



IGLOO Icicle Kit

Quick Start Guide

1. How to Start the demo

- 1.1. Upon power up, the display will default to a random pattern.
- 1.2. To display the message associated with the default design shipped with the Icicle Kit:
 - 1.2.1. Push SW1 to reset the board
 - 1.2.2. Then press SW5 to enable and initialize the display.
 - 1.2.3. The message ACTEL IGLOO will be displayed.
 - 1.2.4. *If this message is not displayed or flickers badly, the board may have a manufacturing test design installed. In this case, simply reprogram the board with the STAPL file included on the IGLOO Icicle Kit CD.*
- 1.3. To cause display to scroll continuously:
 - 1.3.1. Push SW5 a second time. Further presses of SW5 will have no affect on the display.
- 1.4. Once the message is scrolling, pushing SW1 will reset the board and freeze the message.
- 1.5. To re-initialize the display, push SW5 once and to re-activate the scroll, push SW5 a second time.
- 1.6. If the Flash*Freeze mode is initiated while the display is active, the display retains its current state. At this point, the FPGA is no longer driving the display. Since the information has already been written to the OLED assembly, the display will continue to show the same message. Upon exiting the Flash*Freeze mode, the display will also retain its current state and function as described above.
 - 1.6.1. In Flash*Freeze, the Current Sense LED will turn on to show Low Current Mode.
 - 1.6.2. The LED counter design will stop and restart from the same count when it comes out of F*F

Table of Default Jumper Settings and Current measurement		
Jumper	Default Position	Comment
JP2	(1, 2)	Power for V_{CC} , current measurement ok
JP3	(1, 2)	3.3V Power for V_{CCI} , current measurement ok
JP4	(2, 3)	Flash*Freeze from SW3; position (1, 2) is for internal Flash*Freeze (mode 2)
JP5	Empty	External power source can be applied here
JP9	(2, 3)	V_{CC} is 1.2V except in programming; position (1, 2) fixes V_{CC}
JP10	(1, 2)	Applies power to V_{CCPLF}
JP11	(1, 2)	Vertical orientation for battery and USB power
<i>Do not connect a DMM across pins (1, 2) of JP11 for current measurement as the USB Change over circuit is sensitive to inductance. Better to connect an external 5V supply to JP5 and then put a DMM in current mode across (2, 3) for measuring board power.</i>		

Table for User Peripherals				
Peripheral	Comment	AGL125 I/O Name	Pin on QN132	Pin on VQ100
D1	LED	IO96RSB1	A17	33
D2	LED	IO95RSB1	B16	34
D3	LED	IO94RSB1	A18	35
SW1	Reset Switch	GAA2/IO67RSB1	C1	2
Clock	20MHz	GFB0/IO123RSB1	A7	11
Flash*Freeze	SW3 and JP4	FF/GEB2/IO105RSB1	B12	27
For other peripherals and details on the interface card, see the User Guide				

