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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13D  
(Rule 13d-101)

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INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT  
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(a)

Under the Securities Exchange Act of 1934  
(Amendment No. 5)\*

Supertex, Inc.  
(Name of Issuer)

Common Stock, no par value

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(Title of Class of Securities)

868532102

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(CUSIP Number)

J. Eric Bjornholt  
Vice President and Chief Financial Officer  
Microchip Technology Incorporated  
2355 West Chandler Boulevard  
Chandler, Arizona 85224-6199  
(480) 792-7200

With a Copy to:

J. Robert Suffoletta  
Wilson Sonsini Goodrich & Rosati  
650 Page Mill Rd.  
Palo Alto, CA 94304  
(650) 493-9300

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(Name, Address and Telephone Number of Person Authorized to  
Receive Notices and Communications)

September 15, 2009

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(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. ☐

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a Reporting Person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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	1.	NAMES OF REPORTING PERSONS Microchip Technology Incorporated	
	2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)	(a)o (b)o
	3.	SEC USE ONLY	
	4.	SOURCE OF FUNDS (See Instructions) Not applicable.	
	5.	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E)	o
	6.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7.	SOLE VOTING POWER 554,100	
	8.	SHARED VOTING POWER 0	
	9.	SOLE DISPOSITIVE POWER 554,100	
	10.	SHARED DISPOSITIVE POWER 0	
	11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 554,100	
	12.	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)	o
	13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.3%	
	14.	TYPE OF REPORTING PERSON (See Instructions) CO	

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**Item 1. Security and Issuer**

This Amendment No. 5 to Statement on Schedule 13D (this "Schedule 13D") amends and restates Amendment No. 4 to the Statement on Schedule 13D filed on September 1, 2009 and reports the sale of an aggregate of 135,399 shares of the common stock, no par value (the "Common Stock"), of Supertex, Inc., a California corporation (the "Issuer"), having its principal executive offices at 1235 Bordeaux Drive, Sunnyvale, California 94086.

**Item 2. Identity and Background**

This Amendment No. 5 to Schedule 13D is being filed by Microchip Technology Incorporated, a Delaware corporation ("Microchip" or the "Reporting Person"). The address of the principal business office of Microchip is 2355 West Chandler Boulevard, Chandler, Arizona 85224-6199.

The principal business of Microchip is the development and manufacturing of specialized semiconductor products used by its customers for a wide variety of embedded control applications.

The name, present principal occupation or employment, present business address and country of citizenship of each director and executive officer of Microchip is set forth on Schedule I attached hereto.

During the past five years, neither Microchip nor, to the best of Microchip's knowledge, any director or executive officer of Microchip, has been (i) convicted of a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

**Item 3. Source and Amount of Funds or Other Consideration**

Not applicable.

**Item 4. Purpose of Transaction**

This Amendment No. 5 is being filed in connection with the sale of an aggregate of 135,399 shares of Common Stock as described in Item 5. Microchip acquired certain of the shares reported in this Schedule 13D as being beneficially owned by Microchip in open market transactions prior to May 13, 2008. Microchip acquired certain other shares reported in this Schedule 13D as being beneficially owned by Microchip in accordance with certain put option transactions Microchip had previously entered into. Microchip has no current intention to acquire or sell additional shares of the Issuer's common stock except as described herein, although Microchip may do so depending on market conditions and other factors that it deems appropriate in its sole discretion. Microchip may also acquire or sell additional shares of the Issuer's common stock as it deems appropriate, whether in open market purchases, privately negotiated transactions or otherwise. Microchip and/or its advisors may enter into or engage in discussions with the Issuer concerning an event referred to in paragraphs (a) through (j), inclusive, of Item 4 of Schedule 13D. Microchip and/or its advisors may also engage in discussions with other market participants and/or other stockholders of the Issuer concerning the issuer, as Microchip deems advisable or appropriate. Microchip also reserves the right to dispose of some or all of the shares of Common Stock at any time in the open market, in privately negotiated transactions to third parties or otherwise as it deems appropriate in its sole discretion. Any of the foregoing actions could lead to one or more of the events referred to in paragraphs (a) through (j), inclusive, of Item 4 of Schedule 13D, including, potentially, one or more mergers, consolidations, sales or acquisitions of assets, change in control, issuances, purchases, dispositions or pledges of securities or other changes in capitalization.

**Item 5. Interest in Securities of the Issuer**

(a), (b) According to the Issuer's Quarterly Report on Form 10-Q for the Quarter Ended June 27, 2009, filed with the Securities and Exchange Commission on August 6, 2009, there were 12,897,899 shares of Common Stock issued and outstanding as of August 3, 2009. Based on such information and including the transactions described in Item 5(c) below, Microchip reports beneficial ownership of 554,100 shares of Common Stock, which represents 4.3% of the total number of issued and outstanding shares of Common Stock. Voting and dispositive power with respect to such shares of Common Stock is held solely by Microchip.

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(c) Since September 1, 2009, the date Microchip filed Amendment No. 4 to the Statement on Schedule 13D, Microchip did not purchase any shares of Common Stock. Since September 1, 2009, Microchip sold the following shares of Common Stock in the open market:

<u>Trade Date</u>	<u>Shares</u>	<u>Price / Share</u>
September 11, 2009	16,800	\$ 25.6369
September 14, 2009	31,200	\$ 25.6938
September 15, 2009	87,399	\$ 27.0823

Other than the transactions disclosed above, neither Microchip nor, to the best of Microchip's knowledge, any director or executive officer of Microchip, has engaged in any transactions in shares of Common Stock since September 1, 2009.

(d), (e) Not applicable.

**Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer**

There are currently no contracts, arrangements, understandings or relationships (legal or otherwise) between Microchip or, to the best of Microchip's knowledge, any director or executive officer of Microchip, and any person with respect to any securities of the Issuer, including but not limited to, transfer or voting of any of the securities of the Issuer, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies.

**Item 7. Material to Be Filed as Exhibits**

None.

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**Signature**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: September 16, 2009

MICROCHIP TECHNOLOGY INCORPORATED

By: /s/ J. Eric Bjornholt  
J. Eric Bjornholt  
Vice President, Chief Financial Officer  
(Principal Accounting and Financial Officer)

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## SCHEDULE I

MICROCHIP TECHNOLOGY INCORPORATED  
DIRECTORS AND EXECUTIVE OFFICERS

<b>Name</b>	<b>Present Principal Occupation</b>	<b>Present Business Address</b>	<b>Country of Citizenship</b>
Steve Sanghi	President, Chief Executive Officer and Chairman of the Board of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
Ganesh Moorthy	Executive Vice President and Chief Operating Officers of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
Matthew W. Chapman	Director of Microchip Technology Incorporated President and Chief Executive Officer of Northwest Evaluation Association	Northwest Evaluation Association 5885 S.W. Meadow Rd, #200 Lake Oswego, OR 97035	United States
L.B. Day	Director of Microchip Technology Incorporated President of L.B. Day & Company, Inc.	L.B. Day & Co. 806 S.W. Broadway, 11th Flr. Portland, OR 97205-3313	United States
Albert J. Hugo-Martinez	Director of Microchip Technology Incorporated Chief Executive Officer of Hugo-Martinez Associates	Hugo-Martinez and Associates 1366 Via Alta Del Mar, CA 92014	United States
Wade F. Meyercord	Director of Microchip Technology Incorporated President of Meyercord & Associates, Inc.	Meyercord & Associates, Inc. 16187 Greenwood Lane Los Gatos, CA 95030	United States
J. Eric Bjornholt	Vice President, Chief Financial Officer of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
Stephen V. Dreho	Vice President, Security, Microcontroller and Technology Division of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
David S. Lambert	Vice President, Fab Operations of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
Mitchell R. Little	Vice President, Worldwide Sales and Applications of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States
Richard J. Simoncic	Vice President, Analog and Interface Products Division of Microchip Technology Incorporated	Microchip Technology Incorporated 2355 West Chandler Boulevard Chandler, Arizona 85224-6199	United States

