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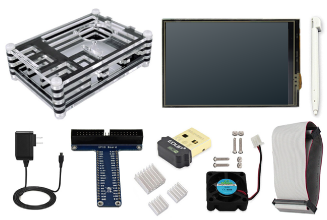
Re_Terminal

Microsoft
Azure Certified Device
* Certification is under processing

The Next Generation of
Human-Machine-Interface with You.

Introducing Re_Terminal, a new member of our Re_Things family. Re_Terminal is powered by a Raspberry Pi Compute Module 4 (CM4) and a 5-inch IPS multi-touch screen. This future-ready Human-Machine Interface (HMI) device can easily and efficiently work with IoT and cloud systems to unlock endless scenarios at the edge.

Raspberry Pi OS | TensorFlow | EDGE IMPULSE | OpenCV
Qt | ubuntu | PyTorch | RESPEAKER



Integrated Design to Ensure High Stability

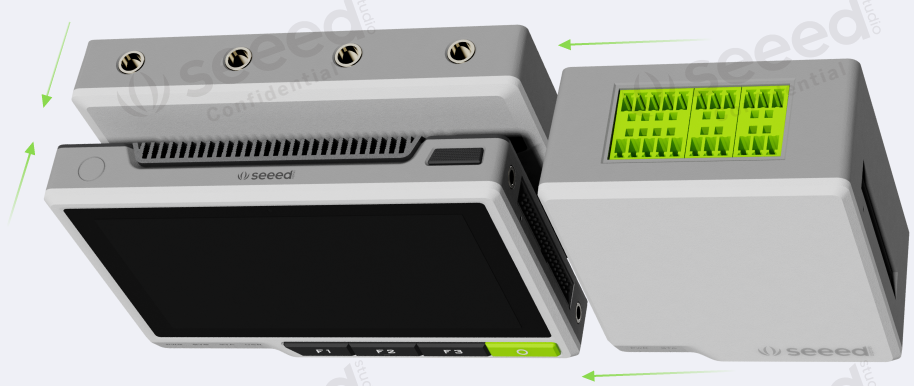
Hardware-based Security

Powerful Expansibility for Various Applications

- Raspberry Pi Compute Module 4
  Quad core Cortex-A72 @ 1.5GHz
- Up to 8GB RAM
  Up to 32GB EMMC
- 2.4GHz/5GHz Wi-Fi and BLE (Optional)
- Gigabit Ethernet
  Dual USB2.0 Type-A
- 5 Inch LCD with Capacitive Touch 720 x 1280
- Crypto-auth chip
- High-speed expansion interface
- Real-Time Clock

Modular design for specialty Embedded Linux with CM4

Easy to use and expand with a large of accessories



*Supported by an active community

Rich Interfaces on the Side to Keep it Neat and Expansible

- USB Type-C interface for power input
- Gigabit Ethernet
- MicroHDMI interface that supports for video output at 4K resolution with a frame rate of 60fps
- 2 USB Type-A interfaces for other expansions

Extensibility for Further Development Industrial Connectors to Ensure High Stability

- 1 × PCIe 1-lane Host, Gen 2 (5Gbps)
- 1 × USB 2.0 port (highspeed)
- 28 x GPIOs
- POE

293
PPI

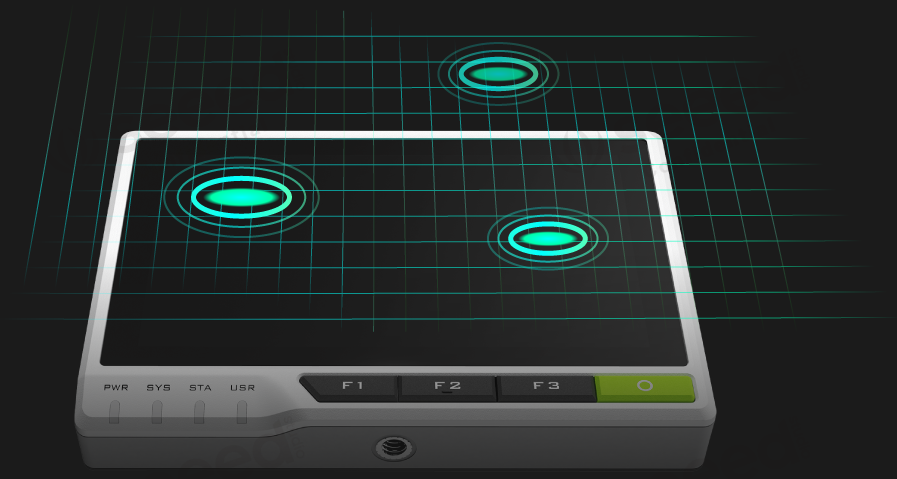
1280 × 720
Resolution

IPS LCD display with a 293 PPI

The display resolution is 1.6 times higher than the most common resolution of 800x480

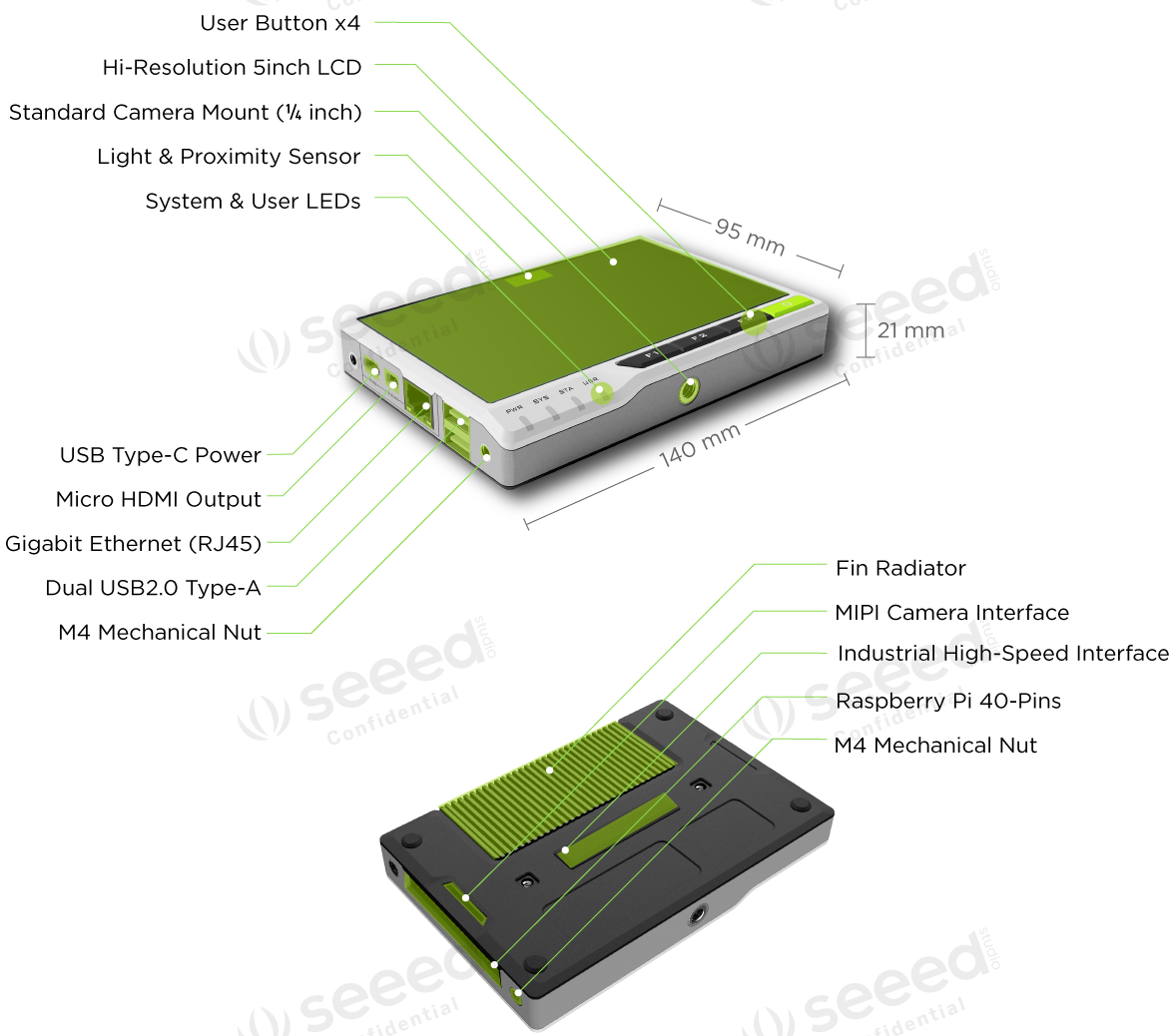
- With the 293 PPI (pixels per inch), Re_Terminal brings the exquisite vision experience of high definition and rich color.
- Comparing to TN displays, the IPS display of Re_Terminal offers a better angle of vision.

Re_Terminal with Capacitive Touchscreen



Hardware-Based Security for IoT

- Cryptographic co-processor with secure hardware-based key storage.
- Protected storage for up to 16 Keys, certificates or data.
- Hardware support for symmetric sign, verify, key agreement - ECDSA.
- Hardware support for symmetric algorithms.
- Support for networking key management.
- Secure boot support.



Specifications

Platform	Processor	Broadcom BCM2711 quad-core Cortex-A72 (ARM v8)
	Frequency	64-bit SoC @ 1.5GHz
Memory	Capatity	1GB, 2GB, 4GB or 8GB
	Technology	LPDDR4 (depending on model) with on-die ECC
EMMC	Capatity	8GB, 16GB, 32GB
	Bandwidth	100MBytes/s
Wireless	Wi-Fi	"2.4GHz and 5.0GHz IEEE 802.11b/g/n/ac"
	Bluetooth	Bluetooth 5.0, BLE
Display	LCD	5-inch 720x1280 LCD
	Touch Panel	Capacity touch panel (support multi-touch)
Video	HDMI	1 x Micro HDMI output (up to 4Kp60 supported)
	CSI	1 x 2-lane MIPI CSI camera interface
	Multimedia	H.265 (4Kp60 decode); H.264 (1080p60 decode,1080p30 encode); OpenGL ES 3.0 graphics
Built-In Modules	Real-Time Clock	NXP Semiconductors PCF8563T
		Low backup current; typical 0.25μA at VDD = 3.0 V and Tamb = 25 ℃
	Accelerometer	STMicroelectronics LIS3DHTR
		16-bit, ±2g/±4g/±8g/±16g dynamically selectable full scale
	Encryption	Microchip ATECC608A
		Secure Hardware-Based Key Storage, Asymmetric Sign, Verify, Key Agreement
	Light Sensor	Levelek LS9800
		Digital light sensor (DLS) which Integrated ALS, proximity detection and IR_LED.
	Internal IO Expansion	Microchip MCP23008-E
External I/O	GPIOs	Up to 5 × UART; Up to 5 × I2C; Up to 5 × SPI; 1 × SDIO interface; 1 × DPI (Parallel RGB Display); 1 × PCM; Up to 2× PWM channels; Up to 3× GPCLK outputs
	Vertical expansion interface	1 × PCIe 1-lane Host, Gen 2 (5Gbps); 1 × USB 2.0 port (highspeed); 28 x GPIOs; POE
Power	Input power	5V@4A DC
Mechanical	Dimension	140mm x 95mm x 21mm

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