



## Xilinx Virtex-II Series FPGAs and RocketPHY Physical Layer Transceivers



**Virtex-II Pro (1.5V)**

XC2VP2	XC2VP4	XC2VP7	XC2VP20	XC2VP30	XC2VP40	XC2VP50	XC2VP70	XC2VP100
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Pins <sup>2</sup>	Area	204	348	396	564	692	804	852	996	1164
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**Virtex-II Pro X (1.5V)**

XC2VPX20	XC2VPX70
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Pins <sup>2</sup>	Area	552	992
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**Virtex-II (1.5V)**

XC2V40	XC2V80	XC2V250	XC2V500	XC2V1000	XC2V1500	XC2V2000	XC2V3000	XC2V4000	XC2V6000	XC2V8000
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Pins <sup>2</sup>	Area	88	120	200	264	432	528	624	720	912	1104	1108
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**Chip Scale Packages (CS) – wire-bond chip-scale BGA (0.8 mm ball spacing)**

144	12 x 12 mm							88	92	92			
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**BGA Packages (BG) – wire-bond standard BGA (1.27 mm ball spacing)**

575	31 x 31 mm									328	392	408	
728	35 x 35 mm											516	

**FGA Packages (FG) – wire-bond fine-pitch BGA (1.0 mm ball spacing)**

256	17 x 17 mm	140	140					88	120	172	172	172	
456 <sup>4</sup>	23 x 23 mm	156	248	248						200	264	324	
676 <sup>4</sup>	27 x 27 mm				404	416	416					392	456 484

**FFA Packages (FF) – flip-chip fine-pitch BGA (1.0 mm ball spacing)**

672	27 x 27 mm	204	348	396									
896 <sup>5</sup>	31 x 31 mm			396	556	556			552			432	528 624
1152 <sup>5</sup>	35 x 35 mm				564	644	692 692						720 824 824 824
1148 <sup>6</sup>	35 x 35 mm					804	812						912 1,104 1,108
1517	40 x 40 mm						852 964						912 1,104 1,108
1704	42.5 x 42.5 mm						996 1,040				992		
1696 <sup>6</sup>	42.5 x 42.5 mm						1,164						

**BFA Packages (BF) – flip-chip fine-pitch BGA (1.27 mm ball spacing)**

957	40 x 40 mm											624	684 684 684
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- Notes: 1. Numbers in table indicate maximum number of user I/Os.
- 2. The number of I/Os for RocketIO MGTs are not included in this table.
- 3. Within the same family, all devices in a particular package are pin-out (footprint) compatible.
- 4. Virtex-II packages FG456 and FG676 are also footprint compatible.
- 5. Virtex-II packages FF896 and FF1152 are also footprint compatible.
- 6. RocketIO unavailable in this package.




Pb-free solutions are available. For more information about Pb-free solutions visit [www.xilinx.com/pbfree](http://www.xilinx.com/pbfree).



**Transceiver Blocks**

Package	RocketIO (3.125Gbps)										RocketIO X (10Gbps)	
	XC2VP2	XC2VP4	XC2VP7	XC2VP20	XC2VP30	XC2VP40	XC2VP50	XC2VP70	XC2VP100	XC2VPX20	XC2VPX70	
FG256	4	4										
FG456	4	4	8									
FG676				8	8	8						
FG672	4	4	8									
FF896			8	8	8						8	
FF1152				8	8	12	16					
FF1148 <sup>6</sup>						0	0					
FF1517							16	16				
FF1704								20	20		20	
FF1696 <sup>6</sup>									0			

**RocketPHY Family of 10Gbps Physical Layer Transceivers**

Device	SONET OC-192 SDH STM - 64	10G ETHERNET	Applications	Parallel Interface	Package
 XGC1120 - Ultra MSA	✓	✓	MSA Modules, XFP Transceivers, SONET/SDH transmission systems, fiber optic test equipment	XSBI SFI-4	FT256
XGC1121 - 10G SONET/SDH	✓		XFP Transceivers, SONET/SDH – based transmission systems, fiber optic test equipment	SFI-4	FT256
XGC1320 - 10GE		✓	XFP Transceivers, data transmission equipment, NICs, test equipment, edge routers	XSBI	FT256

For more information about the RocketPHY family, visit [www.xilinx.com/rocketphy](http://www.xilinx.com/rocketphy)

**Important: Verify all data in this document with the device data sheets found at [www.xilinx.com](http://www.xilinx.com)**