

06-02-2000



MAY -9 PM 4: 07

101372495

OPR/FINANCE

**RECORDATION FORM COVER SHEET
PATENTS ONLY**

05/09/00

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

- New
- Resubmission (Non-Recordation)
Document ID#
- Correction of PTO Error
Reel # Frame #
- Corrective Document
Reel # Frame #

Conveyance Type

- Assignment Security Agreement
 - License Change of Name
 - Merger Other
- U.S. Government**
(For Use ONLY by U.S. Government Agencies)
- Departmental File Secret File

Conveying Party(ies)

- Mark if additional names of conveying parties attached
- Execution Date
Month Day Year
3 24 00

Name (line 1)

Name (line 2)

Second Party

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Receiving Party

- Mark if additional names of receiving parties attached

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

FOR OFFICE USE ONLY

05/31/2000 DNGUYEN 00000156 RE35423

01 RC:581

1280.00 OP

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

PATENT
REEL: 010848 FRAME: 0872

Correspondent Name and Address Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments. #

Application Number(s) or Patent Number(s) Schedule Attached Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)			Patent Number(s)		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT PCT PCT

PCT PCT PCT

Number of Properties Enter the total number of properties involved. #

Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$

Method of Payment: Enclosed Deposit Account

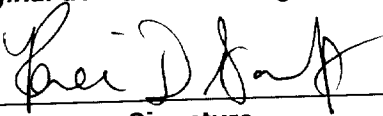
Deposit Account (Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number: #

Authorization to charge additional fees: Yes No

Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Renee' D. Sanft 

Name of Person Signing Signature Date

EXHIBIT A

Nicolet Patents

U.S. Patent Number RE35,423, dated January 14, 1997, for the method and apparatus for performing automated circuit board solder quality inspections (re-issuance of 4,809,308).

European Patent Number EP 0236 001, dated August 28, 1991, for the Foreign Issue (EPC) of U.S. Patent Number 4,809,308.

European Patent Number EP 0236 001, dated August 28, 1991, for the Foreign Issue (GER) of U.S. Patent Number 4,809,308.

European Patent Number EP 0236 001, dated August 28, 1991, for the Foreign Issue (NETH) of U.S. Patent Number 4,809,308.

European Patent Number EP 0236 001, dated August 28, 1991, for the Foreign Issue (UK) of U.S. Patent Number 4,809,308.

European Patent Number 2790804, dated June 12, 1998, for the Foreign Issue (JAP) of U.S. Patent Number 4,809,308.

Taiwan Patent Number NI-04280, dated November 21, 1990, for the Foreign Issue of U.S. Patent Number 4,809,308.

Austria Patent Number 66744, dated September 9, 1991, for the Foreign Issue of U.S. Patent Number 4,809,308.

U.S. Patent Number 4,688,241, dated August 18, 1987, for the Microfocus X-Ray System (a continuation of U.S. patent No. 4,521,902).

U.S. Patent Number 5,020,086, dated May 28, 1991, for the Microfocus X-Ray System (a continuation of U.S. patent No. 4,521,902 and 4,688,241).

U.S. Patent Number 5,500,886, dated March 19, 1996, for the X-ray position measuring and calibration device.

U.S. Patent Number 5,491,737, dated February 13, 1996, for the material handling and inspection apparatus and method.

U.S. Patent Number 5,594,770, dated January 14, 1997, for the method and apparatus for imaging obscured areas of a test object.

U.S. Patent Number 5,541,856, dated July 30, 1996, for the X-ray inspection system.

U.S. Patent Number 4,835,379, dated May 30, 1989, for the X-ray sensitive camera pick-up tube.

U.S. Patent Number 4,536,239, dated August 20, 1985, for the multi-layer circuit board inspection system.

Canada Patent Number 1198831, dated December 31, 1985, for the multi-layer circuit board inspection system.

France Patent Number 2549677, dated November 25, 1988, for the multi-layer circuit board inspection system.

Japan Patent Number 60022333, dated February 4, 1985, for the multi-layer circuit board inspection system.

U.S. Patent Number 5,111,406, dated May 5, 1992, for determining drill target locations in a multi-layer board panel.

U.S. Patent Number 4,521,902, dated June 4, 1985, for the Microfocus X-ray System.

U.S. Patent Application Serial Number 60/038,475, dated February 24, 1997, for the automated process monitor. (Provisional).

U.S. Patent Application Serial Number 09/027,605, dated February 23, 1998, for the automated process monitor. (Pending).

U.S. Patent Number 60/163,932, dated November 8, 1999, for the Inspection Method and Apparatus Utilizing Vertical Slice Imaging Techniques. (Provisional).

U.S. Patent No. 4,855,832, dated August 8, 1989, for the gated video mixer. (Expired).

U.S. Patent No. PCT/US99/03269, dated February 17, 1999, for the Method and Apparatus for Imaging obscured areas of a test object. (Expired).

U.S. Patent No. 08/782,107, dated January 13, 1997, for the method and apparatus for imaging obscured areas of a test object. (Abandoned).

~~U.S. Patent Application, dated November 11, 1999, for the inspection method and apparatus utilizing vertical slice imaging techniques.~~

rdls 5/9/00 (duplicate of 60/163,932)

SRT Patents

U.S. Patent Number 4,775,775, dated October 4, 1988, for the programmable electrical heater.

U.S. Patent Number 4,832,250, dated May 23, 1989, for electronic circuit board rework and repair system.

U.S. Patent Number D312,646, dated December 4, 1990, for electric circuit board rework and repair system.

U.S. Patent Number 5,042,571, dated August 27, 1991, for variable perimeter heater.

U.S. Patent Number 4,914,513, dated April 3, 1990, for multi-vision component alignment system.

U.S. Patent Number 5,235,407, dated August 10, 1993, for the System for placement and mounting of fine pitch integrated circuit devices.

U.S. Patent Number 5,251,266, dated October 5, 1993, for the system for placement and mounting of fine pitch integrated circuit devices using a split mirror assembly.

U.S. Patent Number 5,471,310, dated November 28, 1995, for a system for placement and mounting of fine pitch integrated circuit devices.

U.S. Patent Number 5,627,913, dated May 6, 1997, for the placement system using a split imaging system coupled to a component pickup means.

U.S. Patent Number 5,278,938, dated January 11, 1994, for infrared heater array for IC soldering reflective members.

U.S. Patent Number 5,433,368, dated July 18, 1995, for the soldering system.

U.S. Patent Number 5,309,545, dated May 3, 1994, for combined radio and rework system.

U.S. Patent Number 5,234,151, dated August 10, 1993, for the sensing of solder melting and solidification.

U.S. Patent Number 5,317,803, dated June 7, 1994, for the method of soldering an integrated circuit.

U.S. Patent Number 5,220,147, dated June 15, 1993, for the electronic component heater.

EXHIBIT B1

FORM OF PATENT ASSIGNMENT

For valuable consideration, the receipt of which is hereby acknowledged, ThermoSpectra Corporation, a Delaware corporation with its principal place of business at 8 East Forge Parkway, Franklin, Massachusetts ("ThermoSpectra"), hereby assigns and transfers to GenRad, Inc., a Massachusetts corporation having a place of business at 7 Technology Park Drive, Westford, Massachusetts, and its successors and assigns (collectively hereinafter called the "Assignee"), its entire right, title and interest in the United States and throughout the world in and to: (i) the inventions and improvements which are the subject of the Letters, Patents and Patent Applications set forth on Exhibit A attached hereto (the "Patents"); (ii) any and all instruments of assignment any/or other instruments pursuant to which ThermoSpectra became vested with ownership of the Patents, together with any and all rights and improvements acquired pursuant to the terms of said instruments; (iii) the instruments, Patents and patent applications and any corresponding foreign patents and foreign patent applications based in whole or in part on any and all inventions claimed by the Patents; (iv) any and all divisions, continuations, reissues, extensions or other applications based on the Patents, together with ThermoSpectra's entire rights under the Paris Convention; and (v) any and all United States and foreign patents, utility models, and design registrations granted on the Patents; the same to be held and enjoyed by the Assignee for its own use and enjoyment and that of its successors, assigns, and other legal representatives, to the end of the term or terms for which said patents are or may be granted or reissued as fully and entirely as the same would have been held and enjoyed by ThermoSpectra if this assignment had not been made, together with all its claims for damages by reason for past or future infringement of said patents, with the right to sue for and collect the same for its own use and enjoyment, and for use and enjoyment of its successors, assigns, or other legal representatives.

IN WITNESS WHEREOF, the undersigned has executed this Assignment as of the 24th day of March __, 2000.

THERMOSPECTRA CORPORATION

By: [Signature]
Barry S. Howe
President and Chief Executive Officer

Subscribed and sworn to before me
this 24th day of March __, 2000
at Boston, in the Suffolk County
of Massachusetts.

[Signature]
Notary Public

My Commission Expires: 11-27-2003
[Notary's Seal Here]

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"SIERRA RESEARCH AND TECHNOLOGY, INC.", A DELAWARE CORPORATION,

WITH AND INTO "GENRAD, INC." UNDER THE NAME OF "GENRAD, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF MASSACHUSETTS, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-FOURTH DAY OF MARCH, A.D. 2000, AT 3:30 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



A handwritten signature in cursive script, reading "Edward J. Freel".

Edward J. Freel, Secretary of State

3200604 8100M

001151378

AUTHENTICATION: 0339500

DATE: 03-27-00

PATENT
REEL: 010848 FRAME: 0878

CERTIFICATE OF OWNERSHIP AND MERGER

MERGING

SIERRA RESEARCH AND TECHNOLOGY, INC.

INTO

GENRAD, INC.

*** * * * ***

GenRad, Inc., a corporation organized and existing under the laws of Massachusetts, DOES HEREBY CERTIFY:

FIRST: That this corporation was incorporated on the 14th day of June, 1915, pursuant to Chapter 156B of the General Laws of the Commonwealth of Massachusetts, the provisions of which permit the merger of a subsidiary corporation of another state into a parent corporation organized and existing under the laws of said state.

SECOND: That this corporation owns all of the outstanding shares of the stock of Sierra Research and Technology, Inc., a corporation incorporated on the 7th day of November, 1989, pursuant to Title 8 of the General Corporation Laws of the State of Delaware.

THIRD: That this corporation, by the following resolution of its Board of Directors, duly adopted at their meeting, filed with the minutes of the Board on the 28th day of January, 2000, determined to merge its wholly owned subsidiary, Sierra Research and Technology, Inc., with and into itself:

RESOLVED, that the officers of the Corporation be, and each of them hereby is, authorized in the name and on behalf of the Corporation to execute and deliver upon the closing of the Purchase Agreement by and among the Corporation and ThermoSpectra Corporation any and all agreements, instruments, documents and certificates to effect the merger of Sierra Research and Technology, Inc. with and into the Corporation.

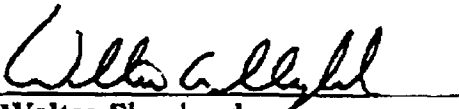
FOURTH: That this corporation survives the merger and may be served with process in the State of Delaware in any proceeding for enforcement of any obligation of Sierra Research and Technology, Inc. as well as for enforcement of any obligation of the surviving corporation arising from the merger, including any suit or other proceeding to enforce the right of any stockholder as determined in appraisal proceedings pursuant to the provisions of Section 262 of Title 8 of the Delaware Code, and it does hereby irrevocably appoint the Secretary of State of Delaware as its agent to accept service of process in any such suit or other proceeding. The address to which a copy of such process shall be mailed by the Secretary of State of Delaware is 7 Technology Park Drive, Westford, MA 01886-0033, until the surviving

corporation shall have hereafter designated in writing to the said Secretary of State a different address for such purpose. Service of such process may be made personally by delivering to and leaving with the Secretary of State of Delaware duplicate copies of such process, one of which copies the Secretary of State of Delaware shall forthwith send by registered mail to GenRad, Inc. at the above address.

FIFTH: Anything herein or elsewhere to the contrary notwithstanding, this merger may be amended or terminated and abandoned by the Board of Directors GenRad, Inc. at any time prior to the time that this merger being filed with the Secretary of State becomes effective.

IN WITNESS WHEREOF, said GenRad, Inc. has caused this Certificate to be signed by Walter Shephard, its Vice President and Clerk, this 24 day of March, 2000.

GENRAD, Inc.

By 
Walter Shephard
Vice President and Clerk

836075.1

The Commonwealth of Massachusetts

William Francis Galvin

Secretary of the Commonwealth

One Ashburton Place, Boston, Massachusetts 02108-1512

ARTICLES OF MERGER OF PARENT AND SUBSIDIARY CORPORATIONS (General Laws, Chapter 156B, Section 82)

We, Walter Shephard, *President / *Vice President,

and Walter Shephard, *Clerk / *Assistant Clerk,

of GenRad, Inc.
(Exact name of corporation)

organized under the laws of Massachusetts and herein called the parent corporation,

certify as follows:

1. That the subsidiary corporation(s) to be merged into the parent corporation is/are:

NAME	STATE OF ORGANIZATION	DATE OF ORGANIZATION
Sierra Research and Technology, Inc.	Delaware	11/7/89

RECEIVED
MAR 24 2000
SECRETARY OF THE COMMONWEALTH
CORPORATIONS DIVISION

2. The parent corporation, at the date of the vote, owned not less than ninety percent (90%) of the outstanding shares of each class of stock of the subsidiary corporation or corporations with which it has voted to merge.

Item 3 below may be deleted if all the corporations are organized under the laws of Massachusetts and if General Laws, Chapter 156B is applicable to them.

3. That in the case of each of the above named corporations, the laws of the state of its organization, if other than Massachusetts, permit the merger herein described, and that all action required under the laws of each such state in connection with this merger has been duly taken.

*Delete the inapplicable words. In case the parent corporation is organized under the laws of a state other than Massachusetts, these articles are to be signed by officers having corresponding powers and duties.

4. That at a meeting of the directors of the parent corporation, the following vote, pursuant to General Laws, Chapter 156B, Section 82, Subsection (a) was duly adopted:

VOTED: That the officers of the Corporation be, and each of them hereby is, authorized in the name and on behalf of the Corporation to execute and deliver upon the closing of the transaction contemplated by the preceding resolution any and all agreements, instruments, documents and certificates to effect the merger of Sierra Research and Technology, Inc. with and into the Corporation.

Note: Votes, for which the space provided above is not sufficient, should be listed on additional sheets to be numbered 4A, 4B, etc. Additional sheets must be 8 1/2 x 11 and have a left hand margin of 1 inch. Only one side should be used.

PATENT
REEL: 010848 FRAME: 0882

5. The effective date of the merger shall be the date approved and filed by the Secretary of the Commonwealth. If a later effective date is desired, specify such date, which shall not be more than *thirty days* after the date of filing:

upon filing

Section 6 below may be deleted if the parent corporation is organized under the laws of Massachusetts.

6. The parent corporation hereby agrees that it may be sued in the Commonwealth of Massachusetts for any prior obligation of any corporation organized under the laws of Massachusetts with which it has merged, and any obligation hereafter incurred by the parent corporation, including the obligation created by General Laws, Chapter 156B, Section 82, Subsection (e), so long as any liability remains outstanding against the parent corporation in the Commonwealth of Massachusetts, and it hereby irrevocably appoints the Secretary of the Commonwealth as its agent to accept service of process in any action for the enforcement of any such obligations, including taxes, in the same manner as provided in Chapter 181.

SIGNED UNDER THE PENALTIES OF PERJURY, this 24 day of March, 2000,

Walter A. Shephard _____, *President / *Vice President,
Walter Shephard

Walter A. Shephard _____, *Clerk / *Assistant Clerk.
Walter Shephard

*Delete the inapplicable words. In case the parent corporation is organized under the laws of a state other than Massachusetts, these articles are to be signed by officers having corresponding powers and duties.

ARTICLES OF MERGER OF PARENT AND SUBSIDIARY CORPORATIONS
(General Laws, Chapter 156B, Section 82)

I hereby approve the within Articles of Merger of Parent and Subsidiary Corporations and, the filing fee in the amount of \$ _____, having been paid, said articles are deemed to have been filed with me this _____ day of _____, 19 _____.

Effective date: _____

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION
Photocopy of document to be sent to:

Christine R. Collins, Esq. _____

Nutter, McClennen & Fish, LLP _____

One International Place, Boston, MA 02110 _____

Telephone: (617) 439-2292 _____