

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	bkm ram	Fmax MHz	tool ver	MIP S	clocks/ LUT	171.4 KIPS	src code	# src files	top file	do c	tool chat	flg pt	Ha vd	max inst	byt e	# inst	# reg	pipe len	start year	last revis	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	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	web	yes	N	256	256	Y		2009	2010	ISE project only, BCD arithmetic							
X	1	6809_6309	6809_6309 core	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 core	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	stable	Aleksander Osman	ao486	8	8x	cyclone-4	James Br	akefile	1255	4	122	106	13.1	1.00	1.0	12.2	verilog	85	ao486	yes	yes	N	4G	4G	Y		2014	2014	886 data sheets	function on Terasic DE2-115 board					
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	non-SOC, no MMU				
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	uHaze	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 desc	6																										
A	1	microRISC II	alpha	AIKAT	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		2007	2009	8085 data sheets	also a TTL implementation in VHDL						
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	130	1.13	1.0	171.4	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	131.4	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	320	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	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	533.3	vhdl	7	top	some	yes	N	64K	64K	Y		16	2009	2009	extended 6502 with 16, 32 & 64 bit data						
A	1	avrtiny610	avrtiny610	beta	Andreas Hilvarsson	AVR	8	8	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	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	1.00	1.0	24.5	vhdl	29	Board	yes	yes	N	16M	16M	512	512	2004	2014	standalone Forth system					
A	1	openfire2	OpenFire	beta	Antonio Anton	uHaze	32	32	kintex-7	James Br	akefile	381	6	3	10	14.7	1.00	1.0	28	verilog	27	openfire	yes	yes	N	4G	4G	Y		2007	2012	uHaze data sheets	"FGPA Proven"	derived from Stephen Craven's OpenFire				
A	1	openfire2	OpenFire	beta	Antonio Anton	uHaze	32	32	kintex-7	James Br	akefile	1201	6	3	2	127	14.7	1.00	1.0	87.4	verilog	27	openfire	yes	yes	N	4G	4G	Y		2007	2012	uHaze data sheets	"FGPA Proven"	derived from Stephen Craven's OpenFire			
A	1	ARM_Cortex_A9	ARM_Cortex_A9	ASIC	ARM	ARMv9	32	16	zynq	xilinx		4500	6	1000	2.50	1.00	556.3	asic																				
A	1	ARM_Cortex_A9	ARM_Cortex_A9	ASIC	ARM	ARMv9	32	16	altera	altera		4500	4	1050	2.50	1.00	583.3	asic																				
A	1	ARM_Cortex_A9	ARM_Cortex_A9	ASIC	ARM	ARMv9	32	16	cyclone v	altera		4500	4	925	2.50	1.00	513.9	asic																				

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		
A	m1_core	M1 Core	beta	Fabrizio Fazzino, ALT	SPARC	64	32	spartan-3	James Brakefield	3456	A	1	233	##	14.7	1.00	1.0	6.73	verilog	9	m1_core	yes	N	N	4G	4G	Y	32	2007	2012	SPARC data sheets			
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?	
X	mc6809e		beta	Flint Weller	6809	8	8x	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	"student RISC system"	
A	16507lp	16507LP	beta	Gabriel Oshiro, San	6502	8	8x	spartan-6	James Brakefield	807	A	1	297	##	14.7	0.67	1.0	246.3	vhdl	11	cpu	yes	yes	N	N	1K					2008	2009	course work, ASIC orientation	
A	or1200_soc	or1200_soc	beta	George Shaw	OpenRISC	32	32	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	for use in ATARI 2600	
W	ignite_ptsc	ignite_ptsc	proprietary	George Shaw	forth	32	8												not avail													OpenRISC on Terasic DE5 board		
W	myforthproc	FORTH process	stable	Gerhard Hohner	forth	32	8	spartan-3	James Brakefield	807	A	1	297	##	14.7	1.00	1.0		vhdl	51	mcpu	yes	yes	Y	Y									DPANS'94 32-bit Forth, masters thesis, four variants
A	cpugen	Cpu Generator	stable	Giovanni Ferrante	2003	2009																										x86 executable that generates VHDL up		
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	807	A	1	297	##	11.1	1.00	1.0		verilog	20	process	yes	yes	N	4G	4G	Y	32	2012	2014	MIPS data sheets			
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	807	A	1	297	##	11.1	1.00	1.0		verilog	20	process	yes	yes	N	4G	4G	Y	32	2012	2014	MIPS data sheets			
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	807	A	1	297	##	11.1	1.00	1.0		verilog	20	process	yes	yes	N	4G	4G	Y	32	2012	2014	MIPS data sheets			
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	807	A	1	297	##	11.1	1.00	1.0		verilog	20	process	yes	yes	N	4G	4G	Y	32	2012	2014	MIPS data sheets			
A	mips32r1	MIPS32 Release	stable	Grant Ayers	MIPS	32	32	spartan-3	James Brakefield	807	A	1	297	##	11.1	1.00	1.0		verilog	20	process	yes	yes	N	4G	4G	Y	32	2012	2014	MIPS data sheets			
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	tv80	TV80	mature	Guy Hutchison, HOA	280	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable	Green Mountain C	68HC11	8	8x	spartan-3	James Brakefield	2190	A	1	127	##	14.7	0.33	4.0	4.8	vhdl	1	hc11rtl	yes	Y	N	64K	64K	N	53	8	2	2000	2000	8611 data sheets	
A	h1c1core	h1c1core	stable																															

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 signal/variab										vhdl	10	eight bit uc	yes	yes	N		4G	4G	Y	32						range of reduced SPARC up	
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	cowgir	Cowgir	beta	Thebeekoper		16	16	kintex-7-3	James Br empty design										vhdl	14	cowgir	yes	yes	N		64K			2006	2009						
A	1	free_risc8		stable	Thomas Coonan	PIC16	8	14	kintex-7-3	James Brakefield	355	6								vhdl	8	cpu	yes	yes	N		256	4K	Y	2002	2011		PIC16 data sheets				
A	1	aquarius		stable	Thomas Aitch	SuperH2	32	16	kintex-7-3	James Brakefield	3958	6	2							vhdl	21	top	yes	yes	N		4G	4G	Y	2003	2009	Supern data sheets					
A	1	mcipu	MCPU a minimal	stable	Tim Bosche	accum	8	8	spartan-6	James Brakefield	41	6								vhdl	15	tb02cpu	yes	asm	N		64	64	Y	4	2007	2014		fits into 32 macrocell CPLD	reduced MIPS/cik due to only 4 inst		
A	1	tg68	TG68 execute 68	stable	Tobias Gubener	68000	16	16x	kintex-7-3	James Brakefield	2331	6								vhdl	2	TG68 fra	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			PIC16 data sheets				
W	1	cf_ssp	CF State Space	stable	Tom Hawkins		7													confluence																	
W	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
W	1	legamix		stable	Tommy Thorn	RISC	64	32	kintex-7-3	James Br unacceptab										system vl	2	core	yes	yes	Y	Y	4G	4G	Y	256	288	2006	2008		clone of Knuth's MMIX	micro-coded	
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	ts6821	vhdl core of T68	beta	T68en		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								vhdl	1	6805	yes	yes	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								vhdl	1	x68R08	yes	yes	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	asm	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	altor32	AltOr32	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	altor32	yes	yes	N		4G	4G	Y	2012	2014		OpenRisc 1000	simplified OpenRisc 1000	LPMs & systemVerilog		
W	1	altor32_lite	AltOr32	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	altor32	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								vhdl	10	20	cpu	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								vhdl	1	TISC			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								vhdl	1	TISC			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								vhdl	26	pop11	yes	yes	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								vhdl	25	ucore	yes	yes	N		4G	4G	Y	32	6	2005	2010		MIPS data sheets	MMU & caches	
A	1	suska-ii		beta	Wolfgang Forster	68000	16	16x	cyclone-4	James Brakefield	9894	4								vhdl	11	wf68000	yes	yes	N	N	4G	4G	Y	16	2003	2013	68000 data sheets	for use as an Atari ST	http://www.experiments.de/en/		
A	1	suska-iii		beta	Wolfgang Forster	68000	16	16x	arrja-2	James Brakefield	7388	A								vhdl	11	wf68000	yes	yes	N	N	4G	4G	Y	16	2						