

# Multi Function... Pin Settings

The Multi-Function dialog gives the user access to the configuration settings pertaining to the fault pins on the device. The configuration settings allow users to:

- › Enable or disable pins
- › Map specific faults to external pins
- › Configure how the pins are driven for system compatibility
- › Firmware functions

**For all pins there are some common settings**

## Drive

- Output Buffer type to be use for the pin
- Open Drain: can pull to GND, need an external resistor for pullup
- CMOS: Actively driven output signal

## Polarity

- Logic signal polarity for the pin. Should it be High or Low level when the related signal is active.

The screenshot shows the 'Multi Function - 0x7C' dialog box with the 'Pin Settings' tab selected. The dialog is divided into several sections for configuring different pins:

- MP\_BVRREADY:** Function: Loop B VR\_READY, Polarity: Active High, Drive: Open Drain.
- MP\_FAULT2:** Function: Fault2, Polarity: Active High, Drive: CMOS.
- MP\_IMON:** Function: Loop A lout, Polarity: Active High, Drive: CMOS.
- MP\_BVREN:** Function: Loop B VR\_EN, Polarity: Active High, Drive: Open Drain.
- MP\_FAULT1:** Function: Fault1, Polarity: Active High, Drive: CMOS.
- MP\_PINALERT#:** Function, Polarity, and Drive fields are empty.
- VR\_EN Selection:** Loop A: AVR\_EN, Loop B: MP\_BVREN.
- LPM Output Selection:** Two checkboxes are checked: 'Loop A Selected' and 'Loop B Selected'.

At the bottom of the dialog are three buttons: 'Write', 'Close', and 'Refresh'. A red arrow points from the 'Polarity' label in the text box above to the 'Polarity' dropdown menu in the 'MP\_FAULT2' section of the dialog.

# Multi Function... Pin Settings

Depending on selected part some selections may be grayed out and not available.

## MP\_BVRREADY Function

- Function that will be mapped to **MP\_BVRREADY** pin

## MP\_BVREN Function

- Function that will be mapped to **MP\_BVREN** pin

## VR\_EN Selection

- Pin that will be use for VR\_EN function for a specific loop

## MP\_FAULT2 Function

- Function that will be mapped to **MP\_FAULT2** pin

## MP\_FAULT1 Function

- Function that will be mapped to **MP\_FAULT1** pin

## LPM Output Selection

- Low power mode selector that asserts the signal when the selected loop is either disabled or in PS4 active only when LPM is selected for a pin.

## MP\_IMON Function

- Function that will be mapped to **MP\_IMON** pin

## MP\_PINALERT# Function

- Power In alert,

Multi Function - 0x3E

**Pin Settings** | Fault Signal

**MP\_BVRREADY**  
 Function: BVR\_RDY  
 Polarity: Active High  
 Drive: CMOS

**MP\_FAULT2**  
 Function: Unused  
 Polarity: Active High  
 Drive: CMOS

**MP\_IMON**  
 Function: Loop A Fast OC Warning  
 Polarity: Active High  
 Drive: CMOS

**MP\_BVREN**  
 Function: BVR\_EN  
 Polarity: Active High  
 Drive: CMOS

**MP\_FAULT1**  
 Function: Unused  
 Polarity: Active High  
 Drive: CMOS

**MP\_PINALERT#**  
 Function: Unused  
 Polarity: Active Low  
 Drive: Open Drain

**VR\_EN Selection**  
 Loop A: AVR\_EN  
 Loop B: MP\_BVREN

**LPM Output Selection**  
☐ Loop A Selected  
☐ Loop B Selected

**MP\_SMBALERT#**  
 Function: Unused  
 Polarity: Active High  
 Drive: Open Drain

**MP Pin Status**  
 MP\_BVRRDY Low MP\_Fault2 Low MP\_IMON Low VR\_EN Low  
 MP\_BVREN Low MP\_Fault1 Low MP\_PINALERT# Low **Read**

Write to device Read from device Close Help

## MP Pin status

Click Read button to see status of the different Pins

# Multi Function... Fault Signal

## Output Pin

Displays which controller pin the Fault1/2 signal will be routed to

## Loop A/B Selected

Checked: selected fault(s) from the corresponding loop(s) will be routed to the output pin  
 Unchecked: no fault from the loop will be routed to the output pin

## Persistence

Duration of the indicated fault before being cleared

Latch: de-asserted by toggling OE, recycling 3.3V or sending CLEAR\_FAULTS

Hiccup: de-asserted if fault condition is removed

## Signal Mapping

Selection panel for which fault signals should be reported and sent out to the Fault pin. Multiple Signals can be selected. Signal which is sent out will still appear in the Telemetry/Fault Detail

