**COVER SHEET**

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

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<thead>
<tr>
<th>1. Name of conveying party(ies):</th>
<th>2. Name and Address of receiving party(ies):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sadaaki SAKAMOTO</td>
<td>Murata Manufacturing Co., Ltd.</td>
</tr>
<tr>
<td>Hirofumi SUNAFARA</td>
<td>26-10, Tenjin 2-chome,</td>
</tr>
<tr>
<td>Hiroshi TAKAGI</td>
<td>Nagaokakyo-shi</td>
</tr>
<tr>
<td>Yukio SAKABE</td>
<td>Kyoto-fu 617-8555</td>
</tr>
<tr>
<td>Individuals</td>
<td>Corporation Japan</td>
</tr>
</tbody>
</table>

Additional name(s) of conveying party(ies) attached: **No**

Additional name(s) & address(es) attached: **No**

3. Nature of conveyance:

   **Assignment**

   Execution Date: **August 19, 1998**

4. Application number(s) or patent number(s):

   If this document is being filed together with a new application, the execution date of the application is: **August 19, 1998**

<table>
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<tr>
<th>A. Application No.(s)</th>
<th>B. Patent No.(s)</th>
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</table>

Additional numbers attached: **No**

5. Name and address of party to whom correspondence concerning document should be mailed:

   OSTROLENK, FABER, GERB & SOFFEN, LLP
   Correspondence to: Americas
   New York, New York 10036-8433

   **40.00 CI**

6. Total number of documents involved: **1**

7. Total fee (37 CFR 3.41): **$ 40.00**

   Enclosed as part of Check No. 78852

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8. 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.

   **Edward A. Meilman**
   Name of Person Signing

   **Edward A. Meilman**
   Signature

   **August 26, 1998**
   Date

   Total number of pages including cover sheet, attachments, and document: **2**

**PATENT**

**REEL: 9422 FRAME: 0533**
PATENT APPLICATION ASSIGNMENT -
SOLE OR JOINT INVENTORS
EXECUTED OUTSIDE U.S.A.

WHEREAS, We, Sadaaki SAKAMOTO, Hirofumi SUNAHARA, Hiroshi TAKAGI and Yukio SAKABE, as assignors, have invented certain improvements in MULTI-LAYER CERAMIC SUBSTRATE AND METHOD OF PRODUCING THE MULTI-LAYER CERAMIC SUBSTRATE for which an application for United States Letters Patent has been executed by us of even date herewith; and

WHEREAS, Murata Manufacturing Co., Ltd., 26-10, Tenjin 2-chome, Nagaokakyo-shi, Kyoto-fu 617-8555, Japan, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar ($1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted thereto in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest herein, and the undersigned for ourselves and OUR legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions; whenever requested to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: August 19, 1998
Sadaaki Sakamoto
Sadaaki SAKAMOTO

Date: August 19, 1998
Hirofumi Sunahara
Hirofumi SUNAHARA

Date: August 19, 1998
Hiroshi Takagi
Hiroshi TAKAGI

Date: August 19, 1998
Yukio Sakabe
Yukio SAKABE

LEGALIZATION RECOMMENDED

MISC:064136

RECORDED: 08/26/1998
REEL: 9422 FRAME: 0534