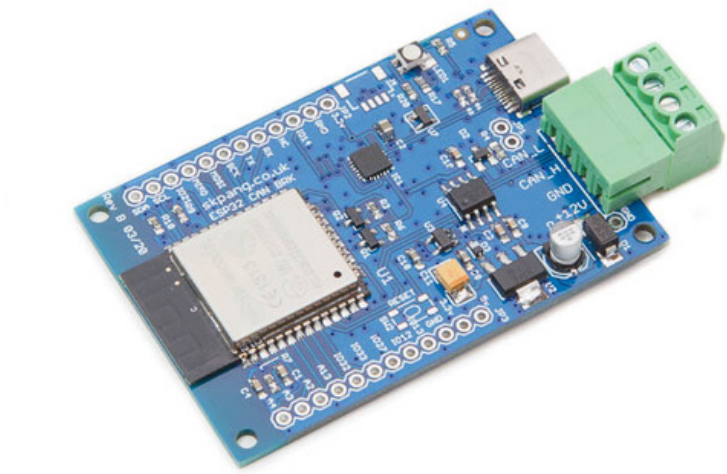
Internet of Things (IoT) Gateway Converts CAN Bus Data to WiFi, Bluetooth, BLE



The ESP32-CANBus modules by Copperhill Technologies, with their integration of WiFi, Bluetooth, and Bluetooth LE, allow a wide range of employment, including industrial, automotive, maritime, and Internet of Things (IoT) applications. The ESP32 series of modules support an extended operating temperature range of -40°C to 85°C and are suitable for commercial application development.

GREENFIELD, Mass. - May 4, 2021 - *PRLog* -- The ESP32 is a series of low-cost, low-power system-on-chip microcontrollers with integrated WiFi and dual-mode Bluetooth. The ESP32 series employs a Tensilica Xtensa LX6 microprocessor in both dual-core and single-core variations and includes built-in antenna switches and an RF balun power amplifier, low-noise receive amplifier, filters, and power management modules.

The ESP32 WiFi, Bluetooth Classic, BLE, CAN Bus Module comes with an onboard ESP32 WROOM-32 WiFi, Bluetooth Classic, BLE Module, and a CAN Bus port with a transceiver. Onboard is an RGB LED, IO pins on a 0.1" pad.

Features

- 240 MHz dual-core Tensilica LX6 microcontroller with 600 DMIPS
- Integrated 512 KB SRAM
- Integrated 802.11b/g/n HT40 WiFi transceiver, baseband, stack and LWIP
- Integrated dual-mode Bluetooth (classic and BLE)
- 4 MByte flash included in the WROOM32 module
- Onboard PCB antenna
- Programming via USB-C connector
- CAN Bus transceiver
- SPI, IIC, I2S, UART ports accessible through onboard connections
- ADC, DAC channels accessible through onboard connections
- External power supply range of 4.5VDC to 46 VDC (nominal: 12 VDC) with reverse polarity protection

- Extended operating temperature range of -40C to +85C

The ESP32 WiFi, Bluetooth Classic, BLE, CAN Bus Module With 3.5" Touch LCD comes with onboard ESP32 WROOM-32 WiFi, Bluetooth Classic, BLE Module, and a CAN Bus transceiver.

Also built-in is an RGB LED plus a 3.5" capacitive touch screen controlled via SPI bus.

The programming is achieved through the USB-to-Serial converter with a USB-C connector, automatic bootloader, and reset.

The board can be powered by the USB port or via an external 7 to 24 VDC supported by the onboard SMPS supply.

Features

- 240 MHz dual-core Tensilica LX6 microcontroller with 600 DMIPS
- Integrated 520 KB SRAM
- Integrated 802.11b/g/n HT40 Wi-Fi transceiver, baseband, stack and LWIP
- Integrated dual-mode Bluetooth (classic and BLE)
- 4 MByte flash include in the WROOM32 module
- Onboard PCB antenna
- Programming via USB-C connector
- CAN Bus transceiver
- 480x320 3.5" capacitive touch screen
- RGB LED
- Power by USB or external 7 to 24 VDC with onboard SMPS supply

Both modules come with extensive documentation, i.e., user manual, schematics, and programming samples.

Copperhill Technologies Corporation's focus is on the development and sales of embedded systems for Controller Area Network, SAE J1939, and NMEA 2000. Copperhill Technologies is a member of SAE (Society of Automotive Engineers) and NMEA.

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State/Province	Massachusetts
Country	United States
Industry	Automotive, Computers, Electronics, Industrial, Technology
Tags	Canbus, Sae J1939, NMEA 2000, ESP32, Automotive, Maritime, Bluetooth, Wifi, Ble, Gateway
Link	https://prlog.org/12868199

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