DIONEX CORP /DE Form SC 13D December 29, 2010

# SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

#### SCHEDULE 13D

Under the Securities Exchange Act of 1934

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  $\S\S 240.13d-1(e)$ , 240.13d-1(f) or 240.13d-1(g), check the following box .

(Date of Event which Requires Filing of this Statement)

#### CUSIP No. 254546104

1 Names of reporting persons

I.R.S. identification nos. of above persons (entities only)

Gabelli Funds, LLC I.D. No. 13-4044523

2 Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a)

(b)

- 3 Sec use only
- 4 Source of funds (SEE INSTRUCTIONS) 00-Funds of investment advisory clients
- 5 Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e) X
- 6 Citizenship or place of organization

New York

Number Of : 7 Sole voting power

.

Shares : 455,600 (Item 5)

:

Beneficially : 8 Shared voting power

.

Owned: None

:

By Each : 9 Sole dispositive power

•

Reporting : 455,600 (Item 5)

:

Person :10 Shared dispositive power

.

With : None

.

Aggregate amount beneficially owned by each reporting person

455,600 (Item 5)

- 12 Check box if the aggregate amount in row (11) excludes certain shares (SEE INSTRUCTIONS)
- Percent of class represented by amount in row (11)

2.62%

14 Type of reporting person (SEE INSTRUCTIONS)

#### CUSIP No. 254546104

1 Names of reporting persons

I.R.S. identification nos. of above persons (entities only)

GAMCO Asset Management Inc.

I.D. No. 13-4044521

2 Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a)

(b)

- 3 Sec use only
- 4 Source of funds (SEE INSTRUCTIONS) 00-Funds of investment advisory clients
- 5 Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e)
- 6 Citizenship or place of organization

New York

Owned

Number Of : 7 Sole voting power

:

Shares : 376,800 (Item 5)

Beneficially : 8

Shared voting power

:

.

.

By Each : 9

Sole dispositive power

Reporting

442,300 (Item 5)

Person :10

Shared dispositive power

.

None

None

Aggregate amount beneficially owned by each reporting person

442,300 (Item 5)

With

- 12 Check box if the aggregate amount in row (11) excludes certain shares (SEE INSTRUCTIONS)
- Percent of class represented by amount in row (11)

2.54%

Type of reporting person (SEE INSTRUCTIONS)
IA, CO

#### CUSIP No. 254546104

1 Names of reporting persons

I.R.S. identification nos. of above persons (entities only)

Gabelli Securities, Inc.

I.D. No. 13-3379374

2 Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a)

(b)

- 3 Sec use only
- 4 Source of funds (SEE INSTRUCTIONS)

00 – Client funds

- 5 Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e)
- 6 Citizenship or place of organization

Delaware

Number Of : 7 Sole voting power

.

Shares : 112,034 (Item 5)

Beneficially : 8 Shared voting power

.

Owned: None

By Each : 9 Sole dispositive power

.

Reporting : 112,034 (Item 5)

.

Person :10 Shared dispositive power

:

With : None

.

11 Aggregate amount beneficially owned by each reporting person

112,034 (Item 5)

- 12 Check box if the aggregate amount in row (11) excludes certain shares (SEE INSTRUCTIONS)
- Percent of class represented by amount in row (11)

0.64%

Type of reporting person (SEE INSTRUCTIONS)
HC, CO, IA

### CUSIP No. 254546104 Names of reporting persons I.R.S. identification nos. of above persons (entities only) Gabelli Foundation, Inc. I.D. No. 94-2975159 2 Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a) (b) 3 Sec use only 4 Source of funds (SEE INSTRUCTIONS) WC 5 Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e) 6 Citizenship or place of organization NV Number Of : 7 Sole voting power Shares 10,000 (Item 5) Beneficially : 8 Shared voting power Owned None By Each :9 Sole dispositive power Reporting 10,000 (Item 5) Person :10 Shared dispositive power With None 11 Aggregate amount beneficially owned by each reporting person 10,000 (Item 5) 12 Check box if the aggregate amount in row (11) excludes certain shares (SEE INSTRUCTIONS) 13 Percent of class represented by amount in row (11) 0.06%

Type of reporting person (SEE INSTRUCTIONS)

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- 1 Names of reporting persons
  - I.R.S. identification nos. of above persons (entities only)
  - MJG Associates, Inc. I.D. No. 06-1304269
- 2 Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a)
  - (b)
- 3 Sec use only
- 4 Source of funds (SEE INSTRUCTIONS) 00-Client Funds
- 5 Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e)
- 6 Citizenship or place of organization

Connecticut

Number Of : 7 Sole voting power

.

Shares : 4,500 (Item 5)

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Beneficially : 8 Shared voting power

.

Owned: None

:

By Each : 9 Sole dispositive power

•

Reporting : 4,500 (Item 5)

:

Person :10 Shared dispositive power

•

With : None

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11 Aggregate amount beneficially owned by each reporting person

4,500 (Item 5)

- 12 Check box if the aggregate amount in row (11) excludes certain shares (SEE INSTRUCTIONS)
- Percent of class represented by amount in row (11)

0.03%

14 Type of reporting person (SEE INSTRUCTIONS)

CO

CUSIP No	o. 254546104  Names of reporting persons  I.R.S. identification nos. of above persons (entities only)  GGCP, Inc.  No. 13-3056041									
2	Check the appropriate box if a member of a group (SEE INSTRUCTIONS) (a)									
	(b)									
3	Sec use only									
4	Source of funds (SEE INSTRUCTIONS) None									
5	Check box if disclosure of legal proceedings is required pursuant to items 2 (d) or 2 (e)									
6	Citizenship or place of organization Wyoming									
	Number Of	: 7	Sole voting power							
	Shares	:								
	Beneficially	•								
	Owned									
	By Each									
	Reporting									
	Person									
	With									