Result of synth_ice40 in Yosys for various softcores

core name	options	total cells	flip-flops	LUT4	CARRY	TBUF	RAM40_4K	
darkriscv		7777	2262	5176	339	0	0	
glacial		355	84	224	47	0	0	
riscv_simple	RV32I UNI	8273	1743	5801	441	32	256	
riscv_simple	RV32I MULTI	8362	1978	5682	446	0	256	
riscv_simple	RV32I PIPE	10272	2587	6910	487	32	256	
riscv_simple	RV32IM UNI	18611	1743	12698	3882	32	256	
riscv_simple	RV32IM MULTI	18740	1984	12608	3891	1	256	
riscv_simple	RV32IM PIPE	20445	2595	13629	3933	32	256	
serv		450	201	241	8	0	0	
picorv32		2683	596	1678	405	0	4	

non RISC-V:

core name	options	total cells	flip-flops	LUT4	CARRY	TBUF	RAM40_4K	
zpu_avalanche		1651	272	1307	72	0	0	
MiniCPU_SerPCU		157	51	106	0	0	0	
MiniCPU_SerALU		176	49	127	0	0	0	
	PCU+ALU	333	100					
MCPU		79	24	35	12	8	0	
6502 (nestang)		936	123	754	59	0	0	
cray1		37355	8510	25769	3057	0	19	9 hard_v_reg
j0 (gameduino)		942	67	782	91	0	2	
j0	no mult (16 stk)	590	65	445	78	0	2	
ukp (nestang)		494	151	272	68	2	1	

Baby 8 blocks	total cells	flip-flops	LUT4	CARRY	TBUF	RAM40_4K
logic function	8		8			
ALU	36		28	8		
datapath	391	136	247	8		

Result of synth_gowin in Yosys for various softcores

core name	options	total cells	flip-flops	MISC	ALU	LUT	MuxLUT	RAM16S4
darkriscv		9032	142	176	355	5198	3105	56
glacial		753	84	41	55	351	222	0
riscv_simple	RV32I UNI	32136	1729	547	422	16926	12512	0
riscv_simple	RV32I MULTI	17631	1964	515	461	9709	4982	0
riscv_simple	RV32I PIPE	23066	2573	515	470	12540	6968	0
riscv_simple	RV32IM UNI	94934	1729	547	6156	50099	36403	0
riscv_simple	RV32IM MULTI	85103	1964	515	6131	45825	30668	0
riscv_simple	RV32IM PIPE	85506	2581	547	6209	45840	30329	0
serv		1083	201	207	12	452	211	0
picorv32		4039	567	411	424	2009	596	32

non RISC-V:

core name	options	total cells	flip-flops	MISC	ALU	LUT	MuxLUT	RAM16S4
zpu_avalanche		3930	272	104	78	2053	1423	0
MiniCPU_SerPCU		167	51	19	0	84	13	0
MiniCPU_SerALU		407	49	14	0	217	127	0
	PCU+ALU	574	100					
MCPU		187	24	20	15	90	38	0
6502 (nestang)		1833	123	41	68	1100	501	0
cray1		0 D latches not supported						
j0 (gameduino)		2064	35	78	112	1245	578	16
j0	no mult (16 stk)	4250	31	78	91	2163	1879	8
ukp (nestang)		986	151	29	89	477	240	0

Baby 8 blocks	total cells	flip-flops	MISC	ALU	LUT	MuxLUT	RAM16S4
logic function	34			26		8	
ALU	106			35	9	40	22
datapath	193		8	87	9	57	28	4

Result of synth_intel_alm -family cyclonev in Yosys for various softcores

core name	options	total cells	flip-flops	MISC	ALU	LUT	M18x18	M27x27	memories	mem type
darkriscv		1891	162	178	365	1057	1	0	128	mlab
glacial		328	84	42	58	144	0	0	0	
riscv_simple	RV32I UNI	6795	1731	483	507	3946	0	0	128	m10k
riscv_simple	RV32I MULTI	7157	1966	456	581	4026	0	0	128	m10k
riscv_simple	RV32I PIPE	8428	2627	487	573	4613	0	0	128	m10k
riscv_simple	RV32IM UNI	10419	1731	485	701	7370	2	2	128	m10k
riscv_simple	RV32IM MULTI	10620	1966	457	709	7356	2	2	128	m10k
riscv_simple	RV32IM PIPE	12127	2635	488	739	8133	2	2	128	m10k
serv		641	204	209	27	201	0	0	0	
picorv32		2322	608	413	431	868	0	0	2	m10k

non RISC-V:

core name	options	total cells	flip-flops	MISC	ALU	LUT	M18x18	M27x27	memories	mem type
zpu_avalanche		1331	272	109	79	871	0	0	0	
MiniCPU_SerPCU		139	51	22	0	66	0	0	0	
MiniCPU_SerALU		167	49	14	0	104	0	0	0	
	PCU+ALU	306	100							
MCPU		93	24	28	15	26	0	0	0	
6502 (nestang)		704	123	41	68	472	0	0	0	
cray1		0 D latches not supported								
j0 (gameduino)		558	67	77	100	311	1	0	2	m10k
j0	no mult (16 stk)	540	39	77	95	297	0	0	32	mlab
ukp (nestang)		561	155	31	100	275	0	0	0	

Baby 8 blocks	total cells	flip-flops	MISC	ALU	LUT	M18x18	M27x27	memories	mem type
logic function	34		26		8				
ALU	63		33	10	20				
datapath	149	8	86	10	29			16	mlab

Result of synth_xilinx -flatten in Yosys for various softcores (default family is xc7)

core name	options	total cells	flip-flops	MISC	CARRY4	LUT	MuxLUT	DSP48	memories	mem type
darkriscv		2506	150	281	68	1428	498	1	80	RAM32x1D+RAM32M(16)
glacial		298	84	44	15	139	16	0	0	
riscv_simple	RV32I UNI	6581	1728	528	88	3469	736	0	32	RAMB36E1
riscv_simple	RV32I MULTI	7371	1963	509	74	3969	824	0	32	RAMB36E1
riscv_simple	RV32I PIPE	8534	2572	542	92	4508	788	0	32	RAMB36E1
riscv_simple	RV32IM UNI	35014	1728	2514	2736	18378	9618	8	32	RAMB36E1
riscv_simple	RV32IM MULTI	35780	1963	2497	2722	18758	9800	8	32	RAMB36E1
riscv_simple	RV32IM PIPE	35660	2580	2534	2742	18685	9079	8	32	RAMB36E1
serv		650	201	207	4	212	26	0	0	
picorv32		2447	572	657	97	1038	67	0	16	RAM32M

non RISC-V:

core name	options	total cells	flip-flops	MISC	CARRY4	LUT	MuxLUT	DSP48	memories	mem type
zpu_avalanche		1307	272	105	21	754	155	0	0	
MiniCPU_SerPCU		137	51	19	0	65	2	0	0	
MiniCPU_SerALU		171	49	14	0	97	11	0	0	
	PCU+ALU	308	100							
MCPU		101	24	35	5	36	1	0	0	
6502 (nestang)		780	123	43	14	520	80	0	0	
cray1		25005	6803	1056	811	15406	661	11	257	RAM32x1D+RAMB18E1(1)
j0 (gameduino)		797	43	110	24	397	190	1	32	RAM32x1D
j0	no mult (16 stk)	683	39	107	19	315	171	0	32	RAM32x1D
ukp (nestang)		527	159	71	25	213	58	0	1	RAMB18E1

Baby 8 blocks	total cells	flip-flops	MISC	CARRY4	LUT	MuxLUT	DSP48	memories	mem type
logic function	34		26		8				
ALU	59		33	3	19	4			
datapath	131	8	86	3	30			4	RAM32M