

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Amended and Restated Patent Security Agreement
CONVEYING PARTY DATA	
Name	Execution Date
Ferro Electronic Materials Inc.	08/24/2010
RECEIVING PARTY DATA	
Name:	PNC Bank National Association (as successor-by-merger to National City Bank)
Street Address:	500 First Avenue
City:	Pittsburgh
State/Country:	PENNSYLVANIA
Postal Code:	15219
PROPERTY NUMBERS Total: 2	
Property Type	Number
Patent Number:	6185087
Patent Number:	5550092
CORRESPONDENCE DATA	
Fax Number:	(714)755-8290
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	714-540-1235
Email:	ipdocket@lw.com
Correspondent Name:	Latham & Watkins LLP
Address Line 1:	650 Town Center Drive, Suite 2000
Address Line 4:	Costa Mesa, CALIFORNIA 92626
ATTORNEY DOCKET NUMBER:	030786-0429
NAME OF SUBMITTER:	Anna T Kwan
Total Attachments: 8 source=AR Pat Sec Agt - Ferro Electronic Materials#page1.tif source=AR Pat Sec Agt - Ferro Electronic Materials#page2.tif source=AR Pat Sec Agt - Ferro Electronic Materials#page3.tif	

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AMENDED AND RESTATED PATENT SECURITY AGREEMENT

This AMENDED AND RESTATED PATENT SECURITY AGREEMENT, dated as of August 24, 2010 (this "Agreement"), amends and restates that certain Patent Security Agreement, dated as of June 6, 2006, made by FERRO ELECTRONIC MATERIALS INC., a Delaware corporation (the "Grantor"), in favor of PNC BANK NATIONAL ASSOCIATION, (as successor-by-merger to National City Bank) as the collateral agent (together with its successor(s) thereto in such capacity, the "Collateral Agent") for each of the Secured Parties.

W I T N E S S E T H:

WHEREAS, this Agreement is made pursuant to the Third Amended and Restated Credit Agreement, dated as of August 24, 2010 (as amended, supplemented, amended and restated or otherwise modified from time to time, the "Credit Agreement"), among Ferro Corporation, an Ohio corporation, as Borrower, the Designated Borrowers from time to time party thereto, the various financial institutions and other Persons from time to time party thereto as lenders, PNC Bank, National Association, as administrative agent for the Lenders and as collateral agent for the Secured Parties and as the Issuer, and JPMorgan Chase Bank, N.A. and Bank of America, N.A., as the syndication agents;

WHEREAS, in connection with the Credit Agreement, the Grantor has executed and delivered an Amended and Restated Pledge and Security Agreement, dated as of August 24, 2010 (as amended, supplemented, amended and restated or otherwise modified from time to time, the "Security Agreement");

WHEREAS, pursuant to the Credit Agreement and pursuant to clause (e) of Section 4.5 of the Security Agreement, the Grantor is required to execute and deliver this Agreement and to grant to the Collateral Agent a continuing security interest in all of the Patent Collateral (as defined below) to secure all Secured Obligations; and

WHEREAS, the Grantor has duly authorized the execution, delivery and performance of this Agreement; and

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor agrees, for the benefit of each Secured Party, as follows:

SECTION 1. Definitions. Unless otherwise defined herein or the context otherwise requires, terms used in this Agreement, including its preamble and recitals, have the meanings provided in the Security Agreement.

SECTION 2. Grant of Security Interest. The Grantor hereby assigns, pledges, hypothecates, charges, mortgages, delivers, and transfers to the Collateral Agent, for its benefit and the ratable benefit of each other Secured Party, and hereby grants to the Collateral Agent, for its benefit and the ratable benefit of each other Secured Party, a continuing security interest in all of the following property, whether now or hereafter existing or acquired by the Grantor (the "Patent Collateral"):

a. all of its letters patent and applications for letters patent throughout the world, including all patent applications in preparation for filing and each patent and patent application referred to in Item A of Schedule I attached hereto;

b. all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the items described in clause (a);

c. all of its patent licenses, and other agreements providing the Grantor with the right to use any items of the type referred to in clauses (a) and (b) above, including each patent license referred to in Item B of Schedule I attached hereto; and

d. all Proceeds of, and rights associated with, the foregoing (including license royalties and Proceeds of infringement suits), the right to sue third parties for past, present or future infringements of any patent or patent application, and for breach or enforcement of any patent license.

SECTION 3. Security Agreement. This Agreement has been executed and delivered by the Grantor for the purpose of registering the security interest of the Collateral Agent in the Patent Collateral with the United States Patent and Trademark Office and corresponding offices in other countries of the world. The security interest granted hereby has been granted as a supplement to, and not in limitation of, the security interest granted to the Collateral Agent for its benefit and the ratable benefit of each other Secured Party under the Security Agreement. The Security Agreement (and all rights and remedies of the Collateral Agent and each Secured Party thereunder) shall remain in full force and effect in accordance with its terms.

SECTION 4. Release of Liens. Upon (i) the Disposition of Patent Collateral in accordance with the Credit Agreement or (ii) the occurrence of the Termination Date, the security interests granted herein shall automatically terminate with respect to (A) such Patent Collateral (in the case of clause (i)) or (B) all Patent Collateral (in the case of clause (ii)). Upon any such Disposition or termination, the Collateral Agent will, at the Grantor's sole expense, deliver to the Grantor, without any representations, warranties or recourse of any kind whatsoever, all Patent Collateral held by the Collateral Agent hereunder, and execute and deliver to the Grantor such Documents as the Grantor shall reasonably request to evidence such termination.

SECTION 5. Acknowledgment. The Grantor does hereby further acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which (including the remedies provided for therein) are incorporated by reference herein as if fully set forth herein.

SECTION 6. Loan Document. This Agreement is a Loan Document executed pursuant to the Credit Agreement and shall (unless otherwise expressly indicated herein) be construed, administered and applied in accordance with the terms and provisions thereof, including Article X thereof.

SECTION 7. Governing Law, Entire Agreement, etc. THIS AGREEMENT SHALL BE DEEMED TO BE A CONTRACT MADE UNDER AND GOVERNED BY THE INTERNAL

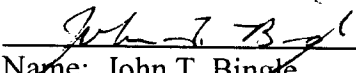
LAWS OF THE STATE OF NEW YORK (INCLUDING FOR SUCH PURPOSE SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK) AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER (INCLUDING, WITHOUT LIMITATION, ANY CLAIMS SOUNDING IN CONTRACT OR TORT LAW ARISING OUT OF THE SUBJECT MATTER HEREOF AND ANY DETERMINATIONS WITH RESPECT TO POST-JUDGMENT INTEREST) SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK, EXCEPT TO THE EXTENT THAT THE PERFECTION, EFFECT OF PERFECTION OR NONPERFECTION, AND PRIORITY OF THE SECURITY INTEREST HEREUNDER, OR REMEDIES HEREUNDER, IN RESPECT OF ANY PARTICULAR COLLATERAL ARE GOVERNED BY THE LAWS OF A JURISDICTION OTHER THAN THE STATE OF NEW YORK.

SECTION 8. Counterparts. This Agreement may be executed by the parties hereto in several counterparts, each of which shall be deemed to be an original and all of which shall constitute together but one and the same agreement.


* * * * *

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be duly executed and delivered of the date first written above.

FERRO ELECTRONIC MATERIALS INC., as
Grantor

By: 
Name: John T. Bingle
Title: Treasurer

PNC BANK, NATIONAL ASSOCIATION, as
Collateral Agent

By: 
Name: Christian S. Brown
Title: Senior Vice President

SCHEDULE I
to Patent Security Agreement

Item A. Issued Patents, Pending Patent Applications and Patent Applications in Preparation

[See attached.]

Ferro Electronic Materials, Inc. Patents

<u>Docket No.</u>	<u>Descriptive Title</u>	<u>Country</u>	<u>Patent No. or (App No.)</u>	<u>Filing Date</u>	<u>Issue Date</u>	<u>Expiration Date</u>
11791 **	Multilayer Ceramic Chip Capacitor With High Reliability Compatible With Nickel Electrodes	U.S.	6,185,087	April 8, 1999	February 2, 2001	April 8, 2019
**	Multilayer Ceramic Chip Capacitor With High Reliability Compatible With Nickel Electrodes	Europe	(00302843.8)	April 4, 2000	N/A	N/A
**	Multilayer Ceramic Chip Capacitor With High Reliability Compatible With Nickel Electrodes	Taiwan	(89119740)	September 25 2000	N/A	N/A
**	Multilayer Ceramic Chip Capacitor With High Reliability Compatible With Nickel Electrodes	Japan	(2000/106487)	April 7, 2000	N/A	N/A
**	Multilayer Ceramic Chip Capacitor With High Reliability Compatible With Nickel Electrodes	Israel	(138577)	September 19, 2000	N/A	N/A
11761	Ceramic Dielectric Compositions	U.S.	5,550,092	February 10, 1995	August 27, 1996	February 10, 2015

** - Jointly owned by Kennet Electronics Corp. and Ferro Electronic Materials, Inc.

SCHEDULE I
to Patent Security Agreement

Item B. Patent Licenses

None.