Lattice Semiconductor Corporation

ispLSI® and pLSI®
Design Tool Selector Guide

Lattice Semiconductor pLSI and ispLSI Development System (pDS) Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
ispStarter Kit	N/A	ispStarter Kit (ispLSI 1016 & 2032)	isp-SK2	N/A
Boolean Entry and Fitting	N/A	pDS	pDS1101-PC1	N/A
3000 Family Device Support Option*	N/A	pDS 3000 Upgrade	pDS1101-3UP/PC1	N/A
Simulation Options* Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Verilog	OVI-Compliant Verilog Simulator	Verilog Library	pDS1131-PC1	N/A
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A

Lattice Semiconductor pDS+ ABEL Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
PLD Compiler and Fitting	ABEL Compiler	pDS+ ABEL Fitter	pDS2102-PC1	pDS2102-SN1
3000 Family Device Support Option**	N/A	pDS+ ABEL 3000 Upgrade	pDS2102-3UP/PC1	pDS2102-3UP/SN1
Simulation Options** Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	Powerview ViewSim Simulator	Viewlogic Library and Interface	N/A	pDS1102-SN1
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Synario	Synario Verilog Simulator	Synario Library and Interface	pDS1120-PC1	N/A
Cadence	Cadence Verilog-XL Simulator	Cadence Library and Interface	N/A	pDS1160-SN1
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1

* Lattice Semiconductor pDS Software is required with any of these options.
** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

Lattice Semiconductor pDS+ Cadence Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
Capture, Simulation, and Fitting	Concept Schematic Editor / Verilog-XL Simulator	pDS+ Cadence Fitter (Includes Concept Schematic Library and Verilog-XL Simulation Library)	N/A	pDS2160-SN1
Synthesis, Simulation, and Fitting	Synergy Synthesis Tool / Verilog-XL Simulator / Verilog-XL Simulator (Optional)	pDS+ Cadence Fitter (Includes Concept Schematic Library and Verilog-XL Simulation Library)	N/A	pDS2160-SN1
		Cadence Synergy Library	N/A	pDS1165-SN1
3000 Family Device Support Option**	N/A	pDS+ Cadence 3000 Upgrade	N/A	pDS2160-3UP/SN1
Simulation Options** — Cadence Verilog	Verilog-XL Simulator	Cadence Library and Interface	N/A	pDS1160-SN1
Simulation Options** — Cadence VHDL	Leapfrog Simulator	Verilog and VHDL Simulation Libraries	N/A	pDS1131-SN1

Lattice Semiconductor pDS+ Exemplar Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
VHDL or Verilog-HDL Synthesis and Fitting	Logic Explorer, Antares (Exemplar) Galileo	pDS+ Exemplar Fitter Including Libraries	pDS2110-PC1	pDS2110-SN1
3000 Family Device Support Option**	N/A	pDS+ Exemplar 3000/6000 Upgrade	pDS2110-3UP/PC1	pDS2115-3UP/SN1
Simulation Options** — Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2 or pDS3302A-PC2***	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	Powerview ViewSim Simulator	Viewlogic Library and Interface	N/A	pDS1102-SN1
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Verilog	OVI-Compliant Verilog Simulator	Verilog Library	pDS1121-PC1	N/A
Cadence	Cadence Verilog Simulator	Cadence Library and Interface	N/A	pDS1160-SN1
Vantage	Speedwave VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1
Antares (Model Tech)	System V Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1

** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

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Lattice Semiconductor pDS+ CUPL Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
PLD Compiler and Fitting	CUPL Compiler	pDS+ CUPL Fitter	pDS2190-PC1	N/A
3000 Family Device Support Option**	N/A	pDS+ CUPL 3000 Upgrade	pDS2190-3UP/PC1	N/A
Simulation Options** Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Verilog	OVI-Compliant Verilog Simulator	Verilog Library	pDS1131-PC1	N/A
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A

Lattice Semiconductor pDS+ LOG/iC Environment

	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
PLD Compiler and Fitting	LOG/iC PLUS or Perfect Compiler and ODS	pDS+ LOG/iC Fitter	pDS2103-PC1	N/A
3000 Family Device Support Option**	N/A	pDS+ LOG/iC 3000 Upgrade	pDS2103-3UP/PC1	N/A
Simulation Options** Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Verilog	OVI-Compliant Verilog Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A

** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

Lattice Semiconductor pDS+ Mentor Environment		What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor HP Part Numbers	Lattice Semiconductor Sun Part Numbers
Capture, Simulation, and Fitting		Design Architect Schematic Editor Quicksim II Simulator	pDS+ Mentor Fitter (Includes Design Architect Schematic Library and Quicksim II Simulation Library)	pDS2150-HP1	pDS2150-SN1
Synthesis, Simulation, and Fitting		Autologic Synthesis Tool Quicksim II Simulator	pDS+ Mentor Fitter (Includes Design Architect Schematic Library and Quicksim II Simulation Library)	pDS2150-HP1	pDS2150-SN1
			Mentor Autologic Library	pDS1155-HP1	pDS1155-SN1
3000 Family Device Support Option**		N/A	pDS+ Mentor 3000 Upgrade	pDS2150-3UP/HP1	pDS2150-3UP/SN1
Simulation Options**	Mentor	Quicksim II Simulator	Mentor Library and Interface	pDS1150-HP1	pDS1150-SN1
	Cadence	Verilog-XL Simulator	Cadence Library and Interface	N/A	pDS1160-SN1
	VHDL	Quick VHDL Simulator or System V Simulator from Antares	Verilog and VHDL Simulation Libraries	pDS1131-HP1	pDS1131-SN1

Lattice Semiconductor pDS+ OrCAD Environment		What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
Capture, Simulation, and Fitting		SDT 386+ or Capture for Windows Schematic Editor VST386+ Simulation for Windows Simulator	pDS+ OrCAD Fitter (Includes Lattice Semiconductor's OrCAD Schematic Capture Libraries and Simulation Libraries)	pDS2170-PC1	N/A
PLD Compiler, Simulation, and Fitting		PLD 386+ PLD Compiler VST386+ Simulator	pDS+ OrCAD Fitter (Includes Lattice Semiconductor's OrCAD Schematic Capture Libraries and Simulation Libraries)	pDS2170-PC1	N/A
3000 Family Device Support Option**		N/A	pDS+ OrCAD 3000 Upgrade	pDS2170-3UP/PC1	N/A
Simulation Options**	Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
	Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
	Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
	Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
	Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
	OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Libraries and Interface	pDS1170-PC1	N/A
	Verilog	OVI-Compliant Verilog Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A
	VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A

** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

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Lattice Semiconductor pDS+ Synario Environment	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers
GAL Compiler (Capture and ABEL Entry)	None	ISP Synario System	ISP-SYN	N/A
Capture, ABEL Entry Functional Simulation and Fitting (Up to 96 Macrocells)	None	ISP Synario System	ISP-SYN	N/A
Capture, ABEL Entry and Fitting	None	ISP Synario Entry	pDS1401-PC1	N/A
		pDS+ Synario Fitter (Includes Synario Interface Kit*)	pDS2120-PC1	N/A
Capture, Simulation and Fitting	Synario Schematic Editor (Syn-Entry)	pDS+ Synario Fitter (Includes Synario Interface Kit*)	pDS2120-PC1	N/A
Capture, Simulation, GAL Compiler, and Fitting	Synario Schematic Editor and ABEL Compiler (Syn-Entry)	pDS+ Synario Fitter (Includes Synario Interface Kit*)	pDS2120-PC1	N/A
3000 Family Device Support Option**	N/A	pDS+ Synario 3000 Upgrade	pDS2120-3UP/PC1	N/A
Simulation Options** — Synario	None	ISP Synario Simulator	pDS3402-PC1	N/A
Viewlogic	None	PROsim Simulator Including Libraries	pDS3302-PC2	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A
Synario	Synario Verilog Simulator	None	N/A	N/A
Verilog	OVI-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A

* Includes SYN-pLSI (Device Kit)
** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

Lattice Semiconductor pDS+ Synopsys Environment

What You Have or Need from a Third-Party Vendor		What You Need From Lattice Semiconductor	Lattice Semiconductor HP Part Numbers	Lattice Semiconductor Sun Part Numbers
Synthesis and Fitting	Design Compiler-Expert Synthesis Tool	pDS+ Synopsys Fitter (Includes Lattice Semiconductor Synopsys Synthesis Libraries)	pDS2140-HP1	pDS2140-SN1
Synthesis and Fitting	Design Compiler-Professional Synthesis Tool	pDS+ Synopsys Fitter (Includes Lattice Semiconductor Synopsys Synthesis Libraries)	pDS2140-HP1	pDS2140-SN1
Synthesis and Fitting	FPGA Compiler Synthesis Tool	pDS+ Synopsys Fitter (Includes Lattice Semiconductor Synopsys Synthesis Libraries)	pDS2140-HP1	pDS2140-SN1
3000 Family Device Support Option**	N/A	pDS+ Synopsys 3000 Upgrade	pDS2140-3UP/HP1	pDS2140-3UP/SN1
Simulation Options**	Synopsys	VSS Simulator	Verilog and VHDL Simulation Libraries	pDS1131-HP1	pDS1131-SN1
	Viewlogic	Powerview ViewSim Simulator	Viewlogic Library and Interface	N/A	pDS1102-SN1
	Mentor	Quicksim II Simulator	Mentor Library and Interface	pDS1150-HP1	pDS1150-SN1
	Cadence	Verilog-XL Simulator	Cadence Library and Interface	N/A	pDS1160-SN1
	Verilog	OVI-Compliant Verilog Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	N/A
	VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL SImulation Libraries	pDS1131-HP1	pDS1131-SN1

Synopsys Synthesis in Other Third-Party/Lattice Semiconductor pDS+ Environments

What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor HP Part Numbers	Lattice Semiconductor Sun Part Numbers
Synthesis and Fitting in the Cadence Environment	Any Synopsys Synthesis Tool and Cadence Concept Schematic Editor Cadence Concept Schematic Editor	pDS+ Cadence Fitter	N/A	pDS2160-SN1
	Lattice Semiconductor Synopsys Synthesis Libraries	N/A	pDS1140-SN1
Synthesis and Fitting in the Mentor Environment	Any Synopsys Synthesis Tool and Mentor Design Architect Schematic Editor	pDS+ Mentor Fitter	pDS2150-HP1	pDS2150-SN1
	Lattice Semiconductor Synopsys Synthesis Libraries	pDS1140-HP1	pDS1140-SN1
Synthesis and Fitting in the Viewlogic Environment	Any Synopsys Synthesis Tool and Viewlogic ViewDraw Schematic Editor	pDS+ Viewlogic Fitter	N/A	pDS2101-SN1
	Lattice Semiconductor Viewlogic Library and Interface	N/A	pDS1102-SN1
	Lattice Semiconductor Synopsys Synthesis Libraries	N/A	pDS1140-SN1

** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.

Lattice Semiconductor pDS+ Viewlogic Environment	What You Have or Need from a Third-Party Vendor	What You Need From Lattice Semiconductor	Lattice Semiconductor PC Part Numbers	Lattice Semiconductor Sun Part Numbers	Sun Solaris 2 O/S
Capture and Fitting	None	pDS+ Viewlogic Fitter	pDS2101-PC2	N/A	N/A / N/A
		PROcapture Schematic Editor	pDS1301-PC2	N/A	
VHDL Synthesis and Fitting	None	pDS+ Viewlogic Fitter	pDS2101-PC2	N/A	N/A
		PROsynthesis Synthesis Tool	pDS3305A-PC2	N/A	N/A
		PROcapture Schematic Editor (Required in Synthesis Flow)	pDS1301-PC2	N/A	N/A
Capture and Fitting	PROcapture or ViewDraw Schematic Editor	pDS+ Viewlogic Fitter	pDS2101-PC2	pDS2101-SN1	pDS2101-SN2
		Viewlogic Library and Interface	pDS1102-PC2	pDS1102-SN1	pDS1102-SN2
VHDL Synthesis and Fitting	PROcapture or ViewDraw Schematic Editor and PROsynthesis or ViewSynthesis Synthesis Tool	pDS+ Viewlogic Fitter	pDS2101-PC2	pDS2101-SN1	pDS2101-SN2
		Viewlogic Synthesis Library	pDS1105-PC2	pDS1105-SN1	pDS1105-SN1
		Viewlogic Library and Interface	pDS1102-PC2	pDS1102-SN1	pDS1102-SN2
PLD Compiler and Fitting	ViewPLD Compiler	pDS+ ABEL Fitter	pDS2102-PC1	pDS2102-SN1	N/A
3000 Family Device Support Option**	N/A	pDS+ Viewlogic 3000 Upgrade	pDS2101-3UP/PC2	pDS2101-3UP/SN1	pDS2101-3UP/SN1
Simulation Options** Viewlogic	N/A	PROsim Simulator Including Libraries	pDS3302-PC2 or pDS3302A-PC2***	N/A	N/A
Viewlogic	PROsim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A	N/A
Viewlogic	PROsim Simulator from Actel or Other Vendor	PROsim Upgrade Including Libraries	pDS1103-PC2	N/A	N/A
Viewlogic	PROsim Simulator from Xilinx	PROsim Upgrade Including Libraries	pDS1104-PC2	N/A	N/A
Viewlogic	Workview PLUS ViewSim Simulator	Viewlogic Library and Interface	pDS1102-PC2	N/A	N/A
Viewlogic	Powerview ViewSim Simulator	Viewlogic Library and Interface	N/A	pDS1102-SN1	pDS1102-SN2
OrCAD	VST 386+ or Simulation for Windows Simulator	OrCAD Library and Interface	pDS1170-PC1	N/A	N/A
Verilog	OVI-Compliant Verilog Simulator	Verilog Library	pDS1131-PC1	pDS1131-SN1	N/A
Cadence	Cadence Verilog Simulator	Cadence Library and Interface	N/A	pDS1160-SN1	N/A
Vantage	Speedwave VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1	N/A
VHDL	Vital-Compliant VHDL Simulator	Verilog and VHDL Simulation Libraries	pDS1131-PC1	pDS1131-SN1	N/A

** The appropriate third-party front end tools and the Lattice Semiconductor pDS+ Fitter are required with any of these options.
*** pDS3302A should be purchased in conjunction with pDS1301-PC2.