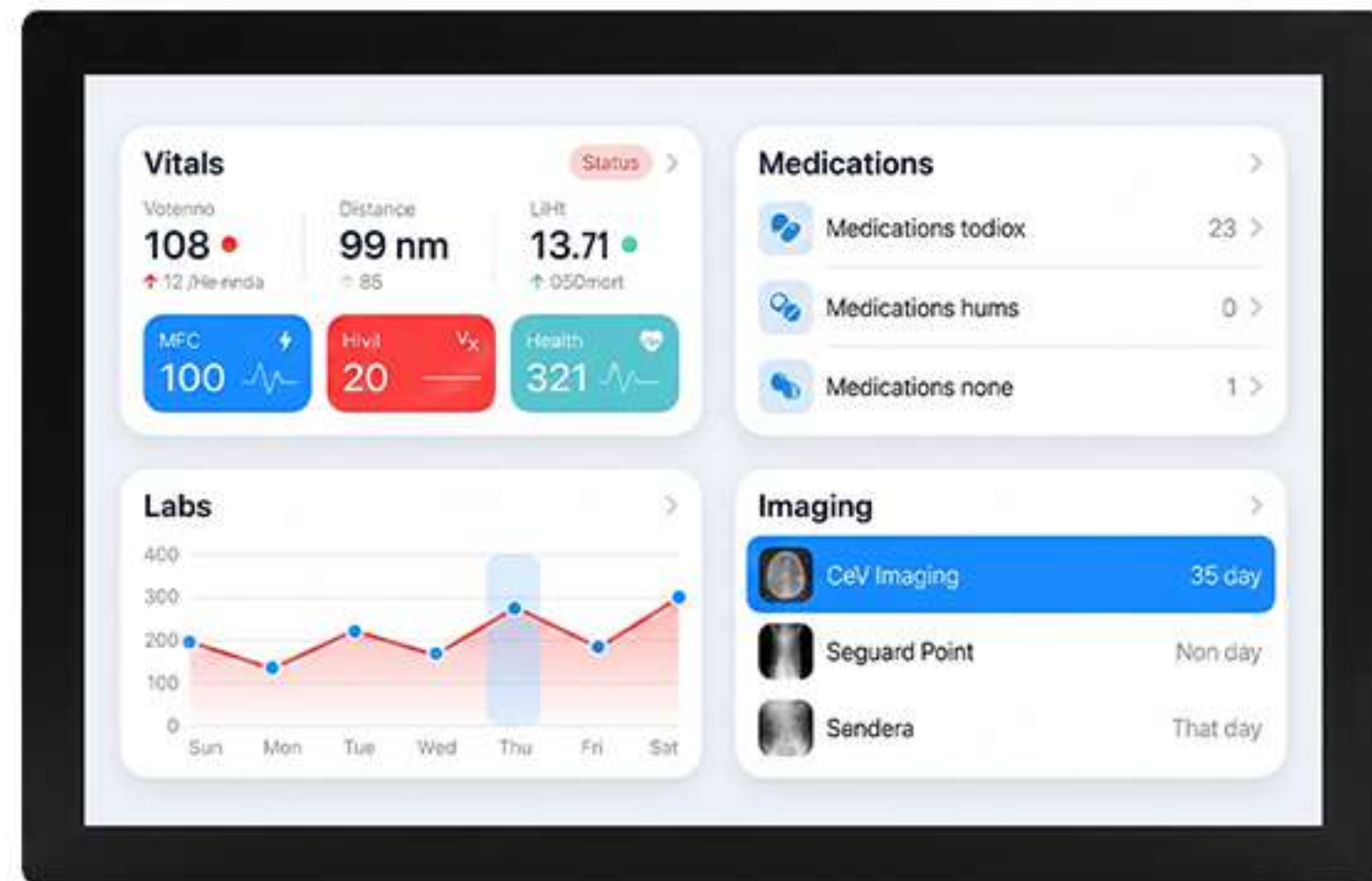
Screen: 8" 800×1280 IPS, G+G Full Lamination



Video: 8K@60fps Decode, 8K@30fps Encode

RK3588S SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



SOD3588S-M-10.95



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



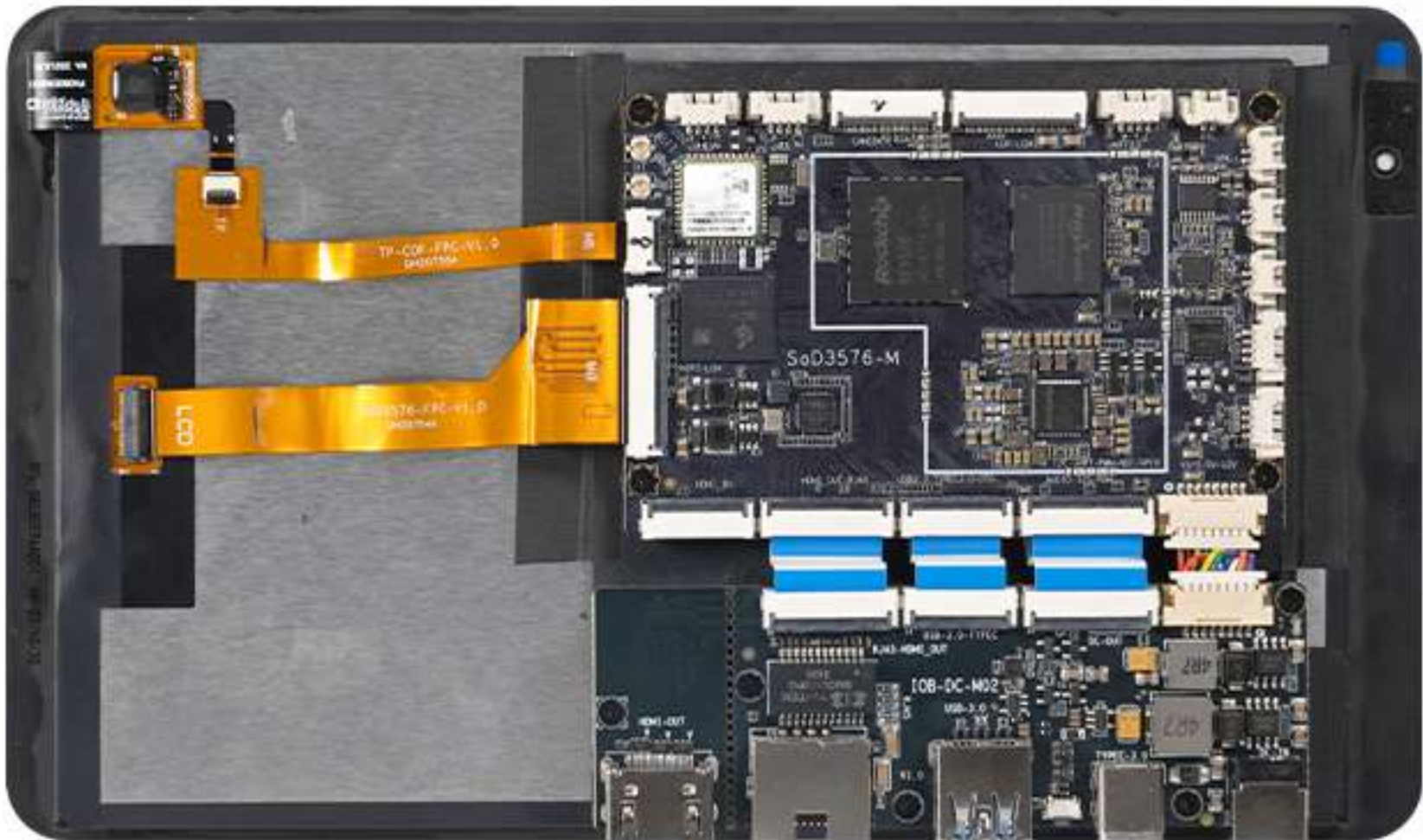
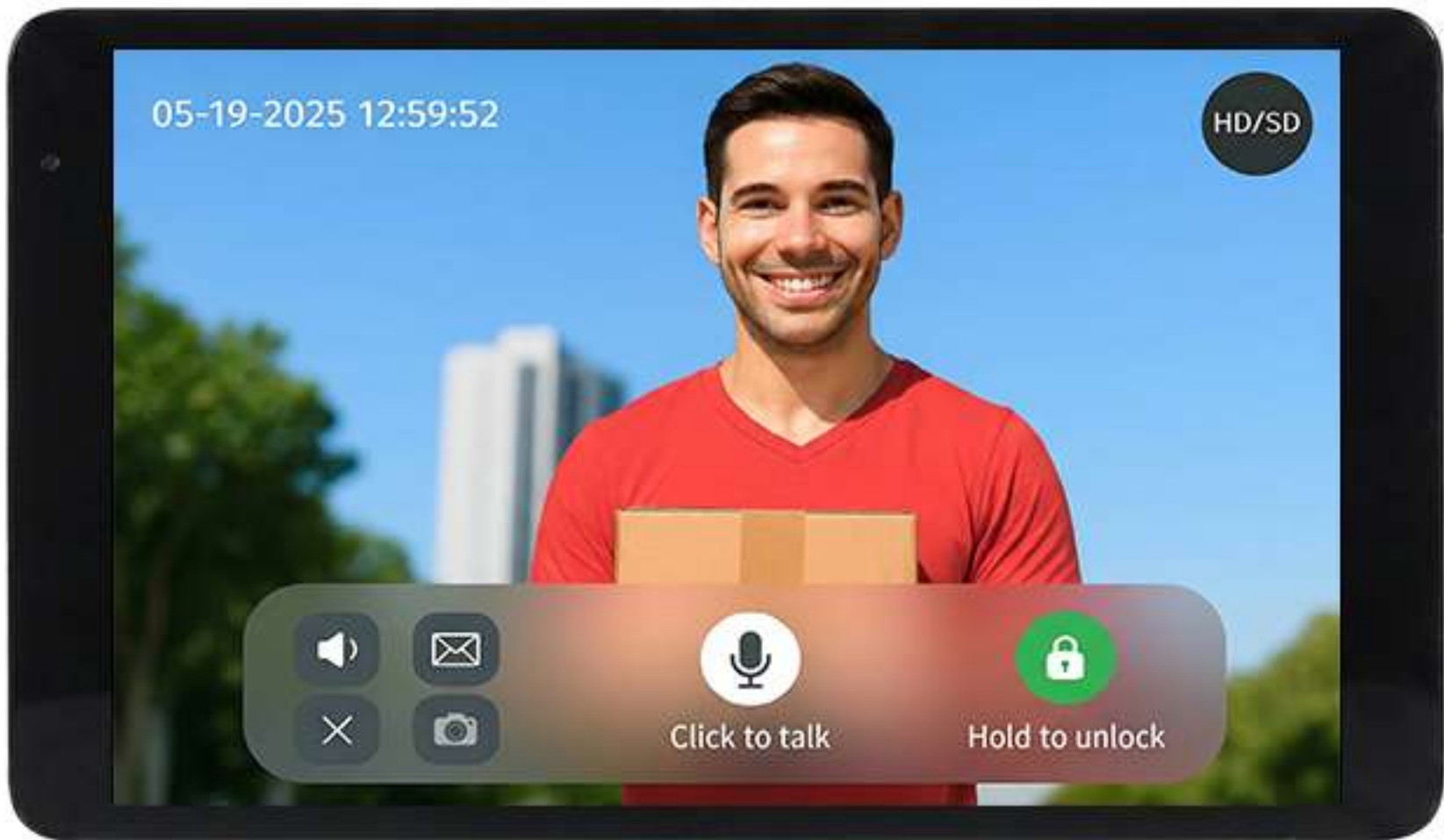
Screen: 10.95" 1200×1920 In-cell Touch, Black Cover



Video: 8K@60fps Decode, 8K@30fps Encode

RK3576 SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



SOD3576-M-8



CPU: RK3576 (4×A72 + 4×A53, 8nm)



GPU: Mali-G52 MC3, 6.0 TOPS NPU



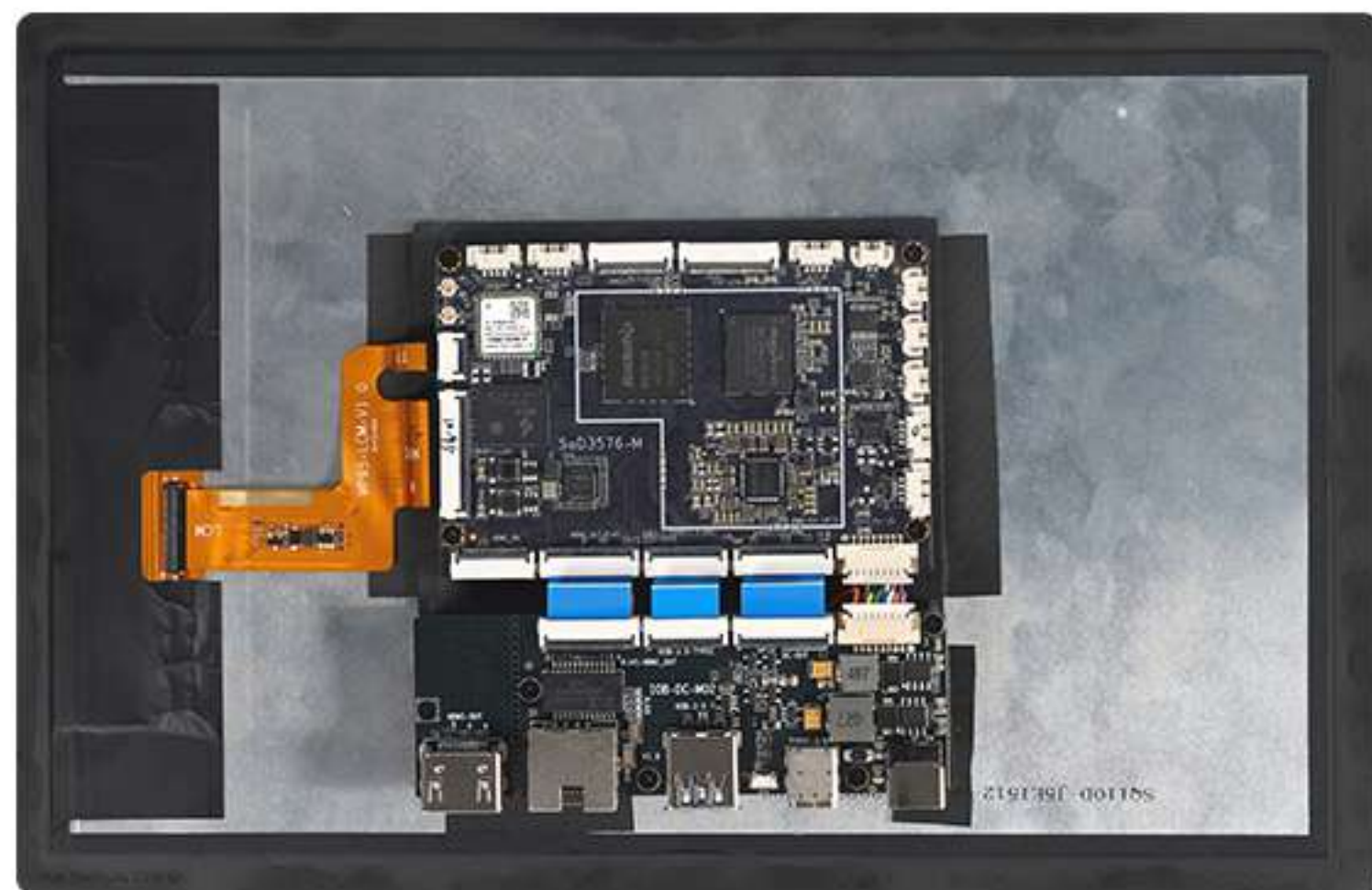
Screen: 8" 800×1280 IPS, G+G Full Lamination



Video: 8K@30fps / 4K@120fps Decode

RK3576 SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



SOD3576-M-10.95



CPU: RK3576 (4×A72 + 4×A53, 8nm)



GPU: Mali-G52 MC3, 6.0 TOPS NPU



Screen: 10.95" 1200×1920 In-cell Touch, Black Cover

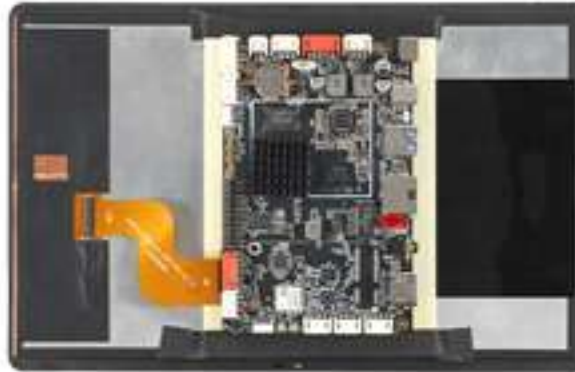


Video: 8K@60fps Decode, 8K@30fps Encode

H-Series

SOM + Carrier Board / SBC

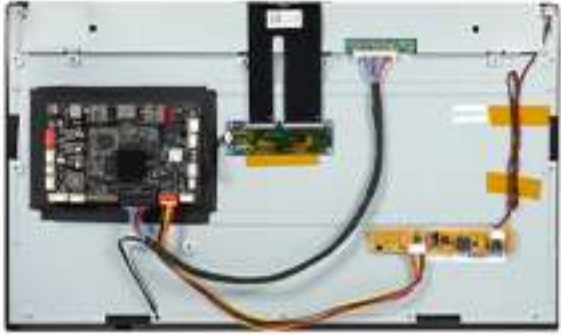
High-performance solutions for large format displays • Industrial control • Kiosks

CPU	RK3588S	RK3576
8-inch	  H3588S-8	  H3576-8
10.95-inch	  H3588S-10.95	  H3576-10.95

H-Series

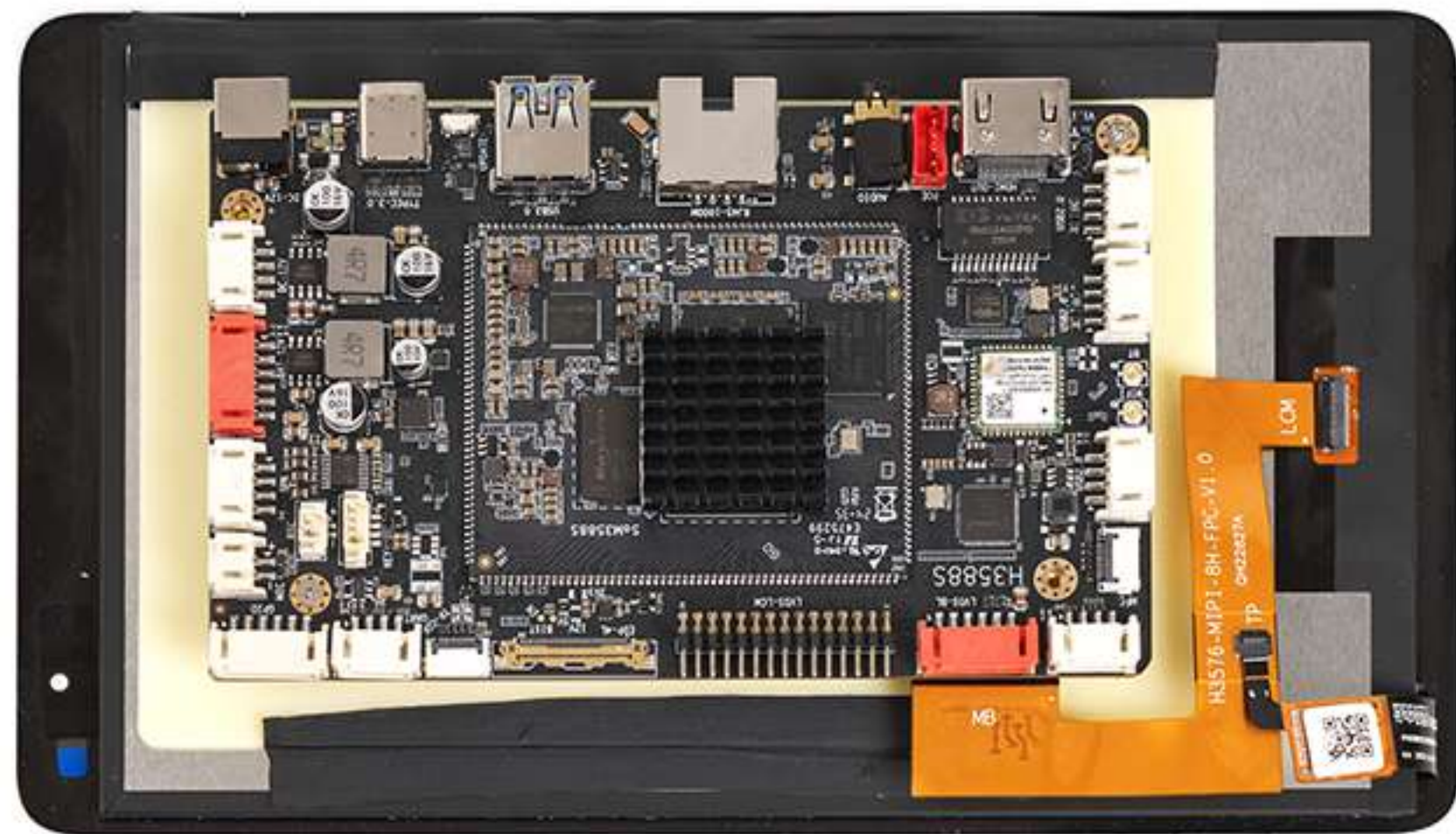
SOM + Carrier Board / SBC

High-performance solutions for large format displays • Industrial control • Kiosks

CPU	RK3588S	RK3576
21-inch	 H3588S-21	 H3576-21
32-inch	 H3588S-32	 H3576-32

RK3588S SOM + Carrier Board

High-performance solutions for large format displays • Industrial control • Kiosks



H3588S-8



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



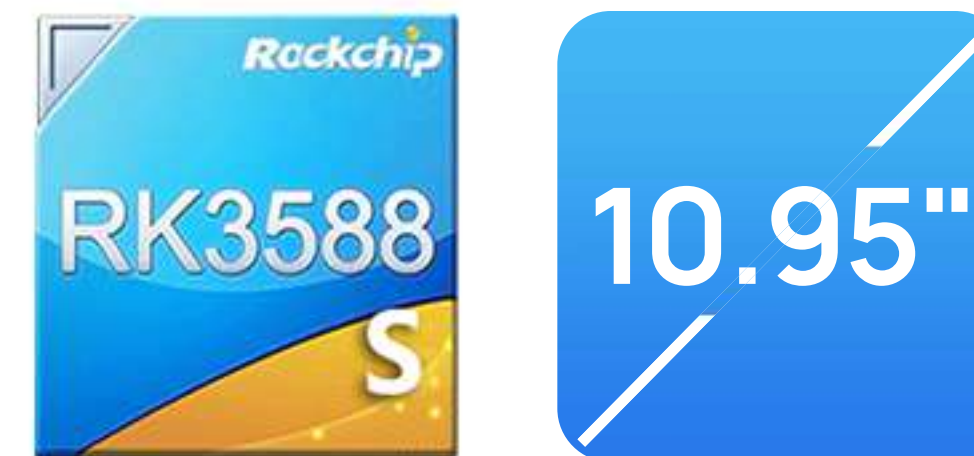
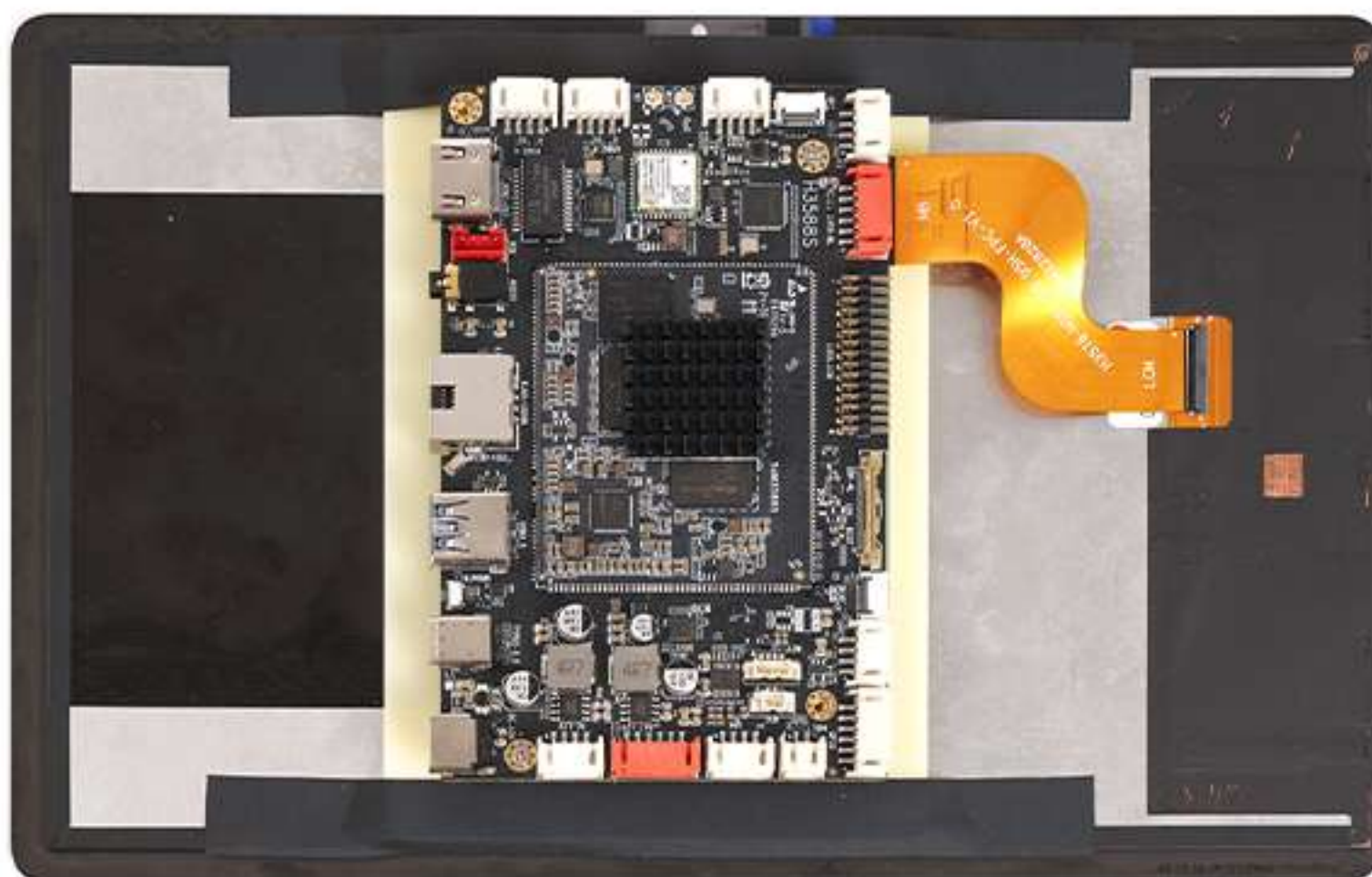
Screen: 8" 800×1280 IPS, G+G Full Lamination



Expansion: Dual-LVDS, HDMI 2.1, eDP, MIPI

RK3588S SOM + Carrier Board

High-performance solutions for large format displays • Industrial control • Kiosks



H3588S-10.95



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



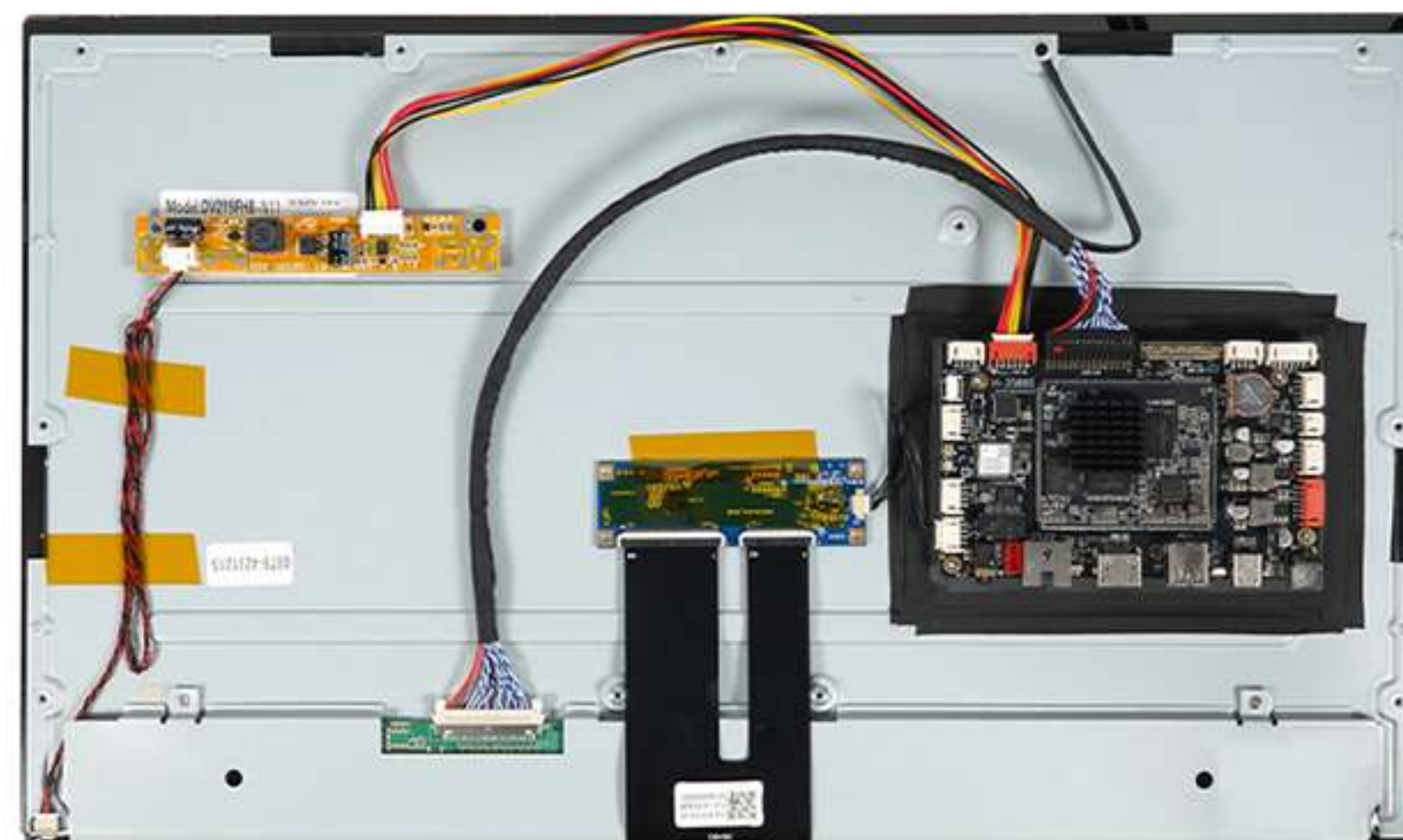
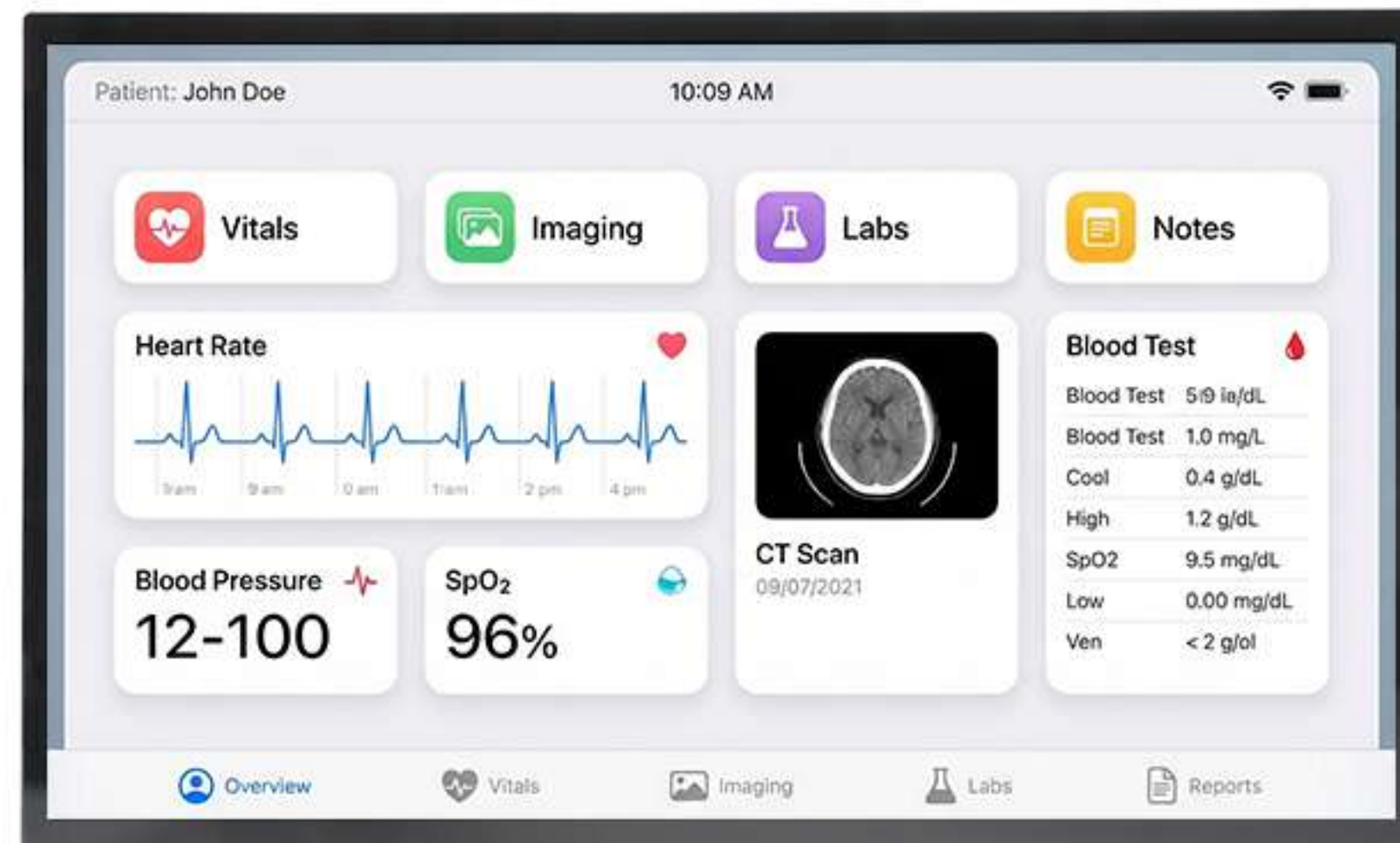
Screen: 10.95" 1200×1920 In-cell Touch



Expansion: Dual-LVDS, HDMI 2.1, eDP, MIPI

RK3588S SOM + Carrier Board

High-performance solutions for large format displays • Industrial control • Kiosks



H3588S-21



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



Screen: 21" 1920×1080 IPS, G+G Full Lamination



Expansion: Dual-LVDS, HDMI 2.1 (8K)

RK3588S SOM + Carrier Board

High-performance solutions for large format displays • Industrial control • Kiosks



H3588S-32



CPU: RK3588S (4×A76 + 4×A55, 8nm)



GPU: Mali-G610 MP4, 6.0 TOPS NPU



Screen: 32" 1920×1080 IPS, G+G Full Lamination



Expansion: Dual-LVDS, HDMI 2.1 (8K)

RK3576 SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



H3576-8



CPU: RK3576 (4×A72 + 4×A53, 8nm)



GPU: Mali-G52 MC3, 6.0 TOPS NPU



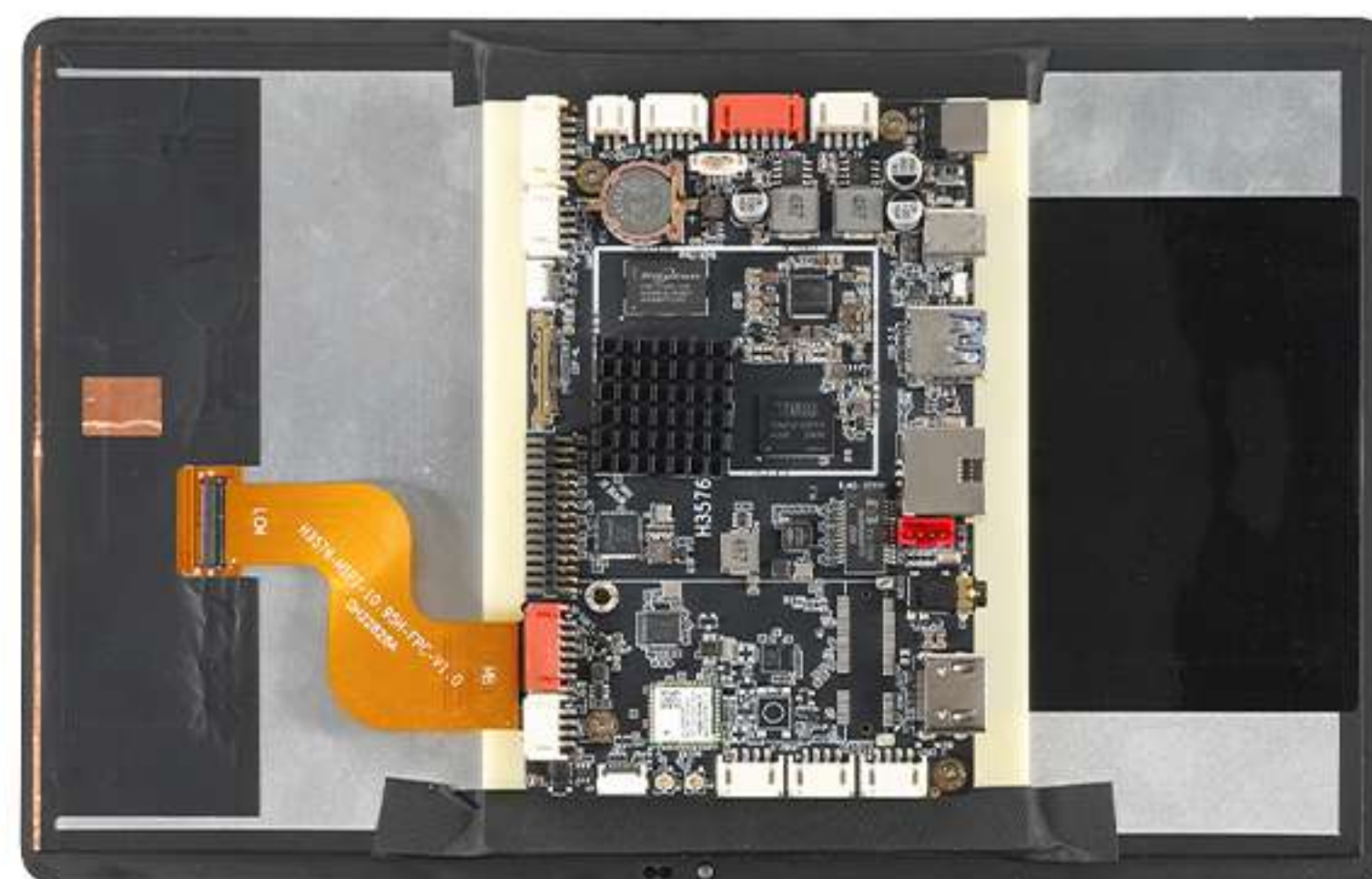
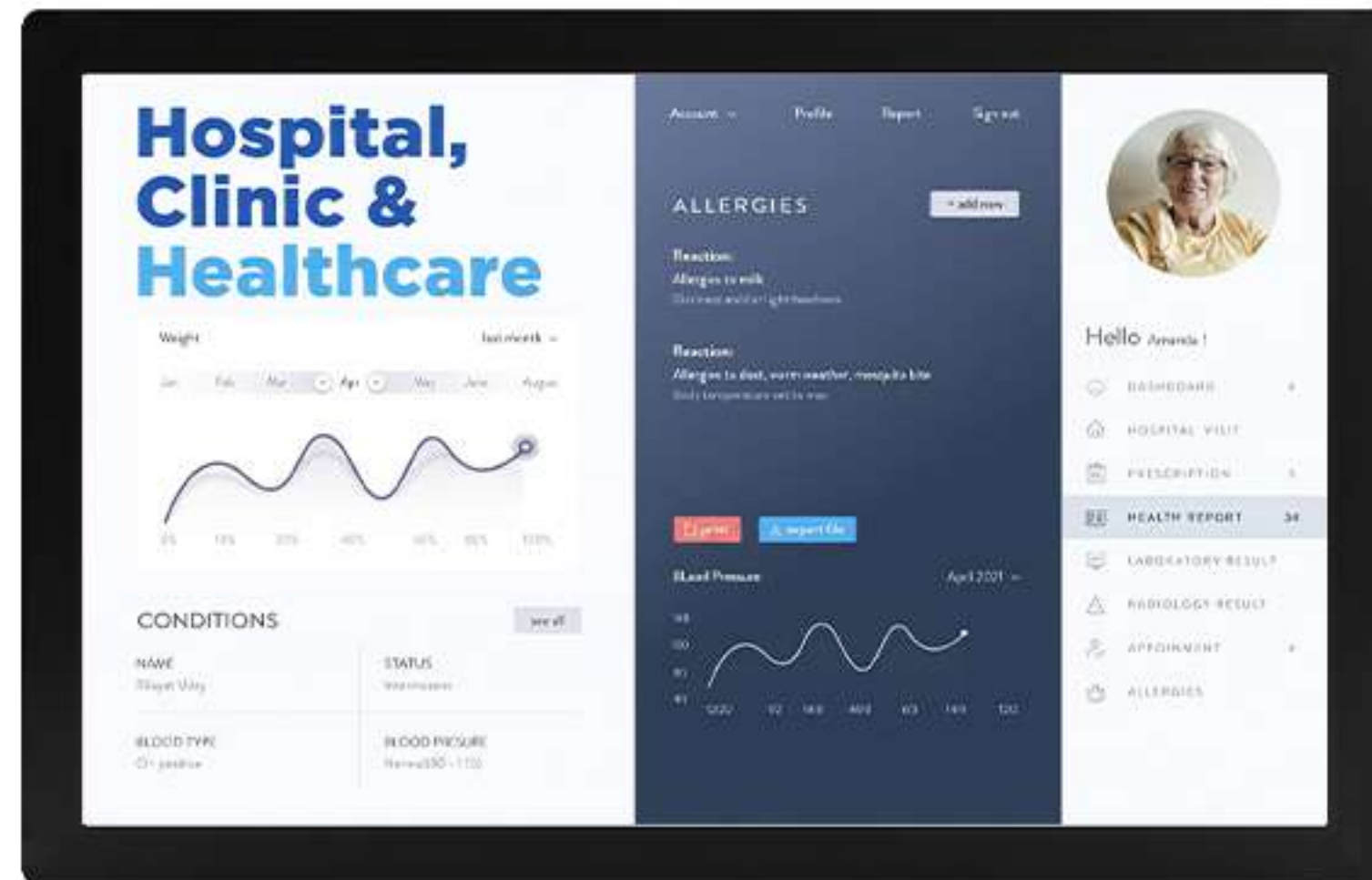
Screen: 8" 800×1280 IPS, G+G Full Lamination



Expansion: Dual-LVDS, HDMI 2.1, eDP, MIPI

RK3576 SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



H3576-10.95



CPU: RK3576 (4×A72 + 4×A53, 8nm)



GPU: Mali-G52 MC3, 6.0 TOPS NPU



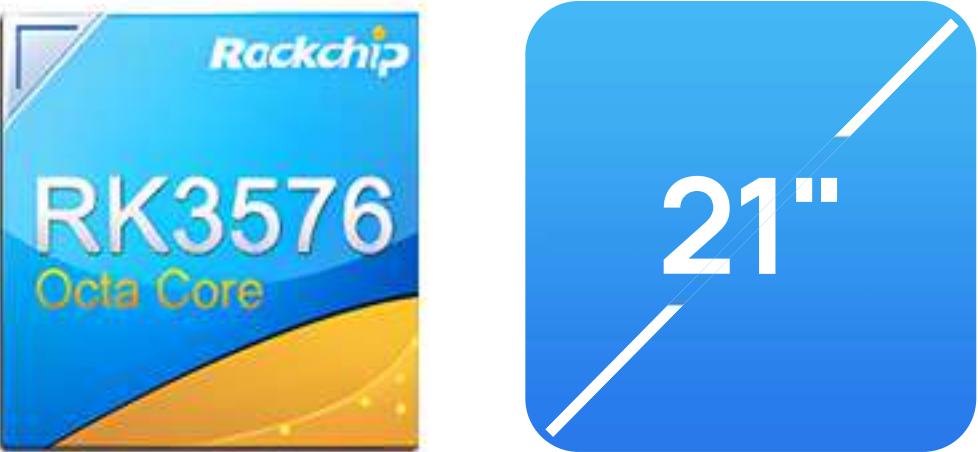
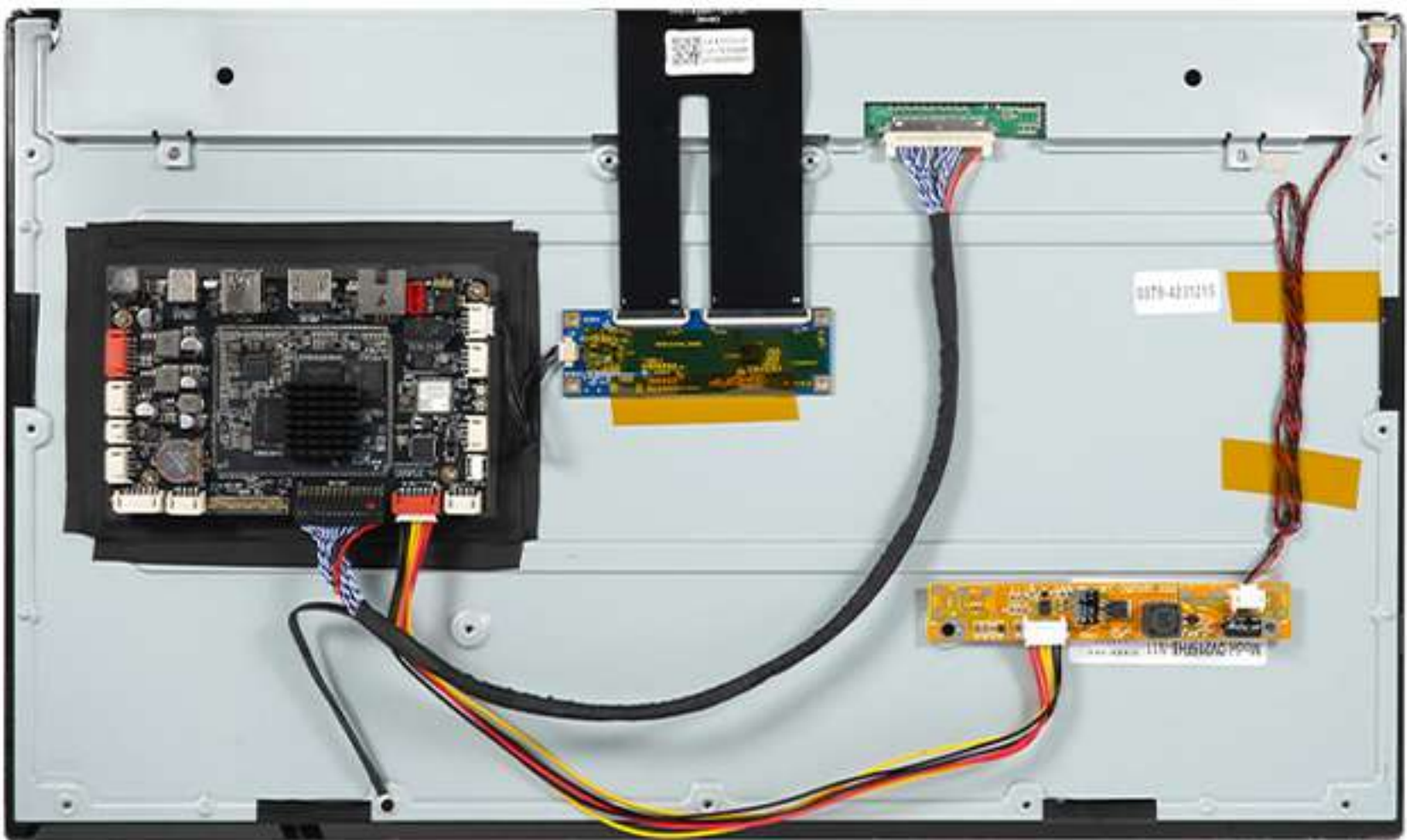
Screen: 10.95" 1200×1920 In-cell Touch



Expansion: Dual-LVDS, HDMI 2.1, eDP, MIPI

RK3576 SBC Open Frame HMI Kits

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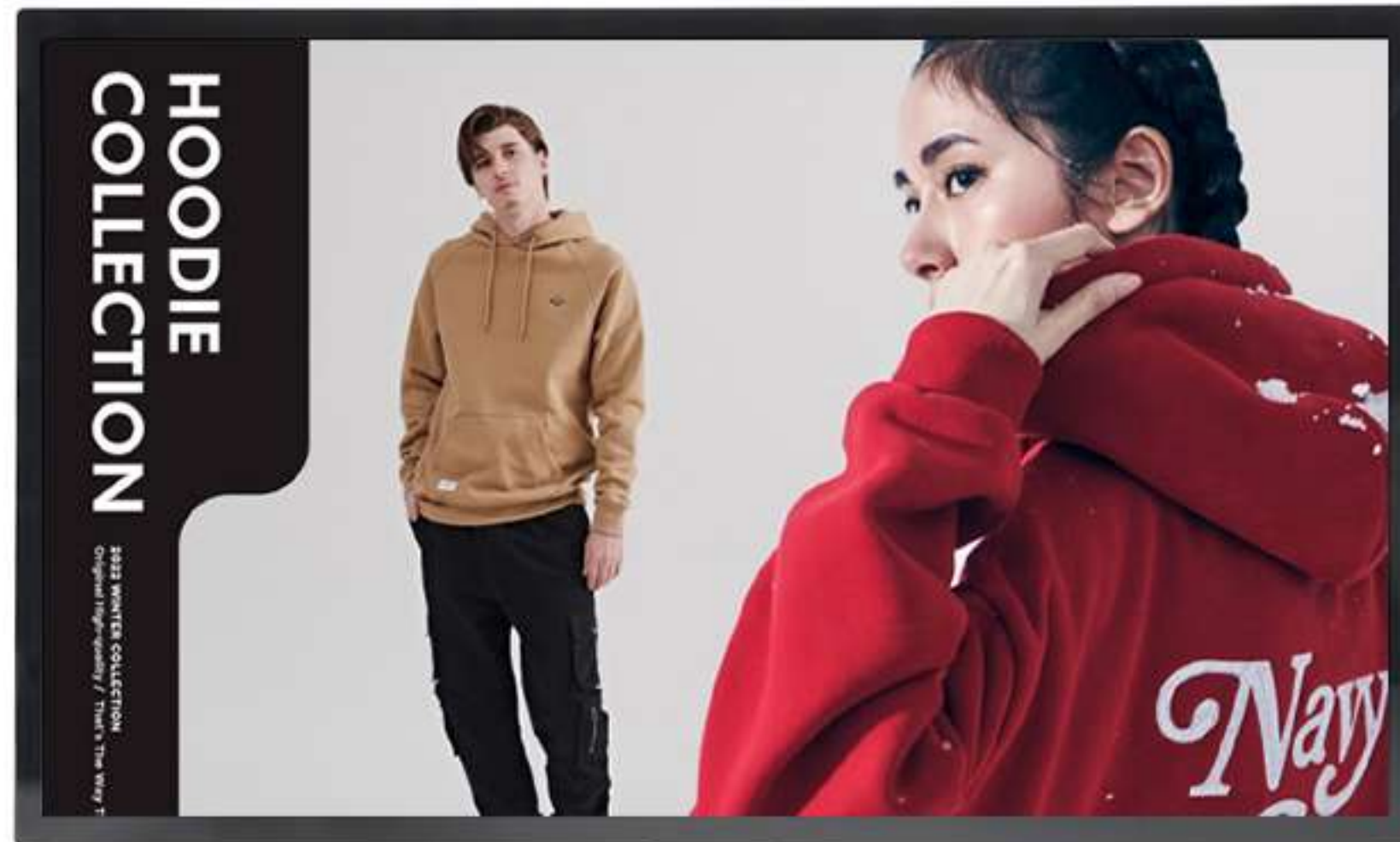


H3576-21

-  CPU: RK3576 (4×A72 + 4×A53, 8nm)
-  GPU: Mali-G52 MC3, 6.0 TOPS NPU
-  Screen: 21" 1920×1080 IPS, G+G Full Lamination
-  Expansion: Dual-LVDS, HDMI 2.1 (8K)

RK3576 SBC Open Frame HMI Kits

Compact integrated SBC design • Perfect for handhelds and portable terminals



H3576-32



CPU: RK3576 (4×A72 + 4×A53, 8nm)



GPU: Mali-G52 MC3, 6.0 TOPS NPU



Screen: 32" 1920×1080 IPS, G+G Full Lamination



Expansion: Dual-LVDS, HDMI 2.1 (8K)

M-Series

Efficient Edge Computing

Cost-effective solutions for IoT and basic HMI applications

CPU	RK3588S
8-inch	 M3562-8

RK3562 SBC Open Frame HMI Kits

Cost-effective solutions for IoT and basic HMI applications



M3562-8



CPU: RK3562 (4×A53, 22nm)



GPU: Mali-G52 2EE, 1 TOPS NPU



Screen: 8" 800×1280 IPS, G+G Full Lamination



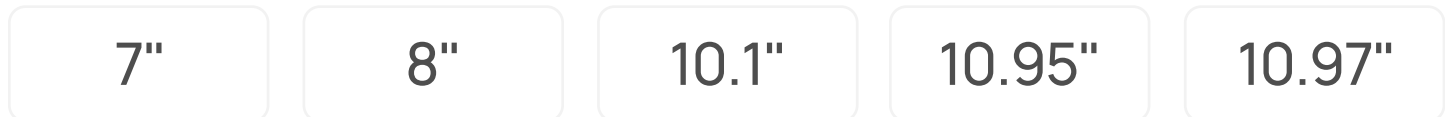
Video: 4K@30fps Decode, 1080P@60fps Encode

Scalable Dimensions & Expansion

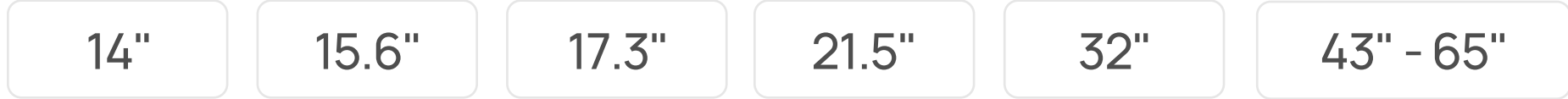


Touch Screen Expansion

I2C Interface (Compact)

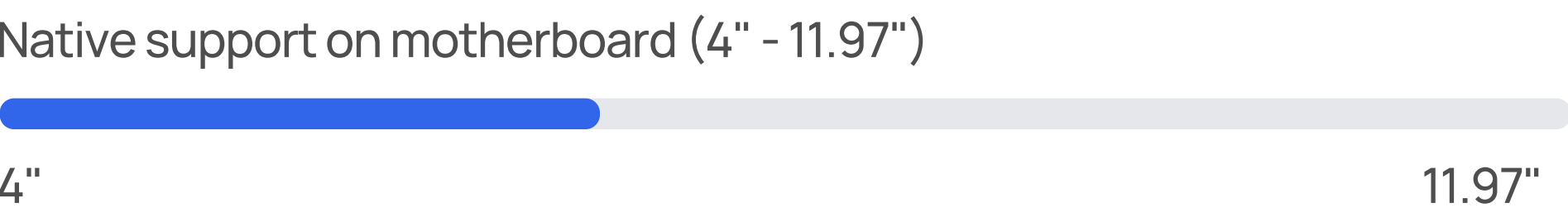


USB Interface (Large Format)



Display Interface Support

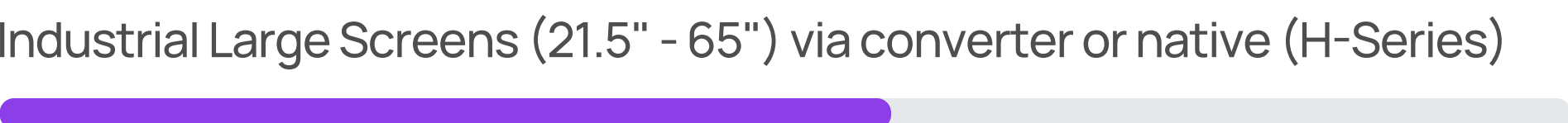
MIPI Interface



eDP Interface



LVDS Interface



Contact Us



Website

www.pretech-e.com



Mail

admin@pretech-e.com



Phone

+86-755-23051989



Office Add

808,8F,Qiancheng Commercial Center,
5 Haicheng Road, Bao'an District,
Shenzhen 518102,China

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