

# Welcome to the MECHATROLINK Members Association

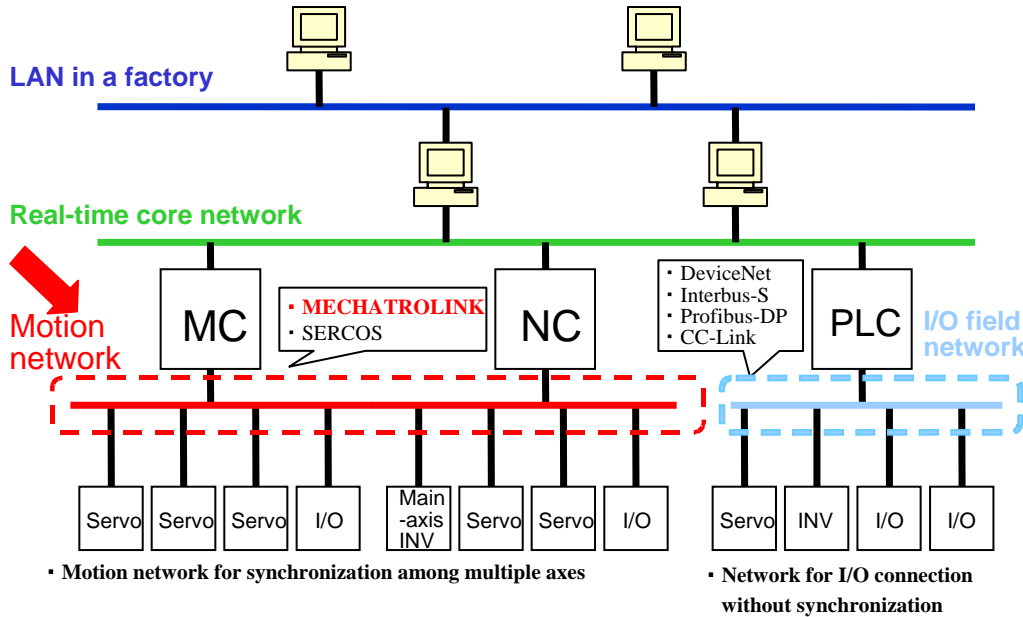


MECHATROLINK Members Association  
2008.6

# MECHATROLINK Specifications



## Position of MECHATROLINK



Function Specification	MECHATROLINK-II	MECHATROLINK-III
Physical Layer	Equivalent to RS-485	Ethernet
Baud Rate	10 Mbps	100 Mbps
Transmission Cycle Time	250 $\mu$ s to 8 ms*	31.25 $\mu$ s to 64 ms*
String Size	17 bytes or 32 bytes (Both string sizes cannot be used at the same time)	8/16/32/48/64 bytes (Different string sizes can be used as the same time)
Number of Slaves	30 max.	62 max.
Maximum Transmission Distance	50 m total (100 m with Repeater)	100 m between stations 0.5 m
Minimum Distance between Stations	0.5 m	0.2 m
Topology	Bus	Cascade, star, or point-to-point
Cyclic/Event-driven Communications	Cyclic communications possible	Cyclic and event-driven communications supported.
Message Communications	None	Available

\* Depends on product specifications.



Name: MECHATROLINK Members Association (MMA)

Objectives:

MMA is a group of MECHATROLINK product developers and users who promote the use of MECHATROLINK, a motion field network. All members support the construction and promotion of a larger MECHATROLINK family.

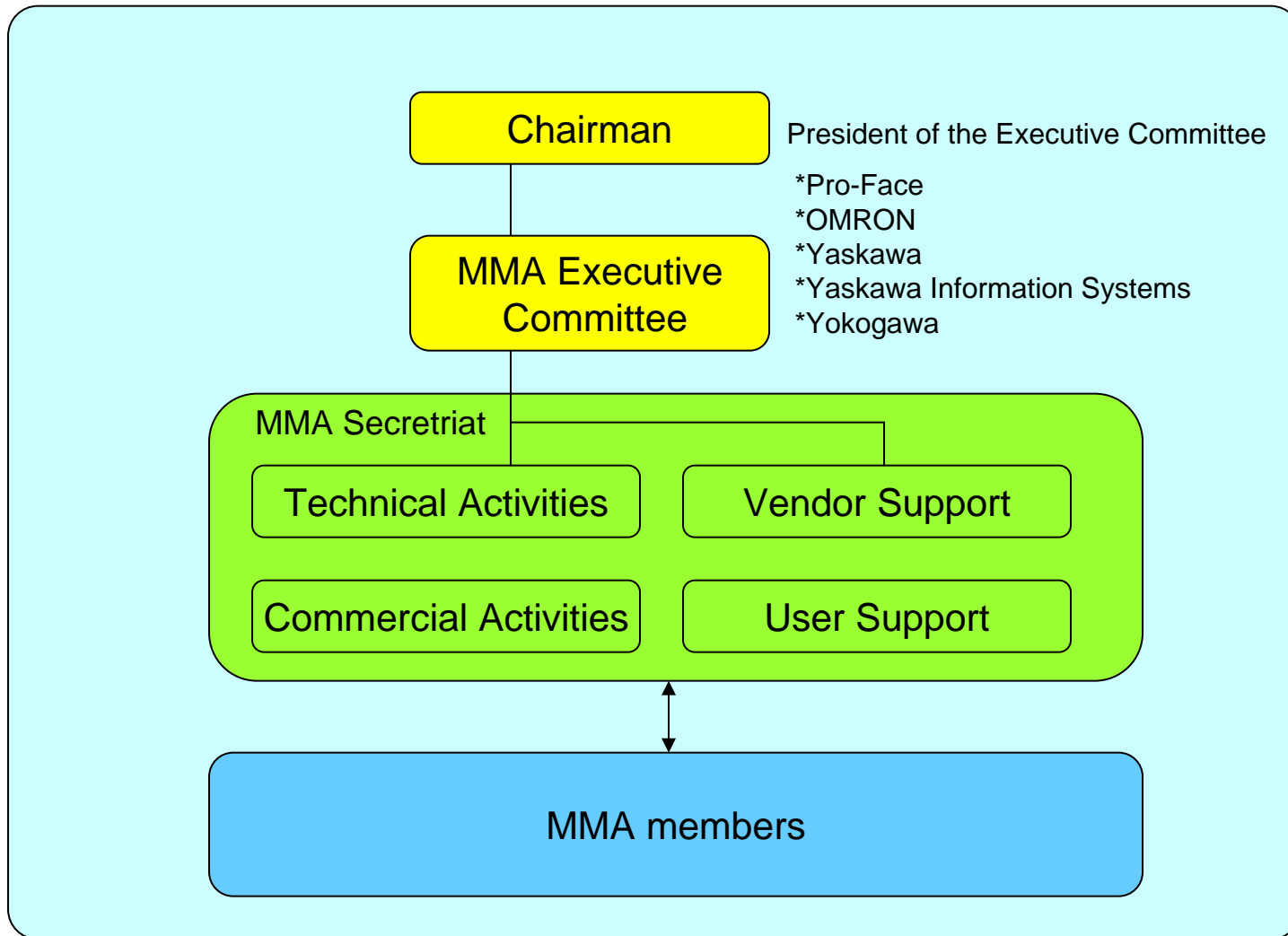
Main Office: 480 Kamisujisawa, Iruma, Saitama, Japan

Telephone: +81-42-962-7920

Fax: +81-4-2962-5913

e-mail: [mma@mechatrolink.org](mailto:mma@mechatrolink.org)

URL: <http://www.mechatrolink.org>



- ◆ Issue ID and Password for WEB member site
- ◆ Getting MECHATROLINK specifications
- ◆ Up-to-date with the latest information by mail magazine and News
- ◆ Technical support for product development
- ◆ Promotion assistance for MECHATROLINK compliant products
- ◆ Participation for the MECHATROLINK booth at tradeshow
- ◆ Product certification test
- ◆ Be able to purchase connector kit and assemble cables
- ◆ Participation for the MECHATROLINK meeting ( once a year )
- ◆ Participation for the MECHATROLINK development seminar

# Membership Categories and Privileges

## MECHATROLINK Members Association Membership

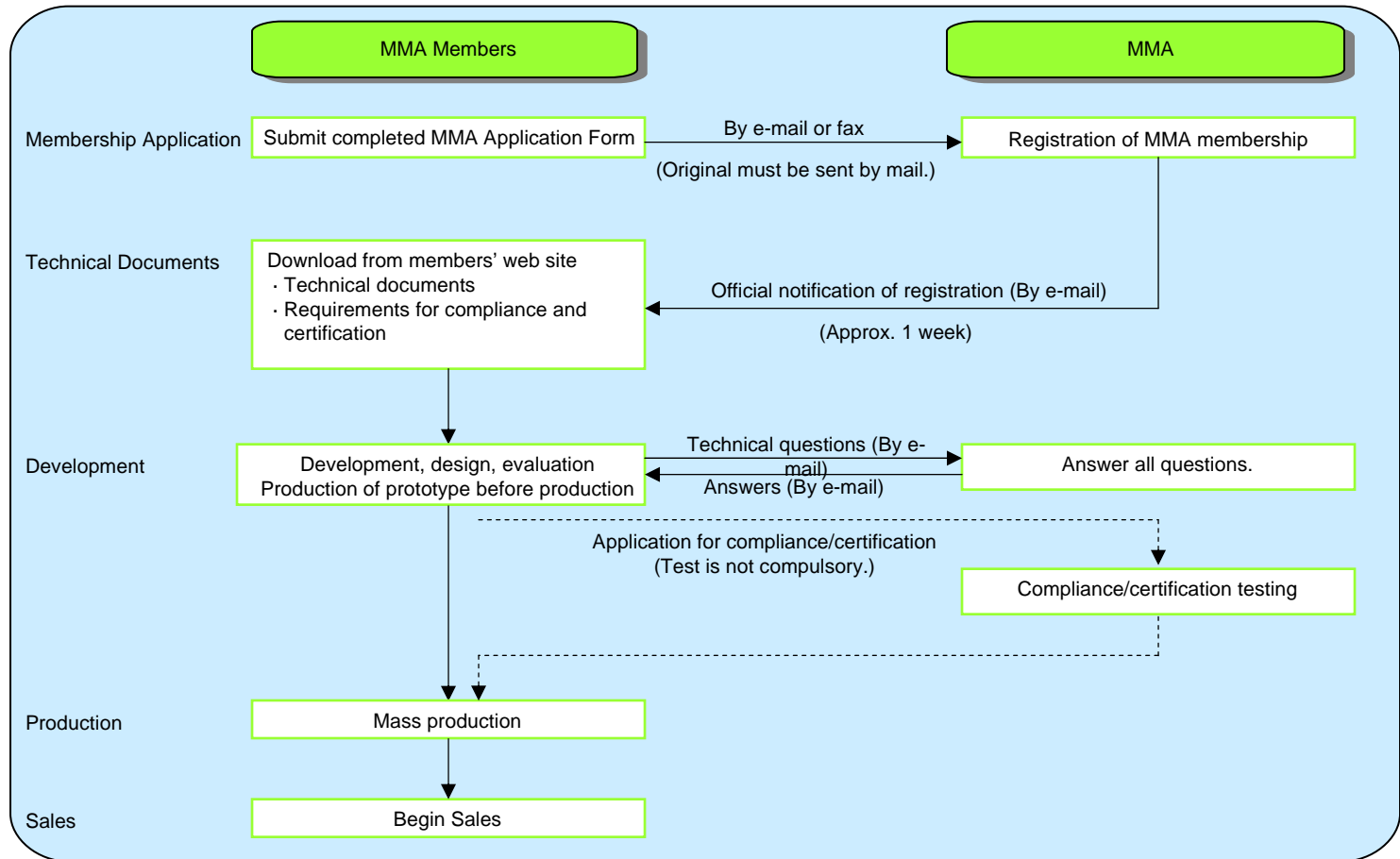
	Membership Categories			
	Board Members	Executive Members	Regular Members	Registered Members
Admission fee	Free			
Annual fee (April to March)	500,000 yen *	200,000 yen *	100,000 yen *	Free
Annual fee for members admitted between October and March of the then-current term	1/2 of the above annual fee			Free
Participation in committee and general meetings	Authorized to participate the executive committee, subcommittee, and general meeting	Authorized to participate the subcommittee and general meeting		Not authorized
<b>Services</b>				
Downloading the technical documents from the Website	Free			
Direct mails from the Association	Free			
Seminars	Charged			
Product presentation at seminar	Authorized		Not authorized	
Technical inquiries (by e-mail or telephone.)	Free			Not authorized
Development support for vendors	Free	(charged for some cases)		Not authorized
Introduction of products on the Association's website	Free			Not authorized
Advertisement on the Association's website	Free	Charged		Not authorized
Compliance certification test	50,000 yen *	100,000 yen *	200,000 yen *	-
<b>Rights of Members</b>				
Development and sale of products	Authorized			Not authorized
Participation in formulation of specifications	Authorized	Not authorized (Possible to receive the information on experimental specifications).	Not authorized (Possible to receive the information on experimental specifications.)	Not authorized (Possible to read the formulated specifications)
Acquisition of development ASIC	Possible to obtain ES and CS	Possible to obtain CS	Mass production	-

\*: Taxes included

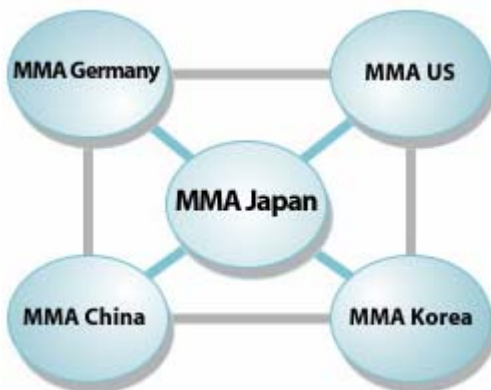
- ◆ Provides MECHATROLINK specifications and technical information
- ◆ Offers opportunities for exchange of information between members
- ◆ Performs product certification test
- ◆ Exhibits products at MMA booth at tradeshow
- ◆ Supports member product development
- ◆ Presents at technical seminars
- ◆ Manages MMA Web and mail magazines
- ◆ Registers new members and manages association budget

# From Membership to Product Release

## From Membership to Product Release



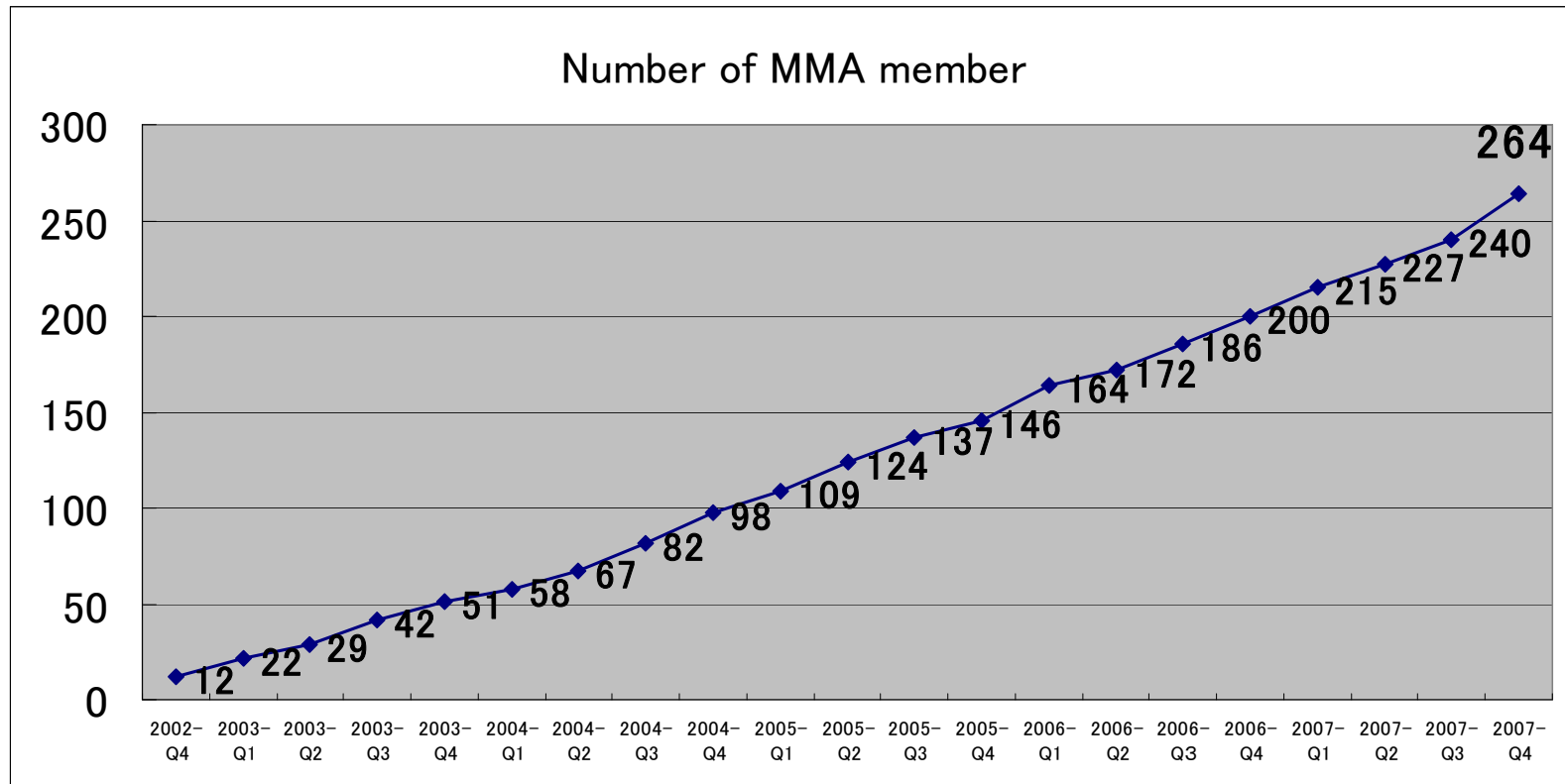
## Technical support is available overseas

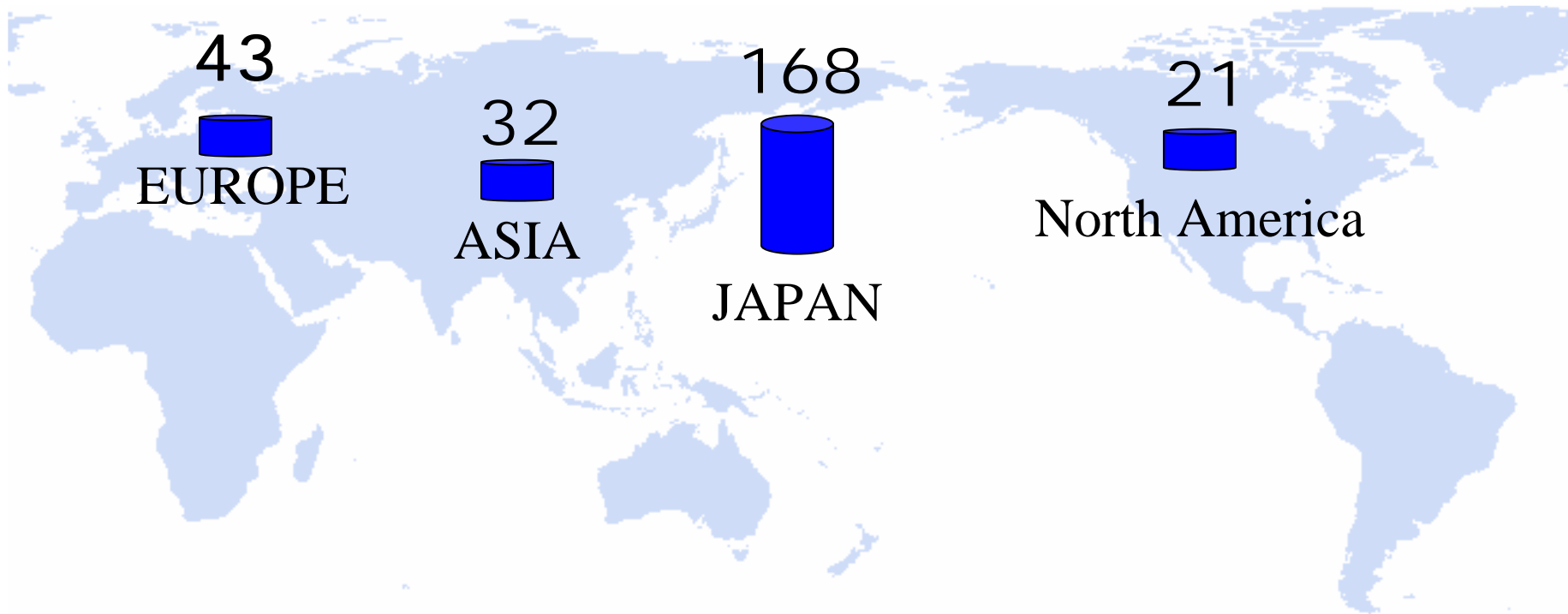


### Contact Information

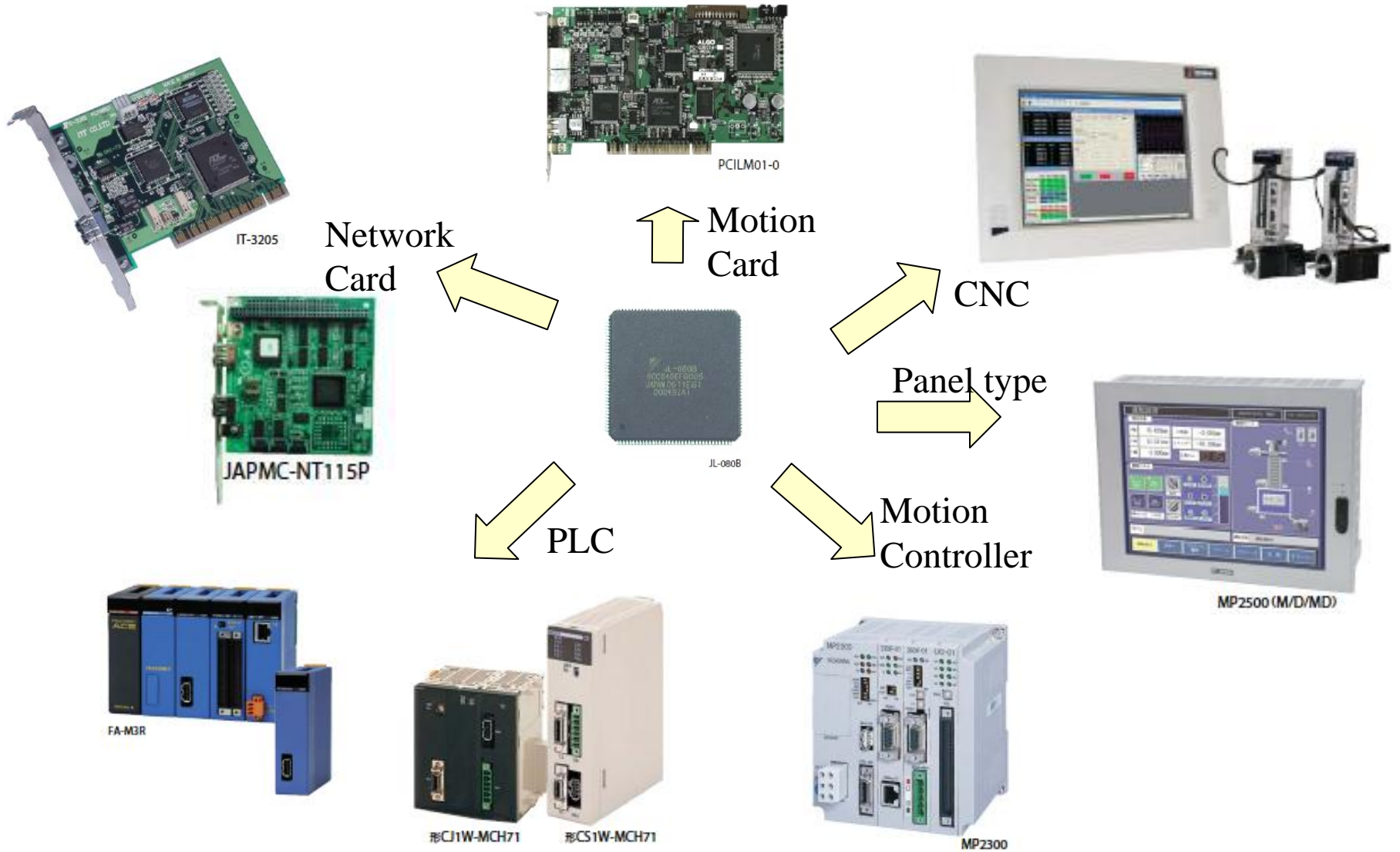
- MMA Head Office (MMA Japan)  
480 Kamifujisawa, Iruma, Saitama, 358-8555, Japan  
Tel : +81-4-2962-7920 Fax : +81-4-2962-5913  
e-mail : [mma@mechatrolink.org](mailto:mma@mechatrolink.org)
- MMA Germany  
Hauptstr. 185  
65760 Eschborn Germany  
Tel : +49-6196-569420  
e-mail : [mma@mechatrolink.de](mailto:mma@mechatrolink.de)
- MMA U.S.  
2121 Norman Drive South; Waukegan, IL 60085; U.S.A.  
Tel : +1-847-887-7231  
e-mail : [mma-us@mechatrolink.org](mailto:mma-us@mechatrolink.org)
- MMA Korea  
7F Doore Bldg. 24, Yeoido-Dong, Youngdungpo-ku,  
Seoul, 150-877, Korea  
Tel : +82-2-368-8875  
e-mail : [mma-kr@mechatrolink.org](mailto:mma-kr@mechatrolink.org)
- MMA China  
No.16, East Nanping Road, Hunnan High-tech.  
Industrial Development Zone, Shenyang, 110171, P.R.  
China  
Tel : ++86-24-24696008  
e-mail : [mma-cn@mechatrolink.org](mailto:mma-cn@mechatrolink.org)

## MMA **264** members (as of Mar. 2008)

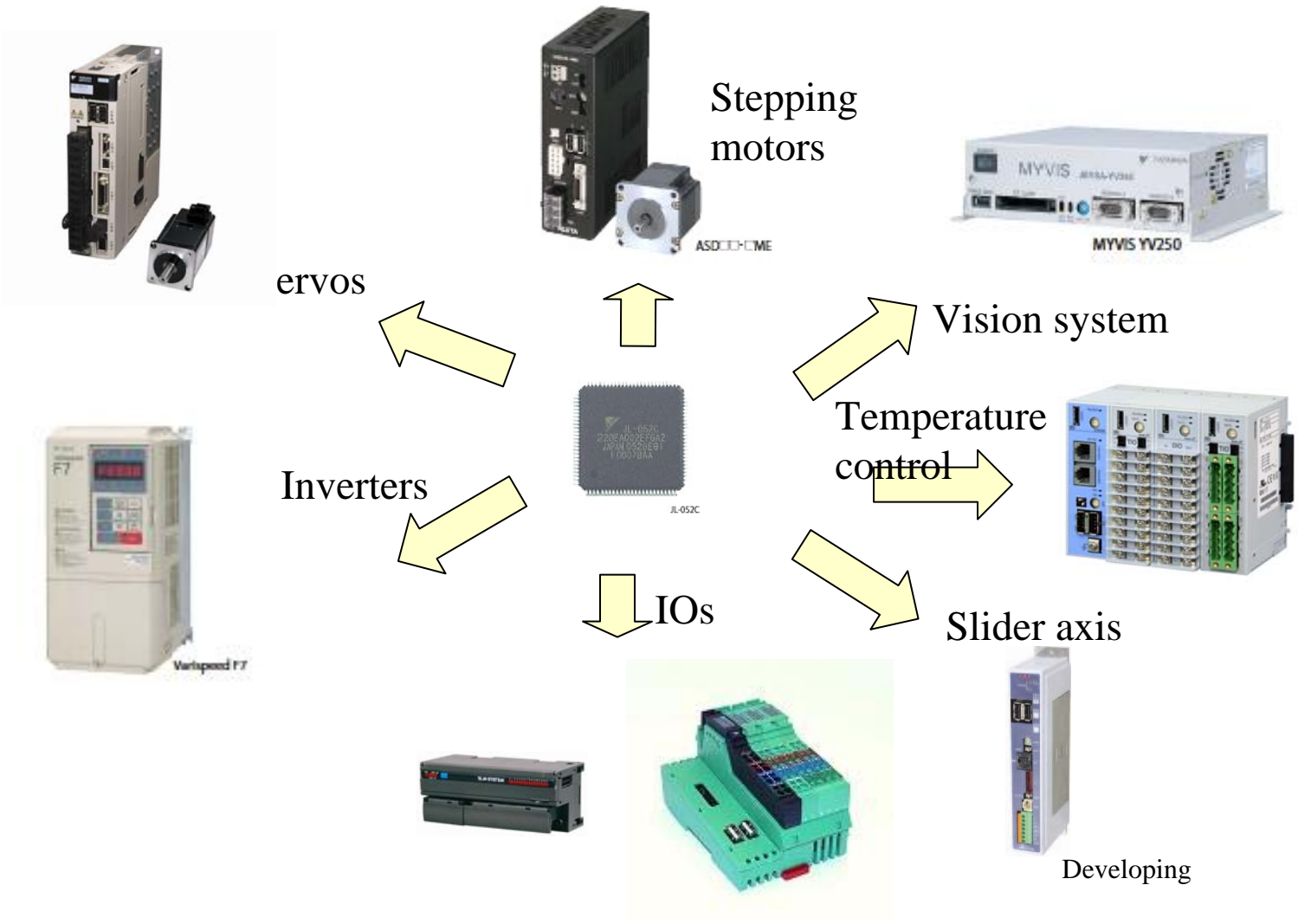




# MECHATROLINK Master Products



# MECHATROLINK Slave Products



- Website open to the public

- MECHATROLINK communication
- MECHATROLINK Members Association (Download the membership agreement and the application form.)
- Member List (Only members who have given permission for their contact information to be published. )
- List of MECHATROLINK-compliant products


URL : <http://www.mechatrolink.org>

- Website for members only

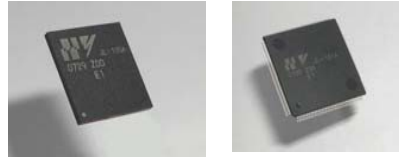



- Technical Information (Members can download the latest technical documents.)
- Compliance Certification Test (Members can download information about the application procedure and certification requirements for MECHATROLINK compliance.)
- Inquiries (Members can read the Q & A list and send a question.)
- News and Events

URL : <http://www.mechatrolink.org>

and go to the member's page

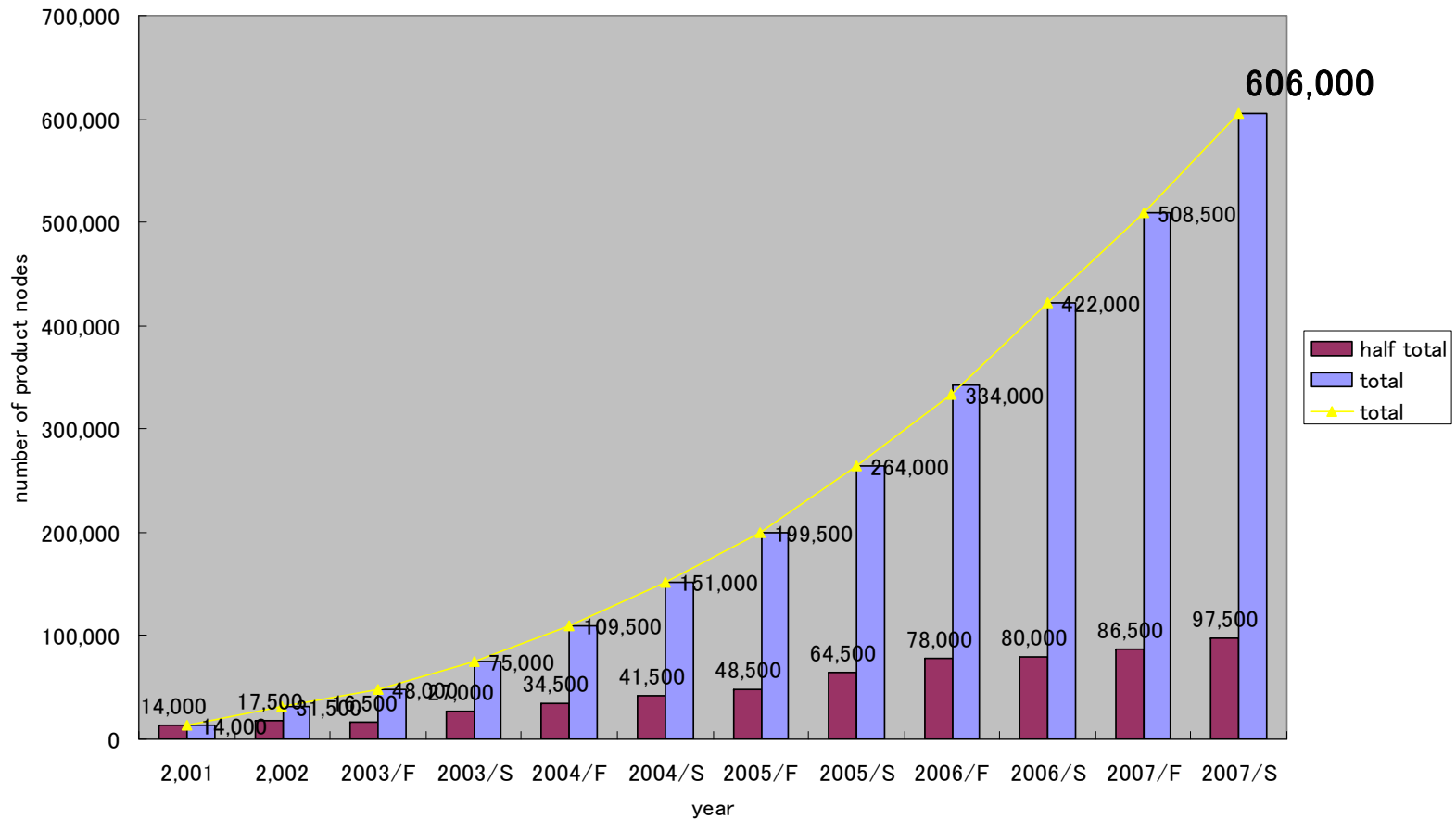
- Compliance and certification testing is carried out to see if products meet MECHATROLINK specifications. If test results are satisfactory, the MMA grants the use of the MECHATROLINK logo  on the product.
- Cost of testing product: \$1,800 (Executive:\$900, Board: \$450)
- Time required for testing: Will vary in accordance with the product specifications, such as the number of applicable commands. For more information, contact the MMA secretariat.

Compliance testing is not compulsory, but, it is recommended.

<p>Communication ASIC                  JL-100/JL-101                  JL-080B/JL-098B                  JL-052C</p>	<ul style="list-style-type: none"> <li>•MECHATROLINK-III                      Master and slave                      JL-100(FBGA)/JL-101(LQFP)</li> <li>•MECHATROLINK-II                      Master and slave JL-080B(5V)                      Master JL-098B(3.3V)                      Slave JL-052C(3.3V)</li> </ul>	 
<p>PCI communication card                  JAPMC-NT110                  JAPMC-112A</p>	<ul style="list-style-type: none"> <li>•For master development                      Communication interface card                      using JL-080/JL-101(without                      CPU)</li> <li>•Support OS                         <ul style="list-style-type: none"> <li>-Windows2000/XP+RTX5.1.1                              or RTX6.0.1</li> <li>-Windows2000/XP</li> </ul> </li> </ul>	
<p>PC/104 communication                  card                  JAPMC-NT115</p>	<ul style="list-style-type: none"> <li>•For master development                      Communication interface card                      using JL-080(without CPU)</li> </ul>	

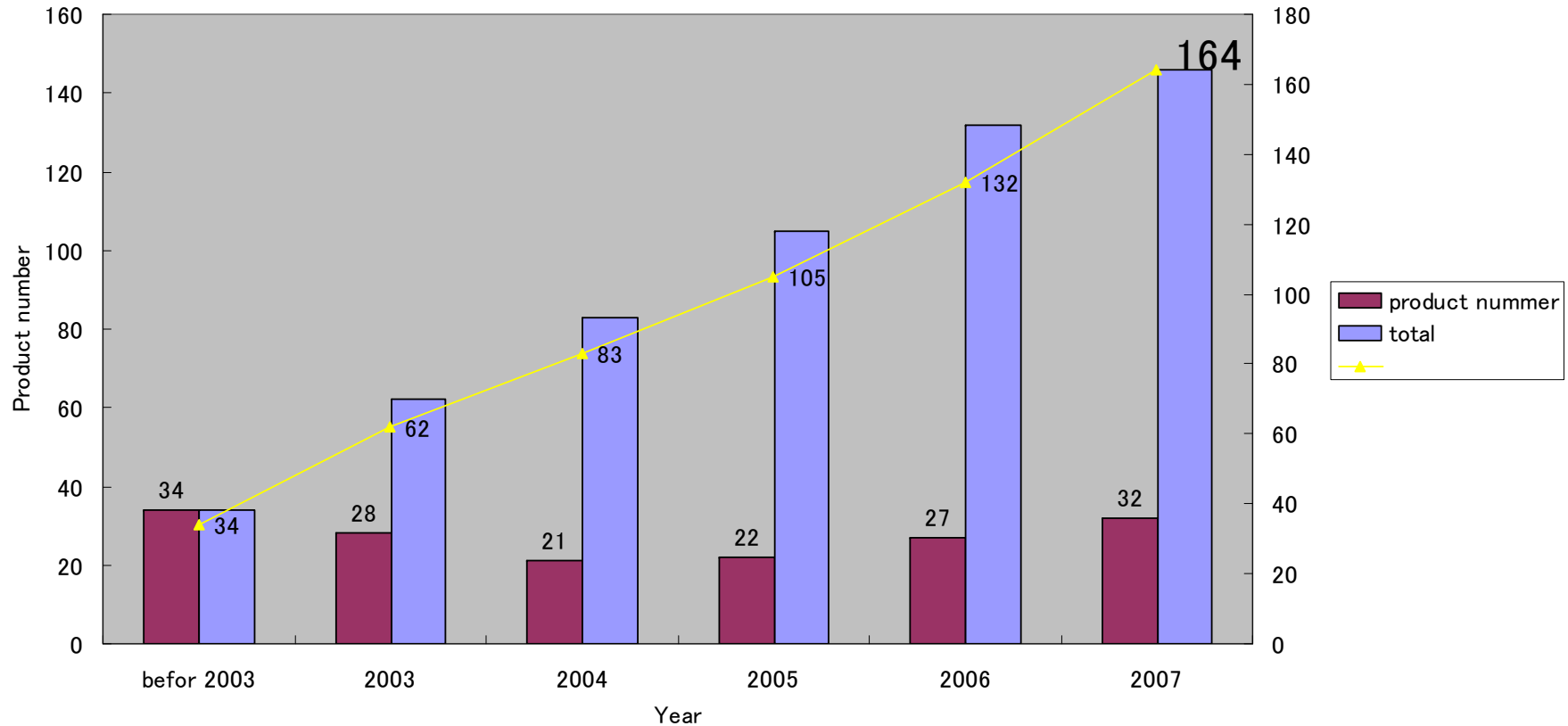
# Shipping node number

MECHATROLINK communication ASIC total shipping nodes **600 thousand**



# Number of member product

Number of MECHATROLINK products



# MMA Members

## 1. Board Members

OMRON Corporation  
Digital Electronics Corporation  
YASKAWA ELECTRIC CORPORATION  
YASKAWA INFORMATION SYSTEMS Corp  
Yokogawa Electric Corporation

## 2. Executive Members

ALGOSYSTEM CO., LTD.  
EIKO SOKKI CO.,LTD.  
Hivertec, inc.  
KOYO ELECTRONICS INDUSTRIES CO.  
MYCOM, INC.  
PHOENIX CONTACT Development &  
manufacturing Inc.  
Sony Manufacturing Systems Corporation  
Tyco Electronics AMP k.k.  
YASKAWA CONTROLS CO.,LTD  
YASKAWA ELECTRIC AMERICA,INC.

## 3. Regular Members

AMADA Co.,LTD  
ANYWIRE CORPORATION  
AVAIL CORPORATION  
CHUO ELECTRONICS CO.,LTD.  
CIGA YAMASHITA Co.,Ltd.  
Control Technology Corporation  
CONVEX CO.,Ltd.  
DAIDEN CO.,LTD.  
DENSAN CO., LTD.  
FASTECH  
FA System Engineering CO.,LTD.  
GUANGZHOU LOKSHUN CNC  
Hanmi Semiconductor.Co.,Ltd.  
HMS Industrial Networks AB  
Hurco Automation Ltd.  
IAI Corporation  
ITT. CO., LTD.  
Komatsu Engineering Corp.  
NIKKI DENSO Co., Ltd.  
M-SYSTEM.CO.,LTD.  
MELEC Inc.  
Micronet Co.  
MTT CORPORATION  
MURATA MACHINERY,LDT.  
OMRON Europe B.V.

ORIENTAL MOTOR Co., LTD.

OSAI S.p.A  
PMT Corporation  
RKC INSTRUMENT INC.  
Sanmei Electronics Co., Ltd.  
SG Corporation  
Soft Servo Systems, Inc.  
SOLITON HI-TEC Co.,LTD.  
TECHNO  
TOKYO ELECTRON DEVICE LTD.  
TURBOTEK  
YASKAWA ESHED TECHNOLOGY Ltd.  
YASKAWA MECHATREC CORPORATION

## 4. Registered Members

AB&T s.r.l.  
ACS Motion Control  
AD-MYCOM CORPORATION  
ADFweb.com SRL  
ASAHI ENGINEERING CO., LTD  
Asprova Corporation  
Biesse S.p.A  
Campat Machine Tool  
CITCEA – UPC  
CK ENGINEERING CO.,LTD.  
CKD Corporation  
CLEAVELAND MOTION CONTROLS  
CNI INFORMATICA  
CONTEC CO., LTD.  
Cosmo Techs CO., LTD  
Cyverse Corporation  
D.Electron S.r.l  
Doosan Mecatec Co., Ltd  
DS4 LASER TECHNOLOGY s.r.l.  
DSP Control Group,Inc  
DYNAX CORPORATION  
ESA/GV s.r.l  
ESAB-ATAS GmbH  
EMMEGI S.p.A.  
ESROBOTEK A.S.  
FUJI ELECTRIC SYSTEMS Co.,Ltd.  
HI-P Tech Corporation  
ICP DAS Co.,LTD.  
ICW-Ingenieurbuero Christian Woelz  
I.M.A. Industria Macchine Automatiche S.p.A  
Innoserv, Inc.  
Innovation Development System Inc.  
Interface Corporation  
International Laboratory Corporation

ISAC S.r.l.

Japan Minicomputer system co., Ltd.  
K.MECS CO.,LTD/Elektro Beckhoff GmbH  
Korea Institute of Industrial Technology  
KURAMO ELECTRIC CO.,LTD.  
KYOCERA corporation  
KYOPAL CO.,LTD  
LAM Technologies  
Leggett & Platt,Inc  
LINKTEC.Inc  
LS Industrial Systems Co.,Ltd  
M/S LARSEN AND TOUBRO LIMITED  
EMSYS  
M-tech Inc.  
Manufacturing Data Systems, Inc.  
Mechatronic Techniques, Inc.  
MEIDENSHA CORPORATION  
METRONIX  
MICROTEAM OY  
Mirea Corporation  
National Instruments  
NIHON ELECTRIC WIRE & CABLE  
Oki information Systems Co., Ltd  
Omron Electronics SpA  
OMRON YASKAWA Motion Control BV  
Plan 9, Inc.  
POU YUEN TECH CORP.,LTD.  
Red Lion Controls  
Robostar  
Saitama Fuji Co.,Ltd  
Sankyo Seisakusho Co.  
SCM GROUP S.p.a. MORBIDELLI  
SEOUL PRECISION MACHINE Co, Ltd  
SINO L.DIGITAL LTD.  
Shenyang Golding NC TECH.Co.,Ltd.  
Shengyang Institute of Computing  
Technology ,Chinese Academy of  
Sciences  
Shengyang Jianzhu University  
Shengyang TOP Measurement&Control  
Technology  
Shenyang TieAn New Technology  
Development  
Sky Link Corporation

SUEMATSU KYUKI co.,Ltd.  
SYNTEC INCORPORATION  
SYSTEC Inc.  
SUN-WA TESCO CORPORATION  
TECO Electric & Machinery Co.Ltd.  
T.P.A.s.p.a Technologie Prodotti Automazione  
TECO Electric & Machinery Co.Ltd.  
Techno-Holon Corp.  
TECHNOWAVE Inc.  
TECNEL S.A.S.  
TELDA SERVO CO.LTD  
TOP Engineering Co., Ltd.  
Trio Motion Technology Ltd  
Trust Automation Inc.  
Turck  
WACOM KOREA CO., LTD.  
Yaskawa Electric Europe GmbH  
YASKAWA ELECTRIC KOREA  
YASKAWA ELECTRIC TAIWAN  
ZF Italia S.r.l.