

Opencore and other soft core processors

uP_cores_ test folder	opencores name	status	author	style/ clone	dat a	inst size	PGA	reporte r	com ment	LUTs ALUT	LUTs ULUT	bits ram	Max Fmax	tool ver	MIP S	clocks/ LUT	src code	# src files	top file	do c	tool cat	flg pt	Ha vd	max inst	byt e	# inst	# reg	pipe len	start year	last revs	reference	note worthy	comments						
A	1	copyblaze	copyblaze	stable	Abdallah Elilbrhimi	picoblaze	8	18	spartan-6	James Br	missir	619	6	86	##	14.7	0.33	2.0	22.8	vhdl	16	cp	copyv	yes	asm	N	256	2K	Y		2011	2013	microblaze data sheet	wishbone extras	does not infer RAM for registers				
A	1	copyblaze	copyblaze	stable	Abdallah Elilbrhimi	picoblaze	8	18	kintex-7	James Br	missir	622	6	217	##	14.7	0.33	2.0	57.5	vhdl	16	cp	copyv	yes	asm	N	256	2K	Y		2011	2013	microblaze data sheet	wishbone extras	does not infer RAM for registers				
A	1	OpenRISC	OpenRISC	stable	Adam Edwards	OpenRISC	32	1045																															
W	1	blue	16-bit CPU Blue	stable	AI Williams	accum	16	13	spartan-3	James Br	remov	1025	4	63	##	14.7	0.67	1.0	41.1	verilog	16	topbox	web	yes	yes	N	4K	4K	N	16	2	2009	2010	Caxton Foster's Blue derivative	http://www.youtube.com/watch?v=4t4E29Bw8				
X	1	vtach	VTACH Bell Labs	mature	AI Williams	vtach	13	12	spartan-3	James Br	akefile	557	4	71	##	14.7	0.50	1.0	64.1	verilog	16	vtach	yes	yes	N	256	256	Y		2013	2013	ISE project only, BCD arithmetic							
X	1	vtach	VTACH Bell Labs	mature	AI Williams	vtach	13	12	kintex-7	James Br	xilinx core pr	6																											
A	1	6809_6309	6809_6309	beta	Alejandro Paz Schr	6809	8	8x	spartan-6	James Br	akefile	2061	6	109	##	14.7	0.33	3.0	5.8	verilog	5	MC6809	cpu	yes	N	64K	64K	Y		2012	2013	6809 data sheets	includes 6309 op-codes, xilinx & lattice projects						
A	1	6809_6309	6809_6309	beta	Alejandro Paz Schr	6809	8	8x	kintex-7	James Br	akefile	2207	6	212	##	14.7	0.33	3.0	10.6	verilog	5	MC6809	cpu	yes	N	64K	64K	Y		2012	2013	6809 data sheets	includes 6309 op-codes, xilinx & lattice projects						
A	1	ao486	ao486	beta	Aleksander Osman	ao486	8	8x	cyclone-4	James Br	akefile	1255	4	122	##	13.1	1.00	1.0	9.5	verilog	12	ao486	yes	yes	N	4K	4K	Y		2014	2014	886 data sheets	function on Terasic DE2-115 board						
A	1	ao486	ao486	beta	Aleksander Osman	ao486	8	8x	cyclone-4	James Br	akefile	35872	4	4	##	13.1	1.00	1.0	12	verilog	85	ao486	yes	yes	N	4K	4K	Y		2014	2014	886 data sheets	complete 486, SOC configuration	non-SOC, no MMU					
A	1	ao68000	ao68000	beta	Aleksander Osman	68000	16	16x	arrisa-2	James Br	akefile	3479	4	6	169	##	13.1	0.67	3.0	10.8	verilog	1	ao68000	som	yes	N	4G	4G	Y		2010	2011	68000 data sheets	uses microcode, instruction prefetch buffer					
A	1	aoocs	aoOCS - Wishbon	beta	Aleksander Osman	68000	16	16x	cyclone-3	James Br	pin constraint	4																											
A	1	openfire	OpenFire Proce	alpha	Alex Marschner, St	uRISC	32	32	kintex-7	James Br	emip project	6																											
A	1	aoCS	Alex Mico	stable	Alex Mico	aoCS	8	8x	kintex-7	James Br	gate level des	6																											
A	1	microRISC II	MicroRISC II	alpha	Alkhat	RISC	32	32																															
W	1	sayeh	sayeh	process	Alireza Haghdost	RISC	16	16	kintex-7	James Br	akefile	479	6	164	##	14.7	0.67	1.0	229.7	verilog	13	sayeh	yes	yes	N	64K	64K	Y		2012	2009	2009	haghdost.persiangig	simple RISC					
A	1	encore	Encore	planning	Aloy Ambergren																																		
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-4	Altera		2065	4	160		1.13	1.0	87.2	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-2	Altera		1355	4	170		1.13	1.0	141.1	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-5	Altera		1050	4	133		1.13	1.0	17.4	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-5	Altera		1355	4	280		1.13	1.0	232.5	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	stratix-5	Altera		895	4	310		1.13	1.0	389.7	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-4	Altera		1915	4	170		0.64	1.0	43.2	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-2	Altera		1045	4	130		0.64	1.0	103.4	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-5	Altera		785	4	140		0.64	1.0	113.4	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-5	Altera		1045	4	250		0.64	1.0	104.5	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	stratix-5	Altera		650	4	300		0.64	1.0	293.4	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-4	Altera		1080	4	170		0.15	1.0	23.6	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-2	Altera		730	4	300		0.15	1.0	61.6	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	cyclone-5	Altera		420	4	320		0.15	1.0	71.4	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	arrisa-5	Altera		730	4	200		0.15	1.0	65.8	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	stratix-5	Altera		445	4	340		0.45	1.0	114.6	not avail																				
A	1	nios2	nios2	proprietary	Altera	Nios II	32	32	stratix-5	Altera		445	4	340		0.45	1.0	114.6	not avail																				
A	1	critic_cpu	CRISC CPU	planning	Andre Adrian	68000	16	16x																															
A	1	af5k	alpha	stable	Andre Fachat	6502	16	16x	kintex-7	James Br	syntrax errors	6																											
W	1	alwcpu	AlwCPU	alpha	Andreas Hilvarsson	RISC	16	16	kintex-7	James Br	akefile	298	6	237	##	14.7	0.67	1.0	53.3	vhdl	7	top	some	N	64K	64K	Y		16	2009	2009		extended 6502 with 16, 32 & 64 bit data						
A	1	avrtiny610	avrtiny610	beta	Andreas Hilvarsson	AVR	8	16	kintex-7	James Br	akefile	1243	6	194	##	14.7	0.33	1.0	51.5	vhdl	1	mcu	core	yes	N	64K	128K	Y		32	2008	2009	AVR data sheets						
A	1	151	151 mcu	stable	Andreas Voggenet	8051	8	8x	kintex-7	James Br	akefile	1942	6	1	147	##	14.7	0.33	4.0	6.2	vhdl	17	T8052	yes	yes	N	64K	64K	Y		2002	2010	8032 data sheets	8052 & 8032	8032 SoC				
A	1	151	151 mcu	stable	Andreas Voggenet	8051	8	8x	kintex-7	James Br	akefile	1921	6	1	127	##	14.7	0.33	4.0	9.5	vhdl	17	T8052	yes	yes	N	64K	64K	Y		2002	2010	8032 data sheets	8052 & 8032	8032 SoC				
A	1	151	151 mcu	stable	Andreas Voggenet	8051	8	8x	arrisa-2	James Br	probe	3049	6	1	111	##	13.1	1.00	4.0	3.0	vhdl	17	T8052	yes	yes	N	64K	64K	Y		2002	2010	8032 data sheets	8052 & 8032	8032 SoC				
A	1	151	151 mcu	stable	Andreas Voggenet	8051	8	8x	arrisa-2	James Br	probe	4704	6	1	89	##	13.1	1.00	4.0	1.6	vhdl	17	T8052	yes	yes	N	64K	64K	Y		2002	2010	8032 data sheets	8052 & 8032	8032 SoC				
W	1	nige_machine	nige_machine	stable	Andrew Read	forth	32	8	kintex-7	James Br	akefile	5033	6	8	33	123	##	14.7	0.33	1.0	24.5	vhdl	29	Board	yes	yes	N	16M	16M	512	512	2004	2014		standalone Forth system				
A	1	openfire2	OpenFire2	beta	Antonio Anton	uRISC	32	32	kintex-7	James Br	akefile	381	6	1	3	##	14.7	1.00	1.0	28	verilog	29	OpenFire	yes	yes	N	16M	16M	512	512	2007	2012	uRISC data sheets	standalone Forth system	derived from Stephan Craven's OpenFire				
A	1	openfire2	OpenFire2	beta	Antonio Anton	uRISC																																	

W	hive	hive	stable	Eric Wallin	4-8 stack	32	16	arrja-2	James Brakefield	905	A	8	19	284	##	13.1	1.00	1.0	313.4	verilog	12	core	yes	N	Y	256	2K	N	40	10	8	2013	2014	4-8 symmetrical stacks, eight threads via pipeline barrel	
W	natalius_80b	Natalius 8 bit RISC	beta	Fabio Guzman	RISC	8	16	spartan-3e	James Brakefield	385	A	2	50	##	14.7	0.11	3.0	5.7	verilog	12	natalius	yes	asm	N	Y	256	2K	Y	29	8	2012	2012	return stack & register file		
W	natalius_80b	Natalius 8 bit RISC	beta	Fabio Guzman	RISC	8	16	spartan-3e	James Brakefield	232	A	1	175	##	14.7	0.11	3.0	27.7	verilog	12	natalius	yes	asm	N	Y	256	2K	Y	29	8	2012	2012	return stack & register file		
W	l1_core	S1 Core	stable	Fabrizio Fazzino et al	SPARC	64	32	arrja-2	James Brakefield	5434	A	6	57	50	##	14.7	1.00	1.0	0.9	verilog	136	s1_top	yes	N	N	4G	4G	Y	32	2007	2012	SPARC data sheets	3 clocks/inst		
A	m1_core	M1 Core	stable	Fabrizio Fazzino, Alt	SPARC	64	32	spartan-3	James Brakefield	5434	A	6	57	50	##	14.7	1.00	1.0	0.9	verilog	136	s1_top	yes	N	N	4G	4G	Y	32	2007	2012	SPARC data sheets	reduced version of OpenSPARC T1		
X	diogenes	diogenes	beta	Fekihhfer	RISC	16	16	spartan-3	James Brakefield	807	A	1	297	##	14.7	0.67	1.0	246.3	vhdl	11	cpu	yes	yes	N	N	1K				2008	2009	GCC target?	"student RISC system"		
X	mc6809e	mc6809e	beta	Flint Weller	RISC	8	8x	spartan-3	James Brakefield	807	A	1	297	##	14.7	0.33	3.0		vhdl	26	cpu	yes	yes	N	N	64K	64K	Y		1999		6809 data sheets	course work, ASIC orientation		
A	16507lp	16507LP	beta	Gabriel Oshiro, San	OpenRISC	32	32	spartan-6	James Brakefield	196	A	4			##	14.7	4.0			verilog	22	16507lp	yes	yes	N	N	64K	64K	Y		2009	2010	6502 data sheets	for use in ATARI 2600	
A	or1200_soc	or1200_soc	beta	George Shaw	OpenRISC	32	32	spartan-3	James Brakefield	196	A	4			##	14.7	1.0	1.0		verilog	22	not avail	yes	yes	N	N	4G	4G	Y	32	2009	2010	6502 data sheets	OpenRISC on Terasic DE5 board	
W	ignite_ptsc	ignite_ptsc	proprietary	George Shaw	OpenRISC	32	32	spartan-3	James Brakefield	196	A	4			##	14.7	1.0	1.0		verilog	22	not avail	yes	yes	N	N	4G	4G	Y	32	2009	2010	6502 data sheets	OpenRISC on Terasic DE5 board	
W	myforthproc	FORTH process	stable	Gerhard Hohner	OpenRISC	32	32	spartan-3	James Brakefield	196	A	4			##	14.7	1.0	1.0		verilog	22	not avail	yes	yes	N	N	4G	4G	Y	32	2009	2010	6502 data sheets	OpenRISC on Terasic DE5 board	
W	cpueng	Cpu Generator	stable	Giovanni Ferrante	OpenRISC	32	32	spartan-3	James Brakefield	196	A	4			##	14.7	1.0	1.0		verilog	22	not avail	yes	yes	N	N	4G	4G	Y	32	2009	2010	6502 data sheets	OpenRISC on Terasic DE5 board	
W	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	6322	A	8	38	##	14.7	1.00	1.0	6.0	verilog	20	process	yes	yes	N	N	4G	4G	Y	32	2012	2014	MIPS data sheets	Harvard arch		
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	6322	A	8	38	##	14.7	1.00	1.0	6.0	verilog	20	process	yes	yes	N	N	4G	4G	Y	32	2012	2014	MIPS data sheets	Harvard arch		
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	6322	A	8	38	##	14.7	1.00	1.0	6.0	verilog	20	process	yes	yes	N	N	4G	4G	Y	32	2012	2014	MIPS data sheets	Harvard arch		
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	6322	A	8	38	##	14.7	1.00	1.0	6.0	verilog	20	process	yes	yes	N	N	4G	4G	Y	32	2012	2014	MIPS data sheets	Harvard arch		
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	6322	A	8	38	##	14.7	1.00	1.0	6.0	verilog	20	process	yes	yes	N	N	4G	4G	Y	32	2012	2014	MIPS data sheets	Harvard arch		
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes	yes	?	N	64K	64K	N	53	8	2	2000		6811 data sheets	restricted use license, with correctio
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	6	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11r1	yes													

A	1	storm_core	Storm Core (AR)	beta	Stephan Nolting	ARM7	32	32	kintex-7-3	James Brakefield	2312	6	3	179	###	14.7	1.00	1.0	77.4	vhdl	16	CORE	yes	yes	N	4G	4G	Y	32	8	2011	2014		I & D caches not compiled			
A	1	storm_core	Storm Core (AR)	beta	Stephan Nolting	ARM7	32	32	kintex-7-3	James Brakefield	3514	6	3	4	157	###	14.7	1.00	1.0	44.8	vhdl	16	STORM	yes	yes	N	M	4G	4G	Y	32	8	2011	2014		I & D caches	
A	1	plasma	Plasma most MI	stable	Steve Rhoads	MIPS	32	32	kintex-7-3	James Brakefield	2462	6	3	97	###	14.7	1.00	1.0	39.5	vhdl	22	plasma	yes	yes	N		4G	4G	Y	32	2001	2013	MIPS data sheets	wide outside use, opencores page has list of related publications			
A	1	avr_hp	avr_hp	stable	Strauch Tobias	AVR	8	16	kintex-7-3	James Br 1 slot	1193	6	1	127	###	14.7	0.33	1.0	35.0	vhdl	9	avr_core	yes	yes	N		64K	128K	Y	32	2010	2010	AVR data sheets	hyper pipelined (eg barrel) AVR			
A	1	avr_hp	avr_hp	stable	Strauch Tobias	AVR	8	16	kintex-7-3	James Br 2 slot	1554	6	1	223	###	14.7	0.33	1.0	47.4	vhdl	10	avr_core	yes	yes	N		64K	128K	Y	32	2010	2010	AVR data sheets	hyper pipelined (eg barrel) AVR			
A	1	avr_hp	avr_hp	stable	Strauch Tobias	AVR	8	16	kintex-7-3	James Br 3 slot	1812	6	1	245	###	14.7	0.33	1.0	44.2	vhdl	10	avr_core	yes	yes	N		64K	128K	Y	32	2010	2010	AVR data sheets	hyper pipelined (eg barrel) AVR			
A	1	avr_hp	avr_hp	stable	Strauch Tobias	AVR	8	16	kintex-7-3	James Br 4 slot	2054	6	1	278	###	14.7	0.33	1.0	44.7	vhdl	10	avr_core	yes	yes	N		64K	128K	Y	32	2010	2010	AVR data sheets	hyper pipelined (eg barrel) AVR			
A	1	cortex_m3	cortex_m3	?	Strauch Tobias	ARM-c3	32	16												no files																	
B	1	or1200_hp	OpenRisc 1200	stable	Strauch Tobias	OpenRisc	32	32	kintex-7-3	James Br 1 slot barrel		6								verilog	39	or1200	yes	yes	Y		4G	4G	Y	32	2010	2013		original version of OR1200			
B	1	or1200_hp	OpenRisc 1200	stable	Strauch Tobias	OpenRisc	32	32	kintex-7-3	James Br 2 slot transia		6								verilog	39	or1200	yes	yes	Y		4G	4G	Y	32	2010	2013		2 slot barrel version of OR1200			
B	1	or1200_hp	OpenRisc 1200	stable	Strauch Tobias	OpenRisc	32	32	kintex-7-3	James Br 3 slot barrel		6								verilog	39	or1200	yes	yes	Y		4G	4G	Y	32	2010	2013		3 slot barrel version of OR1200			
B	1	or1200_hp	OpenRisc 1200	stable	Strauch Tobias	OpenRisc	32	32	kintex-7-3	James Br 4 slot barrel		6								verilog	39	or1200	yes	yes	Y		4G	4G	Y	32	2010	2013		4 slot barrel version of OR1200			
B	1	cgpic	Sumio Morioka	stable	Sumio Morioka	PIC16	8	14	arrja-2	James Br ROM param	A									vhdl & ver	5	COPIC	yes	yes	N	Y	256	4K	Y	32	1999	2004	PIC16 data sheets	LPM macros	http://www002.usp.so-net.ne.jp/morioka/cgpic.html		
W	1	jane_nn		stable	Suresh Devanathan	RISC	4	8	kintex-7-3	James Brakefield	723	6	178	###	14.7	0.33	1.0	81.4	vhdl	3	Processus	yes	yes							27	16	2002			neural network microprocessor, specialized registers		
W	1	eight_bit_uc	proprietary	stable	Synology	RISC	32	16												not avail																	
A	1	yacc	YACC Yet Another	stable	Tak Sugawara	MIPS	32	32	kintex-7-3	James Br xilinx IP probl										verilog	10	yacc2	yes	yes	N		4G	4G	Y	32	5	2005	2009	MIPS data sheets	derived from, but independent of plasma, xilinx & altera implemtations		
A	1	mblite	MB-Lite	beta	Tamar Kranenburg	uBlaze	32	32	kintex-7-3	James Br library not cov										vhdl	10	core	yes	yes	N		4G	4G	Y	86	32	2009	2012	microBlaze data sheet	not all instructions implemented		
A	1	cowgirl	Cowgirl	beta	Thebeekoper		16	16	kintex-7-3	James Br empty design										vhdl	14	cowgirl	yes	yes	N		64K				2006	2009					
A	1	free_risc8		stable	Thomas Coonan	PIC16	8	14	kintex-7-3	James Brakefield	355	6	142	###	14.7	0.33	1.0	132.2	verilog	8	cpu	yes	yes	N		256	4K	Y	32	2002	2011	PIC16 data sheets					
A	1	aquarius		stable	Thomas Aitch	SuperH2	32	16	kintex-7-3	James Brakefield	3958	6	2	86	###	14.7	1.00	1.0	21.6	verilog	21	top	yes	yes	N		4G	4G	Y	32	2003	2009	Supernit data sheets				
A	1	mcipu	MCPU a minimal	stable	Tim Boscher	accum	8	8	spartan-6	James Brakefield	41	6	384	###	14.7	0.08	1.0	749.0	vhdl	5	asm	yes	yes	N		64	64	Y	4	2007	2014		fits into 32 macrocell CPLD	reduced MIPS/cik due to only 4 inst			
A	1	1t68	TG68 execute 68	stable	Tobias Gubener	68000	16	16x	kintex-7-3	James Brakefield	2331	6	44	###	14.7	0.67	4.0	3.2	vhdl	2	TG68	yes	yes	N	N	4G	4G	Y	16	2007	2012	68000 data sheets	for use with Minimig				
B	1	pic_coonan		alpha	Tom Coonan	PIC16	8	14	kintex-7-3	James Brakefield	328	6	1	165	###	14.7	0.33	1.0	166.1	verilog	7	piccpu	yes	yes	N	Y	256	4K	Y	1999	2009	PIC16 data sheets					
W	1	cf_ssp	CF State Space	stable	Tom Hawkins		7													confluence																	
A	1	legamix		stable	Tommy Thorn	RISC	64	32	arrja-2	James Brakefield	11605	A	8	10	94	###	13.1	1.50	4.0	3.0	system vl	2	core	yes	yes	Y	Y	4G	4G	Y	256	288	2006	2008		clone of Knuth's MMIX	micro-coded
A	1	legamix		stable	Tommy Thorn	RISC	64	32	kintex-7-3	James Br unaccepttable										system vl	2	core	yes	yes	Y	Y	4G	4G	Y	256	288	2006	2008		clone of Knuth's MMIX	micro-coded	
W	1	delta_8051		stable	Tony Gwargis	8051	8	8x	kintex-7-3	James Brakefield	2725	6	1	1	105	###	14.7	0.33	1.0	12.7	vhdl	7	delta01	all	yes	yes	N	64K	64K	Y	1999	2003	8051 data sheets	ASIC	www.cs.ucr.edu/~dalton/		
A	1	hd63701	HD63701 comp	planning	Tsuyoshi Hasegawa	6801	8	8x	spartan-3	James Brakefield	1937	4	1	3	20	###	14.7	0.33	4.0	0.9	verilog	6	HD63701	CORE	N	N	64K	64K	Y	2014				Used in Atari game console, 6801 clone?			
A	1	hd63701	HD63701 comp	planning	Tsuyoshi Hasegawa	6801	8	8x	spartan-6	James Brakefield	1412	6	1	3	31	###	14.7	0.33	4.0	1.8	verilog	6	HD63701	CORE	N	N	64K	64K	Y	2014				Used in Atari game console, 6801 clone?			
A	1	is6821	vhdl core of i6821	beta	Tsensis		8												vhdl	1	VHDL6821	yes	yes	N		64K	64K	Y	2005	2009	6800 data sheets						
B	1	68h05		stable	Ulrich Riedel	6805	8	8x	kintex-7-3	James Brakefield	1225	6	300	###	14.7	0.33	4.0	20.2	vhdl	1	6805	yes	yes	N	N	64K	64K	Y	2007	2009	6805 data sheets						
B	1	68h08		stable	Ulrich Riedel	6808	8	8x	kintex-7-3	James Brakefield	2290	6	101	###	14.7	0.33	4.0	3.6	vhdl	1	x68R08	yes	yes	N	N	64K	64K	Y	2007	2009	6808 data sheets						
A	1	tiny64		stable	Ulrich Riedel	RISC	64		kintex-7-3	James Br fit length mis										vhdl	7	TinyX	asm	yes	yes	N		64K	64K	Y	16	8	2004	2009		word size configurable from 32 to 64	
W	1	tiny8		stable	Ulrich Riedel	CISC	8	8x		Flex10K design										ahdl & schematic																	
W	1	alter32	AltO32	stable	Ultra Embedded	OpenRisc	32	32	arrja-2	James Brakefield	2395	A	6	96	###	13.1	1.00	1.0	39.9	system vl	19	alter32	yes	yes	N		4G	4G	Y	2012	2014	OpenRisc 1000	simplified OpenRisc 1000	LPMs & systemVerilog			
W	1	alter32	AltO32	stable	Ultra Embedded	OpenRisc	32	32	arrja-2	James Brakefield	1809	A	6	161	###	13.1	1.00	1.0	88.8	system vl	8	alter32	yes	yes	N		4G	4G	Y	2012	2014	OpenRisc 1000	simplified OpenRisc 1000	LPMs & systemVerilog			
W	1	mpgc	MXP 32-bit CPU	stable	Ultra Embedded		32	32												verilog																	
X	1	hpc-16	HPC-16	beta	Umar Siddiqui	RISC	16	16	kintex-7-3	James Brakefield	875	6	136	###	14.7	0.67	1.0	104.2	vhdl	20	cpu	yes	yes	asm	N	64K	64K	Y	16	2005	2009						
X	1	grisc32	grisc32 wishbon	alpha	Vlacheslav	RISC	32	32	arrja-2	James Brakefield	3075	A	4	144	###	13.1	1.00	1.0	46.9	system vl	8	grisc32	yes	yes	N		4G	4G	Y	32	4	2010	2011		for PhD thesis		
X	1	tisc	Tiny Instruction	beta	Vincent Crabtree	accum	8	8x	spartan-6	James Brakefield	198	6	60	###	14.7	0.33	1.0	99.5	vhdl	1	TISC	yes	yes	N		256	1K	Y	2	2009	2009		minimal accumulator machine				
X	1	tisc	Tiny Instruction	beta	Vincent Crabtree	accum	8	8x	kintex-7-3	James Brakefield	195	6	87	###	14.7	0.33	1.0	147.1	vhdl	1	TISC	yes	yes	N		256	1K	Y	2	2009	2009		minimal accumulator machine				
A	1	ucore	UCore	alpha	Walter Mueller	POP11	8	16x	spartan-6	Walter Mueller	2418	6	80	###	0.67	2.0	7.8	vhdl	26	pop11	yes	yes	N	N	4M	4M	Y	8	2010	2013	POP11 data sheets	Boots UNIX, has MMU & cache, retro project					
A	1	ucore	UCore	stable	Whitewill	MIPS	32	32	kintex-7-3	James Brakefield	2469	6	1	231	###	14.7	1.00	1.0	93.5	verilog	25	ucore	yes	yes	N		4G										