

PALETTE DONALD W

Form 4

July 18, 2007

FORM 4**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

Check this box
if no longer
subject to
Section 16.
Form 4 or
Form 5
obligations
may continue.
See Instruction
1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF
SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
30(h) of the Investment Company Act of 1940

OMB APPROVAL

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(Print or Type Responses)

1. Name and Address of Reporting Person *
PALETTE DONALD W

2. Issuer Name **and** Ticker or Trading
Symbol
AXCELIS TECHNOLOGIES INC
[ACLS]

5. Relationship of Reporting Person(s) to
Issuer

(Check all applicable)

(Last) (First) (Middle)
C/O AXCELIS TECHNOLOGIES,
INC., 108 CHERRY HILL DRIVE

3. Date of Earliest Transaction
(Month/Day/Year)
07/16/2007

____ Director ____ 10% Owner
X Officer (give title below) ____ Other (specify below)
Senior Vice President, Finance

(Street)
BEVERLY, MA 01915

4. If Amendment, Date Original
Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check
Applicable Line)
X Form filed by One Reporting Person
____ Form filed by More than One Reporting
Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	07/16/2007		A	37,842	A	\$ 0 (1)	104,880 D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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information contained in this form are not
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SEC 1474
(9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)**

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1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repor Trans (Instr
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships
	Director 10% Owner Officer Other
PALETTE DONALD W C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE BEVERLY, MA 01915	Senior Vice President, Finance

Signatures

Lynnette C. Fallon, as attorney-in-fact for Donald
Palette

07/18/2007

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) These shares are issuable on restricted stock units granted under the Company's 2000 Stock Plan. 1/3 of these units will vest on July 16, 2009, 2010 and 2011.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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