|  |  |  |  |
| --- | --- | --- | --- |
| System Interrupts | | | |
| Mode | Timer Settings | | |
| TX | Tim2 | Pre-Scaler  (Effective Frequency) | 9-1 *(10MHz)* |
| Reload Count | 100 |
| Timer Purpose | This period timer is used for the DAC to reference how long to hold a value for output wave generation. |
| Tim3 | Pre-Scaler  (Effective Frequency) | 90-1 *(1MHz)* |
| Reload Count | 828 |
| Timer Purpose | Global interrupt forces the DAC to progress to next bit through specified array.  method: bitToAudio() |
| Tim4 | Pre-Scaler  (Effective Frequency) |  |
| Reload Count |  |
| Timer Purpose |  |

|  |  |  |  |
| --- | --- | --- | --- |
| System Interrupts | | | |
| Mode | Timer Settings | | |
| RX | Tim2 | Pre-Scaler  (Effective Frequency) | 2-1 *(40MHz)* |
| Reload Count | 4294967295 (max) |
| Timer Purpose | Using Timer 2 in output compare mode. This will trigger to check if there has been a change in frequency. |
| GPIO | None |
| Tim3 | Pre-Scaler  (Effective Frequency) | 80-1 *(1MHz)* |
| Reload Count | 104 |
| Timer Purpose | Currently forces a global interrupt to ensure valid frequencies are still coming in. |
| GPIO | None |
| Tim4 | Pre-Scaler  (Effective Frequency) | 2-1 *(40MHz)* |
| Reload Count | 65535 (max) |
| Timer Purpose | Using Timer 4 in input capture mode. This timestamps the time rising edges occur for Timer 2 output compare. |
| GPIO | PB6 / D10 |