NANOMETRICS INC Form SC 13G/A January 30, 2015

SCHEDULE 13G

(Rule 13d-102)

Information to be Included in Statements Filed Pursuant to Rule 13d-1(b), (c) and (d) and Amendments Thereto Filed Pursuant to Rule 13d-2.

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Under the Securities Exchange Act of 1934 (Amendment No. 3)*

Nanometrics Inc

(Name of Issuer)

Common Stock

(Title of Class of Securities)

630077105

(CUSIP Number)

December 31, 2014

(Date of Event Which Requires Filing of this Statement)

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).

1	NAME OF REP	ORT	ING PERSON		
	Artisan Pa	rtne	ers Limited Partnership		
2	CHECK THE A		OPRIATE BOX IF A MEMBER OF A GROUP	(a) (b)	 [_]
	Not Applic	abl	e	(1)	L_J
3	SEC USE ONL	Υ			
4	CITIZENSHIP	OR	PLACE OF ORGANIZATION		
	Delaware				
		5	SOLE VOTING POWER		
NU	JMBER OF		None		
	SHARES NEFICIALLY	6	SHARED VOTING POWER		
	DWNED BY EACH		1,593,738		
RŁ	EPORTING PERSON	7	SOLE DISPOSITIVE POWER		
	WITH		None		
		8	SHARED DISPOSITIVE POWER		
			1,639,196		
9	AGGREGATE A	MOUI	NT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	1,639,196				
10	CHECK BOX I (see Instru		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES		[_]
	Not Applic	abl	e		
11	PERCENT OF	CLA:	SS REPRESENTED BY AMOUNT IN ROW (9)		
	6.8%				
12	TYPE OF REP				
	IA				
CUS	SIP No. 6300	771	05 13G		
1	NAME OF REP	ORT	ING PERSON		
	Artisan In	vest	tments GP LLC		
2	CHECK THE A	PPR	OPRIATE BOX IF A MEMBER OF A GROUP		

	(see Instru			(a) (b)	[_]
	Not Applic	abl 	e 		
3	SEC USE ONL	Y			
4	CITIZENSHIP	OR	PLACE OF ORGANIZATION		
	Delaware				
		5	SOLE VOTING POWER		
			None		
	IEFICIALLY	6	SHARED VOTING POWER		
	DWNED BY EACH		1,593,738		
	PORTING PERSON	7	SOLE DISPOSITIVE POWER		
	WITH		None		
		8	SHARED DISPOSITIVE POWER		
			1,639,196		
9	AGGREGATE A	 MOU	NT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	1,639,196				
10	CHECK BOX I (see Instru		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES ons)		[_]
	Not Applic	abl	е		
11	PERCENT OF	CLA	SS REPRESENTED BY AMOUNT IN ROW (9)		
	6.8%				
12	TYPE OF REP (see Instru				
	НС				
CUS	SIP No. 6300	771	05 13G		
1	NAME OF REP	 ORT	ING PERSON		
	Artisan Pa	rtn	ers Holdings LP		
2	CHECK THE A		OPRIATE BOX IF A MEMBER OF A GROUP ons)	(a)	[_]
	Not Applic			(b)	[_]
3	SEC USE ONL				

4 CITIZENSHIP	OR PLACE OF ORGANIZATION	
Delaware		
	5 SOLE VOTING POWER	
NUMBER OF	None	
	6 SHARED VOTING POWER	
OWNED BY EACH	1,593,738	
REPORTING PERSON	7 SOLE DISPOSITIVE POWER	
WITH	None	
	8 SHARED DISPOSITIVE POWER	
	1,639,196	
9 AGGREGATE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
1,639,196		
10 CHECK BOX I (see Instru	F THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	[_]
Not Applic		
11 PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)	
6.8%		
	CORTING PERSON	
(see Instru	ctions)	
HC		
CUSIP No. 6300	77105 13G	
1 NAME OF REP	ORTING PERSON	
Artisan Pa	rtners Asset Management Inc.	
	PPROPRIATE BOX IF A MEMBER OF A GROUP	
(see Instru		(a) [_] (b) [_]
Not Applic		
3 SEC USE ONL	Y	
4 CITIZENSHIP	OR PLACE OF ORGANIZATION	
Delaware		
	5 SOLE VOTING POWER	

NUMBER OF	None		
SHARES BENEFICIALLY	6 SHARED VOTING POWER		
OWNED BY EACH	1,593,738		
REPORTING PERSON	7 SOLE DISPOSITIVE POWER		
WITH	None		
	8 SHARED DISPOSITIVE POWER		
	1,639,196 		
9 AGGREGATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
1,639,19	6		
10 CHECK BOX (see Inst:	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES ructions)		[_]
Not Appl:	icable		
11 PERCENT OF	F CLASS REPRESENTED BY AMOUNT IN ROW (9)		
6.8%			
12 TYPE OF RI (see Inst:	EPORTING PERSON ructions)		
HC			
CUSIP No. 630	0077105 13G		
1 NAME OF RI	EPORTING PERSON		
Artisan D	Partners Funds, Inc.		
	APPROPRIATE BOX IF A MEMBER OF A GROUP		
(see Inst	ructions)	(a) (b)	[_]
Not Appl:	icable 		
3 SEC USE OF	NLY		
4 CITIZENSH	IP OR PLACE OF ORGANIZATION		
Wisconsi	n		
	5 SOLE VOTING POWER		
NUMBER OF			
SHARES BENEFICIALLY	6 SHARED VOTING POWER		
OWNED BY EACH	865 , 935		

REPORTING PERSON	7 SOLE DISPOSITIVE POWER
WITH	None
	NOTICE
	8 SHARED DISPOSITIVE POWER
	865,935
9 AGGREGA	ATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
865,93	35
	BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (]
Not Ap	pplicable
 11 PERCENI	F OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
3.6%	
 12 TYPE OF	F REPORTING PERSON
	nstructions)
IC	
Item 1(a)	Name of Issuer:
. ,	Nanometrics Inc
T. 1 (1.)	
Item I(D)	Address of Issuer's Principal Executive Offices:
	1550 Buckeye Drive, Milpitas, CA 95035
Item 2(a)	Name of Person Filing:
	Artisan Partners Limited Partnership ("APLP") Artisan Investments GP LLC ("Artisan Investments") Artisan Partners Holdings LP ("Artisan Holdings") Artisan Partners Asset Management Inc. ("APAM") Artisan Partners Funds, Inc. ("Artisan Funds")
Item 2(b)	Address of Principal Business Office:
	APLP, Artisan Investments, Artisan Holdings, APAM, and Artisan Funds are all located at:
	875 East Wisconsin Avenue, Suite 800 Milwaukee, WI 53202
Item 2(c)	Citizenship:
	APLP is a Delaware limited partnership Artisan Investments is a Delaware limited liability company Artisan Holdings is a Delaware limited partnership APAM is a Delaware corporation Artisan Funds is a Wisconsin corporation

Item 2(d) Title of Class of Securities:

Common Stock

Item 2(e) CUSIP Number:

630077105

- - (d) Artisan Funds is an Investment Company under section 8 of the Investment Company Act.
 - (e) APLP is an investment adviser registered under section 203 of the Investment Advisers Act of 1940.
 - (g) Artisan Holdings is the sole limited partner of APLP and the sole member of Artisan Investments; Artisan Investments is the general partner of APLP; APAM is the general partner of Artisan Holdings.
- Item 4 Ownership (at December 31, 2014):
 - (a) Amount owned "beneficially" within the meaning of rule 13d-3: 1,639,196
 - (b) Percent of class:

6.8% (based on 24,158,015 shares outstanding as of October 24, 2014)

- (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote:

None

(ii) shared power to vote or to direct the vote:

1,593,738

(iii) sole power to dispose or to direct the disposition of:

None

(iv) shared power to dispose or to direct the disposition
 of:

1,639,196

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

Not Applicable

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

The shares reported herein have been acquired on behalf of discretionary clients of APLP; as reported herein, APLP holds

1,639,196 shares, including 865,935 shares on behalf of Artisan Funds. Persons other than APLP are entitled to receive all dividends from, and proceeds from the sale of, those shares.

Not Applicable

Not Applicable

Not Applicable

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 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.

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.

Date: January 30, 2015

ARTISAN PARTNERS ASSET MANAGEMENT INC, for itself and as the general partner of ARTISAN PARTNERS HOLDINGS LP

By: Gregory K. Ramirez*

ARTISAN INVESTMENTS GP LLC, for itself and as the general partner of ARTISAN PARTNERS LIMITED PARTNERSHIP

By: Gregory K. Ramirez *

ARTISAN PARTNERS FUNDS, INC.

By: Gregory K. Ramirez *

*By: /s/ Gregory K. Ramirez

Gregory K. Ramirez Senior Vice President of Artisan Partners Asset Management Inc.

Vice President of Artisan
Investments GP LLC
Chief Financial Officer, Vice
President and Treasurer
of Artisan Partners Funds, Inc.

Exhibit Index

Exhibit 1 Joint Filing Agreement dated January 30, 2015 by and among Artisan Partners Limited Partnership, Artisan Investments GP LLC, Artisan Partners Holdings LP, Artisan Partners Asset Management Inc., and Artisan Partners Funds, Inc.

EXHIBIT 1

JOINT FILING AGREEMENT

The undersigned hereby agree to the joint filing of the Schedule $13\mathrm{G}$ to which this Agreement is attached.

Dated: January 30, 2015

ARTISAN PARTNERS ASSET MANAGEMENT INC, for itself and as the general partner of ARTISAN PARTNERS HOLDINGS LP

By: Gregory K. Ramirez*

ARTISAN INVESTMENTS GP LLC, for itself and as the general partner of ARTISAN PARTNERS LIMITED PARTNERSHIP

By: Gregory K. Ramirez *

ARTISAN PARTNERS FUNDS, INC.

By: Gregory K. Ramirez *

*By: /s/ Gregory K. Ramirez

Gregory K. Ramirez
Senior Vice President of Artisan
Partners Asset Management Inc.
Vice President of Artisan
Investments GP LLC
Chief Financial Officer, Vice
President and Treasurer of
Artisan Partners Funds, Inc.