Cyclone® 10

INTEL® CYCLONE® 10 GX FPGAs PRODUCT TABLE

PRODUCT LINE		10CX085	10CX105	10CX150	10CX220
Resources	Logic elements (LEs)[1]	85,000	104,000	150,000	220,000
	Adaptive logic modules (ALMs)	31,000	38,000	54,770	80,330
	ALM registers	124,000	152,000	219,080	321,320
	M20K memory blocks	291	382	475	587
	M20K memory size (Kb)	5,820	7,640	9,500	11,740
	MLAB memory size (Kb)	653	799	1,152	1,690
	Variable-precision digital signal processing (DSP) blocks	84	125	156	192
	18 x 19 multipliers	168	250	312	384
	Peak fixed-point peformance (GMACS)[2]	151	225	281	346
	Peak floating-point performance (GFLOPS)[3]	59	88	109	134
I/O and Architectural Features	Global clock networks	32	32	32	32
	Regional clocks	8	8	8	8
	Maximum user I/O pins	192	284	284	284
	Maximum LVDS pairs 1.4 Gbps (RX or TX)	72	118	118	118
	Maximum transceiver count (12.5 Gbps)	6	12	12	12
	Maximum 3V I/O pins	48	48	48	48
	PCI Express* (PCIe*) hard IP blocks (Gen2 x4)[4]	1	1	1	1
	Memory devices supported	DDR3, DDR3L, LPDDR3			

Package Options and I/O Pins: General-Purpose I/O (GPIO) Count, 3V I/O Count, LVDS Pairs, Total Transceiver count[5]

	10CX085	10CX105	10CX150	10CX220
U484 pin (19 mm x 19 mm, 0.8 mm pitch)	188, 48, 70, 6	188, 48, 70, 6	188, 48, 70, 6	188, 48, 70, 6
F672 pin (27 mm x 27 mm, 1.0 mm pitch)	216, 48, 84, 6	236, 48, 94, 10	236, 48, 94, 10	236, 48, 94, 10
F780 pin (29 mm x 29 mm, 1.0 mm pitch)		284, 48, 118, 12	284, 48, 118, 12	284, 48, 118, 12

Notes:
1. LE counts valid in comparing across Intel devices, and are conservative vs. competing FPGAs.
2. Fixed-point performance assumes the use of pre-adder.
3. Floating-point performance is IEEE-754 compliant single-precision.
4. Hard PCIe IP core x2 in U484 package
5. Each LVDS pair can be configured as either a differential input or differential output.
6. A subset of pins for each package are used for high-voltage 3.0 V and 2.5 V interfaces.
7. All data is correct at the time of printing and may be subject to change without prior notice. For the latest information, please visit www.altera.com.

284,48,118,12   Numbers indicate GPIO count, 3V I/O count, LVDS pairs, total transceiver count.

Indicates pin migration path.