

1. Description

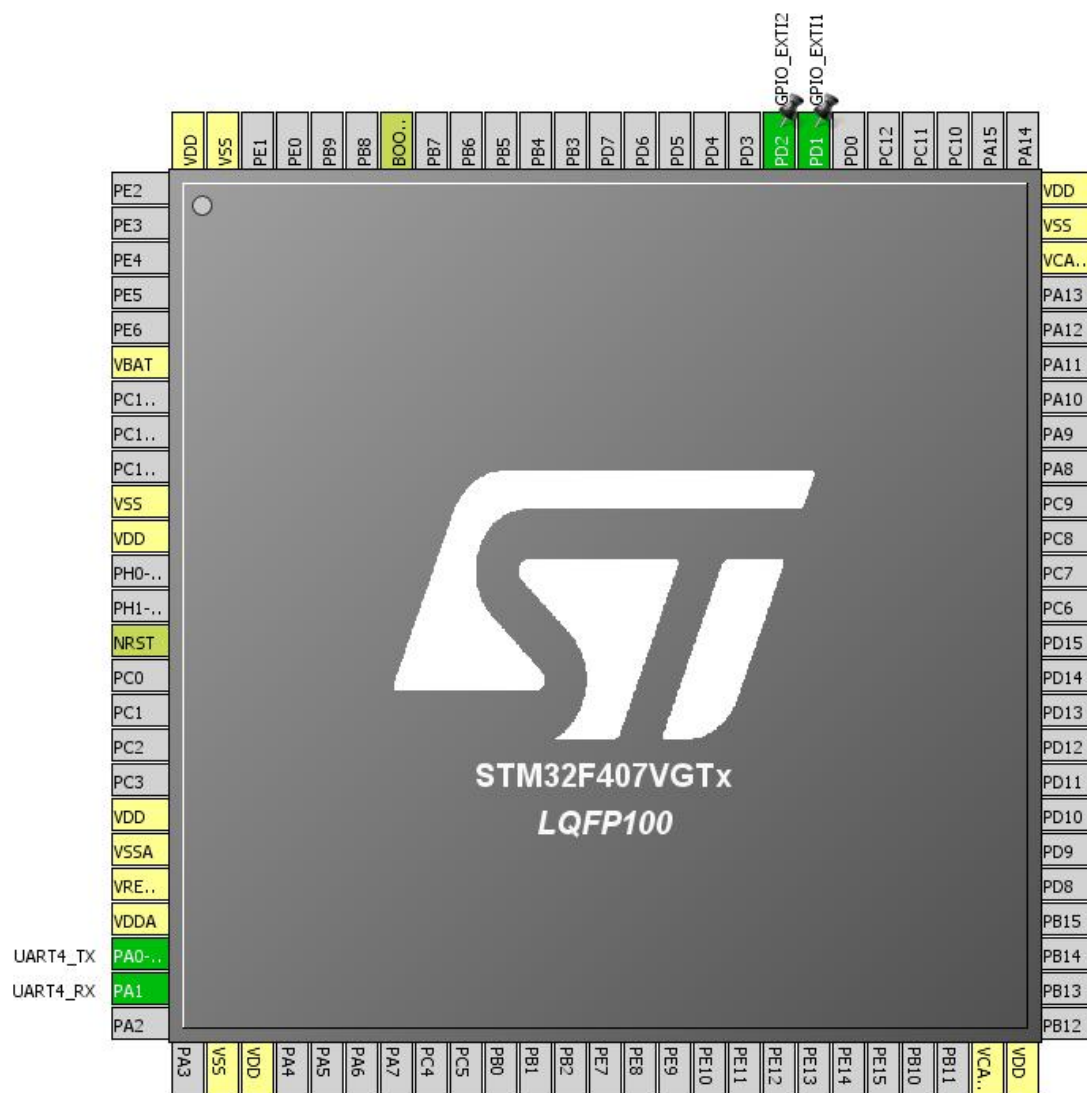
1.1. Project

| | |
|-----------------|--------------------|
| Project Name | UART-TX-INT |
| Board Name | UART-TX-INT |
| Generated with: | STM32CubeMX 4.11.0 |
| Date | 02/07/2016 |

1.2. MCU

| | |
|----------------|---------------|
| MCU Series | STM32F4 |
| MCU Line | STM32F407/417 |
| MCU name | STM32F407VGTx |
| MCU Package | LQFP100 |
| MCU Pin number | 100 |

2. Pinout Configuration



3. Pins Configuration

| Pin Number LQFP100 | Pin Name (function after reset) | Pin Type | Alternate Function(s) | Label |
|-----------------------|---------------------------------------|----------|--------------------------|-------|
| 6 | VBAT | Power | | |
| 10 | VSS | Power | | |
| 11 | VDD | Power | | |
| 14 | NRST | Reset | | |
| 19 | VDD | Power | | |
| 20 | VSSA | Power | | |
| 21 | VREF+ | Power | | |
| 22 | VDDA | Power | | |
| 23 | PA0-WKUP | I/O | UART4_TX | |
| 24 | PA1 | I/O | UART4_RX | |
| 27 | VSS | Power | | |
| 28 | VDD | Power | | |
| 49 | VCAP_1 | Power | | |
| 50 | VDD | Power | | |
| 73 | VCAP_2 | Power | | |
| 74 | VSS | Power | | |
| 75 | VDD | Power | | |
| 82 | PD1 | I/O | GPIO_EXTI1 | |
| 83 | PD2 | I/O | GPIO_EXTI2 | |
| 94 | BOOT0 | Boot | | |
| 99 | VSS | Power | | |
| 100 | VDD | Power | | |

5. IPs and Middleware Configuration

5.1. UART4

Mode: Asynchronous

5.1.1. Parameter Settings:

Basic Parameters:

| | |
|-------------|---------------------------|
| Baud Rate | 115200 |
| Word Length | 8 Bits (including Parity) |
| Parity | None |
| Stop Bits | 1 |

Advanced Parameters:

| | |
|----------------|----------------------|
| Data Direction | Receive and Transmit |
| Over Sampling | 16 Samples |

* User modified value

6. System Configuration

6.1. GPIO configuration

| IP | Pin | Signal | GPIO mode | GPIO pull/up pull down | Max Speed | User Label |
|-------|----------|------------|--|------------------------|---------------|------------|
| UART4 | PA0-WKUP | UART4_TX | Alternate Function Push Pull | Pull-up | High * | |
| | PA1 | UART4_RX | Alternate Function Push Pull | Pull-up | High * | |
| GPIO | PD1 | GPIO_EXTI1 | External Interrupt Mode with Falling edge trigger detection | Pull-up * | n/a | |
| | PD2 | GPIO_EXTI2 | External Interrupt Mode with Falling edge trigger detection | Pull-up * | n/a | |

6.2. DMA configuration

nothing configured in DMA service

6.3. NVIC configuration

| Interrupt Table | Enable | Preenmption Priority | SubPriority |
|--|--------|----------------------|-------------|
| System tick timer | true | 0 | 0 |
| EXTI line1 interrupt | true | 0 | 0 |
| EXTI line2 interrupt | true | 0 | 0 |
| UART4 global interrupt | true | 0 | 0 |
| Non maskable interrupt | unused | | |
| Memory management fault | unused | | |
| Pre-fetch fault, memory access fault | unused | | |
| Undefined instruction or illegal state | unused | | |
| Debug monitor | unused | | |
| PVD interrupt through EXTI line 16 | unused | | |
| Flash global interrupt | unused | | |
| RCC global interrupt | unused | | |

* User modified value

7. Power Plugin report

7.1. Microcontroller Selection

| | |
|-----------|---------------|
| Series | STM32F4 |
| Line | STM32F407/417 |
| MCU | STM32F407VGTx |
| Datasheet | 022152_Rev5 |

7.2. Parameter Selection

| | |
|-------------|-----|
| Temperature | 25 |
| Vdd | 3.3 |

8. Software Project

8.1. Project Settings

| Name | Value |
|-----------------------------------|---|
| Project Name | UART-TX-INT |
| Project Folder | G:\4th comp\GP\Codes\HAL\UART-HAL\UART-Interrupt-Mode\UART-TX-INT |
| Toolchain / IDE | EWARM |
| Firmware Package Name and Version | STM32Cube FW_F4 V1.9.0 |

8.2. Code Generation Settings

| Name | Value |
|---|---|
| STM32Cube Firmware Library Package | Copy all used libraries into the project folder |
| Generate peripheral initialization as a pair of '.c/.h' files | No |
| Backup previously generated files when re-generating | No |
| Delete previously generated files when not re-generated | Yes |
| Set all free pins as analog (to optimize the power consumption) | No |