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: Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof 2. Name and address of receiving party(ies) 1. Name of conveying party(ies): Mizuki Kono (07/30/2003) and Tsutomu Tatekawa Name: Murata Manufacturing Co., Ltd. (08/05/2003) internal Address: Street Address: Additional name(s) of conveying party(ies) Murata Manufacturing Co., Ltd. x No Yes attached? (A170) Intellectual Property Department 26-10, Tenjin 2-chome, Nagaokakyo-shi Nature of Conveyance: Assignment Merger Security Agreement Change of Name City: Kyoto-fu Other Country: Japan Zip: 617-8555 Additional name(s) & Execution Date: see Box 1, conveying parties address(es) attached: 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the new application is: 7/30/03 and 8/05/03 A. Patent Application No.(s): B. Patent No.(s): This application 10/647518 Additional numbers attached? Yes 5. Name and address of party to whom correspondence 6. Total number of applications and concerning document should be mailed: patents involved: Name: Steven I. Weisburd DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 7. Total fee (37 CFR 3.41) 40.00 Internal Address: Atty. Dkt.: M1071.1856 Enclosed Street Address: Authorized to be charged to deposit account 1177 Avenue of the Americas Authorized to be charged to credit card 41st Floor (Form 2038 enclosed) 8. Deposit account number: City: State: Zip: 50-2215 **New York** NY 10036-2714 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 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. Richard LaCava Name of Person Signing 00000 Total number of pages including cover sheet, attachments, and documents: 27/2003 KZEWIE

PATENT

REEL: 014450 FRAME: 0567

PATENT APPLICATION ASSIGNMENT SOLE OR JOINT INVENTORS EXECUTED OUTSIDE U.S.A.

FILE NO. M1071.1856

WHEREAS, We, Mizuki KONO and Tsutomu TATEKAWA, as assignors, have invented certain improvements in HIGH-FREQUENCY DIELECTRIC CERAMIC COMPOSITION, DIELECTRIC RESONATOR, DIELECTRIC FILTER, DIELECTRIC DUPLEXER, AND COMMUNICATION DEVICE 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, Nagaokakyoshi, 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: _	7/30 / 2023	Mizuki Irona
	-	Mizuki KONO
Date: _	8/5/2003	Toutomu Satekawa
		Tsutomu TATEKAWA

LEGALIZATION RECOMMENDED

RECORDED: 08/26/2003

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PATENT REEL: 014450 FRAME: 0568