LMK04820 Family SPI Read Back

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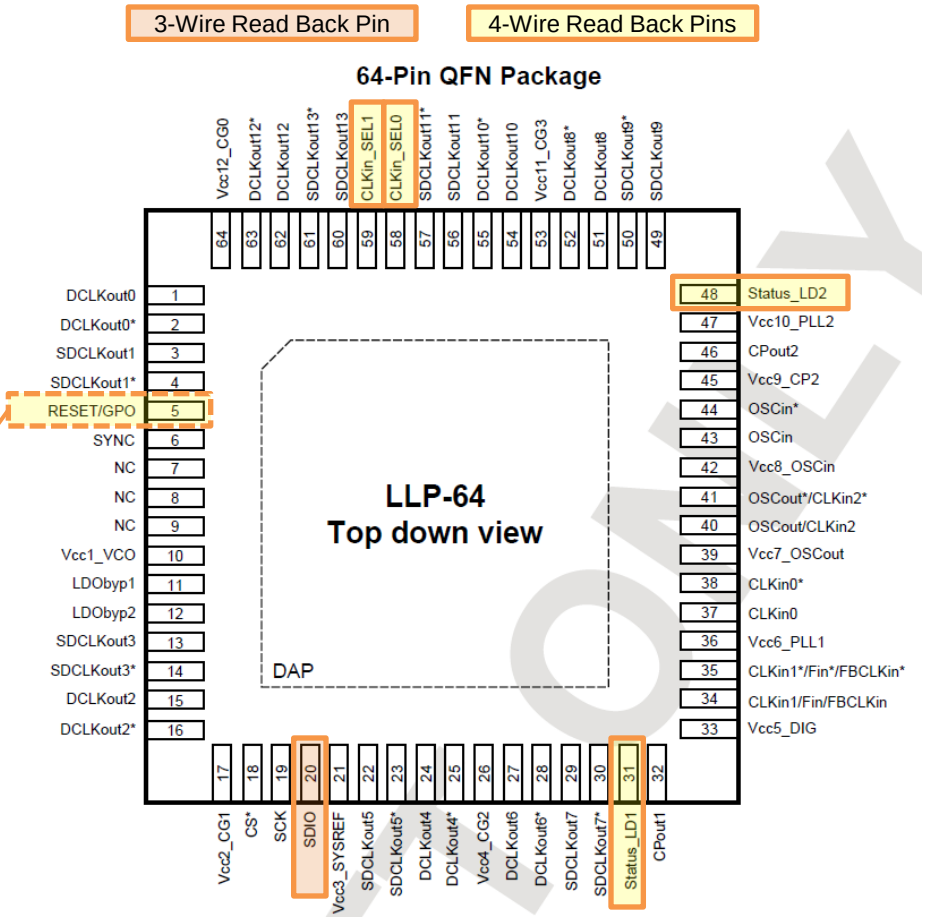
LMK0482x Read Back Pins

- 4-Wire Mode
  SPI_3WIRE_DIS = X
  (Register 0x000[4])
  - **CLKin_SEL0 (Pin 58)**
    - CLKin_SEL0_MUX = (6, SPI read back)
      (Register 0x148[5:3])
  - **CLKin_SEL1 (Pin 59)**
    - CLKin_SEL1_MUX = (6, SPI read back)
      (Register 0x149[5:3])
  - **Status_LD1 (Pin 31)**
    - PLL1_LD_MUX = (7, SPI read back)
      (Register 0x15F[7:3])
  - **Status_LD2 (Pin 48)**
    - PLL2_LD_MUX = (7, SPI read back)
      (Register 0x16E[7:3])
  - **RESET/GPO (Pin 5)**
    - RESET_MUX = (6, SPI read back)
    - (Register 0x149[5:4])
    - Warning: Power on default is for RESET is input with active high functionality. This means if pin 5 is used for read back but is held high inadvertently by system before changing RESET_TYPE to output, then system will be held in reset, SPI commands will have no effect until RESET pin is set low.

In addition to programming ???_MUX to SPI read back option, the corresponding ???_TYPE must be programmed to an output type:
3 = Output (push-pull), 4= Output inverted (push-pull), 5 = Output (open source), 6 = Output (open drain)



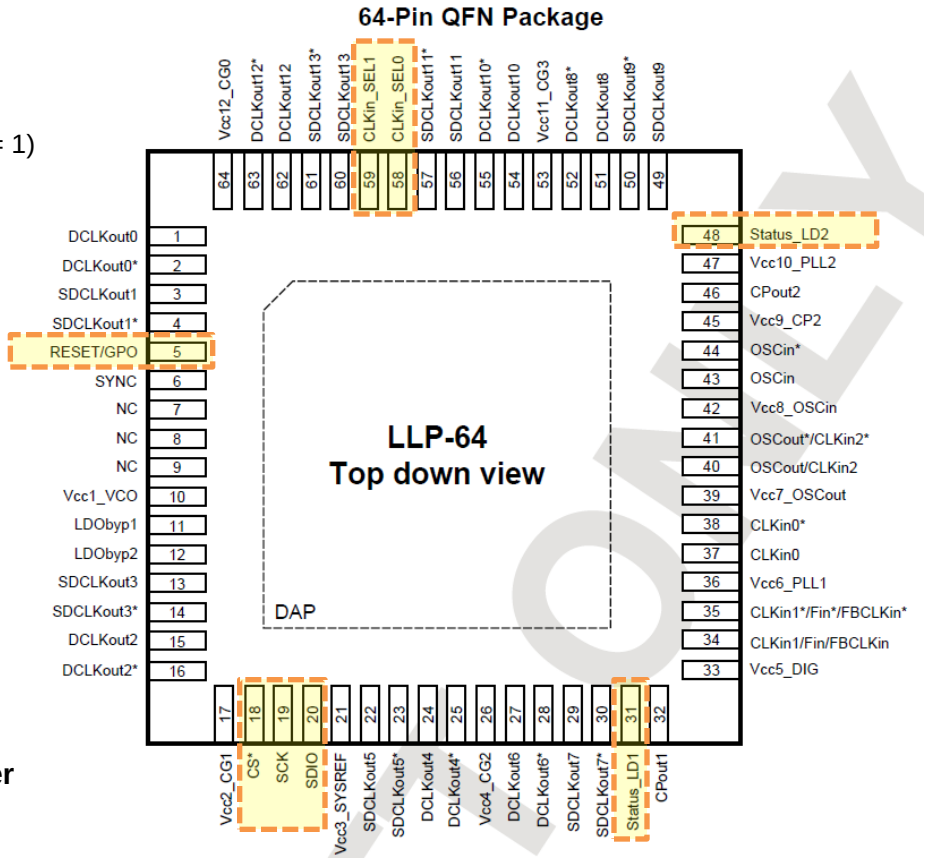
- 3-Wire Mode
  SPI_3WIRE_DIS = 0
  (Register 0x000[4])
  - **SDIO (Pin 20)**
    - Push/Pull Output
      SDIO_RDBK_TYPE (Register 0x149[6]) = 0
    - Open Drain Output
      SDIO_RDBK_TYPE (Register 0x149[6]) = 1

1.8 V Compliance: No pin will exceed 1.8 V levels on POR

Some pins may exceed 1.8 V when explicitly programed.

- RESET/GPO
  - POR = Input with pull down. (RESET_TYPE = 2)
  - Can be programmed to 3.3 V
- CS* - Input, High impedance.
- SCK - Input, High impedance.
- SDIO – Input, High impedance.
  - POR = When read back output, open drain. (SDIO_RDBK_TYPE = 1)
  - Can be programmed to 3.3 V when in read back.
- Status_LD1
  - POR = Output with open drain (PLL1_LD_TYPE = 6)
  - Can be programmed to 3.3 V
- Status_LD2
  - POR = Output with open drain (PLL2_LD_TYPE = 6)
  - Can be programmed to 3.3 V
- CLKin_SEL0
  - POR = Input with pull down. (CLKin_SEL0_TYPE = 2)
  - Can be programmed to 3.3 V
- CLKin_SEL1
  - POR = Input with pull down. (CLKin_SEL1_TYPE = 2)
  - Can be programmed to 3.3 V

- **For use of pins which can be programmed to 3.3 V on 1.8 V systems, output must be programmed to open drain mode and used with an external pull-up resistor to 1.8 V or any other desired rail voltage.**



History

- 2013-02-07 TT created with read back pin info.
- 2013-08-21 TT added 1.8 V compliance info. Update with SPI_3WIRE_DIS info.