|  |  |  |  |
| --- | --- | --- | --- |
| System Interrupts | | | |
| Mode | Timer Settings | | |
| TX | Tim2 | Pre-Scaler  (Effective Frequency) | 2-1 *(40MHz)* |
| Reload Count | 400 |
| Timer Purpose | Using Timer 2 global interrupt to trigger for DAC to progress through sine wave. |
| GPIO | PA15 (No Input/Output) |
| Tim3 | Pre-Scaler  (Effective Frequency) | 80-1 *(1MHz)* |
| Reload Count | 828 |
| Timer Purpose | Using Timer 3 global interrupt to force correct baud rate on DAC output. |
| GPIO | None |
| Tim5 | Pre-Scaler  (Effective Frequency) | 2-1 *(40MHz)* |
| Reload Count | N/A |
| Timer Purpose | NOT USED IN TRANSMISSION LOGIC |
| GPIO | PA15 (No Input/Output) |

|  |  |  |  |
| --- | --- | --- | --- |
| 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 | PA15 (No Input/Output) |
| Tim3 | Pre-Scaler  (Effective Frequency) | 80-1 *(1MHz)* |
| Reload Count | N/A |
| Timer Purpose | NOT USED IN RECEIVING LOGIC |
| GPIO | None |
| Tim5 | Pre-Scaler  (Effective Frequency) | 2-1 *(40MHz)* |
| Reload Count | 4294967295 (max) |
| Timer Purpose | Using Timer 5 in input capture mode. This timestamps the time rising and falling edges that occur for Timer 2 output compare. |
| GPIO | PA0 / A0 (Input Trigger) |