

Artix™-7 FPGAs
Optimized for Lowest Cost and Lowest Power Applications
(1.0V, 0.9V)

		Artix-7 SL FPGAs Advance				Artix-7 SLT FPGAs Advance				Artix-7 T FPGAs	
Part Number		XC7A20SL	XC7A35SL	XC7A50SL	XC7A75SL	XC7A20SLT	XC7A35SLT	XC7A50SLT	XC7A75SLT	XC7A100T	XC7A200T
Logic Resources	Slices	2,500	5,142	8,200	11,194	2,500	5,142	8,200	11,194	15,850	33,650
	Logic Cells	16,000	32,909	52,480	71,642	16,000	32,909	52,480	71,642	101,440	215,360
	CLB Flip-Flops	20,000	41,136	65,600	89,552	20,000	41,136	65,600	89,552	126,800	269,200
Memory Resources	Maximum Distributed RAM (Kbits)	208	453	688	974	208	453	688	974	1,188	2,888
	Block RAM/FIFO w/ ECC (36Kbits each)	30	65	95	125	30	65	95	125	135	365
	Total Block RAM (Kbits)	1,080	2,340	3,420	4,500	1,080	2,340	3,420	4,500	4,860	13,140
Clock Resources	CMTs (1 MMCM + 1 PLL)	3	3	4	4	3	3	4	4	6	10
I/O Resources	Maximum Single-Ended I/O	216	216	300	300	216	216	300	300	300	500
	Maximum Differential I/O Pairs	54	54	72	72	54	54	72	72	144	240
Embedded Hard IP Resources	DSP48E1 Slices	60	120	180	240	60	120	180	240	240	740
	PCI Express ⁽¹⁾	—	—	—	—	1	1	1	1	1	1
	Agile Mixed Signal (AMS) / XADC	1	1	1	1	1	1	1	1	1	1
	Configuration AES / HMAC Blocks	1	1	1	1	1	1	1	1	1	1
	GTP Transceivers (6.6 Gb/s Max Rate)	—	—	—	—	4	4	8	8	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
	Extended	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3	-2L, -3
	Industrial	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2
	Package ^{(2), (3)}	Dimensions (mm)				Available User I/O: 3.3V Select/O™ HR I/O, 3.3V Select/O™ HD I/O Pins (GTP Transceivers)				Available User I/O: 3.3V Select/O™ HR I/O Pins (GTP Transceivers)	
	CPG236	10 x 10		48, 52	48, 52						
	CSG325	15 x 15		108, 108	108, 108						
	CSG484	19 x 19			144, 156	144, 156					
	CPG237	10 x 10				48, 52 (1)	48, 52 (1)				
	CSG326	15 x 15				108, 77 (4)	108, 77 (4)	108, 77 (4)	108, 77 (4)		
	CSG485	19 x 19				108, 108 (4)	108, 108 (4)	126, 108 (6)	126, 108 (6)		
	FGG677	27 x 27						144, 156 (8)	144, 156 (8)		
	CSG324	15 x 15								210 (0)	
	FTG256	17 x 17								170 (0)	
	SBG484	19 x 19									285 (4)
Footprint Compatible	FGG484	23 x 23								285 (4)	
	FBG484	23 x 23									285 (4)
Footprint Compatible	FGG676	27 x 27								300 (8)	
	FBG676	27 x 27									400 (8)
	FFG1156	35 x 35									500 (16)

XMP086 (v4.2)

CPG: 0.5mm Wire-bond chip-scale; CSG: 0.8mm Wire-bond chip-scale; FTG: 1.0mm Wire-bond fine-pitch; SBG: 0.8mm Lidless flip-chip; FGG: 1.0mm Wire-bond fine-pitch; FBG: 1.0mm Lidless flip-chip; FFG: 1.0mm Flip-chip fine-pitch

- Notes: 1. Supports PCI Express Base 2.1 specification at Gen1 and Gen2 data rates.
- 2. Leaded package option available for all packages.
- 3. Device migration is available within the Artix-7 family for like packages but is not supported between other 7 series families.

Important: Verify all data in this document with the device data sheets found at www.xilinx.com/7