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02-11-2003



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|             | Yoichi Moriya, Osamu Chikagawa, Yasutaka Sugimoto  |  |  |
|             | 2.1-02   | Name: Murata Manufacturing Co., Ltd. Internal Address:   |  |
|             | 2.6-03   | Street Address:  |  |
|             | Additional name(s) of conveying party(ies)  Additional name(s) of conveying party(ies)  Yes X No   | Murata Manufacturing Co., Ltd.<br>(A170) Intellectual Property Department                                  |  |
|             | 3. Nature of Conveyance:   | 26-10, Tenjin 2-chome, Nagaokakyo-shi  |  |
|             | x Assignment Merger  |  |  |
|             | Security Agreement Change of Name  | City: Kyoto-fu   |  |
|             | Other  | Country: <u>JP</u> Zip: 617-8555   |  |
|             | Execution Date: 10/17/2002, 10/21/2002   | Additional name(s) & Yes X No address(es) attached:  |  |
|             | 4. Application number(s) or patent number(s):  |  |  |
|             | If this document is being filed together with a new application, the e   |  |  |
|             | A. Patent Application No.(s): 10/277,045   | B. Patent No.(s):  |  |
|             | Additional numbers attact  5. Name and address of party to whom correspondence   | ned? Yes x No  6. Total number of applications and   |  |
|             | concerning document should be mailed:  | patents involved:1   |  |
|             | Name: Edward A. Meilman DICKSTEIN SHAPIRO MORIN & OSHINSKY LLF   | 7. Total fee (37 CFR 3.41) \$ 40.00  |  |
|             | Internal Address: Atty. Dkt.: M1071.1783/P1783   | Enclosed   |  |
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|             | 9. 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. |  |  |
|             | Edward A. Meilman, Reg. No. 24,735   | Med See Entrum 6 2002  |  |
|             | Name of Person Signing   | Signature February 6, 2003  Date   |  |
|             | T-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1  | •  |  |
|             | Total number of pages including cover sheet, attact  | and documents.   |  |
| /A7/3AA3 BU | GUYEN2 00000026 10277045   | initials, and documents.   |  |

**PATENT** REEL: 013731 FRAME: 0404 WHEREAS, We, Yoichi MORIYA, Osamu CHIKAGAWA and Yasutaka SUGIMOTO, as assignors, have invented certain improvements in GLASS-CERAMIC COMPOSITE MATERIAL AND MULTILAYERED CIRCUIT SUBSTRATE or 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 therefor 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 therein; 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: _ | 10/21/2002 | Joidi Moriya<br>Yoichi MORIYA |
|---------|------------|-------------------------------|
|         |            | Yoichi MORIYA                 |
| Date:   | 12/19/2002 | Osamu Chikagawa               |
|         |            | Osamu CHIKAGAWA               |
| Date: _ | 10/11/2000 | Jasolaher Sajimot             |
|         | ·          | Yasutaka SUGIMOTO             |

LEGALIZATION RECOMMENDED

RECORDED: 02/06/2003

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PATENT REEL: 013731 FRAME: 0405