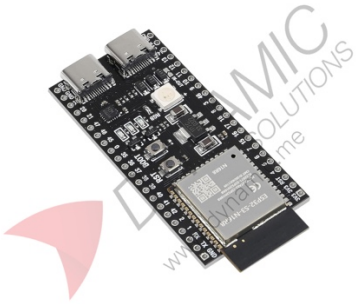
DYNAMIC SOLUTIONS

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ESP32-S3 N16R8 Dual Type-C Board



Features:

The board uses an ESP32-S3 N16R8 module with a dual-core Xtensa LX7 processor at 240MHz, 16MB flash, 8MB Octal PSRAM, 2.4GHz Wi-Fi and Bluetooth 5 LE. One Type-C port connects to the S3 native USB with OTG, and the other to a CH343P USB-to-serial chip for programming. It has an LDO, BOOT and RST buttons, an RGB LED, and PWR, TX and RX LEDs. GPIO35-37 are used by the PSRAM and are not available.

Parameter	
Module	ESP32-S3 N16R8
CPU	Xtensa 32-bit LX7 dual-core with FPU, up to 240 MHz
ROM	384 KB
SRAM	512 KB
RTC SRAM	16 KB
Flash	16 MB
PSRAM	8 MB Octal SPI
Wi-Fi	2.4 GHz 802.11b/g/n, up to 150 Mbps
Bluetooth	Bluetooth 5 LE, Bluetooth mesh
Antenna	Onboard PCB antenna
Operating Voltage	3.3V
Power Supply	USB Type-C or external 5V (5Vin pin)
Supply Current	0.5 A minimum recommended
Peak Current	Wi-Fi TX approx. 355 mA, BLE TX approx. 344 mA
GPIO	36 on module (GPIO35-37 used by PSRAM)
UART	3, up to 5 Mbps
SPI	2 general-purpose (SPI2, SPI3)
I2C	2, up to 800 kbit/s
I2S	2
ADC	2 x 12-bit SAR, 20 channels
Touch	14 capacitive touch GPIOs
USB	Full-speed USB 2.0 OTG, USB Serial/JTAG
USB-to-Serial Chip	CH343P
LCD Interface	8-16 bit parallel RGB, I8080, MOTO6800
Camera Interface	8-16 bit DVP
PWM	LED PWM (up to 14-bit), 2 x MCPWM, RMT
Other Peripherals	PCNT, TWAI (CAN 2.0), SD/MMC host, temperature sensor
USB Ports	2 x Type-C (S3 native USB/OTG, USB-to-serial)
Buttons	BOOT, RST

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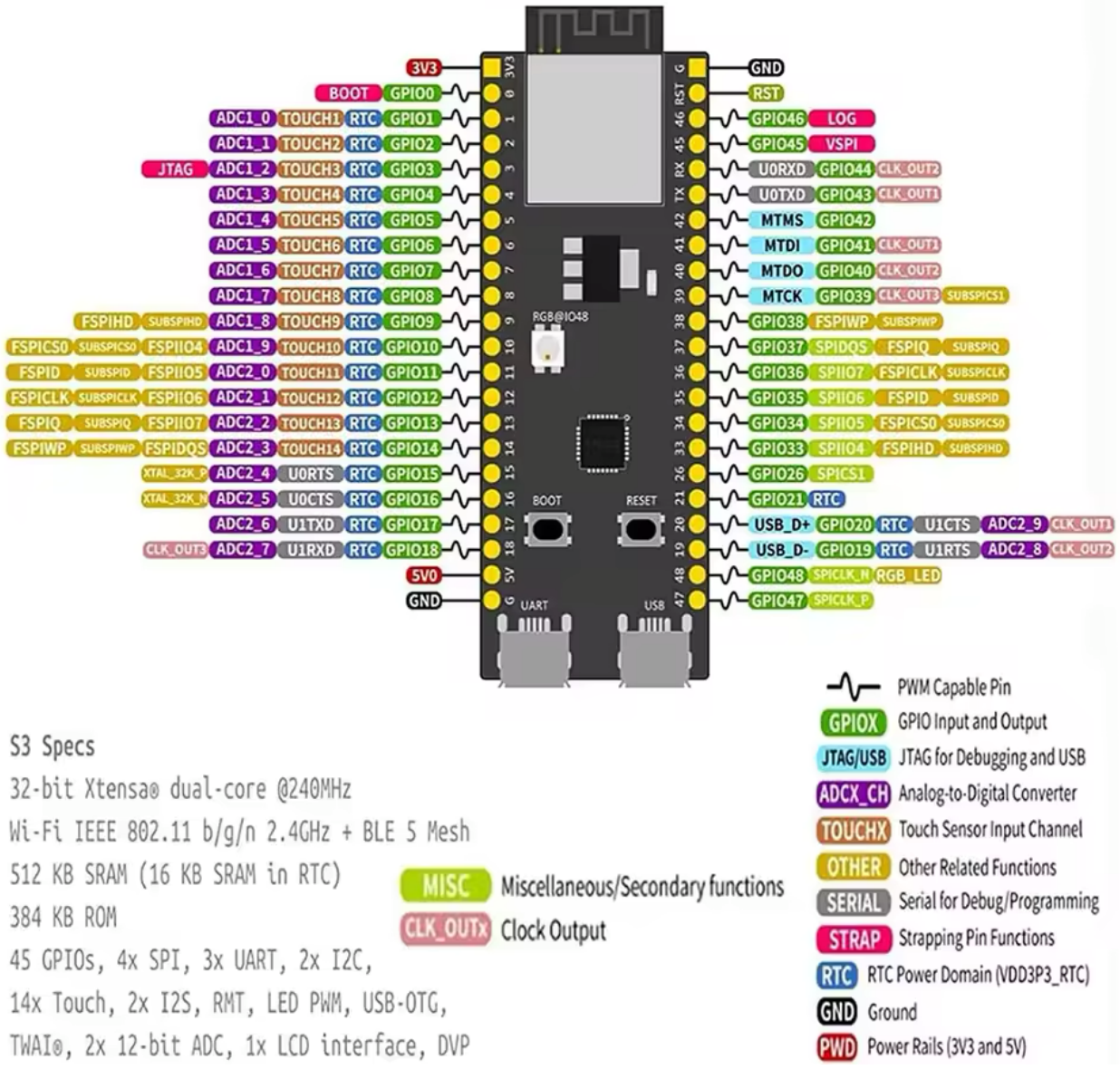
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LEDs	RGB LED, PWR, TX, RX
Headers	2 x 22 pins
Board Size	57 x 28 mm
Operating Temperature	-40C to 65C
Programming	Arduino, ESP-IDF
Usage	AIoT, smart home, IoT and wireless prototyping projects

Pinouts:



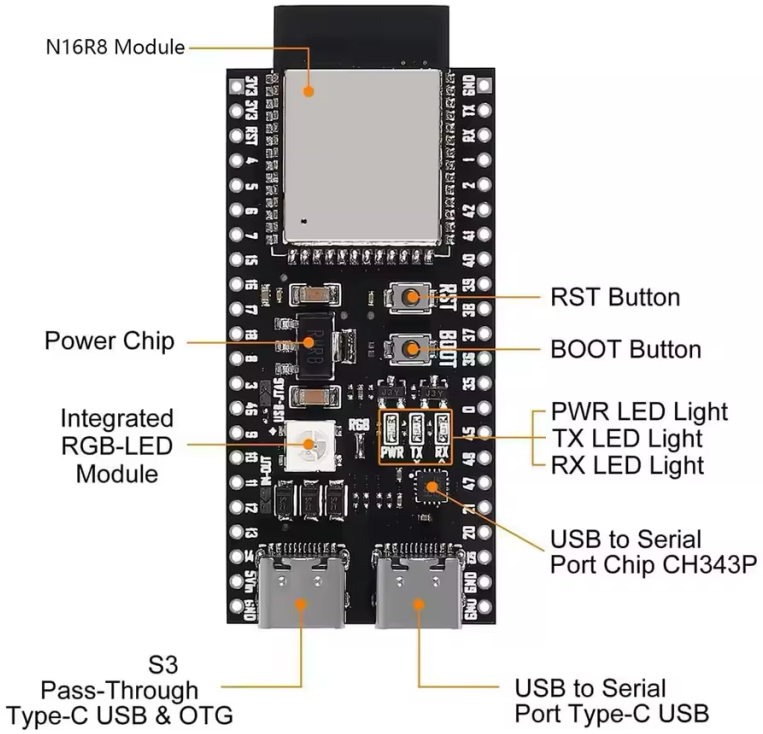
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Hardware:



Product Dimensions:

