Lattice Semiconductor

Type	Public
Traded as	NASDAQ: LSCC Russell 2000 Component
ISIN	US5184151042
Industry	Semiconductors
Founded	1983, public since 1989
Headquarters	Portland, Oregon, United States 45.527216°N 122.926626°WCoordinates: 45.527216°N 122.926626°W
Key people	Jim Anderson, CEO
Products	FPGAs, CPLDs
Revenue	$366.1 million (2014)[1]
Net income	$48.6 million (2014)[1]
Number of employees	784 (2015, full-time)[1]
Website	www.latticesemi.com

Lattice Semiconductor Corporation is an American manufacturer of high-performance programmable logic devices (FPGAs, CPLDs, & SPLDs).[2] Founded in 1983, the company by 2014 was employing about 700 people and had annual revenues of around $300 million.[3] In 2011, the Oregon-based company was ranked third among the world's makers of field

programmable gate array (FPGA) devices[4] and second for CPLDs & SPLDs.[5] The company went public in 1989 and is traded on the NASDAQ stock exchange under the symbol LSCC.

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History

Lattice was founded on April 3, 1983, by C. Norman Winningstad, Rahul Sud, and Ray Capece,[6] with investment from Winningstad, Harry Merlo, Tom Moyer, and John Piacentini.[6] Lattice was incorporated in Oregon in 1983 and reincorporated in Delaware in 1985. Co-founder Sud left as president in December 1986, and Winningstad left in 1991 as chairman of the board.[6] Early struggles led to chapter 11 bankruptcy reorganization in July 1987.[6] The company emerged from bankruptcy after 62 days and moved from its headquarters in an unincorporated area near Beaverton to a smaller building in Hillsboro, Oregon.[7] Over the next year, the company shrank from 140 to 64 employees but posted record revenues.[8]

Cyrus Tsui became the company's chief executive officer in 1988.[9] On November 9, 1989, Lattice became a publicly traded company when its shares were listed on the NASDAQ after in initial public offering.[10] The initial share price was $6, and raised almost $14 million for the company.[10] In July 1990, a second stock offering of nearly 1.5 million new shares raised $22.6 million at $16.25 per share.[11]

In 1995, the company attempted to assert trademark rights in the term Silicon Forest beyond the use of its trademark for the use in semiconductor devices.[12] They had registered the mark in 1985, but later conceded they could not prevent the usage of the term as a noun.[12] *Forbes* ranked the company as their 162nd best small company in the United States in 1996,[13] and Lattice began to double the size of its Hillsboro headquarters.[9]

In 2000, annual revenues topped $560 million with profits of $160 million.[14] Its stock price reached an all-time high of $41.34, adjusted for splits.[14] For the next five years, however, the company recorded no annual profit.

Lattice purchased Agere Corporation's FPGA division in 2002.[15] In 2004, the company settled charges with the United States government that it had illegally exported certain technologies to China, paying a fine of $560,000.[16] In 2005, Tsui was replaced as CEO by Steve Skaggs in 2005[15] and the company laid off employees for the first time.[15] In fiscal year 2006, Lattice

posted a profit of $3.1 million on revenues of $245.5 million, the first annual profit since 2000.[17]

In June 2008, Bruno Guilmart was named as chief executive officer of the company, replacing Steve Skaggs.[18] For fiscal year 2008, Lattice had a loss of $32 million on annual revenues of $222.3 million.[19] In 2009, the company began moving all of its warehouse operations for parts from Oregon to Singapore.[20] Through July 2009, the company had lost money for ten straight quarters,[21] and had its first profitable quarter in three years during the fourth quarter of 2009.[22] Bruno Guilmart left the company in August 2010, and Darin Billerbeck, former Zilog CEO, who had just sold Zilog in the previous year, was named the new CEO in October of that year, starting in November.[23] The company reported 2011 revenue of $318 million.[24] For the first quarter of 2012 Lattice reported revenue of $71.7 million.[25] Lattice reported revenue of $70.8 million for the second quarter of 2012.[26] Lattice started a stock buy-back program in 2010 that continued into 2012 that would total about $35 million if fully implemented.[27]

On December 9, 2011, Lattice announced it was acquiring SiliconBlue for $63.2 million in cash.[28][29][30] Lattice announced in July 2012 a foundry agreement with United Microelectronics Corporation. In October 2012, the company announced third quarter revenue of $70.9 million and restructuring that included job lay-offs.[31] Lattice returned to profitability in 2013 with a profit of $22.3 million on $332.5 million in revenues.[32] The company acquired Silicon Image Inc. for $606 million in March 2015[33] and moved company headquarters to Downtown Portland.[34]

In April 2016, Tsinghua Holdings said in a U.S. filing that it accumulated a roughly 6 percent stake in Lattice Semiconductor through share purchased on the open market.[35] In November, 2016, Canyon Bridge Capital Partners announced a definitive agreement to acquire all of Lattice's shares.[36] The purchase of Lattice by Canyon Bridge was in September 2017 blocked by US President Donald Trump based on the recommendation of the Committee on Foreign Investment in the United States on national security grounds under the Exon–Florio Amendment.[37][38][39][40] The company re-located its headquarters back to its Hillsboro campus in 2019.[41]

Operations

Former company headquarters in Hillsboro, Oregon

In addition to CPLDs & SPLDs, Lattice also manufactures field-programmable gate arrays (FPGAs), programmable mixed-signal and interconnect products, related software and intellectual property (IP).[42] Lattice's main products are the ECP and XP series of FPGAs (field-

programmable gate arrays), the Mach series of CPLDs (complex programmable logic devices), the ispPAC POWR series of programmable power management products (programmable mixed signal FPAA) and Lattice Diamond design software.[43] At the 90 nm node, Lattice offers a variety of FPGA devices. Products are used in a variety of end uses, such as flat-panel televisions and laptops.[18]

The company is headquartered in Hillsboro, Oregon, in the high-tech area known as the Silicon Forest.[44] The company employs 700 people worldwide, with approximately 250 of those at company headquarters. Jim Anderson is Lattice's chief executive officer and president.[45][46] Its chief competitors are Xilinx, Altera and Microsemi (previously Actel.)[47]

See also

- iCE (FPGA)
- List of companies based in Oregon