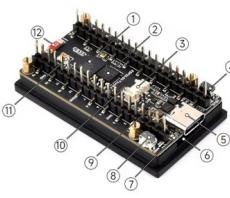


Resource Profile

	1. ESP32-S3R8 Dual core processor running up to 40MHz	6. Micro SD card slot (back) For extended storage, Micro SD card support	10. QM8658 (back) Ball 6-axis inertial sensor (3-axis gyroscope + 3-axis accelerometer)
2. W25Q128 16MB Flash	7. Charging Indicator Lights up when charging, goes out when full	11. IPEXI external antenna interface (touchscreen version only) Need to modify solder joint access	12. Patch ceramic antenna
3. MX125 3.7V Li-Ion Battery Interface For external battery, supports charging and discharging	8. BOOT button For download programmes or entering boot mode	9. WS2812 (back, non-touch version only) On-board antenna design for space saving and signal stability	12. Patch ceramic antenna
4. RESET key System reset for easy debugging	10. OM8658 (back) Ball 6-axis inertial sensor (3-axis gyroscope + 3-axis accelerometer)	11. IPEXI external antenna interface (touchscreen version only) Need to modify solder joint access	12. Patch ceramic antenna
5. USB Type-C port Supports power input and data transfer	6. Micro SD card slot (back) For extended storage, Micro SD card support	10. QM8658 (back) Ball 6-axis inertial sensor (3-axis gyroscope + 3-axis accelerometer)	12. Patch ceramic antenna

LCD screen parameters

Display Panel	LCD	Display Size	1.9 inch
Display Resolution	170 × 320	Display Colour	262K
Display Brightness	500cd/m²	Contrast Ratio	900:1
Communication Interface	SPI	Driver IC	ST7789V2
Touch	Support (with touch version only)	Touch IC	CST816 (with touch version only)



All AllExpress app EUR

LCD Interface	S3 Control Pin	Description
LCD_RST	GPIO9	LCD Reset Pin
LCD_CLK	GPIO10	LCD Clock Pin
LCD_DC	GPIO11	LCD Command /Data Selection Pins
LCD_CS	GPIO12	LCD chip select pin
LCD_DIN	GPIO13	LCD Data Pin
LCD_BL	GPIO14	LCD backlight pin



Touch Controls		
LCD Interface	S3 Control Pin	Description
TP_RST	GPIO17	TP reset pin (NC)
TP_INT	GPIO21	Wedding 15 pin dL
TP_SDA	GPIO47	TP data pin
TP_SCL	GPIO48	TP clock pin

Touch IC:

CST816 (with touch version only)

LCD screen parameters:

Display panel: LCD

Display size: 1.9 inches

Display resolution: 170 × 320

Display color: 262K

Display brightness: 500cd/m²

Contrast ratio: 900:1

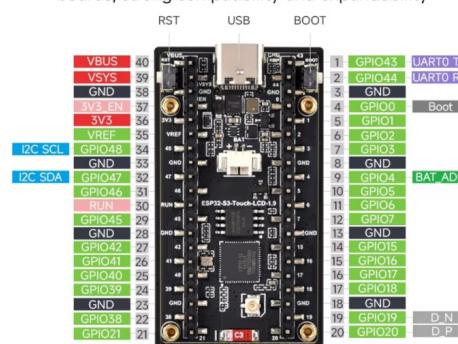
Communication interface: SPI

Driver IC: ST789V2

Touch: Supports (only with touch version)

Touch IC: CST816 (with touch version only)

boards, strong compatibility and expandability



SD CMD | GPIO59
SD DO | GPIO40
SD CLK | GPIO41

GPIO47 | IMU_SDA
GPIO48 | IMU_SCL
GPIO8 | IMU_INT1
GPIO7 | IMU_INT2

■ Power ■ Ground ■ GPIO ■ ADC ■ SDMMC ■ USB ■ System Control ■ I2C