

IP Configuration for Nexus Family

LFMXO5-25-9BBG400I

Configuration	Clk Fmax (MHz) ¹	Registers	LUTs	EBRs	DSP
Default	200	60	12	0	16
<i>Reloadable Coefficients: true, Reorder Coefficients Inside: true, Others = Default</i>	200	650	32	0	16
<i>Input Data Width: 18, Precision Control (Overflow): Wraparound, Precision Control (Rounding): Rounding up, Others = Default</i>	200	66	12	0	16
<i>Synchronous Reset: true, Clock Enable: true, Others = Default</i>	200	62	66	0	16
<i>Data Memory Type: Distributed, Coefficients Memory Type: Distributed, Output Buffer Type: Distributed, Others = Default</i>	200	60	12	0	16

Note:

1. Fmax is generated when the FPGA design only contains FIR Filter IP Core, and the target frequency is 200MHz. These values may be reduced when user logic is added to the FPGA design.

LFMXO5-25-7BBG400I

Configuration	Clk Fmax (MHz) ¹	Registers	LUTs	EBRs	DSP
Default	200	60	12	0	16
<i>Reloadable Coefficients: true, Reorder Coefficients Inside: true, Others = Default</i>	191	650	34	0	16
<i>Input Data Width: 18, Precision Control (Overflow): Wraparound, Precision Control (Rounding): Rounding up, Others = Default</i>	190	66	12	0	16
<i>Synchronous Reset: true, Clock Enable: true, Others = Default</i>	188	62	66	0	16
<i>Data Memory Type: Distributed, Coefficients Memory Type: Distributed, Output Buffer Type: Distributed, Others = Default</i>	200	60	12	0	16

Note:

1. Fmax is generated when the FPGA design only contains FIR Filter IP Core, and the target frequency is 200MHz. These values may be reduced when user logic is added to the FPGA design.

ECP5¹

Mode	SLICES	LUTs	Registers	DSP Slices	sysMEM EBRs	f ^{MAX} (MHz)
4 channels, 64 taps, multiplier multiplexing 64	129	248	222	4	2	211
1 channel, 32 taps, multiplier multiplexing 1	80	151	148	32	-	264
1 channel, 32 taps, multiplier multiplexing 4	260	239	482	10	8	177

1. Performance and utilization characteristics are generated targeting LFE5UM-85F-8BG756I using Lattice Diamond 3.10.2 and Synplify Pro F-2013.09L beta software. When using this IP core in a different density, speed, or grade within the ECP5 device family or in a different software version, performance may vary.

LatticeECP3¹

Mode	SLICES	LUTs	Registers	DSP Slices	sysMEM EBRs	f ^{MAX} (MHz)
4 channels, 64 taps, multiplier multiplexing 64	134	254	222	4	2	277
1 channel, 32 taps, multiplier multiplexing 1	84	155	148	32	-	207
1 channel, 32 taps, multiplier multiplexing 4	260	268	482	10	8	153

1. Performance and utilization data are generated targeting an LFE3-70E-8FN484CES device using Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP3 family.

LatticeECP2^{1,2}

Mode	SLICES	LUTs	Registers	DSP Slices	sysMEM EBRs	f ^{MAX} (MHz)
channels, 64 taps, 1 multiplier	169	127	244	1	2	349
1 channel, 32 taps, 32 multipliers	417	268	806	32	-	235
1 channel, 32 taps, 8 multiplies	414	532	629	8	-	308

1. Performance and utilization data are generated targeting an LFE2-50E-7F672C device using Lattice Diamond 1.0 and Synplify Pro D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP2/S family.
2. LatticeECP2 is supported by IP version 5.1 (and older) using Lattice Diamond 3.7 (and older).

LatticeECP^{1,2}

Mode	SLICES	LUTs	Registers	DSP Slices	sysMEM EBRs	f ^{MAX} (MHz)
4 channels, 64 taps, 1 multiplier	166	118	245	1	2	216
1 channel, 32 taps, 32 multipliers	415	264	806	32	-	180
1 channel, 32 taps, 8 multiplies	481	662	633	8	-	175

1. Performance and utilization data are generated targeting an LFCEP33E-5F672C device using Lattice Diamond 1.0 and Synplify Pro D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP family.
2. LatticeECP is supported by IP version 5.1 (and older) using Lattice Diamond 3.7 (and older).

LatticeXP2

Mode	SLICES	LUTs	Registers	DSP Slices	sysMEM EBRs	f ^{MAX} (MHz)
channels, 64 taps, multiplier multiplexing 64	105	204	165	1	1	197
1 channel, 32 taps, multiplier multiplexing 1	211	418	372	8	-	189
1 channel, 32 taps, multiplier multiplexing 4	159	272	304	2	8	207

1. Performance and utilization characteristics are generated targeting an LFXP2-40E-7F672C device using Lattice Diamond 3.10.2 and Synplify Pro D-2013.09L beta software. Performance may vary when using this IP core in a different density, speed or grade within the LatticeXP2 family or in a different software version.