**Algorithm for outputting 32MHz clock from DIO5 of transceiver to MCU:**

NOTE 1: The transceiver takes in the actual XTAL connected on pins XTA (47) and XTB(45) at the startup time

NOTE 2: CLKOUT (DIO5) is controlled through RegDioMapping2

* 1. Immediately after reset, DIOs are configured as **Outputs ( that means we don’t have to set them as outputs)**
  2. Map RegDioMapping2 –address 0x26
  3. Select clock out frequency (Pg. 115)
  4. Port Memory Space given in 115 to set RegDioMapping2
  5. The ClkOut functionality is controlled by programming transceiver Register RegDioMapping2 (0x26) (see Section 7.10, “IRQ and Pin Mapping Registers”):

1. Get the base address of IRQ and Pin Mapping Registers?
2. Go to the offset 0x26 to access REgDioMapping2 address
   1. Write the appropriate value (000-111) on the bits 0-2 to get appropriate clock frequency output ( Refer to page #47 in **MKW01xx Reference Manual, Rev. 2🡪 Note there are two different datasheet with the same name)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Value |  |  |  |  |  | 0 | 0 | 0 |
| Bits | 7 | 6 | 5 | 4 | 3 | **2** | **1** | **0** |

The values are as follows

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 111 | 110 | 101 | 100 | 011 | 010 | 001 | 000 |
| Off | 62.5K | 1M | 2M | 4M | 8M | 16M | 32MHz |