

1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP2M family.
2. One DSP block provides two MULT18X18ADDSUBS.

LatticeECP2 ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	Multipliers ² 18x18	sysMEM EBRs	f _{MAX} (MHz)
Config 1	24	5	44	39	4	3	368
Config 2	200	222	262	104	0	1	370
Config 3	287	282	494	217	8	3	325

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 family.
2. One DSP block provides two MULT18X18ADDSUBS.

LatticeECP ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	Multipliers ² 18x18	sysMEM EBRs	f _{MAX} (MHz)
Config 1	27	7	44	39	4	3	215
Config 2	194	211	262	104	0	2	215
Config 3	305	316	494	217	8	5	226

1. Performance and utilization data are generated targeting an LFEC20E-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. One DSP block provides two MULT18X18ADDSUBS.

LatticeEC ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	sysMEM EBRs	f _{MAX} (MHz)	
Config 1	1000	1710	715	39	3	116	
Config 2	194	211	262	104	2	230	
Config 3	2235	3730	1833	217	5	123	

1. Performance and utilization data are generated targeting an LFEC20E-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 LatticeEC family.

LatticeSC ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	sysMEM EBRs	f _{MAX} (MHz)	
Config 1	1472	2194	1071	39	3	242	
Config 2	152	210	262	104	1	375	
Config 3	3583	5153	2549	217	3	239	

1. Performance and utilization data are generated targeting an LFSC3GA25E-7F900C 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 LatticeSC family.

LatticeXP2 ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	Multipliers ² 18x18	sysMEM EBRs	f _{MAX} (MHz)
Config 1	24	5	44	39	4	3	314
Config 2	200	222	262	104	0	1	314
Config 3	287	282	494	217	8	3	314

1. Performance and utilization data are generated targeting an LFXP2-17E-7F484C 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 LatticeXP2 family.
2. One DSP block provides two MULT18X18ADDSUBS.

LatticeXP ¹							
IPexpress User-Configurable Mode	SLICES	LUTs	Registers	I/O	sysMEM EBRs	f _{MAX} (MHz)	
Config 1	1000	1710	715	39	3	112	
Config 2	194	211	262	104	2	219	
Config 3	2235	3730	1833	217	5	115	

1. Performance and utilization data are generated targeting an LFXP20E-5F484C 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 LatticeXP family.

Ordering Information

Family	Part Numbers
LatticeECP3	NCO-DDS-E3-U2

LatticeECP2M	NCO-DDS-PM-U2
LatticeECP2	NCO-DDS-P2-U2
LatticeECP	NCO-DDS-E2-U2
LatticeEC	NCO-DDS-E2-U2
LatticeSC	NCO-DDS-SC-U2
LatticeXP2	NCO-DDS-X2-U2
LatticeXP	NCO-DDS-XM-U2

IP Version: 2.6

Evaluate: To download a full evaluation version of this IP, go to the IPexpress tool and click the IP Server button in the toolbar. All LatticeCORE IP cores and modules available for download will be visible. For more information on viewing/downloading IP please read the [IP Express Quick Start Guide](#).

Purchase: To find out how to purchase the IP Core, please contact your [local Lattice Sales Office](#).