

		Virtex-7 FPGAs											
		Optimized for Highest System Performance and Capacity											
		(1.0V, 0.9V)			(1.0V, 0.9V)				(1.0V)				
		Part Number	XC7V585T	XC7V2000T	XC7VX330T	XC7VX415T	XC7VX485T	XC7VX550T	XC7VX690T	XC7VX980T	XC7VX1140T	XC7VH580T	XC7VH870T
Logic Resources		EasyPath™ Cost Reduction Solutions ⁽¹⁾	XC7V585T	—	XCE7VX330T	XCE7VX415T	XCE7VX485T	XCE7VX550T	XCE7VX690T	XCE7VX980T	—	—	—
		Slices	91,050	305,400	51,000	64,400	75,900	86,600	108,300	153,000	178,000	90,700	136,900
		Logic Cells	582,720	1,954,560	326,400	412,160	485,760	554,240	693,120	979,200	1,139,200	580,480	876,160
		CLB Flip-Flops	728,400	2,443,200	408,000	515,200	607,200	692,800	866,400	1,224,000	1,424,000	725,600	1,095,200
Memory Resources		Maximum Distributed RAM (Kb)	6,938	21,550	4,388	6,525	8,175	8,725	10,888	13,838	17,700	8,850	13,275
		Block RAM/FIFO w/ ECG (36 Kb each)	795	1,292	750	880	1,030	1,180	1,470	1,500	1,880	940	1,410
		Total Block RAM (Kb)	28,620	46,512	27,000	31,680	37,080	42,480	52,920	54,000	67,680	33,840	50,760
Clocking		CMTs (1 MMCM + 1 PLL)	18	24	14	12	14	20	20	18	24	12	18
I/O Resources		Maximum Single-Ended I/O	850	1,200	700	600	700	600	1,000	900	1,100	600	650
		Maximum Differential I/O Pairs	408	576	336	288	336	288	480	432	528	288	312
Embedded IP Resources		DSP48E1 Slices	1,260	2,160	1,120	2,160	2,800	2,880	3,600	3,600	3,360	1,680	2,520
		PCI Express Gen2	3	4	—	—	4	—	—	—	—	—	—
		PCI Express Gen3	—	—	2	2	—	2	3	3	4	2	3
		Analog Mixed Signal (AMS) / XADC	1	1	1	1	1	1	1	1	1	1	1
		Configuration AES / HMAC Blocks	1	1	1	1	1	1	1	1	1	1	1
		GTX 12.5 Gb/s Transceivers ⁽²⁾	36	36	—	—	56	—	—	—	—	—	—
		GTH 13.1 Gb/s Transceivers ⁽³⁾	—	—	28	48	—	80	80	72	96	48	72
		GTZ 28.05 Gb/s Transceivers	—	—	—	—	—	—	—	—	—	8	16
Speed Grades		Commercial	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2
		Extended ⁽⁴⁾	-2L, -3	-2L, -2G	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -2G	-2L, -2G	-2L, -2G
		Industrial	-1, -2	-1	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1	-1	—	—
		Package ⁽⁵⁾	Area		Available User I/O: 3.3V Select/I/O™ Pins, 1.8V Select/I/O Pins (GTX, GTH Transceivers)							1.8V Select/I/O Pins (GTH, GTZ)	
		Flip chip, fine pitch BGA (1.0 mm ball spacing)											
Footprint Compatible		FFG1157	35 x 35 mm	0, 600 (20, 0)	0, 600 (0, 20)	0, 600 (0, 20)	0, 600 (20, 0)	0, 600 (20, 0)	0, 600 (0, 20)				
		FFG1761	42.5 x 42.5 mm	100, 750 (36, 0)	50, 650 (0, 28)		0, 700 (28, 0)		0, 850 (0, 36)				
		FHG1761	45 x 45 mm	0, 850 (36, 0)									
		FLG1925	45 x 45 mm	0, 1200 (16, 0)									
Footprint Compatible		FFG1158	35 x 35 mm		0, 350 (0, 48)	0, 350 (48, 0)	0, 350 (0, 48)	0, 350 (0, 48)					
		FFG1926	45 x 45 mm					0, 720 (0, 64)	0, 720 (0, 64)				
		FLG1926	45 x 45 mm							0, 720 (0, 64)			
		FFG1927	45 x 45 mm		0, 600 (0, 48)	0, 600 (56, 0)	0, 600 (0, 80)	0, 600 (0, 80)					
Footprint Compatible		FFG1928	45 x 45 mm							0, 480 (0, 72)			
		FLG1928	45 x 45 mm							0, 480 (0, 96)			
Footprint Compatible		FFG1930	45 x 45 mm				0, 700 (24, 0)		0, 1000 (0, 24)	0, 900 (0, 24)			
		FLG1930	45 x 45 mm							0, 1100 (0, 24)			
		Ceramic flip chip, fine pitch BGA (1.0 mm ball spacing)											
		HCG1155	35 x 35 mm									400 (24, 8)	
		HCG1931	45 x 45 mm									600 (48, 8)	650 (48, 8)
		HCG1932	45 x 45 mm									300 (48, 8)	300 (72, 16)

XMP084 (v4.7)

- Notes: 1. EasyPath™ solutions provide a fast and conversion-free path for cost reduction.
 2. 12.5 Gb/s support in "-3E", "-2GE" speed/temperature grade; 10.3125 Gb/s support in "2C", "-2LE", and "-2I" speed grade.
 3. 13.1 Gb/s support in "-3E", "-2GE" speed grade; 11.3 Gb/s support in "2C", "-2LE" and "-2I" speed/temperature grades.
 4. -2G only applies to Stacked Silicon Interconnect devices and supports 12.5G GTX, 13.1G GTH, 28.05G GTZ with -2 fabric.
 5. Leaded package options ("FFxxxx"/"FLxxxx"/"FHxxxx"/"HCxxxx") available for all packages.

Important: Verify all data in this document with the device data sheets found at www.xilinx.com