HARMONIC INC Form SC 13G February 03, 2011

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

> > SCHEDULE 13G

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

NAME OF ISSUER: Harmonic Inc.

TITLE OF CLASS OF SECURITIES: Common Stock

CUSIP NUMBER: 413160102

DATE OF EVENT WHICH REQUIRES FILING OF THIS STATEMENT: December 31, 2010

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[X] Rule 13d-1(b)
[] Rule 13d-1(c)
[] Rule 13d-1(d)

*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 the disclosures provided in a prior cover page.

The information required in 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).

CUSIP NUMBER: 413160102

- (1) Names of Reporting Persons The Bank of New York Mellon Corporation IRS Identification Nos. of Above Persons IRS No.13-2614959
- (2) Check the Appropriate Box if a Member of a Group (See Instructions) (a) () (b) ()
- (3) SEC use only

Citizenship or Place of Organization New York (4) Number of Shares (5) Sole Voting Power 5,178,927 Beneficially Owned by Each (6) Shared Voting Power 0 Reporting Person With (7) Sole Dispositive Power 5,786,927 (8) Shared Dispositive Power 6,950

(9) Aggregate Amount Beneficially Owned by Each Reporting Person 5,793,877

(10) Check if the Aggregated Amount in Row (9) Excludes Certain

Shares (see Instructions)	()
(11) Percent of Class Represented by Amount in Row (9)	5.18%
(12) Type of Reporting Person (See Instructions)	HC

SCHEDULE 13G

Item 1(a) Name	e of Issuer: Harmonic Inc.
Item 1(b) Add:	ress of Issuer's Principal Executive Office: 4300 North First Street San Jose, CA 95134
Item 2(a) Name	e of Person Filing: The Bank of New York Mellon Corporation and any other reporting person(s) identified on the second part of the cover page(s) and Exhibit I
Item 2(b) Add	dress of Principal Business Office, or if None, Residence: C/O The Bank of New York Mellon Corporation One Wall Street, 31st Floor New York, New York 10286 (for all reporting persons)
Item 2(c) Cit	zizenship: See cover page and Exhibit I
Item 2(d) Tit	tle of Class of Securities: Common Stock
CUSIP Number	413160102
	tem 12 of cover page(s) ("Type of Reporting n ") for each reporting person.
Symbol	l Category
BD	 Broker or Dealer registered under Section 15 of the Securities Exchange Act of 1934
BK	Bank as defined in Section 3(a)(6) of the Securities Exchange Act of 1934
IV	Investment Company registered under Section 8 of the Investment Company Act of 1940
IA	Investment Advisor registered under Section 203 of the Investment Advisors Act of 1940
EP	Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund; see Section 240.13 - d(1)(b)(1)(ii)(F)
НС	<pre>= Parent Holding Company, in accordance with Section 240.13-d(1)(b)(1)(ii)(G)</pre>
Item 4 Ownership	p: See Item 5 through 9 and 11 of cover page(s) as to each reporting person.

The amount beneficially owned includes, where appropriate, securities not outstanding which are subject to options, warrants, rights or conversion privileges that are exercisable within 60 days. The securities reported herein as beneficially owned may exclude securities of the issuer with respect to which voting and/or dispositive power is exercised by subsidiaries of The Bank of New York Mellon Corporation, or departments or units thereof, independently from the exercise of those powers over the securities reported herein. See SEC Release No. 34-39538 (January 12, 1998). The filing of this Schedule 13G shall not be construed as an admission that The Bank of New York Mellon Corporation, or its direct or indirect subsidiaries, including The Bank of New York Mellon and BNY Mellon, National Association, are for the purposes of Section 13(d) or 13(g) of the Act, the beneficial owners of any securities covered by this Schedule 13G.

The following information applies if checked: () The Bank of New York Mellon and/or () The Bank of New York Mellon Trust Company, National Association is/are the trustee of the issuer's employee benefit plan (the Plan), which is subject to ERISA. The securities reported include all shares held of record by such reporting person(s) as trustee of the Plan which have not been allocated to the individual accounts of employee participants in the Plan. The reporting person, however, disclaims beneficial ownership of all shares that have been allocated to the individual accounts of employee participants in the Plan for which directions have been received and followed.

Item 5 Ownership of Five Percent or Less of a Class:

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following () $\,$

Item 6 Ownership of More than Five Percent on Behalf of Another Person:

All of the securities are beneficially owned by The Bank of New York Mellon Corporation and its direct or indirect subsidiaries in their various fiduciary capacities. As a result, another entity in every instance is entitled to dividends or proceeds of sale. The number of individual accounts holding an interest of 5% or more is ()

- Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported by the Parent Holding Company: See Exhibit I.
- Item 8 Identification and Classification of Members of the Group: N/A

Item 9 Notice of Dissolution of Group:

N/A

Item 10 Certification:

By signing below I certify that, to the best of my 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 and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired and are not held in connection with or as a participant in any transaction having such purpose or effect.

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. This filing is signed by The Bank of New York Mellon Corporation on behalf of all reporting entities pursuant to Rule

13d-1(k)(1) promulgated under the Securities and Exchange Act of 1934, as amended.

Date: February 03, 2011

THE BANK OF NEW YORK MELLON CORPORATION

By: /s/ NICHOLAS R. DARROW

Nicholas R. Darrow Senior Vice President Attorney-In-Fact for The Bank of New York Mellon Corporation

EXHIBIT I

The shares reported on the attached Schedule 13G are beneficially owned by the following direct or indirect subsidiaries of The Bank of New York Mellon Corporation, as marked (X):

- (A) The Item 3 classification of each of the subsidiaries listed below is
 "Item 3(b) bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c) or Section 240.13d-1(b)(1)(ii)(J)"
 - (X) The Bank of New York Mellon
 - (X) The Bank of New York Mellon Trust Company, National Association
 - (X) BNY Mellon, National Association
 - () BNY Mellon Trust of Delaware
- (B) The Item 3 classification of each of the subsidiaries listed below is
 "Item 3(e) an investment adviser in accordance with Section 240.13d-1
 (b) (1) (ii) (E) or Section 240.13d-1 (b) (1) (ii) (J)"
 - () Blackfriars Asset Management Limited
 - () BNY Mellon ARX Investimentos Ltda (parent holding company of BNY Mellon ARX Ativos Financeiros Ltda)
 - (X) The Boston Company Asset Management LLC
 - (X) The Dreyfus Corporation (parent holding company of MBSC Securities Corporation)
 - () Insight Investment Management (Global) Limited
 - (X) Lockwood Advisors, Inc.
 - (X) Mellon Capital Management Corporation
 - () Newton Capital Management Limited
 - () Newton Investment Management Limited
 - () Standish Mellon Asset Management Company LLC
 - () Urdang Securities Management, Inc.
 - () Urdang Capital Management, Inc.
 - () Walter Scott & Partners Limited
- (C) The Item 3 classification of each of the subsidiaries listed below is "Item 3(a) broker or dealer registered under Section 15 of the ACT (15 U.S.C. 78c) or Section 240.13d-1(b)(1)(ii)(B)"
 - () MBSC Securities Corporation
 - () Pershing LLC
- (D) The Item 3 classification of each of the subsidiaries listed below is "Item 3(g) a parent holding company or control person in accordance with Section 240.13d-1(b)(1)(ii)(G)"
 - (X) The Bank of New York Mellon Corporation

- () B.N.Y. Holdings (Delaware) Corporation (parent holding company of BNY Mellon Trust of Delaware)
- (X) BNY Separate Account Services, Inc. (parent holding company of Lockwood Advisors, Inc.)
- () Insight Investment Management Limited (parent holding company of Insight Investment Management (Global) Limited)
- (X) MAM (MA) Holding Trust (parent holding company of Standish Mellon Asset Management Company LLC; The Boston Company Asset Management LLC)
- (X) MBC Investments Corporation (parent holding company of Mellon Capital Management Corporation; Neptune LLC)
- () Mellon International Holdings S.A.R.L. (parent holding company of BNY Mellon International Asset Management Group Limited)
- BNY Mellon International Asset Management Group Limited (parent holding company of Newton Management Limited; Walter Scott & Partners Limited)
- BNY Mellon Asset Management International Holdings Limited (parent holding company of Ankura Capital Pty Limited and BNY Mellon Asset Management Japan Limited)
- () Mellon Overseas Investment Corporation (parent holding company to BNY Mellon Servicos Financeiros Distribuidora de Titulos e Valores Mobiliarios S.A. and (indirect) BNY Mellon Gestao de Patrimonio Ltda)
- () Neptune LLC (parent holding company of Mellon International Holdings S.A.R.L.)
- Newton Management Limited (parent holding company of Newton Capital Management Limited; Newton Investment Management Limited)
- (X) Pershing Group LLC (parent holding company of BNY Separate Account Services, Inc. and Pershing LLC)
- () The Bank of New York Mellon SA/NV (parent holding company of BNY Mellon Service Kapitalanlage-Gesellschaft mbH)

NOTE: ALL OF THE LEGAL ENTITIES LISTED UNDER (A) AND (B) ABOVE ARE DIRECT OR INDIRECT SUBSIDIARIES OF THE BANK OF NEW YORK MELLON CORPORATION. BENEFICIAL OWNERSHIP OF MORE THAN FIVE PERCENT OF THE CLASS BY ANY ONE OF THE SUBSIDIARIES OR INTERMEDIATE PARENT HOLDING COMPANIES LISTED ABOVE IS REPORTED ON A JOINT REPORTING PERSON PAGE FOR THAT SUBSIDIARY ON THE ATTACHED SCHEDULE 13G AND IS INCORPORATED IN THE TOTAL PERCENT OF CLASS REPORTED ON THE BANK OF NEW YORK MELLON CORPORATION'S REPORTING PERSON PAGE. (DO NOT ADD THE SHARES OR PERCENT OF CLASS REPORTED ON EACH JOINT REPORTING PERSON PAGE ON THE ATTACHED SCHEDULE 13G TO DETERMINE THE TOTAL PERCENT OF CLASS FOR THE BANK OF NEW YORK MELLON CORPORATION).

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each of the undersigned (each a "Company") does hereby make, constitute and appoint each of Kenneth J. Bradle, Sri Gupta, John E. Thomas, Jr., Nicholas R. Darrow, (and any other employee of The Bank of New York Mellon Corporation, or one of its affiliates, designated in writing by one of the attorneys-in-fact), acting individually, its true and lawful attorney, to execute and deliver in its name and on its behalf, whether the Company is acting individually or as representative of others, any and all filings, be they written or oral, required to be made by the Company with respect to securities which may be deemed to be beneficially owned by the Company or under the Company's investment discretion under:

*the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including those filings required to be submitted on Form 13F, Schedule 13G

and Form SH, and

*the laws of any jurisdiction other than the United States of America, including those filings made to disclose securities holdings as required to be submitted to regulatory agencies, exchanges and/or issuers,

giving and granting unto each said attorney-in-fact power and authority to correspond with issuers, regulatory authorities, and other entities as is required in support of the filings referenced above, and to act in the premises as fully and to all intents and purposes as the Company might or could do to comply with the applicable regulations if personally present by one of its authorized signatories (including, but not limited to, instructing local counsel on a Company's behalf), hereby ratifying and confirming all that said attorney-in-fact shall lawfully do or cause to be done by virtue hereof.

THIS POWER OF ATTORNEY shall remain in full force and effect until either revoked in writing by the Company or until such time as the person or persons to whom power of attorney has been hereby granted cease(s) to be an employee of The Bank of New York Mellon Corporation or one of its affiliates.

This Power of Attorney may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument.

_____ Banks/Bank Holding Companies _____ THE BANK OF NEW YORK MELLON BNY MELLON, NATIONAL ASSOCIATION CORPORATION By: /S/ RONALD P. O'HANLEY By: /S/ GERALD L. HASSELL _____ _____ Ronald P. O'Hanley Gerald L. Hassell Vice Chairman President Date: October 12, 2009 Date: October 12, 2009 THE BANK OF NEW YORK MELLON THE BANK OF NEW YORK MELLON By: /S/ GERALD L. HASSELL By: /S/ DONALD R. MONKS _____ _____ Gerald L. Hassell Donald R. Monks President Vice Chairman Date: October 12, 2009 Date: October 12, 2009 THE BANK OF NEW YORK MELLON TRUST THE BANK OF NEW YORK MELLON TRUST COMPANY, NATIONAL ASSOCIATION COMPANY, NATIONAL ASSOCIATION By: /S/ KAREN A. BAYZ By: /S/ JOHN A. PARK _____ _____ Karen A. Bayz John A. Park Managing Director and Executive Vice President Chief Financial Officer Date: October 13, 2009 Date: October 9, 2009 BNY MELLON TRUST OF DELAWARE BNY MELLON TRUST OF DELAWARE

IN WITNESS WHEREOF, the undersigned hereby execute this Agreement effective as of the date set forth below.

By: /S/ DAVID B. KUTCH By: /S/ DONALD R. MONKS _____ _____ David B. Kutch Donald R. Monks Chairman and Senior Executive Vice President Chief Executive Officer Date: October 12, 2009 Date: October 12, 2009 _____ Investment Advisers and/or Broker-Dealers 1 - I _____ PERSHING LLC ANKURA CAPITAL PTY LIMITED By: /S/ GREG VAUGHN By: /S/ GARY JOHNSON _____ _____ Greg Vaughn Gary Johnson Managing Director Managing Director Date: October 8, 2009 Date: December 10, 2010 BLACKFRIARS ASSET MANAGEMENT LIMITED BLACKFRIARS ASSET MANAGEMENT LIMITED By: /S/ HUGH HUNTER By: /S/ MOHAMMED BHATTI _____ _____ Hugh Hunter Mohammed Bhatti Chief Executive Officer Director and Chief Operating Officer Date: October 7, 2009 Date: October 7, 2009 BNY MELLON ARX INVESTIMENTOS LTDA BNY MELLON ARX INVESTIMENTOS LTDA By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De OliveiraMarcelo Periera da SilvaChief Executive OfficerChief Financial Officer Chief Executive Officer Date: January 4, 2010 Date: January 4, 2010 BNY MELLON SERVICOS FINANCEIROS BNY MELLON SERVICOS FINANCEIROS BNY MELLON SERVICOS FINANCEIROS DISTRIBUIDORA DE TITULOS E VALORES DISTRIBUIDORA DE TITULOS E VALORES MOBILIARIOS S.A MOBILIARIOS S.A By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De OliveiraMarcelo Periera da SilvaChief Executive OfficerChief Financial Officer Chief Executive Officer Date: January 4, 2010 Date: January 4, 2010 BNY MELLON ARX ATIVOS FINANCEIROS BNY MELLON ARX ATIVOS FINANCEIROS T.TDA **LTDA** By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva Chief Executive Officer Chief Financial Of Chief Financial Of Date: January 4, 2010 Chief Financial Officer Date: January 4, 2010

BNY MELLON GESTAO DE PATRIMONIO LTDA BNY MELLON GESTAO DE PATRIMONIO LTDA By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva Chief Financial Officer Marcelo Periera da Silva Date: January 4, 2010 Date: January 4, 2010 THE BOSTON COMPANY ASSET MANAGEMENT THE BOSTON COMPANY ASSET MANAGEMENT LLC LTC By: /S/ DAVE CAMERON By: /S/ JOSEPH P. GENNACO _____ _____ Dave Cameron Joseph P. Gennaco Chairman, President and Executive Vice President Chief Executive Officer and Chief Operating Officer Date: October 12, 2009 Date: October 12, 2009 BNY MELLON ASSET MANAGEMENT JAPAN BNY MELLON ASSET MANAGEMENT JAPAN LIMITED LIMITED By: /S/ SHOGO YAMAGUCHI By: /S/ DAVID JIANG _____ _____ Shogo Yamaguchi David Jiang President and Chairman and Representative Director Representative Director Date: December 29,2009 Date: December 29,2009 THE DREYFUS CORPORATION INSIGHT INVESTMENT (Global) MANAGEMENT LIMITED By: /S/ JAMES BITETTO By: /s/ CHARLES FARQUHARSON _____ _____ James Bitetto Charles Farguharson Chief Risk Officer Corporate Secretary Date: October 7, 2009 Date: December 04, 2009 LOCKWOOD ADVISORS, INC. By: /S/ DON MARCHESIELLO ------Don Marchesiello President Date: October 6, 2009 MELLON CAPITAL MANAGEMENT MBSC SECURITIES CORPORATION CORPORATION By: /S/ KENNETH J. BRADLE By: /S/ CHARLES J. JACKLIN _____ _____ Charles J. Jacklin Kenneth J. Bradle President and CEO President Date: October 8, 2009 Date: October 28, 2009

NEWTON INVESTMENT MANAGEMENT LIMITED NEWTON CAPITAL MANAGEMENT LIMITED By: /S/ ANDREW DOWNS By: /S/ ANDREW DOWNS _____ _____ Andrew Downs Andrew Downs Chief Operating Officer Chief Operating Officer Date: November 6, 2009 Date: November 6, 2009 STANDISH MELLON ASSET MANAGEMENT PERSHING GROUP LLC COMPANY LLC By: /S/ DESMOND MAC INTYRE By: /S/ BRIAN T. SHEA _____ ------Brian T. Shea Desmond Mac Intyre President and CEO Managing Director Date: November 19, 2009 Date: October 9, 2009 URDANG CAPITAL MANAGEMENT, INC. URDANG CAPITAL MANAGEMENT, INC. By: /S/ E. TODD BRIDDELL By: /S/ RICHARD J. FERST _____ _____ Richard J. Ferst E. Todd Briddell President and Managing Director and Chief Operating Officer Chief Investment Officer Date: October 15, 2009 Date: October 15, 2009 URDANG SECURITIES MANAGEMENT, INC. URDANG SECURITIES MANAGEMENT, INC. By: /S/ E. TODD BRIDDELL By: /S/ RICHARD J. FERST _____ _____ E. Todd Briddell Richard J. Ferst President and Managing Director and Chief Investment Officer Chief Operating Office Date: October 15, 2009 Date: October 15, 2009 WALTER SCOTT & PARTNERS LIMITED WALTER SCOTT & PARTNERS LIMITED By: /S/ ANNA NICHOLL By: /S/ CAROL-ANN FRASER _____ _____ Anna Nicholl Carol-Ann Fraser Chief Compliance Officer Compliance Officer Date: October 8, 2009 Date: October 8, 2009 _____ Parent Holding Companies/Control Persons 1 _____ B.N.Y. HOLDINGS (DELAWARE) CORPORATION BNY SEPARATE ACCOUNT SERVICES, INC. By: /S/ JOHN A. PARK By: /S/ BRIAN T. SHEA _____ _____ John A. Park Brian T. Shea Senior Vice President Chairman Date: October 9, 2009 Date: October 9, 2009

BNY MELLON ASSET MANAGEMENT BNY MELLON ASSET MANAGEMENT INTERNATIONAL HOLDINGS LIMITED INTERNATIONAL HOLDINGS LIMITED By: /S/ GREG BRISK _____ Greg Brisk Director Date: October 12, 2009 BNY MELLON INTERNATIONAL ASSET NEPTUNE LLC MANAGEMENT GROUP LIMITED By: /S/ JEREMY N. BASSIL ------Jeremy N. Bassil Director Date: October 13, 2009 MAM (MA) HOLDING TRUST By: /S/ RONALD P. O'HANLEY _____ Ronald P. O'Hanley President Date: October 9, 2009 MELLON INTERNATIONAL HOLDINGS S.A.R.L. S.A.R.L. By: /S/ JON LITTLE _____ Jon Little Manager Date: October 9, 2009 NEWTON MANAGEMENT LIMITED By: /S/ HELENA MORRISSEY ------Helena Morrissey Director Date: October 15, 2009 MELLON OVERSEAS INVESTMENT CORPORATION LIMITED By: /S/ JON LITTLE _____ Jon Little Chairman, President And Chief Executive Officer Date: December 04, 2009 BNY INTERNATIONAL FINANCING CORPORATION

By: /S/ SHONA SPENCE _____ Shona Spence Director Date: October 15, 2009 By: /S/ JEREMY N. BASSIL _____ Jeremy N. Bassil Management Committee Member Date: October 13, 2009 MBC INVESTMENTS CORPORATION By: /S/ GORDON MOTTER _____ Gordon Motter Chairman, President and CEO Date: October 9, 2009 MELLON INTERNATIONAL HOLDINGS By: /S/ EDWARD KEMP _____ Edward Kemp Director Date: October 16, 2009 NEWTON MANAGEMENT LIMITED By: /S/ ANDREW DOWNS ------Andrew Downs Director Date: November 6, 2009 INSIGHT INVESTMENT MANAGEMENT By: /S/ CHARLES FARQUHARSON _____ Charles Farquharson Chief Risk Officer Date: December 04, 2009 THE BANK OF NEW YORK MELLON SA/NV

By: /S/ FRED RICCIARDI Fred Ricciardi President Date: August 30, 2010 By: /S/ JEAN-CHRISTOPHEMATHONET Jean-ChristopheMathonet Managing Director Date: October 4, 2010

Fund Administrators

BNY MELLON SERVICE KAPITALANLAGE-GESELLSCHAFT mbH

By: /S/ CAROLINE SPECHT Caroline Specht Managing Director, Head of Business Strategy and Legal Date: August 24, 2010

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the undersigned hereby agree to any and all joint filings required to be made on their behalf on Schedule 13G (including amendments thereto) under the Exchange Act, with respect to securities which may be deemed to be beneficially owned by them under the Exchange Act, and that this Agreement be included as an Exhibit to any such joint filing. This Agreement may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned hereby execute this Agreement effective as of the date set forth below.

	Banks/Bank Holdi	ing Companies	
	BANK OF NEW YORK MELLON PORATION	BNY MELLON, NATIONAL ASSOCIATIC	N
By:	/S/ RONALD P. O'HANLEY	By: /S/ GERALD L. HASSELL	
Date	Ronald P. O'Hanley Vice Chairman e: October 09, 2009	Gerald L. Hassell President Date: October 12, 2009	
THE	BANK OF NEW YORK MELLON	THE BANK OF NEW YORK MELLON	
By:	/S/ GERALD L. HASSELL	By: /S/ DONALD R. MONKS	
Date	Gerald L. Hassell President e: October 12, 2009	Donald R. Monks Vice Chairman Date: October 12, 2009	

THE BANK OF NEW YORK MELLON TRUST COMPANY, NATIONAL ASSOCIATION THE BANK OF NEW YORK MELLON TRUST COMPANY, NATIONAL ASSOCIATION By: /S/ KAREN A. BAYZ By: /S/ JOHN A. PARK ------_____ Karen A. Bayz John A. Park Managing Director and Executive Vice President Chief Financial Officer Date: October 13, 2009 Date: October 9, 2009 BNY MELLON TRUST OF DELAWARE BNY MELLON TRUST OF DELAWARE By: /S/ DAVID B. KUTCH By: /S/ DONALD R. MONKS _____ ------David B. Kutch Donald R. Monks Chairman and Senior Executive Vice President Chief Executive Officer Date: October 12, 2009 Date: October 12, 2009 _____ Investment Advisers and/or Broker-Dealers _____ ANKURA CAPITAL PTY LIMITED PERSHING LLC By: /S/ GREG VAUGHN By: /S/ GARY JOHNSON _____ _____ Greq Vaughn Gary Johnson Managing Director Managing Director Date: October 8, 2009 Date: December 10, 2010 BLACKFRIARS ASSET MANAGEMENT LIMITED BLACKFRIARS ASSET MANAGEMENT LIMITED By: /S/ HUGH HUNTER By: /S/ MOHAMMED BHATTI _____ ------Hugh Hunter Mohammed Bhatti Chief Executive Officer Director and Chief Operating Officer Date: October 7, 2009 Date: October 7, 2009 BNY MELLON ARX INVESTIMENTOS LTDA BNY MELLON ARX INVESTIMENTOS LTDA By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva Chief Executive Officer Chief Financial Officer Date: January 4, 2010 Date: January 4, 2010 BNY MELLON SERVICOS FINANCEIROSBNY MELLON SERVICOS FINANCEIROSDISTRIBUIDORA DE TITULOS E VALORESDISTRIBUIDORA DE TITULOS E VALORES MOBILIARIOS S.A MOBILIARIOS S.A By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva

Chief Executive Officer Chief Financial Officer Date: January 4, 2010 Date: January 4, 2010 BNY MELLON ARX ATIVOS FINANCEIROS BNY MELLON ARX ATIVOS FINANCEIROS I TDA LTDA By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA ------_____ Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva Chief Executive Officer Chief Financial Officer Date: January 4, 2010 Date: January 4, 2010 BNY MELLON GESTAO DE PATRIMONIO LTDA BNY MELLON GESTAO DE PATRIMONIO LTDA By: /S/ JOSE CARLOS LOPES XAVIER By: /S/ MARCELO PERIERA DA SILVA DE OLIVEIRA _____ _____ Jose Carlos Lopes Xavier De Oliveira Marcelo Periera da Silva Chief Executivo Officer Chief Executive Officer Chief Financial Officer Date: January 4, 2010 Date: January 4, 2010 THE BOSTON COMPANY ASSET MANAGEMENT THE BOSTON COMPANY ASSET MANAGEMENT LLC LLC By: /S/ DAVE CAMERON By: /S/ JOSEPH P. GENNACO ------_____ Dave Cameron Joseph P. Gennaco Chairman, President and Executive Vice President Chief Executive Officer and Chief Operating Officer Date: October 12, 2009 Date: October 12, 2009 BNY MELLON ASSET MANAGEMENT JAPAN BNY MELLON ASSET MANAGEMENT JAPAN LIMITED LIMITED By: /S/ SHOGO YAMAGUCHI By: /S/ DAVID JIANG _____ _____ Shogo Yamaguchi David Jiang President and Chairman and Representative Director Representative Director Date: December 29,2009 Date: December 29,2009 THE DREYFUS CORPORATION INSIGHT INVESTMENT (Global) MANAGEMENT LIMITED By: /S/ JAMES BITETTO By: /s/ CHARLES FARQUHARSON _____ _____ James Bitetto Charles Farguharson Corporate Secretary Chief Risk Officer Date: October 7, 2009 Date: December 04, 2009 LOCKWOOD ADVISORS, INC. By: /S/ DON MARCHESIELLO _____ Don Marchesiello

President Date: October 6, 2009 MELLON CAPITAL MANAGEMENT CORPORATION By: /S/ CHARLES J. JACKLIN _____ Charles J. Jacklin President and CEO Date: October 8, 2009 NEWTON INVESTMENT MANAGEMENT LIMITED By: /S/ ANDREW DOWNS _____ Andrew Downs Chief Operating Officer Date: November 6, 2009 STANDISH MELLON ASSET MANAGEMENT COMPANY LLC By: /S/ DESMOND MAC INTYRE _____ Desmond Mac Intyre President and CEO Date: November 19, 2009 URDANG CAPITAL MANAGEMENT, INC. By: /S/ RICHARD J. FERST _____ Richard J. Ferst President and Chief Operating Officer Date: October 15, 2009 URDANG SECURITIES MANAGEMENT, INC. By: /S/ E. TODD BRIDDELL _____ E. Todd Briddell Managing Director and Chief Investment Officer Chief Operating Office Date: October 15, 2009 WALTER SCOTT & PARTNERS LIMITED By: /S/ ANNA NICHOLL _____ Anna Nicholl Chief Compliance Officer Date: October 8, 2009

MBSC SECURITIES CORPORATION By: /S/ KENNETH J. BRADLE _____ Kenneth J. Bradle President Date: October 28, 2009 NEWTON CAPITAL MANAGEMENT LIMITED By: /S/ ANDREW DOWNS _____ Andrew Downs Chief Operating Officer Date: November 6, 2009 PERSHING GROUP LLC By: /S/ BRIAN T. SHEA _____ Brian T. Shea Managing Director Date: October 9, 2009 URDANG CAPITAL MANAGEMENT, INC. By: /S/ E. TODD BRIDDELL _____ E. Todd Briddell Managing Director and Chief Investment Officer Date: October 15, 2009 URDANG SECURITIES MANAGEMENT, INC. By: /S/ RICHARD J. FERST _____ Richard J. Ferst President and Date: October 15, 2009 WALTER SCOTT & PARTNERS LIMITED By: /S/ CAROL-ANN FRASER _____ Carol-Ann Fraser Compliance Officer Date: October 8, 2009

_____ Parent Holding Companies/Control Persons _____ B.N.Y. HOLDINGS (DELAWARE) CORPORATION BNY SEPARATE ACCOUNT SERVICES, INC. By: /S/ JOHN A. PARK By: /S/ BRIAN T. SHEA _____ ------John A. Park Brian T. Shea Senior Vice President Chairman Date: October 9, 2009 Date: October 9, 2009 BNY MELLON ASSET MANAGEMENT BNY MELLON ASSET MANAGEMENT INTERNATIONAL HOLDINGS LIMITED INTERNATIONAL HOLDINGS LIMITED By: /S/ GREG BRISK By: /S/ SHONA SPENCE _____ _____ Greg Brisk Shona Spence Director Director Date: October 12, 2009 Date: October 15, 2009 BNY MELLON INTERNATIONAL ASSET NEPTUNE LLC MANAGEMENT GROUP LIMITED By: /S/ JEREMY N. BASSIL By: /S/ JEREMY N. BASSIL _____ _____ Jeremy N. Bassil Jeremy N. Bassil Director Management Committee Member Date: October 13, 2009 Date: October 13, 2009 MAM (MA) HOLDING TRUST MBC INVESTMENTS CORPORATION By: /S/ RONALD P. O'HANLEY By: /S/ GORDON MOTTER _____ _____ Ronald P. O'Hanley Gordon Motter President Chairman, President and CEO Date: October 9, 2009 Date: October 9, 2009 MELLON INTERNATIONAL HOLDINGS MELLON INTERNATIONAL HOLDINGS S.A.R.L. S.A.R.L. By: /S/ JON LITTLE By: /S/ EDWARD KEMP _____ _____ Jon Little Edward Kemp Manager Director Date: October 9, 2009 Date: October 16, 2009 NEWTON MANAGEMENT LIMITED NEWTON MANAGEMENT LIMITED By: /S/ HELENA MORRISSEY By: /S/ ANDREW DOWNS _____ _____ Helena Morrissey Andrew Downs Director Director Date: October 15, 2009 Date: November 6, 2009 MELLON OVERSEAS INVESTMENT INSIGHT INVESTMENT MANAGEMENT

CORP	ORATION	LIM	ITED	
By:	/S/ JON LITTLE	By:	/S/ CHARLES FARQUHARSON	
	Jon Little Chairman, President And Chief Executive Officer		Charles Farquharson Chief Risk Officer	
Date	: December 04, 2009	Dat	e: December 04, 2009	
	INTERNATIONAL FINANCING ORATION	THE	BANK OF NEW YORK MELLON SA/NV	
By:	/S/ FRED RICCIARDI	By:	/S/ JEAN-CHRISTOPHEMATHONET	
	Fred Ricciardi President		Jean-ChristopheMathonet Managing Director	
Date	: August 30, 2010	Dat	e: October 4, 2010	
 		Fund Administrat	ors	
	MELLON SERVICE KAPITALANL LLSCHAFT mbH	AGE-		
By:	/S/ CAROLINE SPECHT			

Caroline Specht Managing Director, Head of Business Strategy and Legal Date: August 24, 2010