



香港工商業獎

2009

HONG KONG
AWARDS FOR
INDUSTRIES

Technological
Achievement

科技成就



Hong Kong 香港科技園
Science & Technology Parks

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT LIST OF WINNING COMPANIES

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2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

CHAIRMAN'S MESSAGE 主席的話



In today's knowledge-based economy, innovation in technological development and the resultant intellectual property provide dynamic impetus for future economic development.

Organising the Technological Achievement category of the Hong Kong Awards for Industries, which recognises Hong Kong's most innovative companies and entrepreneurs for excellence in technology and intellectual property development, is an integral part of our commitment to this dynamic sector at Hong Kong Science and Technology Parks Corporation (HKSTP).

Not only the winners but all entrants to this prestigious technology award are playing a key role as inspirational standard-bearers of 'Brand Hong Kong', promoting broader appreciation of technology development and enhancing our global competitiveness into the future.

With the long-term commitment of the Hong Kong SAR Government to high value-added technological development and to opening new sectors for sustainable economic growth, we continue to do our utmost at HKSTP to provide the necessary support, assistance and infrastructure.

Ultimately, however, it is the foresight, imagination and gritty determination of brilliant individuals that represent Hong Kong's greatest asset of all -- and we are proud and delighted to honour them today. Your achievements have forged a solid foundation for Hong Kong's emergence as a regional technology hub.

Finally, may I sincerely thank our panel of judges for their diligent evaluation of such admirable and remarkable achievement and accomplishments.

Nicholas Brooke, BBS, JP
Chairman of Hong Kong Science and Technology Parks Corporation

在現今的知識型經濟社會中，科技領域的創新及隨之而衍生的知識產權，皆為推動未來經濟發展的新動力。

香港科技園公司舉辦香港工商業獎：科技成就獎，主要目的在履行其對推動科技發展之承諾；亦同時表揚本地最具創意的公司和企業家，於開發創新科技及知識產權所作出的努力和貢獻。

香港工商業獎在業內具尊崇地位，所有候選人，無論得獎與否，均為業界精英，在建立「香港品牌」、促進創新科技發展及加強香港在未來的國際競爭力方面，扮演著重要角色。

在香港特區政府對發展高增值技術作出長遠承諾，及積極開拓新領域以促進經濟的持續增長之際，香港科技園將繼續竭盡所能，提供支援及基礎設施，以配合政府的發展。

香港最豐裕的資產，就是擁有心懷遠見、富想像力和堅毅不屈的人才。對於今天能聚首嘉許這群為發展香港成為亞洲區科技樞紐而奠下重要基石的翹楚，表揚他們的卓越成就，實感與有榮焉。

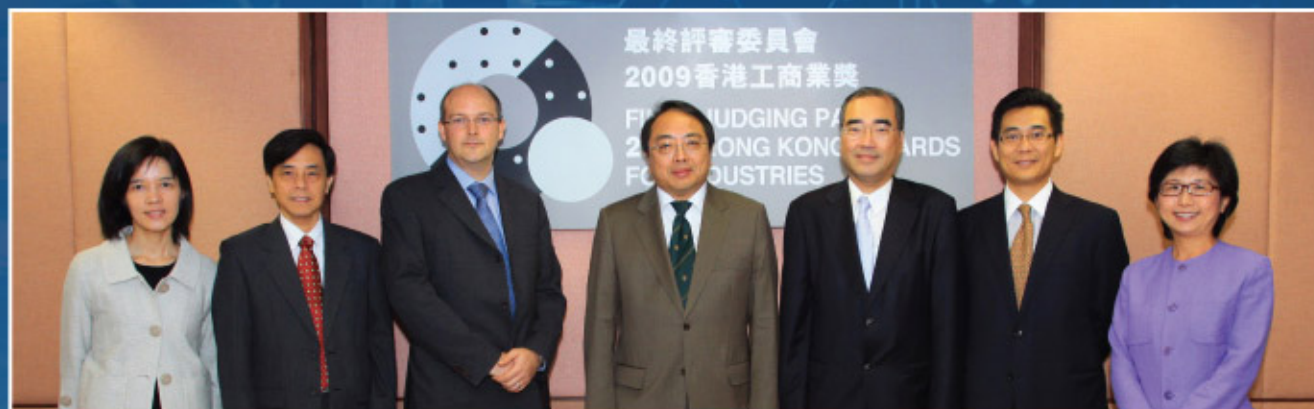
最後，我衷心感謝評審委員會，為這群成就非凡的精英，作出了審慎無私的評核。

龔祿祺，銅紫荊星章，太平紳士
香港科技園公司 主席

CUSTOMER SERVICE, ENVIRONMENTAL PERFORMANCE,
INNOVATION AND CREATIVITY, PRODUCTIVITY AND QUALITY,
AND TECHNOLOGICAL ACHIEVEMENT

FINAL JUDGING PANEL

顧客服務、環保成就、創意、生產力及品質、科技成就組別
最終評審委員會



Ms. Hydde CHAN
陳麗群女士

Senior Manager
Hong Kong Retail Management Association
香港零售管理協會高級經理

Mr. K C LEUNG
梁廣泉先生

Vice Chairman, Industry and Technology Committee
Hong Kong General Chamber of Commerce
香港總商會工業及科技委員會副主席

Mr. Kevin EDMUNDS
顏啟榮先生

Chief Operating Officer
Business Environment Council
商界環保協會常務總裁

Prof. Lap-Chee TSUI
徐立之教授

Chairman of the Final Judging Panel
Vice-Chancellor and President
The University of Hong Kong
最終評審委員會主席
香港大學校長

Mr. Edmund SUNG
宋兆麟先生

Director, Business Consulting
Hong Kong Productivity Council
香港生產力促進局副總裁(企業管理)

Mr. Allen YEUNG
楊德斌先生

Vice President, Business Development and Technology Support
Hong Kong Science and Technology Parks Corporation
香港科技園公司企業拓展及科技支援副總裁

Ms. Patricia LUI
呂潔梅女士

Principal Trade Officer
Trade and Industry Department
工業貿易署首席貿易主任
(not judging panel member 非評審委員會成員)

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

JUDGING PANEL 評審委員會



FROM LEFT 左起:

Dr. Edmund LEE	利德裕博士
Prof. Edwin PUN	潘裕斌教授
Mr. Ken FONG	方健僑先生
Prof. Paul CHEUNG	張英相教授
Prof. Matthew YUEN	袁銘輝教授
Mr. Humphrey LEUNG	梁廣偉先生
Mr. Allen YEUNG	楊德斌先生
Mr. Kai-tai YUNG	容啟泰先生
Prof. On-ching YUE	余安正教授
Prof. Albert CHAN	陳新滋教授
Dr. Herman TSUI	徐奕偉博士
Prof. Aaron HO	何浩培教授
Mr. Peter YAN	任景信先生
Mr. Ming-yam WONG	王明鑫先生

Dr. Edmund LEE
利德裕博士
Executive Director
Hong Kong Jockey Club
Institute of Chinese Medicine Limited
香港賽馬會中藥研究院有限公司總裁

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Acting Dean, College of Science and Engineering
City University of Hong Kong
香港城市大學科學及工程學院署理院長

Mr. Ken FONG
方健僑先生
Chairman
Hong Kong Wireless Technology Industry Association
香港無線科技商會主席

Prof. Paul CHEUNG
張英相教授
Director, Technology Transfer Office
The University of Hong Kong
香港大學技術轉移處處長

Prof. Matthew YUEN
袁銘輝教授
Acting VP for Research and Development
The Hong Kong University of Science and Technology
香港科技大學署理副校長(研究及發展)

Mr. Humphrey LEUNG
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Vice-Chairman
The Hong Kong Electronic Industries Association
香港電子業商會副會長

Mr. Allen YEUNG
楊德斌先生
Vice President, Business Development and Technology Support
Hong Kong Science and Technology Parks Corporation
香港科技園公司企業拓展及科技支援副總裁

Mr. Kai-tai YUNG
容啟泰先生
General Manager, IT Industry Development
Hong Kong Productivity Council
香港生產力促進局資訊科技業發展總經理

Prof. On-ching YUE
余安正教授
Science Advisor
Innovation and Technology Commission, HKSARG
香港特別行政區政府創新科技署科學顧問

Prof. Albert CHAN
陳新滋教授
Vice President (Research Development)
The Hong Kong Polytechnic University
香港理工大學副校長(科研發展)

Dr. Herman TSUI
徐奕偉博士
Chairman, IT Division
The Hong Kong Institution of Engineers
香港工程師學會資訊科技分部主席

Prof. Aaron HO
何浩培教授
Associate Dean (Student Affairs), Faculty of Engineering
The Chinese University of Hong Kong
香港中文大學工程學院副院長(學生事務)

Mr. Peter YAN
任景信先生
Vice President (Policy & Communication)
Hong Kong Computer Society
香港電腦學會副會長(政策及聯繫事務)

Mr. Ming-yam WONG
王明鑫先生
Chairman
Hong Kong Electronics & Technologies Association
香港電子科技商會主席

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT
GRAND AWARD
科技成就大獎

Convergence Systems Limited
恆進信息科技有限公司



www.cne.com.hk



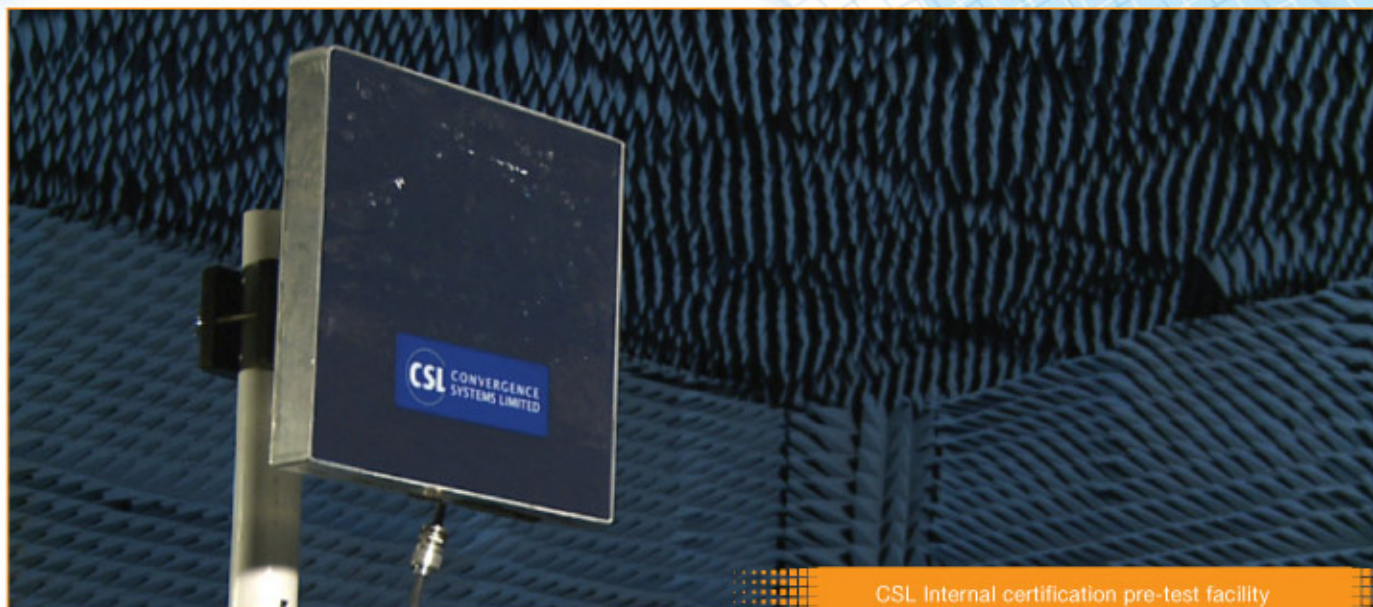
CSL RTLS products: Anchors and Tags
CSL 即時定位系統產品：讀寫器和標籤

Founded in 2000, Convergence Systems Limited (CSL) is a leading developer and manufacturer of RFID (radio frequency identification) readers, antennas and RFID tags. CSL's high performance RFID products are used globally in logistic management, supply chain, manufacturing, pharmaceutical, access control, asset and security management, transportation, and retail industries.

As RFID technologies become more mainstream, with annual growth rates of over 20%, CSL has developed numerous award winning RFID products and related technologies to meet market needs.

In terms of passive RFID technology, CSL's CS101 handheld RFID reader has been rated as providing the highest performance and lowest total solution cost by a variety of independent industry experts. The handheld reader is rated as having the longest read range (3 times longer than its nearest competitor) and highest data read rate (10 times higher than its closest runner-up) in the industry, with major implications on productivity improvement to the logistics industry, retail industry, as well as asset tracking and auditing processes. The product also has the unique function of being able to find an individual RFID tag's location at a distance of up to 7 metres. These features allow for a significant reduction in time for warehouse inventory stock management as well as other asset management applications. The handheld is currently in use in various organisations include the Boeing Company.

For active RFID technology, CSL recently introduced a high performance, lowest total cost Real-Time Locating System (RTLS) solution. The battery powered RFID tags operate based on a Time-of-arrival (TOA) theory of operation that allows +/- one metre of accuracy and utilises a wireless software protocol stack developed by CSL engineers. By using a special TOA approach, the system can be deployed harmoniously in a dense WiFi equipped environment.



CSL Internal certification pre-test facility
CSL 內部認證預測試設施

The CSL solution allows a 100 metre by 100 metre installation and complete tuning in less than one hour. The system is fully internet addressable. The installation time, combined with the relatively low cost read point, and ability to handle both large outdoor areas and indoor areas, make the CSL solution the lowest total cost and technically feasible in the industry. In comparison, competitive technologies would require weeks of installation time for the same area and require many more expensive read points. Most importantly, unlike some RTLS protocol stacks on the market which are "borrowed" from existing communication stacks, the CSL RTLS system's wireless architecture and protocol stack are designed, from the ground up, and dedicated to and optimised for RTLS operation.

CSL is affiliated with Chung Nam Electronics (CNE) and is a member of the Chung Nam Group. The group was founded in 1935 and has over 13,000 employees globally. CNE is a value-added Electronics Manufacturing Services (EMS) company with OEM and ODM capabilities. CNE provides total outsourcing solutions to international clients through value engineering and interactive design. Specialising in RF & wireless technologies, CNE's products include: RFID tags and readers, 802.11 a/b/g/n Network Interface Modules/Cards, Wi-Fi Internet Radio Products, RF Point-Of-Sales System and GPS/GSM tracking systems.



CS101 Handheld RFID reader
CSL 手持RFID讀寫器

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT



R&D team in Hong Kong
香港研發組

恆進信息科技有限公司 (CSL) 於2000年成立，是一家集研發及製造RFID (射頻識別) 讀寫器、天線和RFID標籤的領導者，其產品更已在全球被廣泛應用。CSL高性能的RFID產品為後勤物流管理、供應鏈管理、生產、制藥、門禁系統、資產及安全管理、運輸及零售等行業提供了一項快捷且經濟實惠的方案。

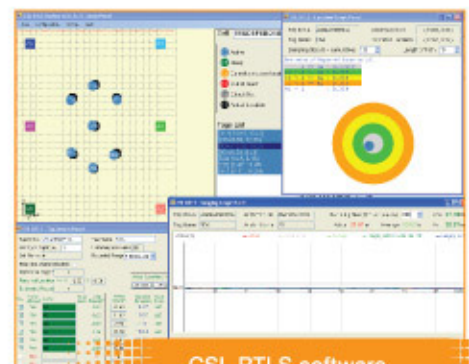
隨著RFID技術被廣泛應用在不同領域及每年超過20%的增長率，CSL研發出眾多獲獎的RFID產品及相關技術以滿足日益增長的市場需求。

在無源RFID方面，CS101手持RFID讀寫器被獨立的行業組織評為性能最佳及總體解決方案成本最低的讀寫器。手持讀寫器在業界擁有最遠的讀標籤距離 (3倍於名列第二的同類產品) 和最高的讀標籤速率 (10倍於名列第二的同類產品)，使在後勤物流業、零售業以及資產跟蹤和盤點過程的效率大幅提高。該產品還具有一個全球獨有的功能，就是可以讓使用者找到距離高達7米的單一標籤位置。這些功能可以為倉庫存貨管理，以及其他資產管理應用節省大量時間。波音飛機以及其他許多國際性機構亦正在使用該款手持讀寫器。

在有源RFID方面，CSL最近也推出了高性能和最低總成本的即時定位系統 (RTLS) 解決方案。由電池供電的RFID有源標籤依據「時間到達 (TOA)」理論操作，加上



CS101 with GSM/GPRS/GPS module
CS101 內置 GSM/ GPRS/GPS 模組



CSL RTLS software
CSL 即時定位系統軟體

使用由CSL工程師開發的無線軟件協定層，可以達到+ / - 1米的準確度。通過使用特殊TOA方法，該系統可以不受影響地被安裝並應用在一個無線設備密集的環境。

CSL的解決方案可以在少於一小時內在100米乘100米大小的區域安裝並完成調試。該系統亦備有互聯網定址。快速的安裝時間、相對低成本的讀取設備加上可同時應用於大型室外和室內地方的能力，使CSL的解決方案成為行業裏總成本最低、技術上最可行的方案。相比之下，其他技術在同樣大小的區域內需要數周的安裝時間和更多昂貴的讀取設備。更重要的是，CSL並非像市場上一些定位系統協定層般借用現有的通信協定層，CSL即時定位系統的無線架構和協定層是由CSL的工程師構思和開發，目的為優化即時定位系統的操作。

CSL隸屬於中南電子（CNE），是中南集團成員之一。該集團成立於1935年，是一家擁有超過13,000名員工的環球企業。CNE為電子產品製造及服務商（EMS），擁有多多年OEM和ODM經驗。以其豐富的工程經驗和互動式設計，CNE為國際客戶提供全面的外判解決方案。精於開發射頻與無線技術，CNE的產品包括：RFID標籤和閱讀器、支援802.11 a / b / g / n標準的網絡介面模組/卡、Wi-Fi網絡產品、射頻終端銷售系統和GPS / GSM的跟蹤系統。



Mr Jerry Garrett
Managing Director of CSL
CSL 董事總經理



CSL products family
CSL 系列產品

Comments from the Judging Panel 評審委員會評語

Convergence Systems has developed two state-of-the-art RFID devices that show excellent product performance. It is a revolutionary technology with widespread applications including logistics, documentation management as well as manufacturing, retailing and more. The technology developed is well ahead of competitors and its good system design by Hong Kong R&D engineers is much appreciated.

恆進信息科技成功研發了兩項嶄新及表現出色的RFID設備。此項革命性的技術用途廣泛，現時已被應用在物流、文檔管理、生產和零售等方面。這項由香港工程師研發的技術，擁有良好的系統設計，比其他競爭對手更為優勝。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT
AWARD
科技成就獎

Acoustic Arc International Limited
聲海國際有限公司



www.acousticarc.com



Wireless ear buds with dongle
無線微型耳筒連發射棒

Acoustic Arc International Limited (AAI) specialises in developing and supplying wireless audio and communications solutions to the global market. Its dedicated and unique platforms provide one-stop solutions for technology research, product development, applications, manufacturing and export. AAI has established its own comprehensive research and development operations at the Hong Kong Science and Technology Park. It also operates a production facility in Shenzhen, China, which helps serving customers effectively and efficiently.

Characterised by dynamic and innovative ideas, AAI understands the critical importance of R&D. It develops outstanding technology platforms and extends them to user-friendly products. The company's mission is to enable customers to enjoy a unique audio quality in entertainment and professional environments.

AAI's foundation in the market is defined by a continuous commitment to quality. All products incorporate state-of-the-art mechanical design, sophisticated engineering circuitry and well-defined workmanship.

AAI possesses a well-organised and dedicated marketing and sales team. It is sensitive to market needs and has made great inroads into penetrating markets worldwide. Products are constantly modified to suit the needs of professionals and special requirement users.



Wireless floating speaker system
無線浮水喇叭系統

聲海國際 (AAi) 專門研發新新技術，並致力為環球市場提供創新及獨特的無線音響及通訊技術平台。其全面的一站式產品及服務包括科技研發、產品開發、技術應用及生產。AAi的研發基地植根於香港科學園，而生產中心則位於華南深圳市，為環球客戶提供全面、快捷而高效的支援。

AAi具有創意及活力，並了解研發創新技術的重要性。AAi認為能夠提供突出的技術及使用方便的產品並不足夠，惟有能因應客戶所需而提供合適的方案或產品才可於市場上取勝。AAi旨在讓專業及一般用戶都能享受到最獨特及最佳的音響環境。



Wireless sports training system
無線運動訓練系統

AAi對產品質量嚴格控制的承諾為其確立了市場地位。追求卓越的工程設計、精益求精的結構規劃、加上持續改善和與時並進的要求使AAi成為質量的保證。

此外，AAi擁有既優秀且經驗豐富的銷售團隊，讓其可快速地因應客戶所需，將合適的產品帶到市場，致力為專業及一般用戶提供最優質及最完善的產品。



Wireless waterproof ear buds
無線防水微型耳筒

Comments from the Judging Panel 評審委員會評語

Acoustic Arc has developed a technologically innovative wireless audio platform that is ideal for sports training and entertainment applications. The company's effort in designing its own ICs is also recognised. The management team has demonstrated a good market sense by introducing innovative products to the market.

聲海國際開發了一項技術創新的無線音響平台，專為體育訓練及個人娛樂產品市場而設。而其致力研發及設計的集成電路(IC)系統，亦獲得肯定。公司的管理團隊，不但了解市場需要，創作新的產品，更充分表現了聲海國際的技術創意。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT AWARD 科技成就獎

Advanced Materials Enterprises Company Limited



www.ames.hk

Advanced Materials Enterprises (AME) is a Hong Kong company specialising in advanced materials and nanomaterials for novel product applications. Its business activities cover technology and process development, technology licensing, and production of high-value products for professional, medical, domestic, commercial and industrial applications. The company has strong technology development and product design capabilities. It is a member company of the Incu-Tech program of the Hong Kong Science and Technology Parks Corporation.

NanoHeat[®] technology is an innovative technique for providing high performance and energy efficient heating functions with A.C., D.C. and renewable energy sources. It contains no mechanical parts and causes no magnetic interference with other equipment. With research grants provided by the HKSAR Government, it has achieved important milestones and built substantial intellectual property for the technology. This includes a portfolio of 28 patents and 37 design applications in five key areas. Advanced Materials Enterprises has been awarded the Hong Kong Awards for Industries: Technological Achievement Certificate of Merit (2008) and Technological Achievement Award (2009).



NanoHeat[®] Technological Achievements:

- Fast Heating and High Efficiency
 - Capable of reaching 300°C in less than a minute and over 99% energy efficiency
- High Power Density
 - Capable of generating 5000 W power output per 10 x 10 cm²
- D.C. Power & Renewable Energy Applications
 - Capable of reaching 200°C at 24V D.C.
- No Magnetic Interference
 - Wide variety of applications in medical devices
- No Limitations on Materials
 - Metal, glass and ceramic utensils capable
- Versatility in Design and Applications
 - High performance, slim, compact, stylish and versatile applications



NanoHeat[®] Hotplate
高效節能電熱板



NanoHeat[®] Laboratory hotplate with stirrer
專業實驗室用電熱板及攪拌器

Advanced Materials Enterprises (AME) 是一間香港高科技公司，擅長將先進材料及納米材料應用在創新產品上。AME業務包括科技和生產工序的研發、技術專利授權以及生產高價值的專業、醫療、家居、商用及工業產品，並通過研發先進物料技術，為全球社會及環境保護作出貢獻。AME亦是香港科技園公司的科技創業培育計劃 (Incu-Tech Program) 成員之一。

NanoHeat[®] 是一種全新及世界領先的創新科技，可用交流電、直流電及各種可再生能源達到高效和節能的發熱技術。該技術不包含任何機械部件，而且對其他設備沒有磁場干擾。在香港政府科研計劃的資金支持下，AME已在5個關鍵領域中，開發並申請了28項專利和37項設計應用。AME憑著 **NanoHeat[®]** 創新科技，分別於2008及2009年度獲得香港工商業獎-科技成就優異證書 (2008) 及科技成就獎 (2009)。

NanoHeat[®] 科技成就：

- 快速、高效及節能發熱功能
1分鐘內可達300°C及能源效益超越99%
- 高熱能密度
能於10 x 10平方厘米面積產生5000 W能量
- 直流電及再生能源應用
只需24V直流電輸出功率，便可達200°C
- 沒有磁場干擾
能廣泛應用於醫療設備
- 沒有器皿使用限制
金屬、玻璃及陶瓷器皿均可使用於 **NanoHeat[®]** 發熱面上
- 產品設計及應用
基於以上 **NanoHeat[®]** 獨特高效發熱技術的特性，可令產品於設計及應用上達致纖薄、小巧、時尚和富創造性。



NanoHeat[®] Diamond toaster
高效節能三文治烤爐

Comments from the Judging Panel 評審委員會評語

Advanced Materials Enterprises has developed a proprietary and significant technology – **NanoHeat[®]**. The core members of the company are strong in this technical field and innovative in identifying possible device applications. The company applied for the same award category in 2008 and it was impressive to see its big advancement over the past 12 months, both on the technological side and its product commercialisation and marketing.

Advanced Materials Enterprises 開發了一項專利的創新科技 **NanoHeat[®]**，並將此技術應用在不同產品上。技術團隊中的核心成員皆精於此技術領域，並能開發創新而可行的應用方案。公司去年亦曾競逐相關獎項，今年所見，無論在技術層面、產品商業化或市場推廣等方面都有著顯著的進步。

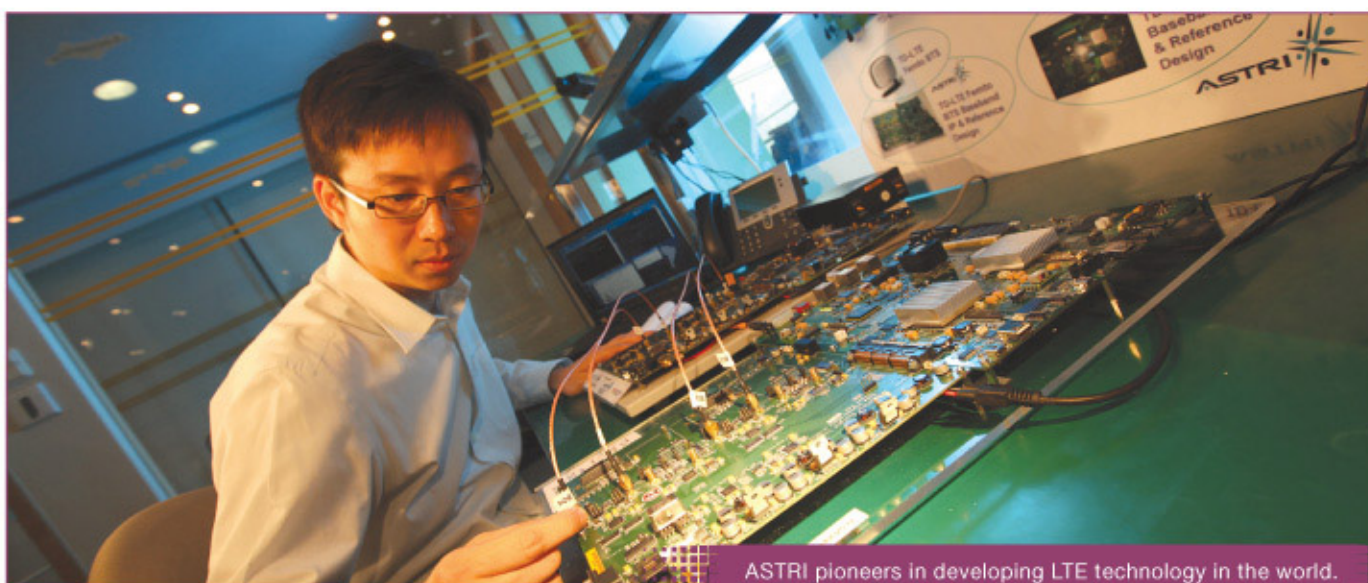
2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT
AWARD
科技成就獎

Hong Kong Applied Science and Technology
Research Institute Company Limited
香港應用科技研究院有限公司



www.astr.org



ASTRI pioneers in developing LTE technology in the world.
應科院在研發LTE技術方面走在世界前端。

The Hong Kong Applied Science and Technology Research Institute (ASTRI) was founded by the Government of Hong Kong Special Administrative Region in 2000 with a mission of enhancing Hong Kong's competitiveness in technology-based industries through applied research.

Since its inception, ASTRI has been delivering world-class technologies and customer-focused R&D catering to the needs of industry. Its R&D efforts traverse four interrelated areas, namely Communications Technologies, Enterprise & Consumer Electronics, IC Design and Material & Packaging Technologies. In March 2009, the Board of Directors also approved the establishment of a research team in Bio-medical Electronics to meet the changing needs of the international communities.

ASTRI was presented with the 2009 Hong Kong Awards for Industries: Technological Achievement Award for its research achievements in Long Term Evolution (LTE) technology. LTE is the most promising development in wireless communications and has been endorsed by almost all the major service providers around the world. It is a key component in moving forwards to 4G technologies. ASTRI started developing LTE platform technologies in early 2008 and has made significant technical progress since then.

To showcase its achievements in this area, ASTRI has been invited to participate in several major trade shows around the world. For instance, at the World Mobile Congress, ASTRI became the first R&D institute globally to demonstrate TD-LTE MIMO solutions in collaboration with leading industry players including Agilent from the US, Rhode & Schwarz from Germany, picoChip from the UK and Innofidei from the Mainland China. At the ITU World Forum, ASTRI jointly demonstrated cross-vendor interoperability tests with ZTE.

Furthermore, as a co-applicant, ASTRI helped two camps win the National Technology Key Program on Broadband Wireless in the Mainland.

Owing to the technical challenges of LTE, the market has high entry barriers. The technologies and platforms developed by ASTRI can greatly assist local and regional industry partners to enter these markets and become key players in the field.



At the Mobile World Congress 2009, ASTRI showed its TD-LTE capabilities by jointly conducting four sets of demonstrations respectively with Agilent, Rhode & Schwarz, picoChip and Innofidei. 2009世界移動通訊大會上，應科院聯合Agilent、Rhode & Schwarz、picoChip及Innofidei作演示，展示其TD-LTE的實力。

香港應用科技研究院（應科院）由香港特別行政區政府於2000年成立，其使命是要透過應用研究協助發展以科技為基礎的產業，藉此提升香港的競爭力。

應科院銳意創造世界級頂尖科技，實踐以顧客為導向的應用研究，以配合業界的真正需要。其研究範疇橫跨四個相關領域，包括通訊技術、企業與消費電子、集成電路設計及材料與構裝技術。董事局於2009年3月通過成立生物醫學電子研發小組，以配合環球市場需要。

應科院以其在長期演進技術（LTE）的研發成績而獲頒2009年香港工商業獎 - 科技成就獎。LTE是最具發展前景的無線通訊技術，現時已得到全球主要網絡服務與設備供應商的認可。它也是邁向4G下一代無線技術最重要的里程碑。應科院於2008年開始研發LTE技術平台，進展顯著。

2009年，應科院應邀參與世界各地多個主要展覽，展示其在這新技術上的成績。在世界移動通訊大會上，應科院率先與美國的Agilent、德國的Rhode & Schwarz、英國的picoChip及中國內地的Innofidei等企業合作夥伴，合作演示首個TD-LTE MIMO方案。另外，在國際電訊展上，應科院與中興通訊聯合成功完成了全球首個TD-LTE跨供應商互操作性測試的示範。

此外，應科院以聯合申請人的身份，分別為兩個陣營成功申請中國寬帶無線移動通信國家重大專項的項目。

基於LTE的技術挑戰性大，進軍市場門檻較高。應科院研發的技術及平台能協助本地及區內業界夥伴開拓市場，跨越障礙，成為行業的主導者。



ASTRI demonstrated LTE IOT together with ZTE at ITU Telecom World 2009. 在國際電訊展上，應科院與中興通訊聯合進行LTE的互操作性測試。

Comments from the Judging Panel 評審委員會評語

ASTRI's LTE technology is a significant innovation that will have a strong impact in the communications industry. With a highly talented development team, the technology being developed will be applied in niche markets where large potential has been identified. Though the technology is still in the R&D stage, it is expected to bring much commercial value.

香港應用科技研究院的LTE是一項為通訊業帶來重要影響的創新技術。其科技發明團隊擁有雄厚的技術後盾及專業人才，而這項針對獨特領域的技術，擁有一個潛在的龐大市場。雖然技術尚在研發階段，但預料會帶來可觀的商業價值。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT
AWARD
科技成就獎

Network Box Corporation Limited
網路通保安有限公司



www.network-box.com

Network Box helps secure the computer networks of many of the world's best-known organisations; including many key companies and government departments in Hong Kong. Rather than using a "do-it-yourself" security platform, then trying to bolt-on additional management systems, the Network Box platform was designed as a managed security platform from day one.

Hackers and virus writers never sleep. New malicious and undesirable content is added to the Internet every minute of every day. Installing a security system and leaving it unmanaged and out-of-date is not enough. Only a complete, managed, and monitored security service is going to keep hackers, viruses, spyware, spam and undesirable content at bay.



Network Box's Security Operation Centres run across the globe.
於全球運作的Network Box網絡保安行動中心。

Each Network Box system in the field is automatically monitored, managed and updated in real-time, and the award winning PUSH update system developed by Network Box, ensures any new updates are delivered to active systems around the world in an average time of just 45 seconds.

Network Box's key Unified Threat Management Platform is developed, enhanced and added to, on an ongoing basis. During the past year, a new web based mapping system was developed to allow clients to see their systems in real-time globally; an enhanced management system was produced to allow clients to securely interact with the Network Box Security Operations Centre using in-the-cloud technology; and Network Box also became the world's first Managed Security Provider to launch an Apple iPhone application, that allows customers to monitor their IT infrastructure from anywhere in the world.

Network Box has transformed the industry by making enterprise grade security affordable for any company, without any need for additional staff or having to buy a rack full of hardware.



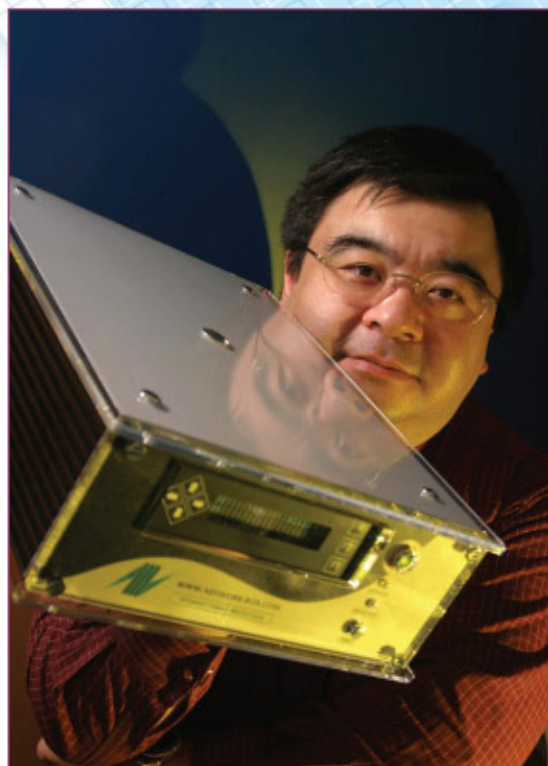
Network Box's E1000x is uncompromisingly designed to protect enterprises.
為保護企業用戶而設計的Network Box E1000x。

Network Box 成功為許多世界知名的組織實行電腦網絡保安措施，其中包括香港很多重要企業、機構和政府部門。Network Box 所設計的是融合管理系統的一站式自動管理網絡保安平台，取代了那些用戶需要「自己動手做」的保安平台。

黑客和病毒製造者從不會停止攻擊，惡意和不良的內容每日每分每秒都會被上載到互聯網中。安裝一個不受管理和不自動更新的保安系統，並不足夠去保護公司的電腦網絡。只有一個完善的、被管理和監控的網絡保安系統才能把黑客、病毒、間諜軟件、垃圾郵件和不良內容拒諸門外。

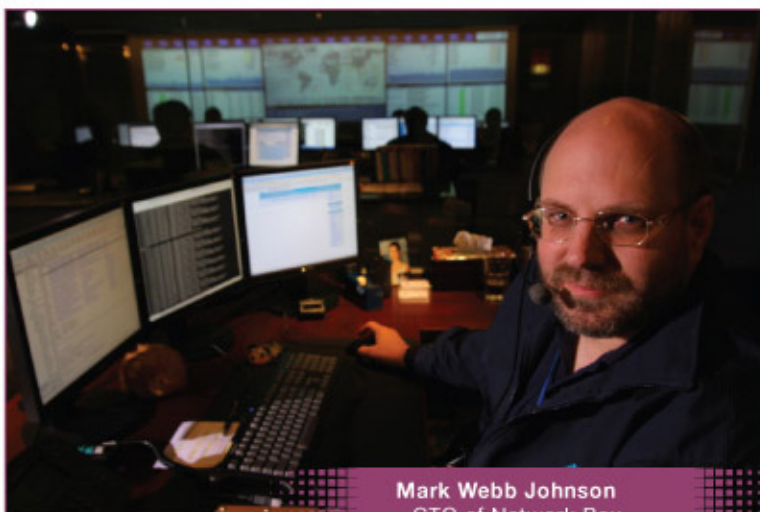
每個Network Box 系統都會受自動監控、管理和即時更新。Network Box 開發的PUSH更新技術，榮獲多項國際殊榮，確保任何更新可於45秒內被發送到全世界各地在線的Network Box系統中。

Network Box不斷加強、改進及完善其整合式網絡保安管理平台。在過去一年中，Network Box開發了一個新的網上測繪系統，讓客戶能在全球各地即時監察自己的系統。此外，Network Box 亦開發了一個進階管理系統，透過雲端技術，客戶能即時並安全地與Network Box網絡安全監控中心交流。Network Box亦成為全球第一個為蘋果iPhone應用程式提供網絡保安管理的供應商，此應用程式讓客戶在世界任何地方都可監控其IT系統。



Michael Gazeley
Managing Director of Network Box
Network Box 董事總經理

Network Box已把這個網絡安全管理系統質素提升至企業級水平，其費用卻為任何公司都能支付得起，並不需要額外人力資源或購買大量硬件。



Mark Webb Johnson
CTO of Network Box
Network Box 技術總監

Comments from the Judging Panel 評審委員會評語

Network Box has managed to integrate hardware, software, management systems and push up-dates into a single platform. It is an excellent technology developed in Hong Kong while serving the global market. This is an award winning company with international acclaim and its customers include local government, NGOs and private enterprises around the globe.

網路通保安的技術集合了硬件、軟件、管理系統及push up-date於同一平台上，是一項香港研發並服務全球市場的優秀科技。公司曾獲國際性好評及獎項，其客戶包括本地政府機構、世界各地的非牟利組織及商業機構等。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT AWARD 科技成就獎

Perception Digital Limited
幻音數碼有限公司

PerceptionDIGITAL

www.perceptiondigital.com

Perception Digital Limited is engaged in providing innovative products, technologies, and turnkey solutions in the following areas:

- Well-being and fitness: Live-Lite™ products and services based on media players featuring biometric measurement functions such as heart rate monitoring and pedometer functions;
- Personal portable entertainment devices: including portable media player and digital audio players; and
- Other "lifestyle" consumer electronic devices: including mobile phones, multimedia Internet devices, digital photo frames, digital mobile televisions and netbook computers.

Perception Digital's Live-Lite™ technologies include 3-dimension motion analysis and near infrared (NIR) sensing, which facilitate accurate and convenient monitoring of people's daily health. With the technologies, heart rate monitoring can be done via a simple finger touch -- anytime, anywhere. User's exercise regimes can be precisely analysed and recorded, including steps, travelled distance, consumed calories and differentiation between walking and running. Combined with music players, the technologies have been adopted into the company's Live-Lite™ product series and generated favourable market feedback.

Separately, Content Acquisition technologies represent Perception Digital's focus on multimedia products and technologies. Based on digital rights management (DRM) techniques, the Content Acquisition technology offers a secure, effective and economical way to deliver media contents to end users. It can be applied in multimedia players, such as MP3, MP4, PMP, mobile phones, and enables both consumer electronics retailers and content providers to share end customers and boost their respective revenues.



Voice out fitness MP3
語音步行心跳播放器



Jog and heart rate headphone
步行心跳耳機

幻音數碼有限公司（幻音）致力於電子產品領域提供創新科技，以及對客戶提供貼身定制的解決方案和產品，包括：

- 健康和運動相關的Live-Lite™系列產品及服務，如兼容心率監測和運動效能監測功能的便攜式媒體播放器；
- 便攜式多媒體娛樂產品，如MP3、MP4及PMP等影音媒體播放器；
- 個人或家庭電子產品，如手提電話、MID、數碼相框、移動電視及上網電腦Netbook等。



Perception Digital company building (HK region)
幻音數碼（香港總公司）

幻音的健康及運動相關科技Live-Lite™主要包括三維運動信號分析及紅外線傳感。這些科技能夠方便監測人體的日常健康和運動水平。例如可以非常便捷地通過手指的觸摸測量心率，可以精確區分跑步或步行運動及其距離、步數、所消耗的卡路里等。結合音樂播放器和網絡功能，Live-Lite™科技及其產品可以激勵大眾進行科學運動，保持健康。Live-Lite™系列產品亦獲得熱烈的市場反應。

媒體內容獲取系列科技代表了幻音在多媒體領域的強大實力和市場競爭力。基於數碼版權管理的理念，內容獲取技術為媒體內容提供了安全有效的傳達方法。這些科技補充了電子產品領域所缺乏的供應鏈管理方案，給媒體播放器製造商和多媒體內容供應商創造了雙贏的技術和商業模式。此媒體內容獲取的技術可以具體應用於MP3、MP4及PMP等眾多影音播放器和媒體內容供應商網站，使媒體內容供應商及播放器製造商可分享客戶，並增加盈利。



Sales and Marketing team in Perception Digital
幻音數碼銷售及市場部團隊

Comments from the Judging Panel 評審委員會評語

Perception Digital has demonstrated an innovative application of digital signal processing (DSP) on a wide range of products. The company is skilled at integrating various existing technologies and applying them to devices for niche market applications including well-being, fitness, multimedia, digital music and portable entertainment.

幻音數碼將數碼訊號處理器(DSP)以創新方式，應用於不同類型的產品上。公司精於融合市場上現有的技術並一併使用，使其應用於獨特的產品市場，如健體、多媒體、數碼音樂及隨身娛樂等設備中。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT CERTIFICATE OF MERIT 科技成就優異證書

Cluster Technology Limited
聯通計算科技有限公司



www.clustertech.com

Founded in 1999, ClusterTech is headquartered at the Hong Kong Science Park. The company's vision is to bring supercomputing power to a broader range of commercial and scientific applications and facilitate the technological advancement in China. ClusterTech has more than 80 employees, many with advanced degrees in science and engineering. Its clients are located in Greater China, Southeast Asia, and Europe.

The company's flagship product, ClusterTech HPC Environment Software Stack (CHESS), simplifies the setup and reduces the maintenance cost of high performance computer clusters, hence lowering the entry barrier to supercomputing. CHESS enables clients to assemble a computer cluster with computational power equivalent to that of a supercomputer from commodity PCs. It also provides an easy-to-use user interface (UI) for system administration. ClusterTech received HK\$2 million in funding from the Innovation and Technology Commission in 2005 in recognition of this innovation.



CHESS cluster management software
CHESS 集群管理軟件



CHESS DVD and cover case
CHESS DVD 及包裝

聯通計算科技有限公司(聯科)於1999年成立，總部設於香港科學園。聯科的使命是研發及推廣超級電腦運算技術於商業及科研上的應用，並為協助提升中國的科技水平盡一分力。聯科有80多名於科學和工程領域有豐富經驗的專才，為大中華、東南亞及歐洲地區的客戶提供卓越的產品和服務。

聯科的旗艦產品CHESS集群管理軟件，旨在簡化高性能計算集群的部署過程和降低其維護成本，從而降低使用超級運算的門檻。通過CHESS，用戶可將普通電腦組成集群，獲得超級電腦般的計算能力。此外，CHESS更提供簡易使用的介面，方便系統管理。聯科的創新科技獲得香港政府支持，於2005年獲創新及科技基金注資200萬港幣。

Comments from the Judging Panel 評審委員會評語

Cluster Technology has developed a supercomputing product CHESS which allows hundreds of personal computers to work together to form a super computer cluster, with a user-friendly interface to control the different components. Computation-intensive jobs (such as meteorology calculation) can be executed in just a few clicks. The application of the software by the local government and a number of R&D centres in Mainland China well demonstrate the robustness and the effectiveness of the system.

聯科的CHESS系統能綜合過百部個人電腦成為一個超級電腦群組，用戶只要透過簡易的介面，便可管理不同的系統及組件。當需要大量電腦計算的工作時(例如氣象計算)，只需點擊數下便能完成。CHESS除獲得本地政府部門採用，亦被廣泛應用在中國不同的研發中心，為一項卓越及高效能之系統。

TECHNOLOGICAL ACHIEVEMENT
CERTIFICATE OF MERIT
科技成就優異證書



Hong Kong RFID Limited
香港射頻有限公司

www.hk-rfid.com



Reading embedded RFID tags with a handheld reader. The system can track and verify pre-cast concrete building components. 利用手提閱讀器掃描預制混凝土組件內的射頻識別標籤用以追蹤及核對建築物。

Hong Kong RFID Limited (HK-RFID) is the leading RFID hardware developer, manufacturer and consultancy firm in Hong Kong and southern China. As a manufacturer of its own equipment, with production lines in China; HK-RFID also undertakes extensive R&D work and is a specialist in deploying innovative and customized RFID solutions to organizations worldwide.

In 2008, HK-RFID provided a RFID solution to the Hong Kong Housing Authority (HA). Services implemented include the use of RFID handheld readers for pre-cast material identification, and an RFID system for structural concrete maintenance. Hong Kong HA has implemented a RFID tracking system to keep an accurate inventory of various building components. Items such as prefabricated castings, aluminum windows, fire doors and panel walls are all tagged. The embedded RFID tags keep track of these components in the supply chain from manufacturing, shipping, warehousing to deployment.

香港射頻有限公司 (HK-RFID) 是一家建基於香港及南中國地區的射頻識別 (RFID) 硬件研發商, 制造商和顧問公司。HK-RFID 提供各式各樣的射頻設備及儀器, 在中國內地擁有強大的生產線和本地研發經驗。因應各客戶的獨特需求, HK-RFID 為顧客帶來專業、創新和訂制的射頻解決方案, 顯著地提升客戶營運成本效益。

HK-RFID 於 2008 年為香港房屋委員會 (房委會) 在建築過程中引入射頻系統。方案包括使用手持式射頻閱讀器識別預製混凝土組件, 利用射頻系統管理建築結構的維修項目等。房委會應用了射頻追蹤系統, 協助管理整個建造流程中的建築組件。建築物如預製混凝土組件、鋁窗、防火門和牆壁都可以嵌入射頻標籤, 透過射頻系統可追蹤已被標記的組件在供應鏈中如製造、運送、及儲存時的狀況。



Building Committee members and representatives from leading construction companies visit a prefabricated casting factory in Shenzhen, China to learn more about Hong Kong RFID's Building Components Tracking System. 建築委員會成員及多間建築承建商參觀深圳預製組件廠房, 實地了解香港射頻的建築物追蹤系統。

Comments from the Judging Panel 評審委員會評語

Hong Kong RFID has successfully solved the problems associated with heat, vibration, battery-life, wave penetration and water-proofing when embedding RFID tags into concrete building components. Deployment of the system by the Hong Kong Housing Authority demonstrates the practicality of the system in live environments.

香港射頻的系統成功解決了在混凝土建築物安裝 RFID 標籤時出現的問題, 如熱力、震動、電池壽命、波浪滲透及防水等。從香港房屋委員會對此技術的應用, 便可見系統在真實環境中的可用性。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT CERTIFICATE OF MERIT 科技成就優異證書

iView Limited
廣景科技有限公司



www.iviewdisplays.com

Founded in 2006, iView Limited is a dynamic optoelectronics R&D company with a solid background in the fields of display, optics, semiconductors and material science. Headquartered in Hong Kong, iView has pioneered state-of-the-art pico-projection technology and now has a number of products available for the consumer and industrial markets.

iView experts currently have more than ten patents registered in the areas of display, optics and solid-state electronics. The company's strengths in the development of display system solutions has resulted in products with unsurpassed efficiencies. Laboratory researchers at iView have over 14 years experience in researching and developing Liquid Crystal on Silicon (LCoS) related technologies. These cover a wide spectrum of disciplines including liquid crystal optics, LCD fabrication, projection optics, driver electronics and video interfaces. iView's system level optimised solutions have enabled display products with unsurpassed performance.

With a corporate culture emphasising creativity, quality, integrity and responsibility, iView is a platform not only supporting customers with advanced and competitive products and technology, but also bringing innovative ideas and applications to the market.



iView pico projectors
廣景微型投影機



iView LCoS pico projection engine
廣景LCoS微型投影模組

廣景科技有限公司於2006年成立，憑藉其專業團隊在顯示技術、光學、半導體及材料科學等領域的專業知識，致力發展光電子學的研發工程及商業應用。

廣景在深圳設有研發中心、在南京擁有微型顯示器模組製造中心，以期研發成果商品化過程符合成本效益，促進持續研發及創造更龐大市場。

現時，各廣景專才在不同科技領域上，包括顯示技術、投影技術、光學及固態電子等各方面，擁有超過十多項專利。在矽基液晶（LCoS）顯示技術上，更有超越14年的豐富經驗，涵括液晶顯影光學、液晶顯影組裝、投影光學、集成驅動電子、影視介面等各方面。

建基LCoS微型投影系統解決方案，廣景更成功拓展出領先技術，令不同產品在應用功效上有了前所未有的改變，使LCoS微型投影在不同影視產品上擁有卓越超然的性能，大大提昇了產品競爭力，並為各客戶拓展出大片商機。於LCoS微型投影尖端技術的研發突破、研發成果商品化、以至不同消費商品及工業領域的應用磨合上，廣景一直榮稱行業翹楚之一。另外，廣景文化一向注重創意、品質、誠信與責任，致力為各客戶提供具競爭力的產品及技術，也為市場引入創新意念的商品及應用。

Comments from the Judging Panel 評審委員會評語

With solid R&D capability and full range of modules that are ready to market, iView possesses promising potential in the fast growing market of pico projectors. Its products provide good performance in terms of projection light intensity, projection quality uniformity, and energy efficiency.

廣景科技的投影機產品在投影光的強度、投影質素的一致性 & 能源效益等方面均有令人滿意的表現。憑藉其卓越的研發能力及已推出的一系列產品模組，相信廣景科技在超微型投影機市場會有極佳的发展潛質。



PSP Security Company Limited
盈泰安有限公司

www.pspsecurity.com

PSP Security is a leading developer of biometric security and intelligent video products and technology. It provides cost-effective solutions to governments, law enforcement, and businesses worldwide to enhance security, reduce identity theft and secure assets and intellectual property.

AccuFACE® is an advanced infrared-based embedded facial recognition system designed for access control, time and attendance, and user authentication applications. AccuFACE®'s unique features include:

- Self-contained system that doesn't require an external computer to operate
- Supports up to 32,000 registered users
- Authenticates registered users in 1 second
- 99.99% accuracy
- Reliable and accurate under different lighting conditions including complete darkness
- Easy security system integration through built-in communication interfaces
- Small form factor and energy efficient

AccuFACE®'s proprietary system design, video capturing and recognition technology provides superior accuracy and reliability over other facial recognition systems.



AccuFACE® - embedded infrared-based facial recognition system.
AccuFACE® - 嵌入式紅外線面部識別系統。



At a construction site, AccuFACE® collects workers' attendance records for HR and time and attendance use.
在建築工地AccuFACE® 收集工人的出勤紀錄來作人力資源管理及計算工資。

PSP Security是市場上主要的生物科技保安及智能影像技術研發公司之一。PSP Security致力提供有效的面容識別及智能影像解決方案予政府、執法部門及國際企業以加強其保安及減少因身份識別錯誤而引致的失竊；保護有關的財產及知識產權。

AccuFACE® 是全球首個嵌入式紅外線面部識別系統，為門禁、考勤及身份認證提供解決方案。其擁有的特點如下：

- 獨立終端系統，無需外置電腦
- 支援三萬二千個登記用戶
- 一秒鐘內驗證用戶
- 99.99%的準確率
- 即使在完全黑暗及不同光源條件下仍準確無誤地運作
- 內置通訊界面，易於整合
- 輕巧細小及節能

AccuFACE® 擁有專利的產品設計、優秀的影像記錄及面部認證技術，令其準確度、性能及兼容性都較市面上其他面容識別系統優勝。

Comments from the Judging Panel 評審委員會評語

PSP Security's stand-alone biometric security system has proved its worth by including many technical features which make it both operationally advanced and user friendly. Its key strength of using active light source to illuminate capturing object enables the system to operate accurately in a wide range of light conditions.

盈泰安於體積細小且可獨立使用的嵌入式生物認證系統中加入了多項嶄新技術功能，產品容易使用之餘亦為一項物有所值的新保安設備。其最突出的優點，就是在不同的光源下，系統仍能準確無誤地運作。

2009 HONG KONG AWARDS FOR INDUSTRIES: TECHNOLOGICAL ACHIEVEMENT

TECHNOLOGICAL ACHIEVEMENT CERTIFICATE OF MERIT 科技成就優異證書

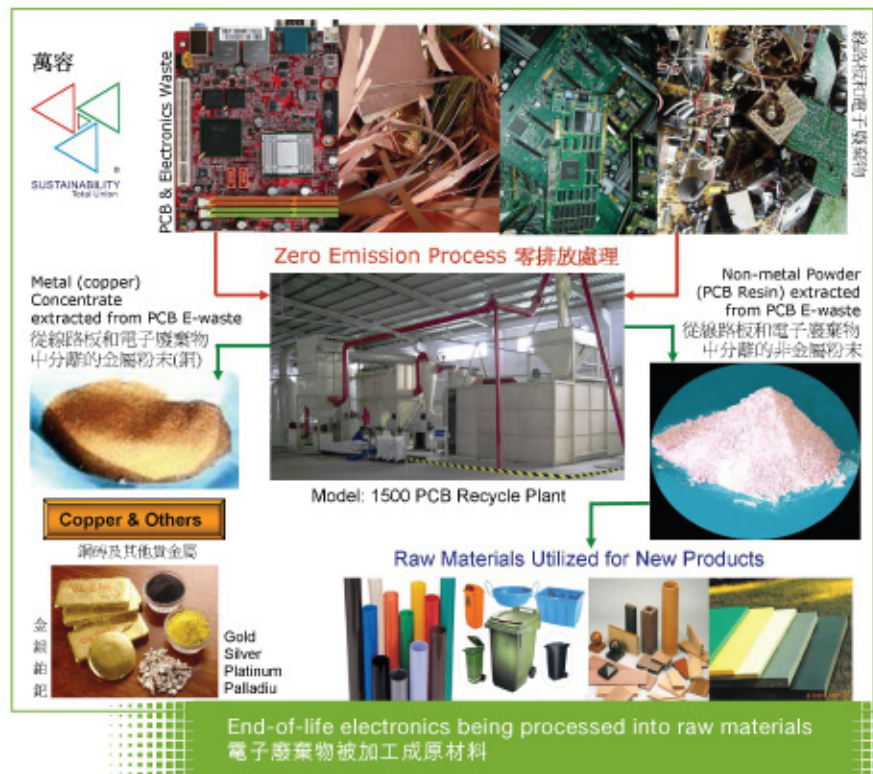
Total Union PCB Recycle Limited
萬容線路板循環有限公司



www.pcb-recycle.com

Total Union PCB-Recycle is an environmental services company specializing in recovering raw materials from end-of-life electronic printed circuit boards and other electronic products and components. The company's proprietary printed circuit board recycling process generates zero emissions, and the reuse of the recycled raw materials derived from this process is an efficient and sustainable solution that ensures end-of-life electronic products are properly recycled.

Printed circuit boards are common in all electronic products and are used by everyone in their day-to-day lives – both at work and at home. Total Union PCB-Recycle processes both "new scrap" from manufacturing and "old scrap" from products that have reached the end of their life cycle. Creating new materials from old materials, with no emissions, is our commitment to the environment and sustainability.



萬容線路板循環有限公司是一家從事廢舊印制電路板（PCB）、電子廢棄物等固體廢物綜合處理與資源化利用的專業高技術企業。公司以「保護生態環境、提升資源價值」為宗旨，並以高科技的治理技術為策略，為客戶和社會解決環保與節能減排難題，及有效利用廢物資源及增加其綜合利用價值。

公司擁有世界領先的廢舊PCB、電子廢棄物的專業大型處置設備及技術，是廢舊PCB、電子廢棄物的環保處置與生產過程中的二次污染難題的理想解決方案。解決方案最大特點為：一，廢物的回收利用率高，所有材料近100%資源化利用；二，整個生產加工過程由編程模塊自動控制系統（PLC）控制，在全封閉的管道中運行，無廢水、廢氣、廢渣產生，無二次污染。

同時，公司致力於廢舊PCB、電子廢棄物等固體廢物的環保處置技術及相關設備的研發，取得了相關技術和成果，更填補了該領域的多項技術空白，並體現了公司對環境保護的承諾。

Comments from the Judging Panel 評審委員會評語

Total Union's proprietary printed circuit board recycling process has the advantage of not involving any combustion or water consumption during the materials separation process. The process is carried out in a fully-closed production line with no secondary pollution induced. This technology brings significant environmental benefits and is able to meet the recycling needs of the electrical and electronic industries, especially in Europe where the Waste Electrical and Electronic Equipment (WEEE) directive is in place.

萬容的技術優勢是在進行線路板分離的過程中，不需涉及任何的燃燒或用水，而整個過程均在沒有產生二次污染的全封閉生產線中進行，對環保帶來極大幫助。此項技術滿足了電子工業的回收規定，尤其符合現時已在歐洲執行的「廢棄電器與電子設備」(WEEE) 指令。



鳴謝 ACKNOWLEDGEMENTS

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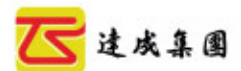
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