

## PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

| SUBMISSION TYPE:                                                                                                                                                                                                                                                                                                  | NEW ASSIGNMENT              |                 |                     |                             |                 |            |                  |            |              |            |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|---------------------|-----------------------------|-----------------|------------|------------------|------------|--------------|------------|--|
| NATURE OF CONVEYANCE:                                                                                                                                                                                                                                                                                             | ASSIGNMENT                  |                 |                     |                             |                 |            |                  |            |              |            |  |
| CONVEYING PARTY DATA                                                                                                                                                                                                                                                                                              |                             |                 |                     |                             |                 |            |                  |            |              |            |  |
| <table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Shigemitsu TOMAKI</td><td>12/25/2012</td></tr><tr><td>Yoshikazu TSUYA</td><td>12/25/2012</td></tr><tr><td>Masamichi TANAKA</td><td>12/25/2012</td></tr><tr><td>Isao ABE</td><td>12/25/2012</td></tr></tbody></table> | Name                        | Execution Date  | Shigemitsu TOMAKI   | 12/25/2012                  | Yoshikazu TSUYA | 12/25/2012 | Masamichi TANAKA | 12/25/2012 | Isao ABE     | 12/25/2012 |  |
| Name                                                                                                                                                                                                                                                                                                              | Execution Date              |                 |                     |                             |                 |            |                  |            |              |            |  |
| Shigemitsu TOMAKI                                                                                                                                                                                                                                                                                                 | 12/25/2012                  |                 |                     |                             |                 |            |                  |            |              |            |  |
| Yoshikazu TSUYA                                                                                                                                                                                                                                                                                                   | 12/25/2012                  |                 |                     |                             |                 |            |                  |            |              |            |  |
| Masamichi TANAKA                                                                                                                                                                                                                                                                                                  | 12/25/2012                  |                 |                     |                             |                 |            |                  |            |              |            |  |
| Isao ABE                                                                                                                                                                                                                                                                                                          | 12/25/2012                  |                 |                     |                             |                 |            |                  |            |              |            |  |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                              |                             |                 |                     |                             |                 |            |                  |            |              |            |  |
| <table border="1"><tr><td>Name:</td><td>TDK CORPORATION</td></tr><tr><td>Street Address:</td><td>1-13-1, Nihonbashi, Chuo-ku</td></tr><tr><td>City:</td><td>Tokyo</td></tr><tr><td>State/Country:</td><td>JAPAN</td></tr><tr><td>Postal Code:</td><td>103-8272</td></tr></table>                                  | Name:                       | TDK CORPORATION | Street Address:     | 1-13-1, Nihonbashi, Chuo-ku | City:           | Tokyo      | State/Country:   | JAPAN      | Postal Code: | 103-8272   |  |
| Name:                                                                                                                                                                                                                                                                                                             | TDK CORPORATION             |                 |                     |                             |                 |            |                  |            |              |            |  |
| Street Address:                                                                                                                                                                                                                                                                                                   | 1-13-1, Nihonbashi, Chuo-ku |                 |                     |                             |                 |            |                  |            |              |            |  |
| City:                                                                                                                                                                                                                                                                                                             | Tokyo                       |                 |                     |                             |                 |            |                  |            |              |            |  |
| State/Country:                                                                                                                                                                                                                                                                                                    | JAPAN                       |                 |                     |                             |                 |            |                  |            |              |            |  |
| Postal Code:                                                                                                                                                                                                                                                                                                      | 103-8272                    |                 |                     |                             |                 |            |                  |            |              |            |  |
| PROPERTY NUMBERS Total: 1                                                                                                                                                                                                                                                                                         |                             |                 |                     |                             |                 |            |                  |            |              |            |  |
| <table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>13811528</td></tr></tbody></table>                                                                                                                                                      | Property Type               | Number          | Application Number: | 13811528                    |                 |            |                  |            |              |            |  |
| Property Type                                                                                                                                                                                                                                                                                                     | Number                      |                 |                     |                             |                 |            |                  |            |              |            |  |
| Application Number:                                                                                                                                                                                                                                                                                               | 13811528                    |                 |                     |                             |                 |            |                  |            |              |            |  |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                               |                             |                 |                     |                             |                 |            |                  |            |              |            |  |
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| Correspondent Name: Oblon, Spivak, et al.                                                                                                                                                                                                                                                                         |                             |                 |                     |                             |                 |            |                  |            |              |            |  |
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| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                           | 410155US8PCT                |                 |                     |                             |                 |            |                  |            |              |            |  |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                                | Adel Samuel                 |                 |                     |                             |                 |            |                  |            |              |            |  |
| Total Attachments: 2<br>source=410155USAssignment#page1.tif<br>source=410155USAssignment#page2.tif                                                                                                                                                                                                                |                             |                 |                     |                             |                 |            |                  |            |              |            |  |

OP \$40.00 13811528

## Assignment of Application

INSERT NAMES  
AND RESIDENCE  
ADDRESS OF  
THE INVENTORS:

WHEREAS, I (WE) Shigemitsu TOMAKI, Yoshikazu TSUYA, Masamichi TANAKA and Isao ABE

of (c/o) TDK-EPC Corporation, 1-13-1, Nihonbashi, Chuo-ku, Tokyo, 103-0027, Japan

, respectively,

INSERT TITLE OF  
INVENTION:

have invented certain new and useful improvements in: "BAND-PASS FILTER MODULE AND MODULE  
SUBSTRATE "

(Application No. PCT/JP2011/066559, filed July 21, 2011), and

INSERT NAME  
AND ADDRESS OF  
COMPANY OR  
OTHER ASSIGNEE

WHEREAS, TDK Corporation

(hereinafter referred to as "ASSIGNEES") having places of business at: 1-13-1, Nihonbashi, Chuo-ku, Tokyo, 103-8272, Japan, respectively are desirous of jointly acquiring interests in the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEES or their representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: DEC. 25. 2012

Shigemitsu Tomaki  
(Signature of Inventor) Shigemitsu TOMAKI

Date: DEC. 25. 2012

Yoshikazu Tsuya  
(Signature of Inventor) Yoshikazu TSUYA

Date: DEC. 25. 2012

Masamichi Tanaka  
(Signature of Inventor) Masamichi TANAKA

Date: DEC. 25. 2012

Isao Abe  
(Signature of Inventor) Isao ABE

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor)

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor)

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