



ESP-WROOM-32 - ESP32 WiFi / Bluetooth Modul



Artikel-Nr.:	ESP-32
Hersteller:	BerryBase
EAN:	4251266700616
Herkunftsland:	China
Zolltarifnummer:	85423990
Gewicht:	0.01 kg

Der ESP-WROOM-32 basiert auf Espressifs fortschrittlichstem SoC und verfügt über eine hohe Leistung, eine breite Palette an Peripheriegeräten, Wi-Fi und Bluetooth-Funk, die eine Komplettlösung für fortschrittliche IoT-Anwendungen bieten.

Eigenschaften

- 240 MHz dual core Tensilica LX6 microcontroller with 600 DMIPS
- Integrated 520 KB SRAM
- Integrated 802.11BGN HT40 Wi-Fi transceiver, baseband, stack and LWIP
- Integrated dual mode Bluetooth (classic and BLE)
- 4 MByte flash
- 2.2V to 3.6V operating voltage
- -40°C to +125°C operating temperature
- On-board PCB antenna / IPEX connector for external antenna
- Supports sniffer, station, softAP and Wi-Fi direct modes
- Max data rate of 150 Mbps@11n HT40, 72 Mbps@11n HT20, 54 Mbps@11g, and 11 Mbps@11b
- Maximum transmit power of 19.5 dBm@11b, 16.5 dBm@11g, 15.5 dBm@11n
- Minimum receiver sensitivity of -98 dBm
- 135 Mbps UDP sustained throughput
- 2.5 µA deep sleep current



Wi-Fi	802.11 b/g/n/e/i
	802.11 n (2.4 GHz), up to 150 Mbps
	802.11 e: QoS for wireless multimedia technology
	WMM-PS, UAPSD
	A-MPDU and A-MSDU aggregation
	Block ACK
	Fragmentation and defragmentation
	Automatic Beacon monitoring/scanning
	802.11 i security features: pre-authentication and TSN
	Wi-Fi Protected Access (WPA)/WPA2/WPA2-Enterprise/Wi-Fi Protected Setup (WPS)
	Infrastructure BSS Station mode/SoftAP mode
	Wi-Fi Direct (P2P), P2P Discovery, P2P Group Owner mode and P2P Power Management
	UMA compliant and certified
	Antenna diversity and selection
	Compliant with Bluetooth v4.2 BR/EDR and BLE specification



Bluetooth	Class-1, class-2 and class-3 transmitter without external power amplifier
	Enhanced power control
	+10 dBm transmitting power
	NZIF receiver with -98 dBm sensitivity
	Adaptive Frequency Hopping (AFH)
	Standard HCI based on SDIO/SPI/UART
	High speed UART HCI, up to 4 Mbps
	BT 4.2 controller and host stack
	Service Discover Protocol (SDP)
	General Access Profile (GAP)
	Security Manage Protocol (SMP)
	Bluetooth Low Energy (BLE)
	ATT/GATT
	HID
	All GATT-based profile supported
	SPP-Like GATT-based profile
	BLE Beacon
	A2DP/AVRCP/SPP, HSP/HFP, RFCOMM
	CVSD and SBC for audio codec
	Bluetooth Piconet and Scatternet

ESP32 vs ESP8266:

ESP32	ESP8266
Ethernet MAC Interface	Nicht vorhanden
GPIOs für 10 Touch-Sensoren	Nicht vorhanden
Temperatur-Sensor (on-chip)	Nicht vorhanden
Remote-Controller-Funktionalität	Nicht vorhanden
Hall-Sensor	Nicht vorhanden
Digital-to-Analog Converter (DAC)	Nicht vorhanden
CAN 2.0	Nicht vorhanden



Analog-to-Digital Converter (ADC): 16 Kanäle mit 12-Bit SAR-ADC mit Unterstützung für einen Low-Noise Amplifier (LNA)	10-bit ADC, kein LNA
2 I2C-Schnittstellen	1 I2C-Schnittstelle
16 Kanäle für PWM	8 Kanäle für PWM
GPIOs (General-Purpose Input/Output): 36	GPIOs: 17
4 SPI-Schnittstellen mit Quad-SPI und maximal 80 MHz	3 SPI-Schnittstellen mit Quad-SPI und maximal 80 MHz

Weitere Bilder:

