2022 TPCA INTERNATIONAL OUTSTANDING CONTRIBUTION AWARDS

2022 TPCA 國際人士貢獻獎

TPCA Show 2022

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Congratulatory Address

李長明
台灣電路板協會 第十一屆理事長
欣興電子股份有限公司 資深顧問

Maurice Lee
Chairman of TPCA
Senior Advisor, Unimicron Technology Corp.

親愛的貴賓先進，

我謹代表 TPCA，衷心祝賀您獲得 2022 年 TPCA 國際人士貢獻獎！

2021 年台商兩岸 PCB 產業產值達 8,178 億新台幣 (293.08 億美元)，續創歷史新高。事實上，自 2011 年開始，台灣 PCB 總產值就開始超越他國，成為世界第一。近年來台灣 PCB 產業規模持續穩定成長，儘管過程中遭遇地緣政治、缺貨缺料、全球疫情衝擊等利空危機，但屢屢關關難過關關過，憑藉的即是台廠技術優勢、量產能力、均衡產品與應用結構、產能調配與管理能力之競爭力，而技術升級所帶來的高附加價值更是台廠能屢次度過危機的關鍵。放眼世界，我們相信，在所有獲獎者對電路板產業的努力和奉獻，以及來自世界各地 PCB 行業合作夥伴的支持下，PCB 行業將繼續蓬勃發展。有感於台灣 PCB 產業服務之國際專業人士的長年貢獻，特設此表揚獎項，表彰國際上從事台灣電路板相關事務的貢獻者。我真誠地希望 TPCA 的會員公司透過此獎項，表達台灣友好謝意、增進國際情誼。最後，誠摯祝福您未來一切順利。恭喜！

Dear Distinguished Guests,

On behalf of TPCA, I would like to extend my heartfelt congratulations to you on receiving the TPCA International Outstanding Contribution Awards 2022!

In 2021, Taiwanese PCB manufacturers output reached a record high with NT$ 817.8 billion, equivalent to US$ 29.308 billion. In fact, Taiwanese PCB manufacturers output has made it to the top of the worlds since 2011. In recent years, the annual growth rate of Taiwan's PCB industry has been positive. Despite current global crises from geopolitics, materials shortages and the pandemic, manufacturers could overcome difficulties with technological advantages. Altogether, the added value from technological upgrading is the key to success of Taiwanese PCB manufacturers. We are certain with all the award winners' efforts and dedication, along with all the support from partners in the PCB industry from around the world, the PCB industry will continue to thrive. In order to express appreciation for distinguished achievements and contributions by individuals who have made outstanding contributions to the PCB industry in Taiwan. TPCA specifically designed this award to demonstrate our appreciation towards distinguished individuals. Through this award, I sincerely hope for the establishment of further connections between TPCA's member companies and their fellow international liaisons will be tighten. I would like to conclude my message by wishing you every success in the future. Congratulations!

楊勝雄

台灣電路板協會第十一屆國際事務委員會召集人
台灣麥德美股份有限公司 總經理

Harry Yang
Chair of TPCA International Affairs Committee
General Manager, MacDermid Alpha Electronics Solutions

尊敬的各位來賓，

作為 TPCA 國際事務委員會召集人兼台灣麥德美總經理，我收到了國際代表關於 TPCA 應該開展國際貢獻表彰計劃的建議。TPCA 國際事務會於 2022 年通過並首次啟動此獎項的規劃。TPCA 國際人士貢獻獎是國際上對台灣 PCB 行業個人傑出成就和貢獻的最高榮譽表彰，以衷心感謝為台灣電路板行業成就宏偉貢獻的國際專業人士。我很自豪能夠支持這項獎項，以獎勵今年獲得 TPCA 國際人士貢獻獎這 8 位令人驚嘆的獲獎者，讓您的奉獻和貢獻永遠不會被忘記。這個獎項見證了您辛勤的工作和奉獻產業的精神，在此誠摯地祝賀您的成就！恭喜！

Dear Distinguished Guests,

As the Chairman of the TPCA International Affairs Committee, and also General Manager, MacDermid Alpha Electronics Solutions, I have received many suggestions from many sources, recommending that the TPCA should start an International Contribution Recognition Program. The TPCA International Affairs Committee has approved such a program and 2022 will be the first time the awards are given to international individuals.

In order to show the TPCA's sincere thanks to those international professionals, the "TPCA International Outstanding Contribution Award" is the highest expression of appreciation for distinguished achievements and tremendous contributions to Taiwan's PCB industry. It is also for those who have retired from the industry, yet dedicated their whole career to enhancing progress of the PCB industry in Taiwan. The award is intended to commemorate the person and their achievements.

The award is not for those who enjoy their dreams only while sleeping, but for those who cannot sleep until they fulfill their dreams. Living with an expectation is very difficult and I congratulate awardees who have made this difficult thing easier using a focused mind and an indomitable spirit. This award stands alone proudly witnessing hard work and dedication of the individual. I'm proud to support this effort to honour the amazing awardees of 2022, who have won the TPCA International Outstanding Contribution Award. It is very important that your dedication and contribution will never be forgotten.

Congratulations on your achievement !

關於TPCA國際人士貢獻獎
About this Award

一、緣起 About

有感於台灣 PCB 產業服務之國際專業人士的長年貢獻，特設此表揚獎項，表彰國際上從事台灣電路板相關事務的貢獻者，以表達台灣友好謝意、增進國際情誼。

In order to express appreciation for distinguished achievements and contributions by individuals who have made outstanding contributions to the PCB industry in Taiwan. TPCA specifically designed this award to demonstrate our appreciation towards distinguished individuals.

二、獎項審查過程 Evaluation Process

2.1 審查過程 Evaluation Process：

此案依 TPCA 國際事務委員會決議實行 2022 年 1 月推廣，4 月截止收件並已於委員會審查通過，核備後公告表揚。

TPCA International Affairs Committee has approved this program in January 2022 for announcement. The deadline for application finalized in April and the award winners were reviewed and approved by the committee board.

2.2 資格及對象 General Criteria：

限曾任職於 TPCA 會員公司之外籍人士、受至少一家 TPCA 會員公司之副總級以上高階主管推薦。

Nominations for this award must be submitted by TPCA members. Proposers must submit at least one letter of recommendation signed by vice president (or equivalent level) from one of the TPCA member companies that directly address how the nominee fits the remit of the Award they are being put forward for.

2.3 表揚計畫 Award ceremony and publication：

規劃頒獎典禮，並於各實體數位平台推廣公開表揚。

Award ceremony is scheduled during 2022 TPCA Show. Announcement will be scheduled via various publication channels.

三、未來獎項規劃

未來獎項：詳細規劃將於國際事務委員會核備後公告於 TPCA 官網。

The 2nd International Personnel Contribution Recognition Program are expected to be announced on TPCA official site. Thank you for your active participation in this commendation program.

2022 TPCA國際人士貢獻得獎名單

List of Winners

Avi Avula

Title / Vice President & General Manager Electronics & Industrial
Company / 杜邦 DuPont
Nationality / USA

Ayumu Tateoka 立岡 歩

Title / Manager
Company / 台灣銅箔 Taiwan Coper Foil
Nationality / Japan

Bernd Karl Appelt

Title / VP Materials Promotion
Company / 日月光 ASE
Nationality / Germany

Kondo Haruhiko 近藤晴彦

Title / Associate Manager
Company / 台豐印刷 Tai Hong Circuit
Nationality / Japan

Petra Backus

Title / Global Business Manager
Company / 阿托科技(德國) Atotech Germany GmbH
Nationality / Germany

Robin Taylor

Title / Marketing and Technical Sales Manager
Company / 阿托科技(英國) Atotech UK Limited
Nationality / UK

Temma Tadashi 天滿 正

Title / President
Company / 新武 Shinbu Corporation
Nationality / Japan

William Bowerman

Title / Director Metallization
Company / 麥德美 MacDermid Alpha Electronics Solutions
Nationality / USA

得獎者簡介
INTRODUCTION OF THE WINNERS

Avi Avula

Vice President & General Manager
Electronics & Industrial
DuPont 杜邦
USA

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
美商應材 Applied Materials	• Managing Director, Advanced Packaging • Assistant to Chairman & CEO	2010 2007 - 2010
杜邦 DuPont	Global Business Director, Displays	2014
杜邦 DuPont	Vice President & General Manager Electronics & Industrial	2016-Now

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	Business Integration Provide a comprehensive and compelling total solution for the printed circuit board industry by integrating DuPont Interconnect Solutions and Laird Performance Materials and position as the leading sustainable material solutions provider for advanced interconnects. Focus on solving customers' challenges in signal integrity and power transmission to address the growing market needs driven by megatrends like 5G, autonomous and electric vehicles, mobile, telecom, IoT and AI. It contributes to accelerating the development of PCB industry in Taiwan.
2	Invest in Technology and Talent Continuous investment in manufacturing, R&D and technology capabilities and people development to foster an advanced and healthy eco-system for PCB industry in Taiwan. Key actions include, 1)The production expansion of Pyralux® flexible circuit materials facilitated the key fabricator in Taiwan to secure its business for 5G smartphone applications. 2)Continuously upgrading circuit technology platform and enhancing people capability by establishing a new pilot lab and technology center in Taiwan. 3)Combines circuit metallization and circuit imaging capabilities to maximize technology synergy, accelerate sustainable product pipelines and enhance circuit fabrication core competence. 4)Enable advanced PCB technology development for high-end segments such as IC substrate and Substrate-like PCB (SLP) to drive high integration, high performance, and miniaturization process development.
3	Sustainability Goal: Zero by 2030 Lead the meaningful change by acting on climate with a business ambition of Zero by 2030. The goal is to reach carbon-neutral operations for the global business segment by 2030. As of September 1, 2021, DuPont Interconnect Solutions achieved the milestone of 95 percent of global operations, including two manufacturing sites in Taiwan, powered by renewable electricity. It has made and will make greater contribution to the environment and climate in Taiwan.

推薦人 Referrer

Referrer Name	Martin Lin 林益弘
Referrer Job title	VP, Avary Holding (ShenZhen) Co., Ltd 臻鼎

得獎者簡介
INTRODUCTION OF THE WINNERS

Ayumu Tateoka
立岡 步

Manager
Taiwan Coper Foil 台灣銅箔
Japan

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
Mitsui Kinzoku 三井金屬礦業株式會社	Senior Engineer	2004-2017
Taiwan Coper Foil 台灣銅箔 (股) 公司	經理	2018- 今

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	Led the Taiwanese technical team to successfully develop a new generation of high-speed and high-frequency CCL and obtained patent registration. 帶領台灣技術團隊 成功開發新世代高速高頻用銅箔並取得專利註冊
2	Actively promote technical exchanges with domestic copper foil lamination factories. 積極推動與銅箔基板廠的技術交流
3	Actively participate in TPCA technical seminars and publish development results. 積極參與 TPCA 技術研討會並發表開發成果

推薦人 Referrer

Referrer Name	Ben Lin 林秉宏
Referrer Job title	Shinichi Obata

Referrer Name	GM, Taiwan Coper Foil 台灣銅箔總經理
Referrer Job title	Copper Foil Division R&D Director, Mitsui Mining & Smelting Co., Ltd. 三井金屬礦業株式會社

得獎者簡介
INTRODUCTION OF THE WINNERS

Bernd Karl Appelt

VP Materials Promotion
ASE
Germany

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
IBM	2nd Tier Mgr	1979 - 2002
ASE	VP Materials Promotion	2003 - 2013

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	25 Patents for ASE, 50 Patents IBM ASE 25 項專利，IBM 50 項專利
2	Many presentations at Intl Conferences, several book chapters on PCB/ Substrate Materials 於國際會議上發表多次演講，並撰寫諸多有關 PCB/ 載板材料之書籍
3	Conceived several innovative substrate processes and products 構思多種創新的載板製程和產品
4	Lots of substrate structures, such as aS3 諸多載板結構，例如 aS3

推薦人 Referrer

Referrer Name	Chih-Pin Hung 洪志斌
Referrer Job title	Vice President, ASE 日月光

得獎者簡介
INTRODUCTION OF THE WINNERS

Kondo Haruhiko
近藤晴彥

Associate Manager
Tai Hong Circuit
Japan

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
日本サーキット工業株式会社	執行役員	1978
Tai Hong Circuit 台豐印刷電路工業有限公司	協理	2016

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	Led the Taiwanese technical team to successful develop new generation of PCB and obtained patent registration 帶領台灣技術團隊成功開發新世代 PCB 製造新技術並取得專利註冊
2	Actively promote technical exchanges with domestic PCB factories 積極推進和板廠的技術交流
3	Actively participate in TPCA technical seminars 積極參與 TPCA 技術研討會

推薦人 Referrer

Referrer Name	Kuo, Chun-Huang 郭春煌
Referrer Job title	CEO, TCI 珠海鎮東總經理 China Goal Searchers CO.,LTD Taiwan Branch

得獎者簡介
INTRODUCTION OF THE WINNERS

Petra Backus

Global Business Manager
Atotech Germany GmbH
Germany

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
DEGUSSA	Develop Engineer	1978-1985
SCHERING	Develop Engineer	1985-1992
ATOTECH	Global Business Manager-BTT Selective Finish	1992-2006

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	As technical service engineer of Schering, she was in charge of Application service from Germany to Taiwan circuit board factories, put forward effective solutions to problems, and guided new engineers to understand the process and share her experience. 年輕時擔任 Schering 技術服務工程師，時常從德國到台灣各電路板廠做售後服務，對問題提出有效解決對策，並指導新進工程師對製程的理解也傳承經驗分享
2	Developed Immersion Tin process technology and introduced it into the Taiwan market. It is widely used by automotive board factories and high-end IC Substrates. It was also successfully introduced into IC Substrates and applied to FCBGA's Surface Final Finish. Created a 100% market share in Taiwan and a 60% global market share. 開發出化學錫製程技術並引進台灣市場被汽車板廠及高階ＩＣ載板廣泛使用也成功導入 IC 載板應用於 FCBGA 的 Final Finish　創造在台灣１００%市場佔有率，全球６０%市場佔有率
3	Led the team to take the lead in developing e'less Nickel Gold high-phosphorus Nickel Gold and Selective e'less Nickel Gold for high-end mobile phones. She also developed e' less Nickel-Palladium-Gold and e' less Palladium processes. She has contributed a lot to the final metal surface treatment technology in the industry. 帶領團隊率先開發出化學鎳金，高磷鎳金，選擇性化學鎳金應用於高階手機也開發出化學鎳鈀金及化學鈀製程對於業界於金屬表面處理技術貢獻良多

推薦人 Referrer

Referrer Name	Harry Yang 楊勝雄
Referrer Job title	General Manager, MacDermid Alpha Electronics Solutions 台灣麥德美股份有限公司總經理

Referrer Name	Jack Lin 林萬禮
Referrer Job title	VP, CHIN POON Industrial Co., Ltd. 敬鵬工業股份有限公司副總經理

得獎者簡介
INTRODUCTION OF THE WINNERS

Robin Taylor

Marketing and Technical Sales Manager
Atotech UK Limited
UK

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
Prestwick Circuits	Senior Process Engineer	1978 - 1987
Atotech UK	Product Manager	1987
Atotech GmbH	Product Marketing Manager Europe SF	2001
Atotech GmbH	Technical Sales Manager Circuitisation and Metallization	2011
Atotech GmbH	Marketing and Technical Sales Manager - Electronics	2012 - 2018

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	Dedicated to the PCB industry all his life, starting from engineers, and then investing in research and development of new technologies and new processes to promote the cooperation between industry, government and academia to effectively improve the bottleneck of PCB production. 畢生致力於 PCB 工業，從工程師實際生產做起，再投入研發新技術新製程進而促進產官學的合作有效改善 PCB 生產瓶頸
2	Introduced the traditional Black Oxide lamination process and introduced the DMAB Post-Dip reducing agent and auto-control technology to greatly reduce the pink ring quality problem faced by the industry in the multi-layer board. 引進傳統黑化壓合製程並導入後浸 DMAB 還原劑技術大幅降低業界於多層板面臨的頭痛粉紅圈品質問題
3	Introduced a revolutionary black oxide alternative process and applied it to horizontal production equipment. Bondfilm became synonymous with the black oxide alternative process, with a market share of more than 70%. 引進革命性黑化替代製程並應用於水平生產設備 Bondfilm 成為黑化替代製程的代名詞，同時市場占有率 70% 以上

推薦人 Referrer

Referrer Name	Harry Yang 楊勝雄
Referrer Job title	General Manager, MacDermid Alpha Electronics Solutions 台灣麥德美股份有限公司總經理

Referrer Name	Jerry Chen 陳尚書
Referrer Job title	GM, Ta Liang Technology Co., Ltd. 大量科技股份有限公司總經理

得獎者簡介
INTRODUCTION OF THE WINNERS

Temma Tadashi
天滿 正

President
Shinbu Corporation
Japan

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
日本五味屋 (現 : G-NET CORPORATION)	營業	1963-1968 年
五味屋台北支店	所長	1968-1977 年
新武 (股) 公司	董事長	1977-2020 年
新武 (股) 公司	現任 總裁	2021 年 ~

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

	推動電路板相關國際業務　得獎記錄		
	獲獎項目名稱	頒獎單位	Year 年份
1	雷射鑽孔機 販售台數 1688 台 感謝狀	三菱電機株式會社 常務執行役 FA 系統事業部 漆間啟本部長頒發 (現職 : 三菱電機株式會社 代表執行役 執行役社長)	2015.10
	雷射鑽孔機販售 貢獻感謝狀	三菱電機株式會社 執行役員 機械產業事部 氷見德昭 部長頒發 (現職 :MELDAS SYSTEM ENGINEERING CORPORATION 代表取締役社長)	2016.06
2	1. 1977 年創立新武，深耕台灣 45 年，1995 年起開始將日本三菱電機雷射鑽孔機提供給台灣 PCB 企業，長期以來伴隨產業發展與三菱電機齊心協力共同為電路板產業帶來設備與技術創新，提升台灣與國際的競爭力。 2. 台灣北中南三據點、中國五據點，以客戶第一的精神，為 PCB 企業提供最即時、完善的售前 / 售後服務。 3. 長期積極參加 TPCA 及 TPCF 各項協會活動、TPCA SHOW 國際展覽，發表新產品技術、邀請日本原廠三菱電機公司來台進行推廣及提供興革意見，嘉惠產業。 Important Contributions Mr. Tadashi Temma has founded SHINBU Corporation (SBM) in 1977, and the company has been in Taiwan for 45 years. Started from 1995, SBM has been supplying Laser Drilling Machine of Mitsubishi Electric from Japan to Taiwanese PCB companies.Throughout the years of continuous development in the industry, SBM side by side with Mitsubishi Electric dedicated their time and effort on bringing the equipment with innovative technology to PCB industry, to help enhance the competitiveness of Taiwan globally. With three service centers in Taiwan, and five in China, SBM is committed to providing the most timely and comprehensive pre-sales & after-sales services to PCB companies, with its motto “Customer First”. SBM is continuously Continuously active in various events held by TPCA and TPCF, as well as TPCA International Show, to publish new product and technology, at the same time invite Mitsubishi Electric Japan to share their revolutionary ideas with the industry.		

推薦人 Referrer

Referrer Name	Simon Chen 陳正雄
Referrer Job title	Executive Director, Unitech Printed Circuit Board Corp. 燿華電子股份有限公司執行董事

得獎者簡介
INTRODUCTION OF THE WINNERS

William Bowerman

Director Metallization,
MacDermid Alpha Electronics Solution
USA

More Info.

主要經歷 Job experience

Company 公司	Job title 職稱	Year 年份
Formerly Electrochemicals, Inc., OMG		
MacDermid Alpha Electronics	Director Metallization	1988-present

推動電路板促進國際業務傑出貢獻事蹟 Outstanding international contribution achievement

1	Introduced Shadow Graphite Direct Metallization in 1998 to Taiwan and have spent 25 years in support of the technology to Taiwan and the international PCB industry to gain Direct Metallization marketing Share 99.5% in FPCB and high end HDI. 1998 年將 Shadow Graphite Direct Metallization 引入台灣，歷時 25 年為台灣及國際 PCB 行業提供技術支持，在軟板和高端的 HDI 中獲得直接電鍍市場 99.5% 的市場佔有率。
2	oduced Pulse Plating for high aspect PCBs to several Taiwan PCB facilities 為台灣的幾家 PCB 工廠引入了用於高縱橫比 PCB 的脈衝電鍍
3	Presented five technical papers at TPCA in Taipei 在台北 TPCA 展會間發表五篇技術論文
4	Have frequently visited Taiwan annually 1998 to 2019 (stopped due to travel restrictions) to visit customers, present Technical Roadmaps, and work with our colleagues at MacDermid Alpha Electronic Solutions (aka Taiwan SpecChem, Electrochemicals, OMG) on new metallization technologies. 1998 年至 2019 年每年經常訪問台灣拜訪客戶，展示技術路線圖，並與台灣麥德美技術團隊一起研究新的金屬化技術。

推薦人 Referrer

Referrer Name	Harry Yang 楊勝雄
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關於台灣電路板協會、電路板環境公益基金會
About TPCA & TPCF

台灣電路板協會 TPCA

台灣電路板協會(TPCA)成立於1998年，一直以來秉持服務會員的一貫精神，以"凝聚會員 提升產業競爭力，共創永續新價值"為願景，致力於落實協會六大宗旨，積極推動落實人才培養、搭建各式交流平台、參與海內外產業事務、提升國際地位、力行綠色行動、掌握最新市場動態與強化產業競爭力等任務，憑藉TPCA與會員廠商的努力，共同打造台灣電路板產業在全球市場的領導地位，會員廠商也因此從創會時的三百多家，成長到今日的六百六十多家。

Founded in 1998, TPCA as a non-profit association with obligations in providing development info on global printed circuit board industry, organizing members gathering, participating in international printed circuit board activities, promoting common interest, enhancing the overall competitiveness, promoting cultural and information exchange within the industry, and sharing of resources through various activities that were organized. Through the dedication and effort contributed by the TPCA committee community, TPCA member companies have increased from 300 at the beginning to 665 members of the day.

TPCA

電路板環境教育基金會 TPCF

電路板環境公益基金會(TPCF)於 2015 年 成立，以發展環境永續、促進綠色軟實力為宗旨。為了實踐初衷，TPCF 以環境教育為主軸，從國中小「ECO 達人校園分享會」開始，延伸到高中「科技 in Life」、大學「環境永續・綠未來」。不但如此，TPCF 也致力於鼓勵企業「有錢出錢，有力出力」，擴展 CSR 價值發揮，推動產業軟實力綠化，將環境教育連結社會與經濟面向，強化循環經濟底蘊，為台灣社會發展貢獻棉薄之力。

TPCA Environment Foundation was established in 2015 with the purpose of developing environmental sustainability and enhancing sustainable green. TPCF focuses on environmental education, with programs range from primary school students to university students. TPCF also committed to encouraging enterprises on contributing in expanding the value of CSR and enhancing the linkage between environmental education and social economic aspects.

TPCF 財團法人電路板環境公益基金會 TPCA Environment Foundation

提升產業競爭力
凝聚會員 共創永續新價值

TPCA 台灣電路板協會
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