Jumper J5 is used to control I/O pullups during FPGA configuration.

Open (default) to float I/O output during FPGA configuration.

Set jumper 1:2 to enable I/O pullups during FPGA configuration.

Jumper J35, J36 and J37 are used to set dataout output state.

Configure J35 and J36 to setup outputs idle state as follows:

00 = (J35 and J36 open) --> High-Z (default)
01 = (J35 closed and J36 open) --> Clamp/HVR_SW
11 = (J35 and J36 closed) --> Clamp
10 = (J35 open and J36 closed) --> Clamp

Open J37 (default) to connect FPGA outputs
Close J37 to disconnect outputs (High-Z)
When using backup oscillator X1, R126 have to be unmounted and R6 must be placed.

Place R7 (1%) close to the clock source DS1088LU-66 device.
**FPGA Configuration**

Configuration mode selection:

- **FPGA_MODE0** = Parallel (low) or Serial (high)
- **FPGA_MODE1** = Master (low) or Slave (high)

When **FPGA_MODE0** (bidirectional open-drain) is low the configuration memory is being cleared. When held low, the start of configuration is delayed.

During configuration, a low on this output indicates that a configuration data error has occurred.

**SPI Flash Ctrl Signals**

Place R38 close to the FPGA device.
FPGA BANK 3 NOT USED
Use J38 to enable/disable power for SPI flash device. J38 must be open when using external SPI flash device on connect J20. Default value closed.

**MCU**

**OSCILLATOR**

**OPTIONAL FPGA I/O**

**OPTIONAL FPGA CONFIGURATION SIGNALS**