SKYECHIP
Accelerating Computing

Advancing Malaysia's Front-End Semiconductor Design

For more than five decades, Malaysia has been a key player in the back end of the global semiconductor industry. SkyeChip is now attempting to take Malaysia into new areas in integrated circuit (IC) design, silicon intellectual property (IP), and Silicon Products that are distinctly Malaysian in ownership, engineering, and ambition.



SkyeChip's Bursa Malaysia Main Market listing in May 2026 marked a major milestone in its journey as a homegrown IC design company, raising RM352 million and drawing strong retail investor demand.

Creating Malaysia's First Homegrown IC Design Champion

Dato' Fong Swee Kiang began his career as an engineer at Intel in 1986 and was involved in the founding of Intel Penang Design Centre. He later joined Altera Malaysia as Vice-President of Design Engineering, overseeing the R&D operations in Malaysia before becoming Senior Operations Director at Broadcom.

In 2019, a senior representative from the Malaysia Digital Economy Corporation (MDEC) returned from a trade visit to China with the Prime Minister, having been asked a question which he could not answer: which Malaysian-owned companies designed chips?[1]. Upon landing, he called Dato' Fong Swee Kiang.

Dato' Fong's response was to fill the gap. Together with Teh Chee Hak, former Chief Architect of Intel's Microelectronics, he assembled a team of IC designers specialised across different segments of IC design to design a Made by Malaysia chip.

The founding team of approximately 30 engineers established SkyeChip with over 400 combined years of semiconductor experience and more than 80 patents[2]. SkyeChip develops silicon IP and custom chips for the AI and high-performance computing markets that the world's most advanced technology companies rely on.

In May 2025, SkyeChip achieved first-time silicon success on High Bandwidth Memory 3E (HBM3E) interface IP at 8,800 Mbps on a 4nm process node[3]. This is the same memory interface standard used in Nvidia's H100 and H200 AI accelerators and AMD's MI300X, placing SkyeChip in a globally competitive tier of memory IP developers. Three months later, in August 2025, the company unveiled the MARS1000, Malaysia's first domestically designed Edge AI processor[4]. The processor was built on a 7nm process node and optimised for autonomous robotics, intelligent video analytics, smart cities, and in-vehicle digital systems.

As of March 2026, SkyeChip has filed 113 patents across Malaysia, the United States, and China. The firm listed on Bursa Malaysia in May 2026, raising RM352 million in an IPO oversubscribed 95 times by retail investors, and opened at RM3.50 against an offer price of 88 sen.



"Our goal is clear: we want Malaysia to be the leading IC Design Hub in the region, and a recognised player in the upstream global semiconductor ecosystem. We are echoing the government's vision of "Build in Malaysia" and extend it to "Design by Malaysia"

Dato' Fong Swee Kiang
CEO, SkyeChip[5]

[1] Karamjit Kaur, "Cover Story: SkyeChip Reaches for the Stars," The Edge Malaysia, October 27, 2021, https://investpenang.gov.my/cover-story-skyechip-reaches-for-the-stars/.

[2] S. K. Fong, quoted in "Cover Story: SkyeChip Reaches for the Stars," The Edge Malaysia, October 27, 2021.

[3] SkyeChip Berhad, "SkyeChip Memory IP Portfolio and Silicon Validation Announcement," SkyeChip Official Newsroom, May 2025, https://skyechip.com.

[4] "Malaysia Launches First Local Edge AI Processor, MARS1000," The Star, August 25, 2025, https://www.thestar.com.my/business/business-news/2025/08/25/malaysia-launches-first-local-edge-ai-processor-mars1000.

[5] Datuk Fong Swee Kiang, quoted in "From Assembly to Innovation: SkyeChip CEO Charts Malaysia's Rise in Global IC Design Arena," SkyeChip Prospectus Launch Address, 29 April 2026.

The Challenge

Moving Malaysia Up the Semiconductor Value Chain

Malaysia has been a cornerstone of the global semiconductor industry for more than five decades, with its position built largely on the back-end of the value chain: the packaging, assembly, and testing of chips designed and engineered elsewhere. As the world's sixth-largest semiconductor exporter, commanding approximately 13% of global chip assembly, packaging and testing, Malaysia has built a manufacturing presence of genuine strategic importance to the world's largest technology companies. Yet these activities represent the final, lower-margin stages of a long value chain. The highest-value work, such as integrated circuit design, silicon intellectual property, and chip architecture, has historically resided with foreign companies, generating intellectual property that Malaysia helped design but did not own.

The talent needed to change this has long been present in Malaysia. However, much of the intellectual property created by Malaysian engineers flowed to corporate headquarters abroad. When foreign design centres later downsized or restructured, that expertise scattered without finding a Malaysian-owned platform through which it could continue to build. Malaysia's New Industrial Master Plan (NIMP) 2030 and National Semiconductor Strategy (NSS) both identify front-end semiconductor capabilities as strategic priorities, recognising that Malaysia's next phase of semiconductor growth will require deeper participation in higher-value activities such as integrated circuit design and advanced product development.

The challenge is also generational and cultural. Dato' Fong has described a talent pipeline issue in which Malaysian engineering students increasingly choose finance or other professional careers over engineering, while many electrical and electronics (E&E) graduates leave the field for higher-paying roles in banking and other sectors. IC design roles in Malaysia pay significantly more than back-end manufacturing equivalents, but this reality is not yet widely understood or communicated in Malaysian education and professional circles.

This is compounded by brain drain. For Malaysia's best engineering talent, opportunities in markets such as Singapore, the United States and Taiwan have historically offered higher compensation and more sophisticated career development pathways. Without a Malaysian-owned integrated circuit design company operating at the frontier and offering competitive work from Malaysia, the pull of emigration or multinational employment is difficult to counteract. The absence of a Malaysian IC design champion creates both an economic gap and a talent retention gap.

The Solution

Designing Malaysia's Own Silicon

SkyeChip's founding proposition is a direct response to this challenge. It is building a globally competitive Malaysian semiconductor IP and integrated circuit design company that captures the higher-value tier of Malaysia's own semiconductor industry.

The company operates across two primary business lines. The first is silicon IP licensing: developing proprietary IP cores and licensing them to semiconductor companies globally for integration into CPUs, GPUs, ASICs, and SoCs used in data centres, AI training and inference, and high-performance computing. The second is silicon products, including custom Application-Specific Integrated Circuits (ASICs), which are bespoke chips designed for specific client applications. This involves managing the full design cycle from architecture through tape-out and into manufacturing handoff. Together, these two lines serve a global client base that is currently concentrated in China, the United States, South Korea and Taiwan, with Japan under active development as a new market.

SkyeChip has also expanded beyond pure IP and design into its own product development, particularly through the introduction of MARS1000. This marked SkyeChip's evolution from a pure IP licensing and IC design business into a company creating its own silicon products, capturing a larger share of the value chain.

To accelerate product development, SkyeChip has secured strategic resources that complement its own R&D investment. As one of the first two beneficiaries of the Malaysian Silicon Vision programme, SkyeChip received conditional approval for the ARM Compute Sub-system (CSS) token and has also signed the definitive agreement to obtain access to an ARM Flexible Access (AFA) token. This token gives it access to ARM's IP for R&D and production, dramatically accelerating the pace of product development. SkyeChip also joined the Intel Foundry Accelerator IP Alliance in January 2025 and Samsung Foundry CONNECT IP platform in February 2026, gaining access to the foundry ecosystem for IP development and validation.

SkyeChip now employs 391 employees as of 31 March 2026, drawn from Penang, Kuala Lumpur, Kedah, Perak, and surrounding states and Vietnam. Fresh graduate IC designers at SkyeChip earn RM5,000 to 6,000 per month, compared to approximately RM4,000 in back-end manufacturing roles. This is a premium of 25-50% that compounds over the course of a career in the higher-value design tier.

SkyeChip is also actively nurturing the next generation of Malaysian technology talent. Through formal university partnerships with Universiti Teknologi Malaysia (UTM), Universiti Sains Malaysia (USM), Universiti Putra Malaysia (UPM), Multimedia University (MMU), Universiti Tunku Abdul Rahman (UTAR) and Universiti Tun Hussein Onn (UTHM), amongst others, the company runs final-year project programmes and internships specifically designed to train IC designers and create direct pathways into employment.



Impact to Date

(as of early 2026)

Revenue

RM **155** million

FY2026 (Up 29.7% year-on-year; approximately 39.5% compound annual growth rate since FY2023)

Net Profit

RM **48.5** million

in FY2026; net profit margin approximately 31.3%

Patents Filed

113 patents across Malaysia, the United States, and China

IC Designers Employed

365 IC designers employed, grown from a founding team of approximately 30 in 2019

Market Capitalisation

RM **5.3** billion

as of 20 July 2026

How Investment Helped

A Relay Race of Capital for a Malaysian Semiconductor Champion

Khazanah's role in SkyeChip became most visible during the company's May 2026 IPO, where Khazanah participated as a leading cornerstone investor. The journey, however, began earlier. Through Dana Impak, Khazanah backed SkyeChip at an earlier stage through its venture capital fund managers, including the Gobi Dana Impak Ventures Fund (GDIV), managed by Gobi Partners with Khazanah as the sole investor in the fund. This support came while SkyeChip was building its technology, engineering talent and commercial credentials, before later maturing into a company able to access institutional and public market capital.

For SkyeChip, this illustrates the relay race of capital in practice. The founders and early investors took the initial risks. Venture capital fund partners supported the company's early development. Institutional investors participated as the business matured. The public market then became the next source of growth capital. Khazanah's role through Dana Impak was not to carry the baton from start to finish, but to help ensure that the right capital and partners were crowded in at the right stages of SkyeChip's journey.

Through GDIV, proceeds from the investment were directed towards talent acquisition, business expansion and working capital, helping SkyeChip accelerate its growth in higher-value integrated circuits and silicon IP. Beyond capital, Gobi also supported SkyeChip by facilitating introductions to major Japanese semiconductor companies and connecting the company with employment subsidy programmes for fresh graduates to support its engineering talent pipeline.

The broader significance of this support lies in SkyeChip's place within Malaysia's semiconductor ecosystem architecture. Through Dana Impak, Khazanah has supported capacity-building across several layers of the value chain, including machine vision and AI through the Cambrian Fund, in partnership with ViTrox; AI semiconductor activity and an R&D presence in Malaysia through Syntiant Corp; and IC design and silicon IP through SkyeChip.

In this relay, SkyeChip represents a critical layer: a Malaysian-owned company operating in one of the most IP-intensive segments of the semiconductor value chain. By backing SkyeChip early and supporting its path towards institutional scale, Khazanah helped reinforce the capital pathway for a company seeking to build world-class semiconductor innovation from Malaysia.



"Skyechip shows the kind of capital pathway Malaysia must build to create more homegrown semiconductor champions. Technical capability alone is not enough; companies need catalytic capital and strategic partners at each stage of growth. Khazanah's initiative through Dana Impak is important because it strengthens this continuum - from early stage venture support to institutional capital and public market access - giving Malaysian companies a path to scale in higher-value segment of the semiconductor value chain."

Dato' Seri Wong Siew Hai
President of Malaysia Semiconductor Industry Association (MSIA)

Looking Ahead

Designing beyond Malaysia

Following its listing on Bursa Malaysia, SkyeChip is moving forward with plans to invest heavily in research and development, including new design tools. Recognising its growing reach in markets such as the United States and South Korea, which contributed about 24% of total revenue in its last financial year, the company also plans to expand its presence in Malaysia and Vietnam, while opening offices in Japan and the United States in the years ahead.

SkyeChip also participates in international bodies that set standards for the semiconductor industry. This signals that a Malaysian company is not only participating in the global semiconductor ecosystem, but is present in rooms where future technological standards and directions are being shaped.

For more information, visit
www.skyechip.com

[10] "Malaysia's Qarbotech to Boost Production Capacity of Photosynthesis Enhancer," The Sun, https://thesun.my/business-news/malaysia-s-qarbotech-to-boost-production-capacity.