

DOCUMENT TYPE SC 13G
TEXT

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 13G
Under the Securities Exchange Act of 1934

Name of Issuer: AGILENT TECHNOLOGIES INC

Title of Class
of Securities: Common Stock

CUSIP Number: 00846U101

1) NAME AND I.R.S. IDENTIFICATION NO. OF REPORTING PERSON

Prudential Financial, Inc. 22-3703799

2.) MEMBER OF A GROUP: (a) N/A
(b) N/A

3) SEC USE ONLY:

4) PLACE OF ORGANIZATION: New Jersey

NUMBER OF SHARES BENEFICIALLY OWNED BY REPORTING PERSON WITH:

5) Sole Voting Power: 570,706 See Exhibit A
6) Shared Voting Power: 12,683,240 See Exhibit A
7) Sole Dispositive Power: 570,706 See Exhibit A
8) Shared Dispositive Power: 21,705,410 See Exhibit A

9) AGGREGATE AMOUNT BENEFICIALLY OWNED:
22,276,116 See Exhibit A

10) AGGREGATE AMOUNT IN ROW (9) EXCLUDES SHARES: Not Applicable

11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):
6.4 See Exhibit A

12) TYPE OF REPORTING PERSON: HC

ITEM 1(a). NAME OF ISSUER:

AGILENT TECHNOLOGIES INC

ITEM 1(b). ADDRESS OF ISSUER'S EXECUTIVE OFFICES:

AGILENT TECHNOLOGIES INC 5301 STEVENS CREEK BLVD SANTA CLARA , CA 95051

ITEM 2(a). NAME OF PERSON FILING:

Prudential Financial, Inc.

ITEM 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE:

751 Broad Street
Newark, New Jersey 07102-3777

ITEM 2(c). CITIZENSHIP:

New Jersey

ITEM 2(d). TITLE OF CLASS OF SECURITIES:

Common Stock

ITEM 2(e). CUSIP NUMBER:

00846U101

ITEM 3. The Person filing this statement is a Parent Holding Company as defined in Section 240.13d-1(b)(1)(ii)(G) of the Securities Exchange Act of 1934.

ITEM 4. OWNERSHIP:

(a) Number of Shares
Beneficially Owned: 22,276,116 See Exhibit A

(b) Percent of Class: 6.4

(c) Powers	No. Of Shares
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Sole power to vote or 570,706 See Exhibit A
to direct the vote

Shared power to vote or 12,683,240 See Exhibit A
to direct the vote

Sole power to dispose or 570,706 See Exhibit A
to direct disposition

Shared power to dispose 21,705,410 See Exhibit A
or to direct disposition

ITEM 5. OWNERSHIP OF 5% OR LESS OF A CLASS:

Not Applicable

ITEM 6. OWNERSHIP OF MORE THAN 5% ON BEHALF OF
ANOTHER PERSON:

See Exhibit A

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE
SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING
REPORTED ON BY THE ULTIMATE PARENT COMPANY:

See Exhibit A

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF
MEMBERS OF THE GROUP:

Not Applicable

ITEM 9. NOTICE OF DISSOLUTION OF GROUP:

Not Applicable

ITEM 10. CERTIFICATION:

By signing below, Prudential Financial, Inc. certifies that, to the best of its knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

The filing of this statement should not be construed as an admission that Prudential Financial, Inc. is, for purposes of Sections 13 or 16 of the Securities Exchange Act of 1934, the beneficial owner of such shares.

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, Prudential Financial, Inc. certifies that the information set forth in this statement is true, complete and correct.

PRUDENTIAL FINANCIAL, INC.

By: Richard Baker
Second Vice President

Date: 02/08/2011
As of: 12/31/2010

Exhibit A

ITEM 6. OWNERSHIP:

Prudential Financial, Inc. through its beneficial ownership of the Prudential Insurance Company of America ("PICOA") may be deemed to presently hold 62,400 shares of Issuer's common stock for the benefit of PICOA's general account.

Prudential Financial, Inc. may be deemed the beneficial owner of securities beneficially owned by the Item 7 listed entities and may have direct or indirect voting and/or investment discretion over 22,213,716 shares which are held for it's own benefit or for the benefit of its clients by its separate accounts, externally managed accounts, registered investment companies, subsidiaries and/or other affiliates. Prudential Financial, Inc. is reporting the combined holdings of these entities for the purpose of administrative convenience.

These shares were acquired in the ordinary course of business, and not with the purpose or effect of changing or influencing control of the Issuer. The filing

of this statement should not be construed as an admission that Prudential Financial, Inc. is, for the purposes of Sections 13 or 16 of the Securities Exchange Act of 1934, the beneficial owner of these shares.

ITEM 7. IDENTIFICATION/CLASSIFICATION:

Prudential Financial, Inc. is a Parent Holding Company and the direct or indirect parent of the following Registered Investment Advisers and Broker Dealers:

The Prudential Insurance Company of America	IC,IA
Prudential Investment Management, Inc.	IA
Jennison Associates LLC	IA
Prudential Bache Asset Management, Inc.	IA
Prudential Investments LLC	IA
Prudential Private Placement Investors, L.P.	IA,PN
Pruco Securities, LLC	IA,BD
Prudential Investment Management Services LLC	BD
AST Investment Services, Inc.	IA
Prudential Annuities Distributors, Inc.	BD
Quantitative Management Associates LLC	IA
Prudential International Investments Advisers, LLC	IA
Global Portfolio Strategies, Inc.	IA
Prudential Bache Securities, LLC	BD
Prudential Bache Commodities, LLC	BD