

# Company Profile We Listen We Care We Deliver



Version : May 2013









## Organization **Updates**



- Founded in 1979 (Established over 30 years)
- Listed on Hong Kong Stock Market since 1997 (Stock Code: 00894)
- Total Assets USD376 million (2012 Annual Report)
- Estimated Worldwide No.1 Aluminum E-Cap Makers (Qty-wise)
- Estimated Worldwide No.4 Alunminum Polymer Makers (Qty-wise)
- Ranked as the Worldwide No. 5 Aluminum E-cap Makers (Revenue)
- Total Production Capacity:
  - Aluminum E-cap: 1,050 million (exclude Solid Polymer)
  - Aluminum Polymer Cap: 100 million pcs/month
  - EDLC (Super Cap) : 2 million pcs/month









# Man Yue/Samxon's Worldwide Ranking among the Top Al. E-Cap Suppliers



Aluminum Electrolytic Capacitors: 2006 Global Market Shares (Based Upon a Market Value of \$4,150 Million USD) Nippon Chemi-Con 16% Other Nichicon 48% 14% Man Yue Ranked as Rubycon the 5<sup>th</sup> Largest 10% Panasonic Man Yue Electronics 4% Source: Paumanok's research data in May 2007









## Man Yue Technology Holdings Ltd

Established Year: 1979

Stock Code: 00894) Listed in HKSE: 1997



#### **E-Cap Manufacturing Facilities**

SAMXON ELECTRONICS (DONGGUAN) CO LTD ( 2007 )

Monthly Output :1955(KKpes((PElyDapr))

WUXI MAN YUE ELECTRONICS CO LTD ( 2005 )

Monthly Output: 200KKpcs Q3 2013 + 200KKpcs

**Upstream Vertical Integration : Foil Plant** 

RIFENG (QINGYUAN) ELECTRONICS ( 2006 )

(Foil Etching & Formation)
Low Voltage

RI HONG (YA'AN) ELECTRONICS ( 2011 )

(Foil Etching & Formation)
Mid & High Voltage (180V+)



MAN YUE ELECTRONICS CO LTD TAIWAN BRANCH (H.K.) ( TAIWAN )

MAN YUE ELECTRONICS CO LTD
( MALAYSIA )

SAMXON ELECTRONIC COMPONENTS LLC ( USA )

MAN JIN ELECTRONICS (SHENZHEN) CO LTD (SHENZHEN)

MAN FAT INTL TRADING (SHANGHAI) CO LTD (SHANGHAI)

OVERSEAS & CHINA SALES OFFICES

( JAPAN · DG · WX · SH · BJ · WH )









**TOTAL WORKERS 4,200** 

## **Aluminum E-Cap & Foil Manufacturing**

Dongguan Plant

- $\lambda$  Total site area of about 110,000 sqm
- $\lambda$  Commenced operations by end May 2007
- $\lambda$  Current production capacity is 850M pcs/m
- $\lambda$  The maximum capacity is able to break 1B pcs/m
- λ Product : E-Cap, Polymer Cap, MLPC, EDLC & Wuxi Plant
- $\lambda$  Total site area of about 160,000 sqm
- $\lambda$  Current production capacity is 200M pcs/m
- $\lambda$  2<sup>nd</sup> phrase works completed in Q4 2011 200M pcs/m capacity will be added in Q3 2013
- λ Product : E-Cap Qingyuan Foil Plant
- $\lambda$  Total site area of 67,000 sqm
- $\lambda$  Mainly in Low voltage foil etching & formation
- $\lambda$  Present production capacity is able to fulfill around 50% of group internal

#### <u> Sichtfan Foil Plant</u>

- $\lambda$  Total site area of about 48,700 sqm
- $\lambda$  Mainly in middle & high voltage foil etching &

formation for internal use



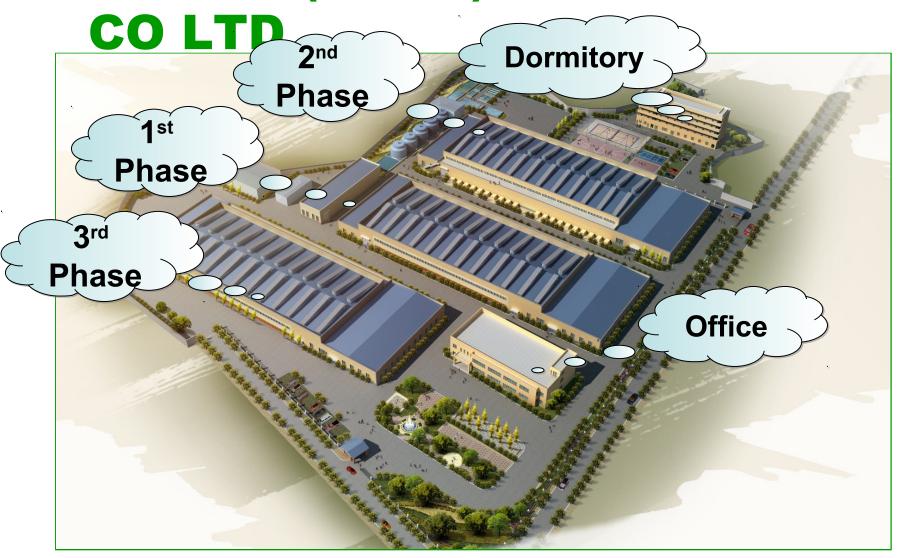




## Wuxi 2<sup>nd</sup> Phase



## RI HONG (YAAN) ELECTRONICS



## 公司環球網絡 Company Global Network





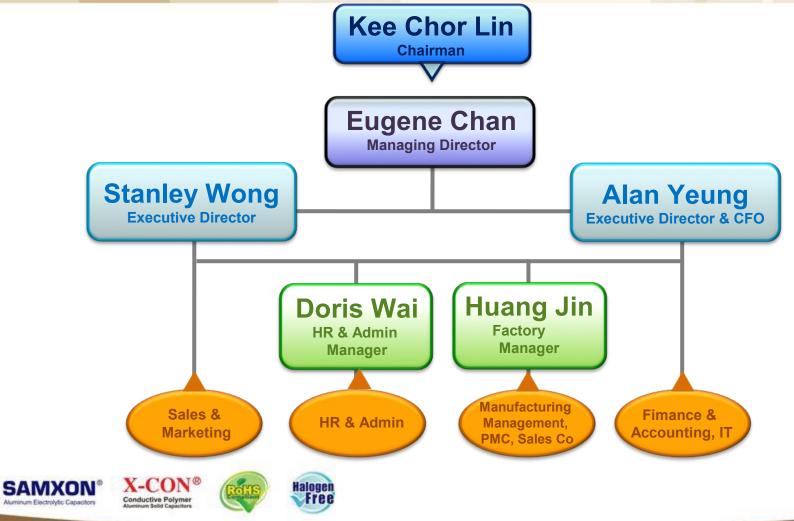






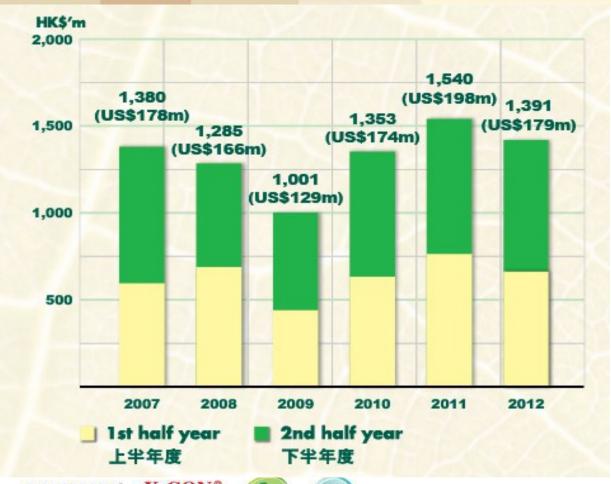
## **Corporate Organization**





## **Financial Review**





## 收入 (Revenue)

For the year ended 31 December 截至十二月三十一日止年度 HK\$m (equivalent US\$m) 百萬港元(約百萬美元)



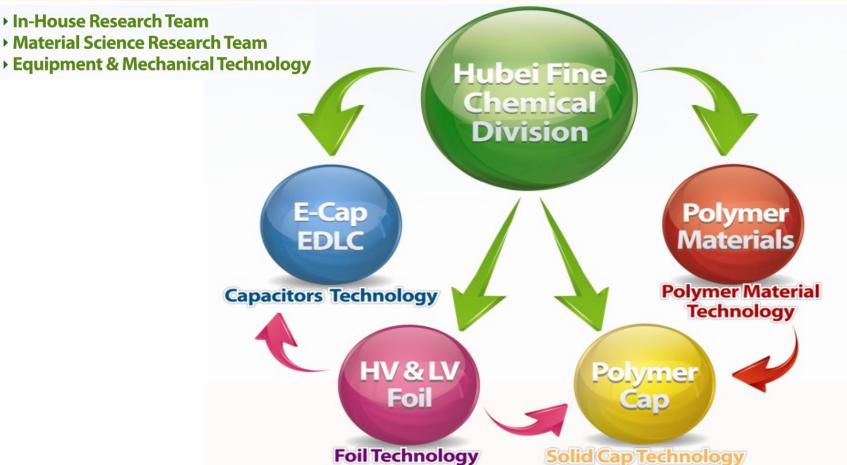






# Man Yue Integrated Technology Advantages







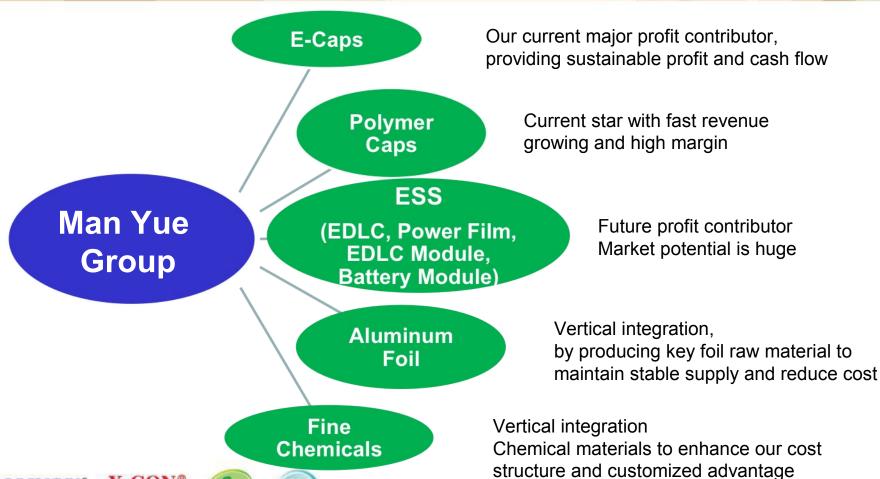






## **Products Family**





## **Company Products (I)**



#### 1. Aluminum Electrolytic Capacitors

1.1 Radial Lead Type





1.3 Screw



1.4 Pen Cap

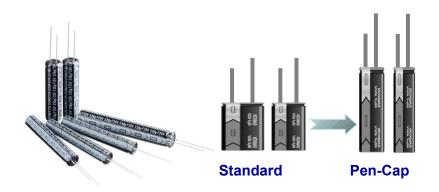












## **Company Products (II)**



#### 2. Polymer Aluminum Solid Capacitors

- Radial Lead Type
- Sleeved Radial Lead Type
- · V-Chip (SMD



## 4, EDLC (Super Cap) & EDLC Module Souther, AC Filter)











#### 3. Multilayer Type (MLPC)



#### 5. Power Film (DC-Link,





## **Aluminum Electrolytic Capacitors**

Range

· Size: ©3mm to 120mm

Length: 5mm to 260mm

Voltage: 4V to 630V

• Temperature : -55℃ to +130℃

Capacitance: 0.1uF to 7.5F

Life Test: 1,000 hrs to 20,000

hrs











## **Snap-in**

- · Size: @20mm to 35mm
- · Length: 25mm to 50mm
- Voltage: 10V to 500V
- Temperature : -40°C to +105°
- · Capacitance: 39uF to 82,000uF
- Life Test: 2,000 hrs to 10,000

#### hrs

**Custom made available upon** 









## **Industrial Grade Snap-in**

#### **Product Range**

Dia: Φ20mm ~ 35mm

Height: 25mm ~ 50mm

Voltage: 250V ~ 450V

Temperature:  $-25 c^{\circ} \sim +105 c^{\circ}$ 

Capacitance: 47uF ~ 1,500uF Life Test: 3,000hrs ~ 5,000hrs

Custom made available upon request



### **Applications**







Solar Inverter





Freq. Converter **Power Supply** 

Industrial **Power Supply** 











### **Screw Terminal**

- Size: @35mm to 120mm (120 x 240mm)
- Length: 50mm to 260mm
- Voltage: 10V to 630V
- Temperature : -40℃ to +125℃
- · Capacitance: 100uF to 7,500,000uF

(7.5F/6.3V)

Life Test: 2,000 hrs to 20,000 l
 Custom made available upon requ











## **Conductive Polymer Aluminum Solid**

**Capacitors Range** 

- · Size: **Q4mm** to 10mm
- Length: 4.5mm to 12.5mm
- Voltage: 2.5V to 200V
- Temperature : -55℃ to +125℃
- · Capacitance: 1uF to 3900uf
- Life Test: 2,000 to 5,000 hrs
- Impedance:  $5m\Omega$
- Ripple Current: 7A











*NEW* 200V

## **UPG Series** Power Polymer Capacitors (PPC)



Temp: -55~+105°C

WV: 50V ~ 200V

Cap: 1 ~ 120uF

- More than two times strong in ripple current compared with Al. E-Cap
- Much lower impedance (ESR) under normal operating termperature
- Under low temperatue, variations in capacitance and ESR remain largely stable
- Suitable to use in LED lights, power supplies and smart phone chargers















Rated Voltage: 2 ~ 16V

Capacitance Value: 6.8 ~ 470uF

Ripple Current: 1 ~ 3.5Arms

ESR: 6~70mΩ

Size D: 7.3 x 4.3 x 1.9/2.8/4.2mm

Applications: Motherboard, Graphic Card & Note Book...









## Electric Double Layer Capacitors

## Range

- · Size: Ø8mm to 60mm
- · Length: 12mm to 160mm
- Voltage: 2.3V / 2.5V / 2.7V / 5V
- Temperature : 2.7V/5V (-40°C to +60°C) or

: 2.3V/2.5V (-25°C to +70°C

- · Capacitance: 1F to 3000F
- Cycles: Charge/Discharge 500,000
   cycles

Custom made EDLC Module available upon-request

9-NEG 1∧800≿

## **EDLC Module Application**



- Smart Grid / Wind Turbine
- Hybrid Bus / HEV / E-Bike
- Energy Regeneration (Train / Heavy Industry)
- Energy Storage / UPS / Replacement of Battery
- Power Tools / Battery Assistant Power









## **EDLC Module Listing**



- Smart Grid
  - EDLC Module System with CMS
  - 518V/31F (2.7V/3000F\*48\*4S2P)
  - Over 500V and up to 1000A

## **Operation**

- 200kW for 10 Seconds
- Wind Turbine
  - 350F (16V/58F, 97V/9.7F)
  - 3000F (16V/500F, 48V/166F,







## **EDLC Module Listing**



- Hybrid Bus
  - 48V/166F (8S2P or 10S)
- HEV Car
- 16V/66F (Normally use 6~14 Modules)
- E-Bike (For 48V/10Ah Lead-acid Battery)
- 64V with Current Control and Protection PCB

SANEABIKE (For 48V/20Ah Lead-acid

**Battery**)

## SAMXON® Lithium-ion

## **Battery Pack & Module**



#### **Digital Battery**

**Power Bank** MID **Tablet PC** Bluetooth Product (Car Kit, Headset) **GPS** 













#### **Power Battery**

E-Bike **Electric Vehicle** Golf Car **Electric Motorcycle EV Bus** 











#### **High Drain Lithium Battery**

Model Plane / RC Toy Model Ship **Model Car Power Tool** 









#### 18650 Type Lithium Battery

E-Bike **Power Tool Power Bank** 

















## **Power Film Capacitors**



#### **DC-Link Capacitors**

(same as Snubber and AC Filter Capacitors)
are especially designed for applications
in high power converter technology

- Windmill Converter
- ▶ Photovoltaic Inverter (PV)
- Static VAR Generator (SVG) &
- Hybrid Electric Vehicle (HEV)

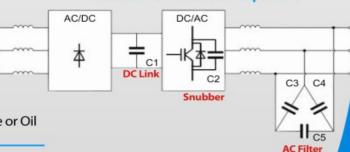
#### **Outstanding Features**

- 1. High Ripple Current
- 2. High Voltage Rating
- 3. Very Low Dissipation Factor
- 4. Excellent Self-healing Properties
- 5. Long Life Expectancy
- 6. Non-polar Construction and Safe
- 7. Dry Construction without Electrolyte or Oil

#### Applications8

Wind / Solar Energy, HEV & SVG

#### **Selection of Power Film Capacitors**

















## Halogen Free

## All Products and Rohs

## MAN YUE/SAMXON is the 1st non-Japanese brand that set up its own

Set up "RoHS laboratory"

Make sure all materials are full compl

with RoHS

XRF Machine (4 sets in used)

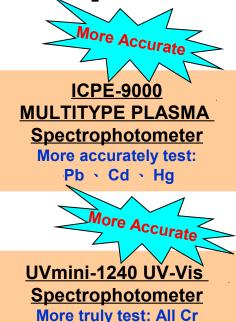


Test time: 120 seconds, can test Pb · Cd · Hg & all Cr · all Br.





### Compliance



#### 限制鹵素的法規 Restriction on Halogens Free

#### **EDX-GP**

Energy Dispersive X-Ray
Fluorescence Spectrometer
More accurately test:
Halogens Free





## **Design & Engineering**

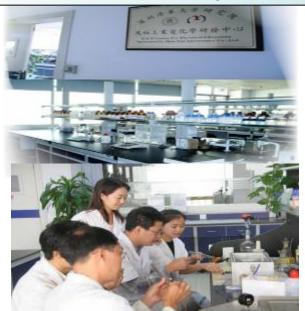
Over 100 R&D experienced engineers from chemical, electrical, electronic and mechanical, reliability fields



2. Leading by prominent Chief Engineer with over 25 years in R&D domain

Technical steering committee comprised of Japanese consultants with over 30 years in the industry





Working hand-in-hand with one of China's most prestigious universities, the <u>Tsinghua University</u> from April 2004, to set up a Research Laboratory in Shenzhen to focus on chemical technology and material science research projects.

(Fully subsidized by Man Yue / Samxon)

**Qualification and Number of Employment:** 

PHD : 5

Master: 7









## **Major Research**

### **Areas**

- 1. Research and developing better performance
  - electrolyte;
- 2. Exploring and developing new raw material;
- 3. Improving production engineering technology;
- 4. Product Innovation, e.g. success in lanuching the
- "Conductive Polymer Aluminum Solid Capacitors"
  - in 2006;
  - 5. Electrical Double Layer Capacitors (EDLC) launched in 2009
  - 6. Lithium-ion Rechargeable Battery launched in 2010
- 7.Species Polyther Capacitors (PPC) Swhich can pioneeresearch and development success



One of the top 10 scientific and technology success in Shenzhen Tsinghua University
Research Institute in 2006

#### 深圳清华大学研究院十大科技成果

序号	项目名称	完成单位
1	石英数字式力传感器及系列全数字化 电子衡器的研究与产业化	清华大学、光机电一体化重点实验室,深圳力合 传感科技有限公司
2	<b>新型聚合物图体铝电解电容器</b>	新材料与生物医药研究所电化学研发中心、万 裕三信电子(东莞)有限公司
3	事接触红外体温快速接着较	深圳清华大学研究院,深圳力合传感科技有限 公司,北京力合电子技术有限公司
4	其生物反应器污水处理技术	新材料与生物医药研究所
5	地国数字电视对4亿元评合(影响解)	数字电视研发中心深圳力合数字电视有限公司
6	计算机磁头、磁盘表面指光和次性技术研究	勤纳实验室 请华大学精密仪器与机械学系
7	智等子电池制片机	珠海华冠电子科技有限公司
8	供高速量等选用 100 种中药分离组分 样品库的建设	合物中药及天然药物重点实验室、中药及天然 药物研究中心
9	的影響來也最大規劃的新於對為及其应用	纳米材料应用实验室,江苏晨光涂料有限公司
10	LISB20 移沿勢空由導物的和共計	EDA 重点定路会

十大科技成果简介见第3点

# Industry's First Below 7mΩ, 5x9 Lead Type Conductive Polymer Aluminum Solid Capacitors



Man Yue Announces Industry's First Below  $7m\Omega$ , 5X9L Radial Lead Type Conductive Polymer Aluminum Solid Capacitors



Man Yue announce industry's first below  $7m\Omega$ , 5X9mm (560uF, 2.5V) Radial Lead Type Conductive Polymer Aluminum Solid Capacitor to achieve a capacitance rating of 560uF subject to ULR series. It offers an ideal solution for designers to obtain cost saving and simplifies manufacturability by reducing the total number of capacitors now required using conventional

Moreover, it allows designers to downsize from 6.3X9mm size components to the more compact 5X9mm, resulting in space savings of no less than 20% for both volume and space without sacrificing device performance.

The considerable size reduction of the 5X9mm effectively almost doubles available capacitance for the same component mounting area. The benefits to the OEM are more compact, higher-performance equipment through reduced number of components, increased mounting density, and higher capacitance.

The continuing trend in portable device miniaturization is driving the need for capacitors with small case sizes and provides for higher ripple current and longer life when compared to equivalent standard aluminum electrolytic capacitors.

Product is adapted to the RoHS Directive (2002/95/EC). Sample and production quantities are available now.

Man Yue Electronics Co., Ltd.
Email: polymercap@manyue.com

Released on 17th April, 2008









#### **Benefits:**

- Cost Saving
- Space Saving
- Simplify
   Manufacturability

"Customer Demand Driven Technology & Development"

## **Applications Segment**



#### **1.Consumer Electronics**













#### 3. Industry























#### 2. Home Appliance







#### 4. Renewable Energy











## Global Customers Reference





















Picture is taken from market finished product.

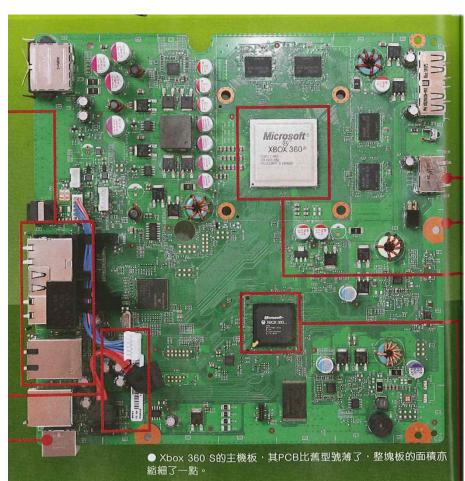






## Microsoft (XBOX) 360S Console





# Apple iPAD Charger







# The 1<sup>st</sup> Non-Japanese E-Cap Manufacturer obtain direct approval from Worldwide Technology Leaders

1. The world's largest semiconductor company



2. The world's largest GPU/IC manufacturer (We are already their







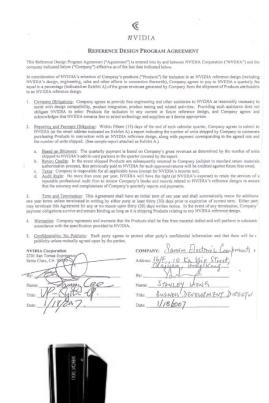


3. The major personal computing technology leaders



4. The major Game Console suppliers in the world (XBOX 360)





## Worldwide Customers Reference

**Oversea Enterprises** 

Motherboard Manufacturers



















**Electronic Devices Manufacturers** 



















Networks/Router Manufacturers





## Worldwide Customers Reference

**Oversea Enterprises** 

Power Supply/Charger Manufacturers





































## **Worldwide Customers**

Reference

**Ballast/Energy Saving Lamp/ LED Lamp Manufacturer** 



























**Home Applicance** 





Smart Phone/Tablet Charger



\*\*\* BlackBerry.







## **Industrial**

#### Cuetomore

Frequency Converter 吉林永大













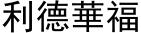




江苏杰能



JIANGSU JIENENG TRANSPORT TECHNOLOGY CO., LTD.





Meter

Hubei Sanhuan Development Corporation Ltd.















深圳长城开发科技股份有限公司 Shenzhen Kaifa Technology Co., Ltd.



Landis Imanage energy better

河南许继仪表有限公司

## Worldwide Customers Reference (Local China)

**Chinese Enterprises that are ranked in the Top 100** 













★Source: Top 100 Electronics Enterprises Ranking of China in 21st Century

# Awards in 2008

#### 董事總經理兼執行董事陳宇澄先生榮獲

「香港青年工業家獎2008」

Mr. Eugene Chan, the Managing Director & Executive Director, awarded "Young Industrialist Award of Hongkong 2008"

陳宇澄先生 '2008香港の若い資本家賞' の名誉を受賞した





## Accredite





#### QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is loerfly fruit
Samoon Electronics (Dongguan)
Co., Ltd.
Xinxing Industrial Area
Xingta South Road, Wusha Community
Chang'an Town
Dongguan
Guangdong
523860
China

islats Centificate No: FM 76838 nd operates a Quality Management System which compiles with the requirements of ISO 0001.2008 for the followin copie:

The design and manufacture of aluminium electrolytic capacitors 铝电解电容器的设计和制造。

For and on behalf of BSI:

Managing Director, BSI (China), Liu Mo Yuan

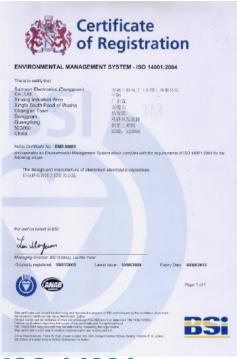
16/10/2009 Expiry Date: 15/10/2012

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**ISO 9001** 



**ISO 14001** 



QC 080000













- **Awards for Industries : Environmental Performance Certificate of Merit 2008**
- 'Hong Kong's 100 Most Influential Brands for 2008
- **Sony Green Partner Awarded in 2009**
- •MAN YUE Awards HKAEE Productwi\$e Excellence, Wastewi\$e & Energywi\$
  Good 2010
- •MAN YUE Awards HKAEE Manufacturing Merit 2011 again





### **Award**

















- **Enterprise of Observing Contract and Valuing Credit 2009**
- Guangdong Independent Innovation Products 2009
- •1st Runner-up in Scientific and Technology Advancement Award 2009
- **Advanced and High Technology Products 2009**
- **SAMXON Awards the title of "National High-tech Enterprises"**
- •3<sup>RD</sup> Prize of Guangdong Science and Technology 2010
- National Innovation Independent Brand 2011
- Awarded as Advanced Technological Enterprise of Changan Dongguan 2011
- \*Awarded Enterprise of Dongguan City in Patent Education 2012
- **Awarded Gold Prize in Patent of Dongguan City 2012**













- •Top 10 Well-known Brand in Electronic Components Industry of China 2009
- •SAMXON & X-CON Awards "Excellent Brand of Capacitors" in China 2010
- "TIANGONGZEN" Top 10 Most Influential Brand 2010
- **SAMXON & X-CON Awards Famous Brand in China 2011**
- •MAN YUE TECH RANKED 2ND "Best Small-Cap" of the Year 2011
- Top 10 Well-known Brand in Electronic Components Industry of China 2011





For Immediate Release

Man Yue Technology Ranked 2<sup>nd</sup>
"Best Small-Cap" of the Year – Hong Kong in
FinanceAsia's 2011 Asia's Best Managed Companies Poll

(15 May 2011 – Hong Kong) – Man Yue Technology Holdings Limited ("Man Yue Technology" or the "Group") (stock code: 0.0894), one of the largest aluminum electrolytic capacitor ("e-cap") and conductive polymer aluminum solid capacitor ("polymer cap") manufacturers in the world, was ranked as the second "Best Small-Cap" in Hong Kong in the 2011 "Asia's Best Managed Companies Poll" conducted by FinanceAsia, the leading financial magazine in Asia Pacific.

Ms Kee Chor Lin, Chairman of Man Yue Technology, said, "We are greatly delighted to be honoured for the first time in this authoritative regional poll, a recognition by the investment community of our efforts to grow Man Yue into an excellent business and well-managed and governed corporation. With our strong R&D capabilities, coupled with our long-term strategic plan as well as focused management philosophy, we are confident of achieving sustainable growth and continuing to bring fruitful returns to our shareholders".

The Poll, in its eleventh consecutive year, is conducted by surveying more than 300 major investment professionals and financial analysts in the Asia-Pacific region about the region's best managed companies. The companies were evaluated on criteria such as overall management, corporate governance, investor relations and corporate social responsibility.

- Fnd -



## Thank You!

Stock Code: 00894

Corporate Website: www.manyue.com Investor Relation Contact: ir@manyue.com









