

祥碩科技 USB4®主控端晶片 ASM4242 通過 USB 協會認證

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高速傳輸 IC 設計領導品牌祥碩科技(5269)，於 2024/01/11 美國消費性電子展(CES)期間，宣布 USB4®主控端控制晶片 ASM4242(TID：7443)，通過 USB 協會(USB-IF)認證。為全球繼 Intel、AMD 之後通過認證的主控端晶片，也是全台首家。

祥碩科技總經理林哲偉表示：「很高興能跟大家分享這個消息。祥碩的 USB4 主控端產品(ASM4242)在經過祥碩團隊長時間的努力後，獲得 USB4 官方認證。USB4 的主控端晶片——ASM4242 可以獲證，代表包含 PCI Express® (PCIe®)、DisplayPort(DP)、USB4 等等各個規格間相互切換與協同運作，都有一定的成熟度與可靠度。祥碩很高興能繼 Intel 和 AMD 後獲得 USB 協會的認證肯定。整個 USB4 測試往返耗時近一年才臻完善，除了需要在認證實驗室先完成約千項測試外，還需於 USB-IF 協會產品實驗室通過數百項的測試，包含效能、邏輯規格、相容性與穩定度，全方位的驗證產品設計品質。在 2024 年開年，祥碩備齊 USB4 主控端和裝置端晶片組認證，準備進入正式量產。祥碩客戶也已經打樣完成，預計今年在市場上就可以見到搭載 ASM4242 的產品！」

使用祥碩 USB4 ASM4242 主控晶片的 PC，搭配祥碩的 USB4 裝置端產品

ASM2464PD，效能最高可高於 3800MB/s，是過去 USB3.2G Gen2x2 的兩倍。USB4 是採用

「tunneling(隧道)」的新技術來傳輸數據，ASM4242 採用 PCIe Gen4x4 介面，支援兩個 USB4 的通訊埠(ports)。此外，在相容性方面，祥碩 ASM4242 主控晶片基於過往在 USB 主控端超過一億顆晶片的量產經驗，全面兼容於 USB3.2 等規格，速度與相容性具足。

USB-IF 主席兼首席營運官 Jeff Ravencraft 強調：「獲得 USB-IF 認證的產品，代表技術的成熟與穩定，很高興祥碩在 USB4 技術發展進程上邁開了一大步，這一步也意味著祥碩成為帶動 USB4 技術趨勢的先驅者，我們期待繼續支持祥碩及所有 USB-IF 的成員們，努力為廣大的使用者提供更多更好的 USB 認證解決方案，讓 USB 生態系統更臻完善。」

祥碩此次在 CES 展場中與 USB4 主控端晶片搭配展出的，為通過 USB4 認證的裝置端晶片 ASM2464PD 與 ASM2464PDX，產品已正式進入量產。今年在祥碩的 CES 展區可以看到來自客戶即將上市的終端產品。ASM2464PD 與 ASM2464PDX 兩者最大的差別在於，後者可支援較多通道(lane)，客戶可依不同的需求選擇。祥碩 USB4 裝置端晶片，透過內建的 PCIe gen4 packet switch 技術，並利用 USB4 特有的高頻寬及動態分配頻寬功能，讓採用此系列晶片組的客戶，可依市場定位與產品規劃來決定 PCIe 裝置或 NVMe 快閃碟的配置，此外，產品設計高度整合周邊元件，模組設計簡潔的理念，讓客戶可創造具有價值與差異化的 USB4 產品線。

祥碩 USB4 系列產品於全球最大的消費性電子展(CES)展出，除了 USB4 主控端

(ASM4242)以及裝置端(ASM2464PD/PDX)的產品發表外，Hub 產品線也將推出 USB 3.2 Gen2x2(20Gbps)產品(ASM3074C)，以滿足客戶需求。

祥碩科技創立於 2004 年，專注於高速輸出入介面晶片與客製化 ASIC 的開發生產，更多詳情參閱祥碩官網：www.asmedia.com.tw



圖說：祥碩科技在 CES 展出 USB4 主控端(ASM4242)及裝置端(ASM2464PD/PDX)等產品。

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ASMedia's USB4® Host Controller ASM4242 Has Passed the USB-IF Certification

Release Date: January 29, 2024 (Taipei)

In the realm of high-speed transmission IC design, ASMedia Technology Inc. (5269, TPE), a pioneering brand, officially announced that its USB4® host controller ASM4242 (TID: 7443) successfully passed the USB Implementers Forum (USB-IF) certification at the Consumer Electronics Show (CES) in the United States on January 11, 2024. This achievement positions it as the first Taiwanese company and the third globally after AMD and Intel, to attain certification for a host controller of this nature.

ASMedia's President Che-Wei Lin said, "We are extremely happy to share with everyone this wonderful news. After extensive efforts from the dedicated ASMedia team, our USB4 host controller [ASM4242] has successfully obtained official USB4 certification. The certification of the USB4 host controller, ASM4242, underscores a distinguished level of maturity and reliability, and showcases its ability to switch and coordinate between diverse specifications, including PCI Express® (PCIe®), DisplayPort (DP), and USB4. ASMedia takes great pride in achieving recognition from the USB-IF, following in the footsteps of Intel and AMD. The entire USB4 testing process spanned nearly a year and was finally perfected. Having completed nearly a thousand tests in USB-IF authorized independent test labs, ASMedia successfully passed hundreds of tests at the USB Platform Interoperability Lab. These tests covered performance, logical specifications, compatibility, and stability to offer a comprehensive verification process of the product design quality. As we usher in the new year of 2024, ASMedia stands well-prepared with both USB4 host controller and device certifications, and our products are poised to enter the phase of mass production. Samples from our clients have been successfully produced, and we look forward to seeing products featuring the ASM4242 in the market later this year!"

Personal computers equipped with ASMedia's USB4 host controller ASM4242 and USB4 device ASM2464PD can achieve speeds of up to 3800MB/s, double that of USB3.2 Gen2x2. USB4 employs the innovative "tunneling" technology for data transfer. The ASM4242 utilizes the PCIe Gen4x4 interface, supporting two USB4 ports. Furthermore, drawing from the extensive experience of mass production of over 100 million USB host controllers, the ASM4242 host controller is fully compatible with USB3.2 and ensures both speed and compatibility.

Jeff Ravencraft, USB-IF President and Chief Operating Officer emphasized, "USB-IF certification is a testament to the maturity and stability of the technological advancements of a

product. We applaud ASMedia for their substantial progress in the USB4 technology development, solidifying their role as a pioneer and setting trends in USB4 technology. We look forward to supporting ASMedia and all USB-IF members as they diligently work to provide a broader range of USB Certified solutions for users and the USB ecosystem.”

In addition to the USB4 host controller, ASMedia presented its USB4 certified devices at CES: ASM2464PD and ASM2464PDX. These products have transitioned into mass production. This year, within ASMedia’s booth at CES, attendees are offered an exclusive preview of soon-to-be-launched end products from our customers. A noteworthy difference between ASM2464PD and ASM2464PDX lies in the latter’s capability to support more lanes, so customers can make flexible choices based on specific requirements. ASMedia’s USB4 device silicon leverages the built-in PCIe Gen4 packet switch technology and harnesses USB4’s distinctive high bandwidth and dynamic bandwidth allocation features. This empowers customers adopting this series of chipsets to configure PCIe devices or NVMe flash drives according to market positioning and product planning. Moreover, the product design emphasizes a high level of integration with peripheral components and adheres to a concise modular concept. This design philosophy enables customers to craft USB4 product lines that not only carry inherent value but also exhibit a differentiating edge in the market.

ASMedia’s USB4 series were displayed at the world’s largest consumer electronics exhibition, CES. Alongside the host controller ASM4242 and device ASM2464PD, we are set to unveil the USB 3.2 Gen2x2 (20Gbps) product, ASM3074C, in the hub product line to meet the diverse needs of our customers.

ASMedia Technology Inc. was founded in 2004, and specializes in development and production of high-speed IC interfaces and customized ASICs. For more details, please visit our website at www.asmedia.com.tw.

USB4® is a registered trademark of USB Implementers Forum.



Picture: ASMedia showcased its USB4 host controller (ASM4242) and devices (ASM2464PD/PDX) at CES.

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