



ESP32s3 Temperature Sensor handling



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Preparation questions about the ESP32s3 temperature sensor low-level handling.

You should answer in the question order as most of the questions rely on the previous answer.

You have to read Section 39.4 of the [reference](#) manual to answer the questions.

Question 1: Control register name of the temperature sensor

✓ Correct! ✕

Provide the name of the temperature sensor control register as found in the reference manual of the ESP32s3 SoC.

SENS_SAR_TSENS_CTRL_REG

Question 2: Sensor registers base address

✓ Correct! ✕

Provide the base address of the sensor registers.

0x6000_8800

Question 3: Control register offset of the temperature sensor

✓ Correct! ✕

What is the offset of the temperature sensor control register w.r.t base address provided in the previous question?

0x0050

Question 4: C definition for the control register of the temperature sensor

✓ Correct! ✕

Define the temperature sensor control register in a C macro.

HINT: Suppose that the address from Question 2 is defined in a macro called S3_SENS.

```
#define SENS_SAR_TSENS_CTRL_REG REG(S3_SENS)[20]
```

Question 5: Temperature sensor activation

✓ Correct! ✕

Write C code enabling the temperature sensor according to the specification of the ESP32s3 reference manual.

HINT1: You must use the register definition provided in Question 4.

HINT2: Follow the syntax defined [here](#) and order the bits in little endian, i.e., in growing order (from LSB to MSB).

```
SENS_SAR_TSENS_CTRL_REG |= BIT(22) | BIT(23);
```

Soumettre