

Intellectual Property Strategy toward a Global Major Player

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Takashi Suzuki

Corporate Officer,
General Manager
Intellectual Property Group,
Hitachi, Ltd.

CONTENTS

1. Intellectual Property (IP) Activities
toward a Global Major Player
2. Globalization in our IP Activities
3. Creating and Utilizing IP Portfolio for Hitachi's Business
4. International Standardization Activities

Respond to global needs through the Social Innovation Business



Industrial, Transportation and
Urban Development Systems



Information and
Communication Systems



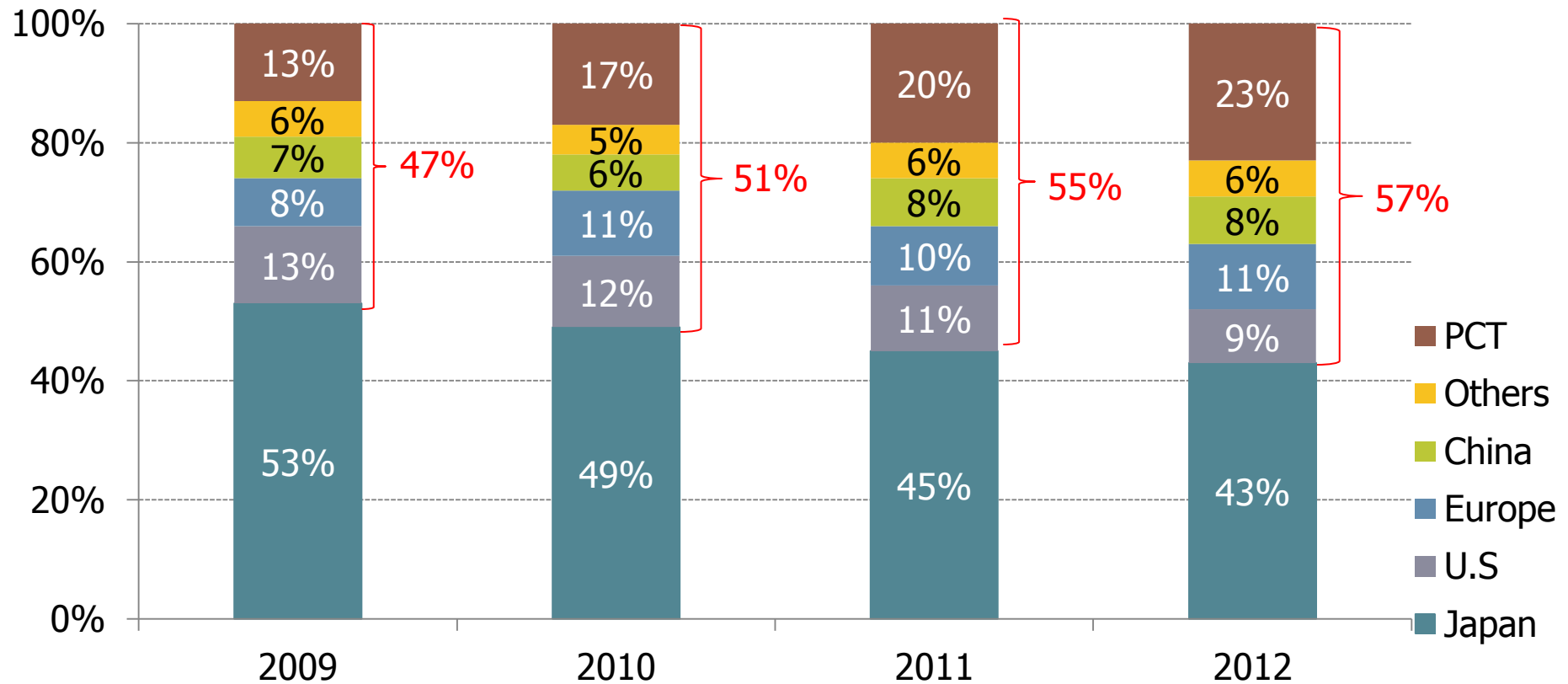
Power Systems

Vision: Construction of IP Organization to Survive Global Competition

- ◆ Globalization in IP Activities
- ◆ Creating and Utilizing IP Portfolio for Business

2. Globalization in our IP Activities (Applications)

- ◆ 2012 Target: Overseas Patent Appl. Ratio*¹ 55% ⇒ Achieve 57%
- ◆ Japan & US Focus ⇒ PCT*² Appl. Focus for Global patent portfolio



*1 Overseas Patent Appl. Ratio = $\frac{\text{The number of overseas patent Applications}}{\text{The number of overseas patent Appl.} + \text{The number of Japanese patent Applications}}$

*2 PCT applications: Patent applications filed under the Patent Cooperation Treaty. For the overseas patent Appl. Ratio, we count expected number of countries where we plan to obtain patents for each PCT application.

2. Globalization in our IP Activities (Applications)

Patent Applications Published in 2012 (Granted patent for U.S.)*

Japan			U.S.			PCT			China			Europe		
Corporate Group			Corporate Group			Corporate Group			Corporate Group			Corporate Group		
1	Panasonic	11,400	1	IBM	6,500	1	ZTE	3,900	1	ZTE	4,400	1	Siemens	2,200
2	Hitachi	10,000	2	Samsung	6,300	2	Panasonic	3,600	2	Hon Hai	4,200	2	Samsung	1,900
3	Toyota	9,600	3	SONY	3,600	3	Siemens	2,100	3	Huawei	4,100	3	LG	1,600
4	Toshiba	8,600	4	Panasonic	3,600	4	Toyota	2,100	4	Panasonic	3,000	4	GE	1,500
5	CANON	8,000	5	CANON	3,300	5	Huawei	2,000	5	SINOPEC	2,900	5	BOSCH	1,400
6	EPSON	5,500	6	LG	2,800	6	SHARP	2,000	6	SONY	2,800	6	Qualcomm	1,400
7	Mitsubishi Electric	5,400	7	Toshiba	2,700	7	Hitachi	1,900	7	Zhejiang Univ.	2,700	7	Philips	1,300
8	NEC	5,000	8	Hon Hai	2,700	8	BOSCH	1,900	8	Samsung	2,500	8	ZTE	1,300
9	Fujitsu	4,800	9	Microsoft	2,600	9	LG	1,800	9	LG	2,400	9	Ericsson	1,300
10	Fuji Film	4,800	10	Hitachi	2,600	10	Qualcomm	1,500	10	Tsinghua Univ.	2,100	10	Panasonic	1,300
									11	Hitachi	2,000		
												16	Hitachi	800

* Based on Hitachi's survey using Shareresearch, Patolis, IFIPAT/Questel-orbit, and Pat-List/CN
Ranking is based on the number of the patent applications without rounding off.

Receive TOP100 Global Innovators Award

- ◆ Excellent in "Volume" and "Influence" of the portfolio
- ◆ Superior in "Grant Ratio" and "Globalization of the Portfolio"

2012 THOMSON REUTERS
TOP 100
GLOBAL INNOVATORS

2. Globalization in our IP Activities (Overseas Offices)

Expand Overseas IP Offices align with Global R&D Formation

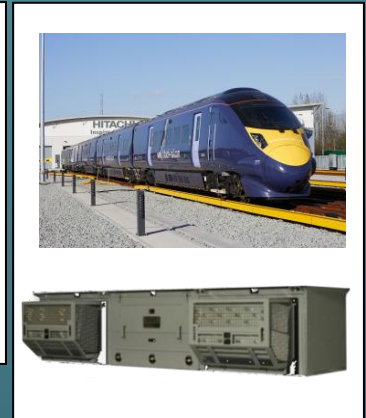
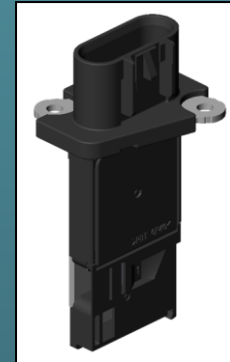


Support IP activities (ex. obtaining patents, educating local staffs) in overseas countries

Contribution to Social Innovation Business

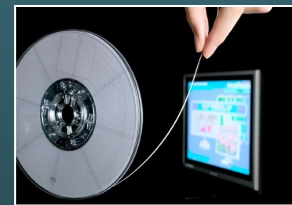
1. Creating IP Portfolio in Major Markets

- ◆Automotive Parts (Air Flow Sensor)
- ◆Railway Car (Body and Driving System)



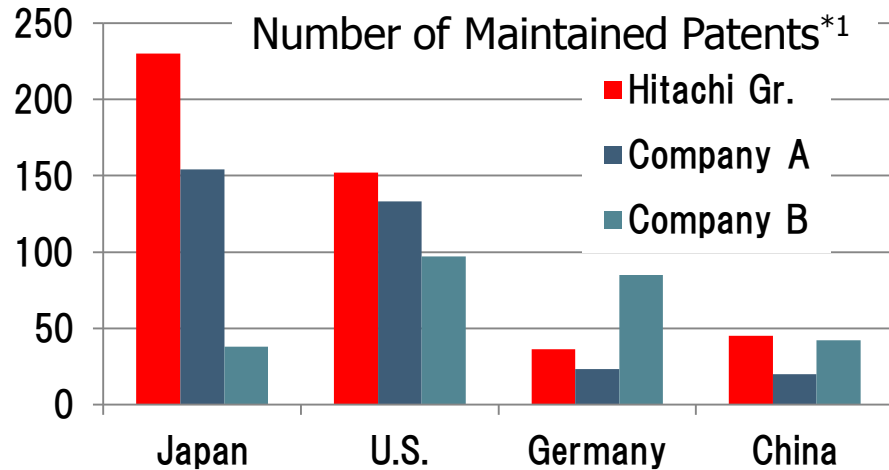
2. Utilizing IP Portfolio for Supporting Business

- ◆Barriers to Entry (Anisotropic Conductive Film)
- ◆Appealing Technology (WAN Accelerator)



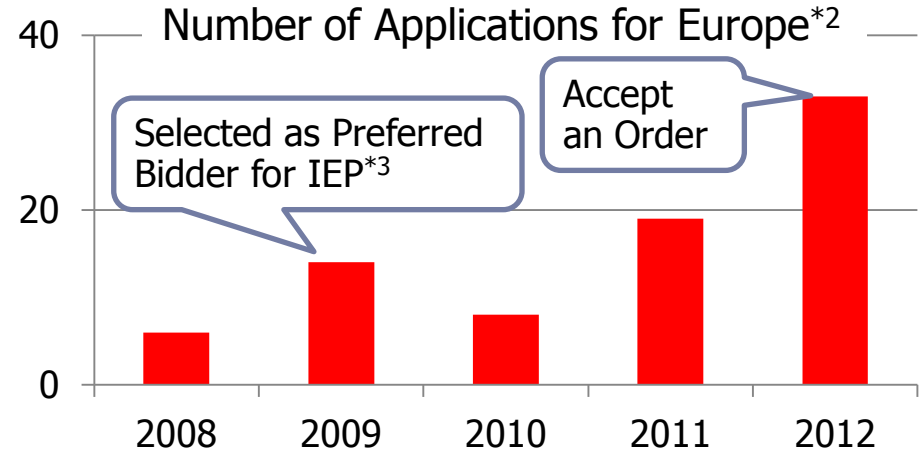
Creating IP Portfolio in Major Markets

Air Flow Sensor



- ◆ WW No.1 share
- ◆ Create Barriers to Entry to Major Markets with IP Portfolio
⇒ Increasing German and Chinese patent applications

Railway Car



Wide range of IPs
(including FSW*4 Patents and Design Patents)
<Number of Patents>
◆ Japan: 600 ◆ Overseas: 600

Strengthen IP Portfolio in Europe since Targeting IEP

*1: Based on Hitachi's survey using Shareresearch

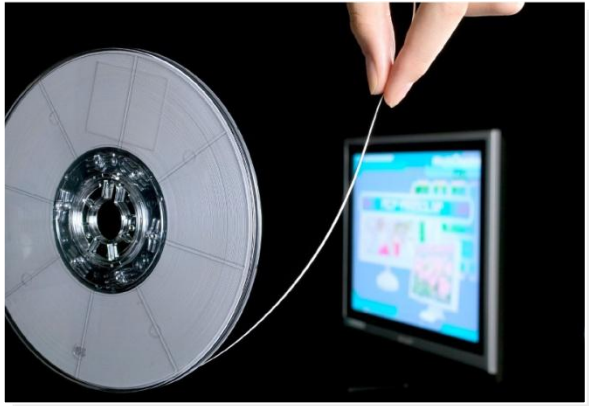
*2: EPO, PCT and Design applications

*3: IEP: Intercity Express Programme in UK

*4: FSW: Friction Stir Welding. Hitachi has been licensed from TWI (The Welding Institute) and developed applied technologies for railway cars.

3. Creating and Utilizing IP Portfolio for Hitachi's Business

Utilizing IP for Supporting Business: Anisotropic Conductive Film "ANISOLM"^{*1}



Adhesive Film used for Circuit Connection
Developed by Hitachi Chemical Co., Ltd.

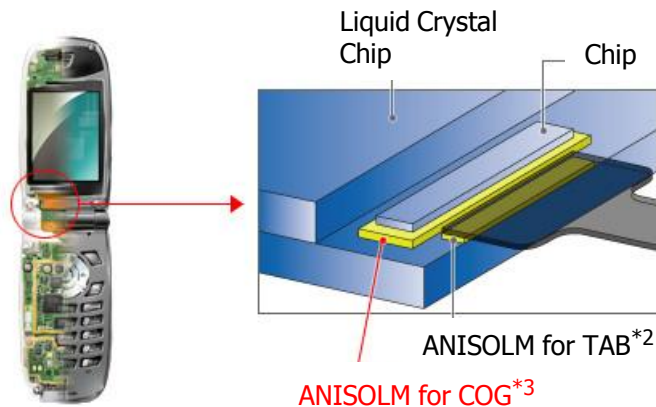
- ◆ WW No.1 Share
- ◆ Global Patent Portfolio (600 Patents in WW)
- ◆ Receive Prime Minister Invention Award and Purple Ribbon Medal

Korean Company Manufactures and Sells
Anisotropic Conductive Film for Touch Panels



February 2013

File a Lawsuit with Seoul Central District Court
for Patent Infringement and Seek for an Injunction



*1: "ANISOLM" is a registered trademark in Japan and other countries.


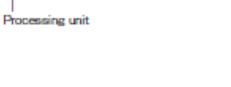
*2: TAB: Tape Automated Bonding

*3: COG: Chip On Glass

Utilizing IP for Supporting Business: WAN Accelerator

Catalog

Remote-backup model

Item	Specifications		Appearance
	Processing unit	Interface unit	
WAN accelerator capabilities	Maximum TCP sessions	2,000	
	Maximum TCP session performance	1Gbps	
	Maximum optimized WAN capacity	1Gbps	
Maximum number of ports	1000BASE-X SFP(SX)	4	
	10/100/1000BASE-T	4	
Bypass functions**	✓		
Processing unit / interface unit**	Processing unit	Interface unit	
Chassis size**	1U	2.5U	
Redundant power supply	✓		
Power and physical specifications	Input voltage (V)	AC100±10%/AC200±10%	AC100-120/AC200-240
	Maximum current (A)	100VAC:8.0 200VAC:4.0	100VAC:4.2 200VAC:2.6
	Maximum power consumption (W)	100VAC:680 200VAC:670	420
	Maximum heat dissipation (kJ/h)	100VAC:2,440 200VAC:2,380	1,510
	Operating temperature (°C)	10-35 (When not in operation :0-40)	0-40
	Dimensions W x D x H (mm)	494×755×44 (including the front bezel, metal fixtures, and projecting parts)	443×644×110
	Weight (kg) (maximum)	20	18

- *1 Up to 1 Gbps (Multiple sessions)
- *2 The interface card has 8 x 1000BASE-X and 4 x 10/100/1000BASE-T ports, and up to 8 ports can be used simultaneously.
- *3 Bypasses the corresponding session without acceleration if an emergency occurs.
- *4 1U/44.45mm
- *5 On the remote-backup model, the processing unit and the interface unit are integrated.

Hitachi, Ltd., Telecommunications & Network Systems Division, Information & Telecommunication Systems Company

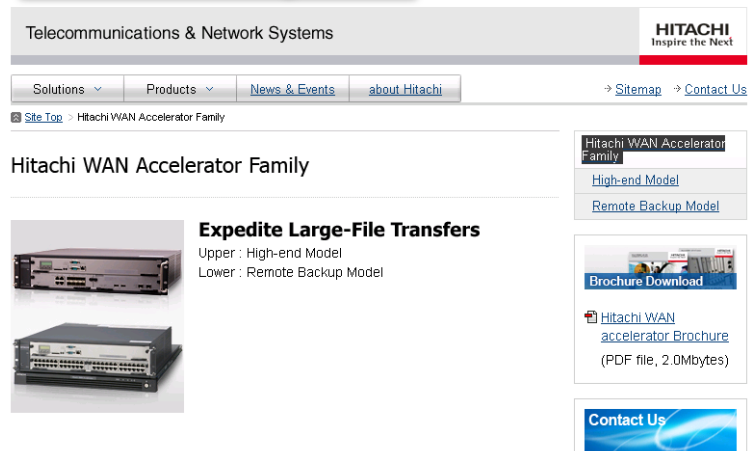
The facts, specifications, and images of the device contained in this catalog were current as of December 2012. They may be changed without prior notification. The color of the product printed in the catalog may be different from that of the actual product.

Hitachi has filed patent applications related to "WAN Accelerator", mainly on high-speed communication technology, in a number of countries. To use this product properly and safely, please read and follow the users manual and safety precautions before use.

Model: E374P 1212
Printed in Japan(H)

Appeal IP Portfolio by indicating "Hitachi has filed patent applications related to "WAN Accelerator", mainly on high-speed communication technology, in a number of countries."

Home Page*



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Solutions Products News & Events about Hitachi

Site Top Hitachi WAN Accelerator Family

Hitachi WAN Accelerator Family

Expedite Large-File Transfers
Upper : High-end Model
Lower : Remote Backup Model

Brochure Download

Hitachi WAN accelerator Brochure (PDF file, 2.0Mbytes)

Contact Us

Patent applications related to "WAN Accelerator"

Hitachi has filed patent applications related to "WAN Accelerator", mainly on high-speed communication technology, in a number of countries:

Patent No.

04995296(Japan)

PCT Publication No.

WO2011/033894A1 (National/Regional Phase: Brazil, China, EPO[European Patent Office], India, Japan, Mexico, Singapore, Thailand and United States of America)

PCT Application No.

PCT/JP2012/001344, PCT/JP2012/055259, PCT/JP2012/055260, PCT/JP2012/077755, PCT/JP2012/079309

Application/Patent Number, Country

* <http://www.hitachi.com/products/it/network/wan/index.html> (Global)

4. International Standardization Activities

Strategically Focus on Important Areas in Group Wide to Facilitate Standardization

Examples of Standardization Activities

Theme	Achievement in 2012	Action Plan
Smart City	Contributed to obtain Secretariat Position in a Sub-committee of ISO*1 Sent Chairperson from Hitachi	Publish a case study report to, and take alliance with WBCSD*2 to promote Smart City Metrics.
Electrical Energy Storage System (EES)	Utilized Top Standard System*3 and Contributed to obtain Secretariat Position in Technical Committee of IEC*4	Standardize Evaluation Points of EES from wide range of aspects like security, environment, technology, and social impact, to promote introduction.

Industrial Standardization Award (Minister of Economy, Trade and Industry Award)

Prize Winner	Evaluated Points
Yukiyasu Shirasaka	Convener in a Working Group of IEC Standardized Insulation Test Method for UHV*5 Power transformers in IEC
Shoichiro Koseki	Convener in a Working Group of IEC Standardized Efficiency Measurement Method for Power Convertors of Power Electronics in IEC

*1 International Standardization Organization, *2 World Business Council for Sustainable Development

*3 System, provided by Japanese Industrial Standards Committee, to accelerate international standardization

*4 International Electrotechnical, *5 Ultra High Voltage

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Inspire the Next 