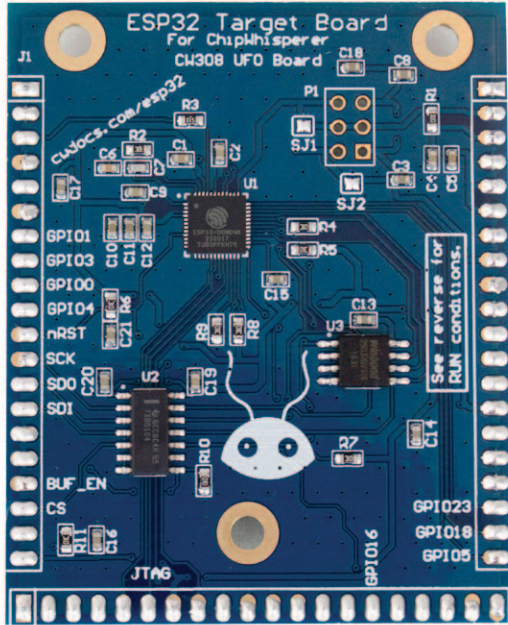




# ESP32 UFO Target



The ESP32 baseboard has the popular low-cost ESP32 device. This device features a Tensilica Xtensa LX6 core and has numerous interesting peripherals, including hardware AES engine.

It also features secure boot using the AES engine. The included example runs the AES hardware core and sends/receives data using the standard Simple Serial protocol. This allows direct usage with the ChipWhisperer software.

Note an external USB serial cable (recommended) or SPI flash programmer is required to program this target.

The RF antenna is not routed on this board, and cannot be used.

<b>CW308 UFO Baseboard REQUIRED for use!</b>
<b>Programmer REQUIRED for use!</b>

## Product Highlights

Espressif ESP32-D0WDQ6 target device.

SPI Flash chip includes bidirectional buffer to allow (a) programming of on-board SPI flash chip with external programmer, (b) sniffing SPI traffic without loading data lines, and (c) triggering on SPI traffic.

Example implementation of SimpleSerial using hardware AES core provided with ESP32 build system.

Can monitor either the VDD\_CPU and VDD\_RTU supplies using an optional jumper.

ESP32 built in serial bootloader allows programming device using only a USB-Serial cable (not included). This allows programming of both external (SPI Flash) and internal (EFUSE) memory.

## Ordering Summary

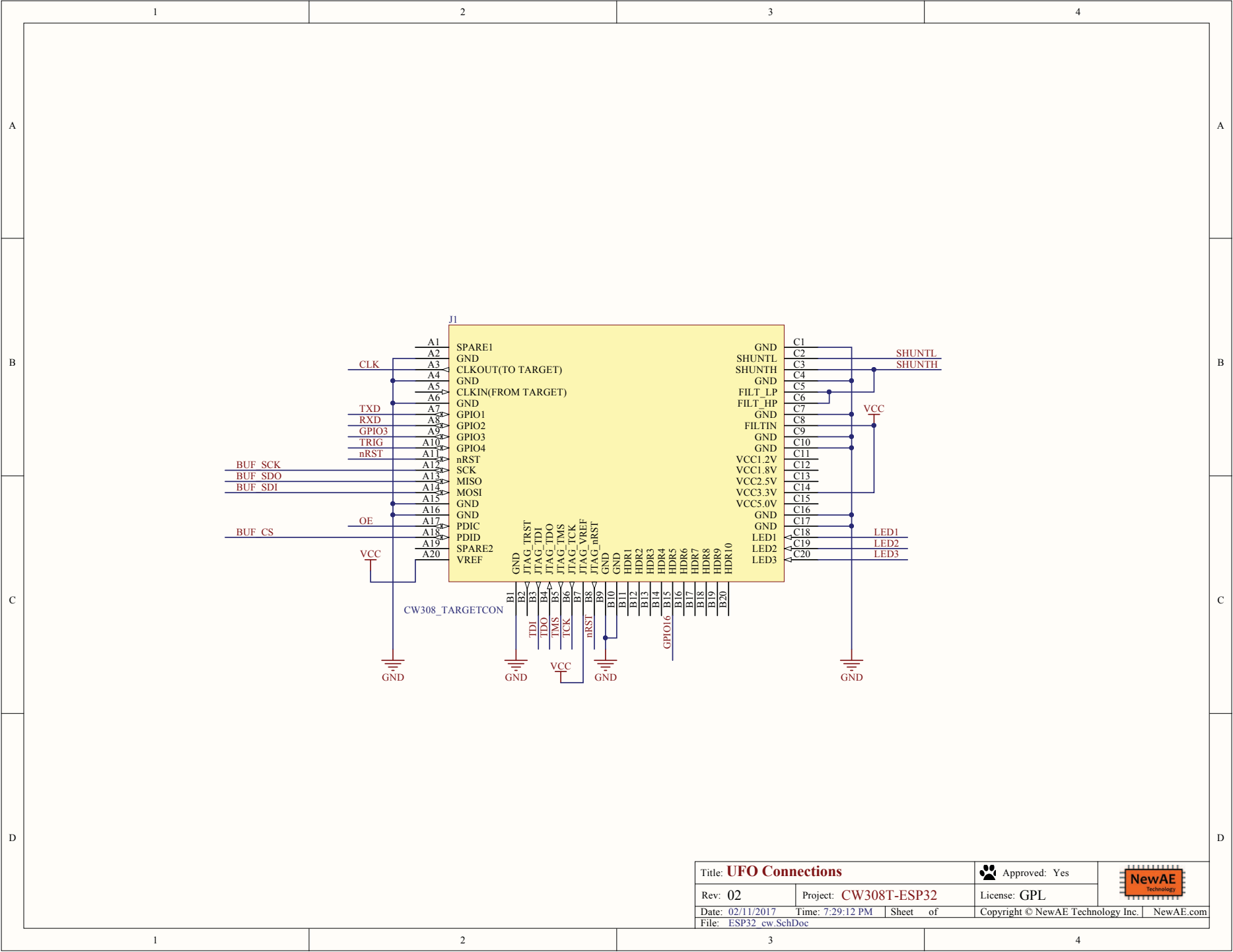
NAE-CW308T-ESP32 Espressif ESP32-D0WDQ6 UFO Target Board.


## Product Links

Full Documentation <https://wiki.newae.com/CW308T-ESP32>

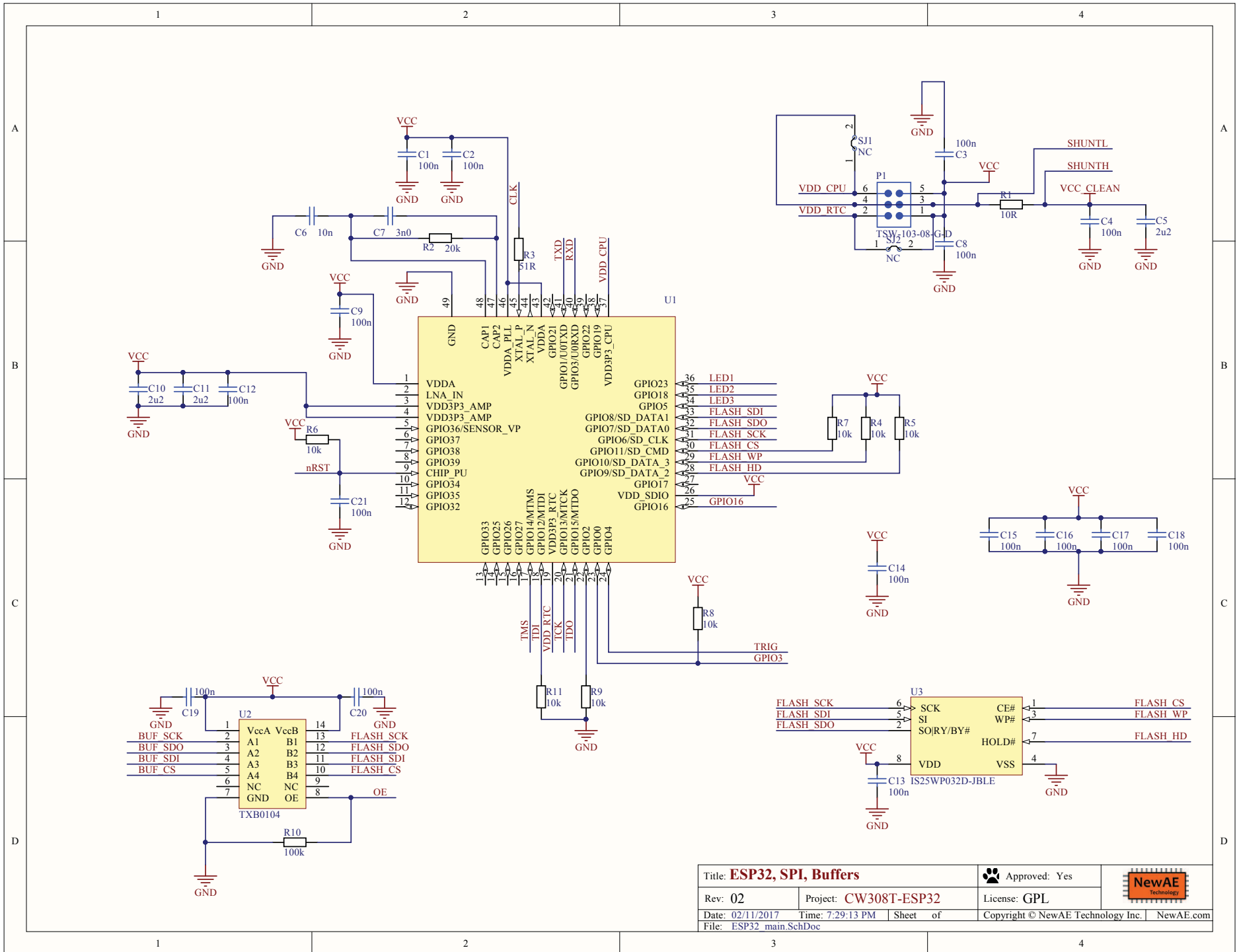
Firmware Example <https://github.com/newaetech/chipwhisperer/tree/develop/hardware/victims/firmware/esp32/simpleserial>

# Schematic



Title: <b>UFO Connections</b>		Approved: Yes	
Rev: 02	Project: CW308T-ESP32	License: GPL	
Date: 02/11/2017	Time: 7:29:12 PM	Sheet of	Copyright © NewAE Technology Inc.   NewAE.com
File: ESP32_cw.SchDoc			

# Schematic



Title: <b>ESP32, SPI, Buffers</b>		Approved: Yes	
Rev: 02	Project: CW308T-ESP32	License: GPL	
Date: 02/11/2017	Time: 7:29:13 PM	Sheet of	Copyright © NewAE Technology Inc. NewAE.com
File: ESP32_main.SchDoc			

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