

FPGA firmware from OberonSystem.com targeting various FPGAs. (ISE 14.6.)
 Compiled by WS on Oct/19/2014.

#	Family	BRAM kB 2)	Capacity Slices	Occupied Slices	Used %	Speed MHz 3)	Wpack	Hand? 5)	Price 6)	Stock?
1	XC3S200 1)	<u>24</u>	<u>1,920</u>	<u>1,832</u>	<u>95.4%</u>	<u>37.3</u>	<u>Y</u>	<u>Y</u>	<u>\$17</u>	<u>AY, DN</u>
2	XC3S400	32	3,584	2,096	58.5%	38.6	Y	Y	\$19	AY, DY
3	XC3S1000	48	7,680	2,047	26.7%	38.6	Y	N	\$36	AY, DY
4	XC3S250E	Spartan-3E 24	2,448	2,010	82.1%	43.7	Y	Y	\$20	AY, DY
5	XC3S500E	Spartan-3E 40	4,656	2,155	46.3%	43.7	Y	Y	\$28	AY, DY
6	XC3S200AN	Spartan-3AN 32	1,792	Error	Error	41.4	Y	N	\$15	AY, DY
7	XC3S400AN	Spartan-3AN 40	3,584	Error	Error	41.4	Y	N	\$25	AY, DY
8	XC6SLX4	Spartan-6 24	600	too small	too small	n/a	Y	Y	\$11	AY, DY
9	XC6SLX9	Spartan-6 64	1,430	836	58.5%	55.7	Y	Y	\$16	AY, DY
10	XC6SLX25	Spartan-6 104	3,758	831	22.1%	55.7	Y	N	\$32	AY, DY
11	XC6SLX45	Spartan-6 232	6,822	866	12.7%	55.7	Y	N	\$52	AY, DY
12	XC6SLX75	Spartan-6 344	11,662	861	7.4%	55.7	Y	N	\$91	AY, DY
13	XC6SLX100	Spartan-6 536	15,822	884	5.6%	55.7	N	N	\$107	AY, DY
14	XC6SLX150	Spartan-6 536	23,038	840	3.6%	55.7	N	N	\$152	AY, DY
15	XC7A35T	Artix-7 200	5,200	1,096	21.1%	92.2	4)	N	\$30	AY, DN
16	XC7A50T	Artix-7 300	8,150	1,096	13.4%	92.2	4)	N	\$54	AY, DN
17	XC7A75T	Artix-7 420	11,800	1,096	9.3%	92.2	4)	N	\$85	AY, DN
18	XC7A100T	Artix-7 540	15,850	1,096	6.9%	92.2	Y	N	\$104	AY, DY
19	XC7A200T	Artix-7 1,460	33,650	1,024	3.0%	92.2	Y	N	\$186	AY, DY

1) Spartan-3 XC3S200 was used to develop and run the firmware.

2) Usable BRAM = data sheet BRAM in kbits / 9, because parity bits are not useful.

3) Nominal max speed in the highest speed grade from the synthesis report.

4) Though expected to be WebPack parts, Artix-7 35T, 50T, and 75T are not on the part list in ISE 14.6. Their performance was estimated.

5) Devices in PQ, TQ, or VQ packages can be soldered by hand. The BGA footprints cannot.

6) Price per chip when buying at least 10, but no more than 50. (Avnet, Digikey.)

The cheapest hand-solderable package, if manufactured. The cheapest in-stock otherwise.

Boards. There are many more boards than listed below. The listed ones are just examples..

Spartan-3 Starter = [XC3S200](#), XC3S1000. The original board, not available anymore.

Papilio = XC6SLX9; Pipistrello = XC6SLX9, XC6SLX25, XC6SLX45.

Nexys-4 = XC7A100T.

The compile error in Spartan-3AN.

MapLib:978 - DCM_SP symbol "vid/dcm/DCM_SP" (output signal=vid/pclk1) has an equation that uses input pin I0, which no longer has a connected signal. Please ensure that all the pins used in the equation for this LUT have signals that are not trimmed (see Section 5 of the Map Report File for details on which signals were trimmed).

Timing estimate was not affected by this error, hence it is reported in the table.