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

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**Post Effective Amendment No. 1  
To**

**FORM S-8**

**REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

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**FORMFACTOR, INC.**

(Exact name of Registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation  
or organization)

**13-3711155**  
(I.R.S. Employer Identification No.)

**7005 Southfront Road  
Livermore, California 94551**  
(Address of principal executive offices)

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**Equity Incentive Plan**  
(Full title of the plan)

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**Michael M. Ludwig  
Chief Financial Officer  
FormFactor, Inc.  
7005 Southfront Road  
Livermore, California 94551  
(925) 290-4000**  
(Telephone number, including area code, of agent for service)

**Copy to:**

**Alan Talkington, Esq.**  
Orrick, Herrington & Sutcliffe LLP  
The Orrick Building  
405 Howard Street  
San Francisco, California 94105  
(415) 773-5700

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

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**EXPLANATORY NOTE**

**DEREGISTRATION OF SHARES**

FormFactor, Inc. (the "Registrant") is filing this Post-Effective Amendment No. 1 to Form S-8 Registration Statement to deregister 2,888,092 shares of the Registrant's common stock, par value \$0.001 per share, previously registered for offer and sale under the Registrant's 2002 Equity Incentive Plan (the

“Equity Incentive Plan”).

On February 17, 2011, the Registrant filed a Form S-8 Registration Statement (Registration No. 333-172318) pursuant to which it registered an aggregate of 3,392,971 shares of common stock under its Equity Incentive Plan and its Employee Stock Purchase Plan.

The Equity Incentive Plan, which became effective in connection with the Registrant’s initial public offering under the Securities Act of 1933, was recently amended, effective as of April 18, 2012, to provide that the aggregate number of shares available for initial issuance under the Equity Incentive Plan after April 18, 2012 would be reduced to 7,393,180 shares. The deregistered shares represent shares previously registered for offer and sale under the Equity Incentive Plan that were never issued under the Equity Incentive Plan. The Registrant is filing this Post-Effective Amendment No. 1 to deregister such shares.

**Item 8. Exhibits.**

24.01 Power of Attorney (included on signature page).

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 1 to Form S-8 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Livermore, California, on this 15<sup>th</sup> day of May, 2012.

FORMFACTOR, INC.

By: /s/ Stuart L. Merkadeau  
Stuart L. Merkadeau  
*Senior Vice President, General Counsel and Secretary*

KNOW BY ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Michael M. Ludwig and Stuart L. Merkadeau and each of them, his/her true and lawful attorneys-in-fact and agents with full power of substitution, for him/her and in his/her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to the Registration Statement amended by this Post-Effective Amendment, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes to the Registration Statement as such attorneys-in-fact and agents so acting deem appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act requisite and necessary to be done with respect to the Registration Statement, including amendments, as fully to all intents and purposes as he/she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his/her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment No. 1 to Form S-8 Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Thomas St. Dennis</u> Thomas St. Dennis	Director and Chief Executive Officer (Principal Executive Officer)	May 15, 2012
<u>/s/ Michael M. Ludwig</u> Michael M. Ludwig	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 15, 2012
<u>/s/ G. Carl Everett, Jr.</u> G. Carl Everett, Jr.	Director	May 15, 2012

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<u>/s/ Richard DeLateur</u> Richard DeLateur	Director	May 15, 2012
<u>/s/ Lothar Maier</u> Lothar Maier	Director	May 15, 2012
<u>/s/ Edward Rogas, Jr.</u> Edward Rogas, Jr.	Director	May 15, 2012

**EXHIBIT INDEX**

24.01 Power of Attorney (included on signature page).