PI PICO Specification details

UART :

which stands for Universal Asynchronous Receiver/Transmitter, is a popular communication protocol used in microcontrollers and other embedded systems. It is a serial communication protocol that allows for the transmission and reception of data between devices. UART communication is asynchronous, meaning that there is no separate clock signal shared between the devices.

The Raspberry Pi Pico is a microcontroller development board featuring the RP2040 microcontroller, which is designed by the Raspberry Pi Foundation. The RP2040 is not based on the ARM Cortex architecture; instead, it uses a dual-core ARM Cortex-M0+ processor.

Here are some key features of the RP2040 microcontroller:

1. **Dual-Core ARM Cortex-M0+**: The RP2040 microcontroller features two ARM Cortex-M0+ cores running at up to 133 MHz Having dual cores allows for more efficient multitasking and handling of concurrent tasks.

2. **Memory**: The RP2040 has 264 KB of SRAM, which is used for data storage and execution by the processor. It does not have built-in flash memory, but it supports external QSPI Flash for program storage.

SPI :

which stands for Serial Peripheral Interface, is a synchronous serial communication protocol widely used for communication between microcontrollers, sensors, displays, memory devices, and other peripheral components in embedded systems. It allows for the exchange of data between a master device and one or more peripheral devices using a master-slave communication model.

SPI is synchronous, meaning that data is transferred between devices based on a shared clock signal. Both the master and slave devices must use the same clock frequency for proper communication.

```c
#include <stdio.h>

int main() {
    printf("Hello, world!");
    return 0;
}
```