8 way JTAG repeater jumper settings Rev 0.1 MRD

The Xilinx JTAG programmer drives out the “DATAin” bit to the first iBob.
The last iBob drives out the “DATAout” bit to the Xilinx JTAG programmer

JTAG repeater connectors

J1 connects to the Xilinx JTAG programmer.

J10 5 test points for the JTAG Datain signal and the outputs from the first 4 iBobs (1..4)
odd numbered pins are ground, even pins are the signals. Do NOT short any of these non-ground pins to each other. Ever.

J12 4 test points for the JTAG data outputs from the last 4 iBobs (5..8)
odd numbered pins are ground, even pins are the signals. Do NOT short any of these non-ground pins to each other. Ever.

J11 4 bypass points to optionally shunt the data from iBobs 1..4 to the next iBob (2..5) or jumper back to the programming pod

J13 4 bypass points to optionally shunt the data from iBobs 5..8 to the next iBob (6..8) or back to the programming pod

0 ohm shunts 0.1” pitch eg Kobiconn 1151-8000 same part number at www.mouser.com

jumper cable is used to deliver the final iBob's JTAG data out pin to the Xilinx programmer when there are less than 8 iBobs in use.
It is about 4” long 24 AWG with receptacle crimp terminal for 0.025” square pins at both ends
Sample crimp terminal part number is Molex 0986581211 but there are many others that will work

Number of 'iBobs	iBob 1 first	iBob 2	iBob 3	iBob 4	iBob 5	iBob 6	iBob 7	iBob 8 last
8	J2	J3	J4	J5	J6	J7	J8	J9
	J11 0 ohm shunts		1 to 2	3 to 4	5 to 6	7 to 8		
	J13 0 ohm shunts		1 to 2	3 to 4	5 to 6	7 to 8		
	jumper		Not used					
7	J2	J3	J4	J5	J6	J7	J8	J9: not used
	J11 0 ohm shunts		1 to 2	3 to 4	5 to 6	7 to 8		
	J13 0 ohm shunts		1 to 2	3 to 4				
	jumper		J13-5 to J13-8					
6	J2	J3	J4	J5	J6	J7	J8: not used	J9: not used
	J11 0 ohm shunts		1 to 2	3 to 4	5 to 6	7 to 8		
	J13 0 ohm shunts		1 to 2	3 to 4				
	jumper		J13-3 to J13-8					
5	J2	J3	J4	J5	J6	J7: not used	J8: not used	J9: not used
	J11 0 ohm shunts		1 to 2	3 to 4	5 to 6	7 to 8		
	J13 0 ohm shunts		1 to 2					
	jumper		J13-1 to J13-8					
4	J2	J3	J4	J5	J6: not used	J7: not used	J8: not used	J9: not used
	J11 0 ohm shunts		1 to 2	3 to 4	5 to 6			
	J13 0 ohm shunts		none					
	jumper		J11-7 to J13-8					
3	J2	J3	J4	J5: not used	J6: not used	J7: not used	J8: not used	J9: not used
	J11 0 ohm shunts		1 to 2	3 to 4				
	J13 0 ohm shunts		none					
	jumper		J11-5 to J13-8					
2	J2	J3	J4: not used	J5: not used	J6: not used	J7: not used	J8: not used	J9: not used
	J11 0 ohm shunts		1 to 2					
	J13 0 ohm shunts		none					
	jumper		J11-3 to J13-8					
1	J2	J3: not used	J4: not used	J5: not used	J6: not used	J7: not used	J8: not used	J9: not used
	J11 0 ohm shunts		none					
	J13 0 ohm shunts		none					
	jumper		J11-1 to J13-8					

It is OK to leave iBobs connected to JTAG repeater board even if they are not part of the JTAG chain.
It is OK to leave JTAG data 0 ohm shunts installed even if those iBobs have been removed from the JTAG chain.

An unused jumper cable can be left connecting, for example, J10 pin 1 and J12 pin 1 so it will be readily available in the future.
This connects ground to ground so is about as safe as can be.