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Atsushi SUZUKI (3/15/2006), Tetsuo TOMINAGA (2/28/2006), Tsuyoshi EGUCHI (3/15/2006),	Name: Mitsubishi Heavy Industries, Ltd.		
Kazuyuki KAMIYA (3/15/2006), and Additional name(s) of conveying party(les) attached? x Yes No	Internal Address: Street Address:		
3. Nature of conveyance/Execution Date(s):	16-5, Konan 2-chome, Minato-ku Tokvo		
Execution Date(s): in parentheses after inventor name	108-8215		
X Assignment Merger Change of Name	JAPAN		
Security Agreement Joint Research Agreement	City:		
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Other	Additional name(s) & address(es) Yes X No attached:		
4. Application or patent number(s): A. Patent Application No.(s) 29/252,937	B. Patent No.(6)		
Additional numbers attached? 5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:		
Name: Charles Gorenstein BIRCH, STEWART, KOLASCH & BIRCH, LLP Internal Address: Atty. Dkt.: 0045-0308PUS1 Street Address: 8110 Gatehouse Road Suite 100 East P.O. Box 747	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Authorized to be charged by credit card X Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
City: Falls Church State: VA Zip: 22040-0747 Phone Number: (703) 205-8000 Fax Number: (703) 205-8050 Email Address: mailroom@b\$kb.com	8. Payment Information a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 02-2448 Authorized User Name Charles Gorenstein		
Signature: Signature Charles Gorenstein - 29,271 Name of Person Signing	April 25, 2006 Date Total number of pages Including cover sheet, attachments, and documents:		

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Form PTO-1595		nued)	
Additional Conveying Pa	arty(ies)/Execution Da	ate(s) (1. Continued):	
Asuka SOYA (3/15/2006)			
Additional Assignees (2	. Continued):		
			<u>.</u>
Internal Address: Street Address:			
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Assignee Name:			_
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•			
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Assignee Name:			_
Internal Address:			
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Additional Applications	and/or Patents (4. Co	entinued):	
Additional Patent Application Numb 4A. Continued:	pers	Additional Patent Numbers 4B. Conlinued:	
		ļ	
	Additional numbers attached?	Yes No	

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Docket No.: 0045-0308PUS1

2005-147H/1568-US

ATTORNEY DOCKET NO. 0045-0308 PUS

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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ASSIGNMENT

Application No.	29,	/252,	9:	37
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Filed January 31, 2006

	Application No. 23724-	 , -			
Insert Name(s) of Inventor(s)	***(Given Name FAMILY NAME (ALL CAPS))***				
	WHEREAS.	Atsushi SUZUKI	; Tetsuo TOMINAGA		
	Tsuyoshi EGUCHI	Kazuyuki KAMIYA	. Asuka SOYA		
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	 -				
	-				
		, , , , , , , , , , , , , , , , , , , 			
	(hereinafter designated as the	e undersigned) has (have) invented cer	tain new and useful improvements in		
Insert Title	Fan				
of Invention					
Insert Date of Signing of Application Insert Name	undersigned (except in the case) FEG. 28.2006, M	SUBISHI HEAVY INDUSTRIES	; and		
of Assignee	WHEREAS,		<u> </u>		
Insert Address	16-5, Konan 2-ch	nome, Minato-ku, Tokyo 10)8-8215, Japan		
CHECK BOX IF APPROPRIA	desirous of acquiring the e Letters Patent(s) that may be in any foreign countries.	representatives and assigns (hereina ntire right, title and interest in and t e granted therefor in the United States	o said invention and in and to any		
	paid, the receipt of which undersigned has (have) sol transfer unto said Assigne America, its territories, depart any and all Letters Patenti	nsideration of the sum of Ten Dollars is hereby acknowledged, and other gld, assigned and transferred, and by the full and exclusive right to the sendencies and possessions and the erms which may be granted therefor ind possessions, and if the box above	ood and valuable consideration, the these presents does sell, assign and aid invention in the United States of the right, title and interest in and to the United States of America, its		

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full

term or terms for which the same may be granted.

PATENT REEL: 017535 FRAME: 0171

Attorney Docket No. 0045-0308PU5

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion 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, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignce 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 conversion 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	MAR, 1 5, 2006	Name of Inventor Atoushi Sunki
Date	FEB. 28.2006	Name of Inventor Atsushi Suzuki Tetsuo Tominaga Testsolo Fominaga T. T Name of Inventor (signature) Atsushi SUZUKI 28. Feb. 06 (signature) Testsolo Tominaga T. T
Date	MAR. 1 5, 2006	Name of Inventor(signature) Tsuyoshi EGUCHI
Date	MAR, 1 5,2008	
Date	NAR. 1 5 2008	Name of Inventor Asuka Soya (signature) Asuka Soya
Date _		Name of Inventor(signature)

RECORDED: 04/25/2006

PATENT REEL: 017535 FRAME:•0472