**SET LOW CBX**

**Inputs Needed:**

* Target Frequency
* Data Rate
* Integer N Mode
* Device Sub Function
* Destination

**Input Values:**

1. Target Frequency - Integer Value (Eg. 2000000000)

2. Data Rate - Integer Value (Eg. 200000000)

3. Integer N Mode - True or False flag

4. Device Sub Function -

* 0 for TX
* 1 for RX/Default

5. Destination -

* Radio\_Perif\_0
* Radio\_Perif\_1
* Global
* Radio\_0\_I2C
* Radio\_1\_I2C
* Global\_I2C
* Radio\_0\_SPI
* Radio\_1\_SPI
* Global\_SPI

6. **Constant Registers are needed in Input --> Not passes as Input but defined in the function.**

Constant Register 0:

|  |  |
| --- | --- |
| **Field** | **Value** |
| INT\_MODE | False |
| INT | 125 |
| FRAC | 0 |
| C3 | False |
| C2 | False |
| C1 | False |

Constant Register 1:

|  |  |
| --- | --- |
| **Field** | **Value** |
| CPOC | False |
| CPL | 1 |
| CPT | 0 |
| Phase | 1 |
| MOD | 4095 |
| C3 | False |
| C2 | False |
| C1 | True |

Constant Register 2:

|  |  |
| --- | --- |
| **Field** | **Value** |
| LDS | False |
| SDN | 3 |
| MUX | 1 |
| DBR | False |
| RDIV2 | False |
| R | 1 |
| REG4BD | False |
| CP | 8 |
| LDF | False |
| LDP | False |
| PDP | True |
| SHDN | False |
| TRI | False |
| RST | False |
| C3 | False |
| C2 | True |
| C1 | False |

Constant Register 3:

|  |  |
| --- | --- |
| **Field** | **Value** |
| VCO | 0 |
| VAS\_SHDN | False |
| RETUNE | True |
| CDM | 0 |
| CDIV | 1 |
| C3 | False |
| C2 | True |
| C1 | True |

Constant Register 4:

|  |  |
| --- | --- |
| **Field** | **Value** |
| FB | True |
| DIVA | 0 |
| BS | 0 |
| BDIV | True |
| RFB\_EN | False |
| BPWR | 0 |
| RFA\_EN | True |
| APWR | 3 |
| C3 | True |
| C2 | False |
| C1 | False |

Constant Register 5:

|  |  |
| --- | --- |
| **Field** | **Value** |
| F01 | True |
| LD | 1 |
| MUX | False |
| C3 | True |
| C2 | False |
| C1 | True |

**Sub Modules:**

* CreateMax2870Packets (Stand alone program for possible reusability)

**Inputs Needed:**

1. Constant Register 5

2. Constant Register 4

3. Constant Register 3

4. Constant Register 2

5. Constant Register 1

6. Constant Register 0

7. Device Sub Function

8. Destination

CreateMax2870Packets module also internally calls DestinationEncoding(Stand alone program for possible reusability) module to Encode the Destination Value.

**Details of the DestinationEncoding are in the Destination Encoding Document.**

**Output:**

* LO Frequency
* Coerce Frequency
* Packets (7 packets - 1 header packet, 6 constant register packets respectively)

**Format of packets can be found in Data Packet Format Document.**