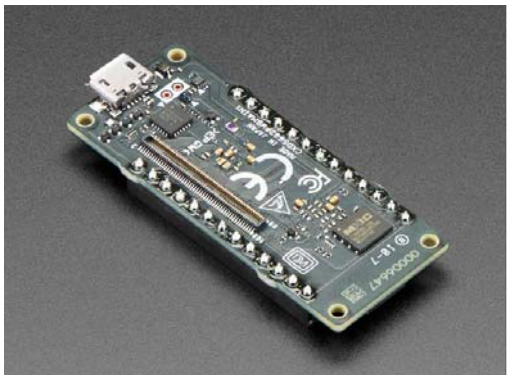
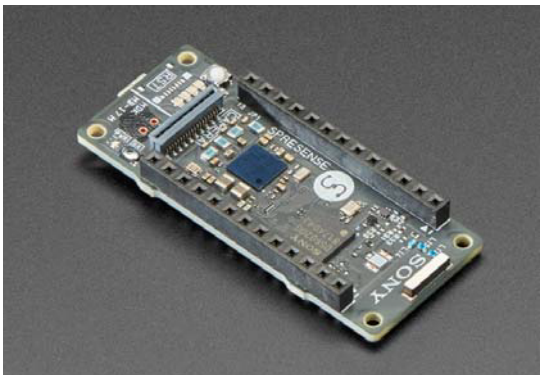




Sony Spresense Main Board - CXD5602 PRODUCT ID: 4419

SPRESENSE is a low-power board computer for the IoT that is equipped with a GPS receiver and supports High-Resolution Audio codecs. The board allows for IoT versatility and can be developed for a vast range of uses, such as a drone utilizing the GPS and high-performance processor, a smart speaker utilizing High-Resolution Audio recording and playback as well as the built-in full-digital amplifier, or a low-power time-lapse camera utilizing the camera interface. SPRESENSE will make the IoT smarter and more efficient.

Here's a compact development board based on Sony's power-efficient multicore microcontroller CXD5602. It allows developers to create applications in a very short time and is supported by the Arduino IDE as well as the more advanced NuttX based SDK.

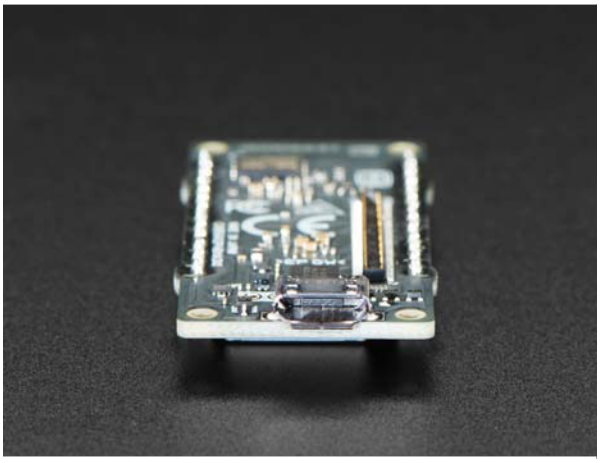
- Integrated GPS - The embedded GNSS with support for GPS, QZSS and GLONASS enables applications where tracking is required.
- Hi-res audio output and multi mic inputs - Advanced 192kHz/24 bit audio codec and amplifier for audio output, and support for up to 8 mic input channels.
- Multicore microcontroller - Spresense is powered by Sony's CXD5602 microcontroller (ARM® Cortex®-M4F × 6 cores), with a clock speed of 156 MHz.

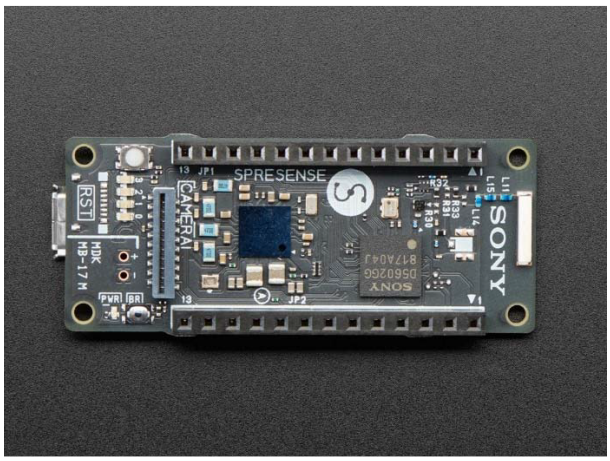
Despite its compact footprint of only 6.5 x 6.5mm, Sony's CXD5602 microcontroller runs 6 ARM Cortex-M4F cores with a clock speed of up to 156MHz and has an integrated GPS. Thanks to the FD-SOI (Fully Depleted Silicon On Insulator) production process, the CXD5602 chip is very power efficient which enables battery-dependent use cases.

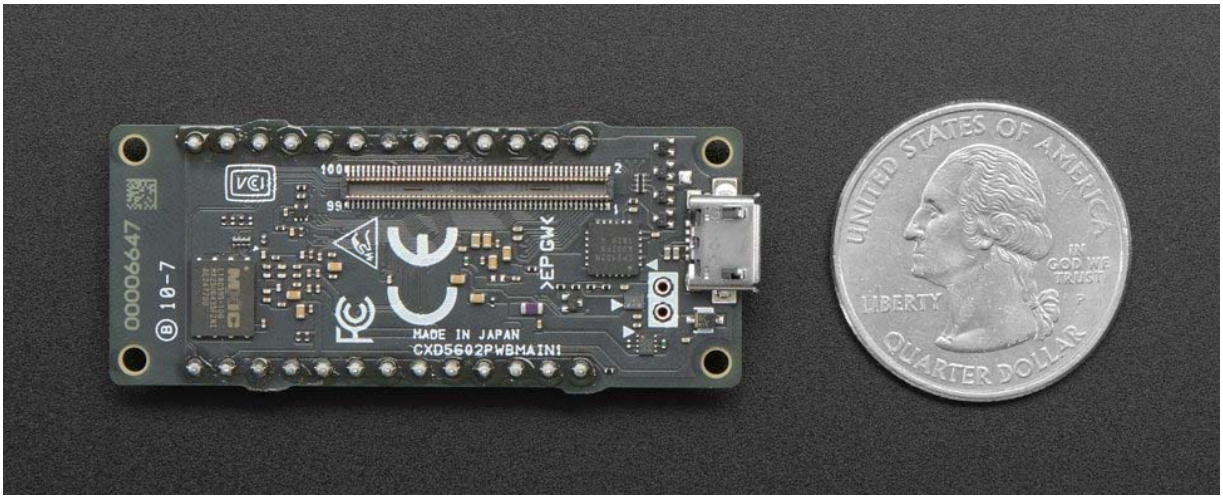
TECHNICAL DETAILS

Specifications:

- Follow this link for more information on Sony's CXD5602 microcontroller
- GitHub Repository
- Spresense hardware and software guides and documentation
- FAQ
- Model name: CXD5602PWBMAIN1
- Size: 50.0mm x 20.6mm
- CPU: ARM® Cortex®-M4F x 6 cores
- Maximum clock frequency: 156MHz
- SRAM: 1.5MB
- Flash memory: 8MB
- Digital input / output: GPIO, SPI, I2C, UART, I2S
- Analog input: 2ch (0.7 V range)
- GNSS: GPS(L1-C/A), QZSS(L1-C/A), GLONASS(L1), WAAS, QZSS(L1-S)
- Camera input: Dedicated parallel interface
- Operating conditions: Temperature: 10 - 40℃, Humidity: 30% - 80% (no condensation)
- Storage conditions: Temperature: -20 - 60℃, Humidity: 10% - 80%







https://wwwdafruit.com/product/4419/12-4-19