S/64 A D 58 1.49 Form PTO-1595 (Rev. 03-05) OMB No. 0651-0027 (exp. 6/30/2005) 10-06	10/534106 JCC5 Rec'd PCT/PTO 06 MAY 2005
OMB No. 0651-0027 (exp. 6/30/2005)	
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	<i>                                      </i>
To the Director of the U.S. Patent a 103095	540 documents or the new address(es) below.
1	/ess of receiving party(les)
Naofumi YONEDA (01/18/2005), Moriyasu MIYAZAKI (01/18/2005), Yoshio INASAWA (01/18/2005), Yoshihiko KONISHI (01/18/2005), Additional name(s) of conveying party(ies) attached? X Yes No	Name: Mitsubishi Denki Kabushiki Kaisha Internal Address: Street Address:
3. Nature of conveyance/Execution Date(s):	2-3, Marunouchi 2-chome, Chiyoda-ku
Execution Date(s): in parentheses after inventor name  X Assignment Merger Change of Name	Tokyo 100-8310 JAPAN
Security Agreement Joint Research Agreement	City:
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Zip:
Other	Additional name(s) & address(es) Yes X No
	attached.
<b>(——</b>	This document is being filed together with a new application.
A. Patent Application No.(s)  NEW	B. Patent No.(s)
INTAA	
Additional numbers attached?	Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Michael K. Mutter BIRCH, STEWART, KOLASCH & BIRCH, LLP Internal Address: Atty. Dkt.: 1163-0534PUS1 Street Address: 8110 Gatehouse Rd Suite 100 East P.O. Box 747  City: Falls Church State: VA Zip: 22040-0747 Phone Number: (703) 205-8000 Fax Number: (703) 205-8050 Email Address: matteoph@bskb.com	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00  Authorized to be charged by credit card  Authorized to be charged to deposit account  X Enclosed  None required (government interest not affecting title)  8. Payment Information  a. Credit Card  Last 4 Numbers  Expiration Date  b. Deposit Account Number  Authorized User Name
9. Signature:	May 6, 2005

Signature

Michael K. Mutter - 29,680

Name of Person Signing

Birch, Stewart, Kolasch & Birch, LLP

MKM/smt

Date

Total number of pages including cover sheet, attachments, and documents:

## 10/534106

JC06 Rec'd PCT/PTO 06 MAY 2005

Form PTO-1595	RECOR	RDATION FORM COVER SHEET (continued)	
Additional Conve	ying Party(ies)/Exed	cution Date(s) (1. Continued):	
		01/18/2005), Izuru NAITOH (01/18/2 ), and Yutaka SHIMAWAKI (01/18/2	
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Assignee Name:			
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Street Address:			
City:	State:	Country:	Zip:
Additional Applica	tions and/or Patent	s (4. Continued):	
Additional Patent Application4A. Continued:	on Numbers	Additional Patent Numbers 4B. Continued:	
	Additional numbers	attached? Yes No	

2

Docket No.: 1163-0534PUS1

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ATTORNEY DOCKET NO.	1163-0534PUS1

## **ASSIGNMENT**

		Application No. NEW	Filed May 6, 2005
Insert Name(s)		WHEREAS, Naofumi YONEDA, Moriyasu MIYAZAKI, Yo	shio INASAWA,
		Yoshihiko KONISHI, Shigeru MAKINO, Akio IIDA, Izur	u NAITOH,
•		Toshiyuki HORIE, Hiroyuki SATOH and Yutaka SHIMAWA	KI, all
		residing at, Tokyo, Japan	
		(hereinafter designated as the undersigned) has (have) invented certain new and	d useful improvements in
insert Title of Invention	<b>=</b>	"ANTENNA APPARATUS"	
•		for which an application for Letters Patent of the United States of America has b	peen executed by the undersigned
nsert Date of Signing of Application	<b>→</b>	January 18, 2005 on	; and
nsert Name of Assignee	<b>→</b>	WHEREAS, MITSUBISHI DENKI KABUSHIKI KAIS	SHA
		<u> </u>	
nsert Address of Assignee	<b>→</b>	of2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-831	0 Japan
CHECK BOX	,	its heirs, successors, legal representatives and assigns (hereinafter designated acquiring the entire right, title and interest in and to said invention and in as may be granted therefor in the United States of America and   in any and all foreign countries.	<u> </u>
		NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.0 paid, the receipt of which is hereby acknowledged, and other good and valuable has (have) sold, assigned and transferred, and by these presents does sell, Assignee the full and exclusive right to the said invention in the United Statependencies and possessions and the entire right, title and interest in and twhich may be granted therefor in the United States of America, its territories,	consideration, the undersigned assign and transfer unto said ates of America, its territories, to any and all Letters Patent(s)

and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

and if the box above is designated, in any and all foreign countries;

PATENT

REEL: 017042 FRAME: 0934

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date January 18, 2005	Name of Inventor	naspum y	neda		
•		Naorumi Yuneda	(signature)		
Date January 18, 2005	Name of Inventor	Moriyasu MIYAZAKI			
		Moriyasu MIYAZAKI	(signature)		
Date January 18, 2005	Name of Inventor	. Yoshio Inasawa			
		Yoshio INASAWA	(signature)		*
Date January 18, 2005	Name of Inventor	Yoshio INASAWA  Yoshibiko Konishi Yoshibiko KONISHI	shi		, 
		Yoshihiko KONISHI	(signature)	· · · · · · · · · · · · · · · · · · ·	
Date January 18, 2005	Name of Inventor	Shiga Mahi			
		Shigeru MAKINO	(signature)		
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,	(1225 01 221 0110	Izuru NAITOH	(signature)		
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Date January 18, 2005	Name of Invento	or Throyaki Satish			
,	14diffe of Hiveline	Hiroyuki SATOH	(signature)		

Page 2 of 3

PATENT REEL: 017042 FRAME: 0935