

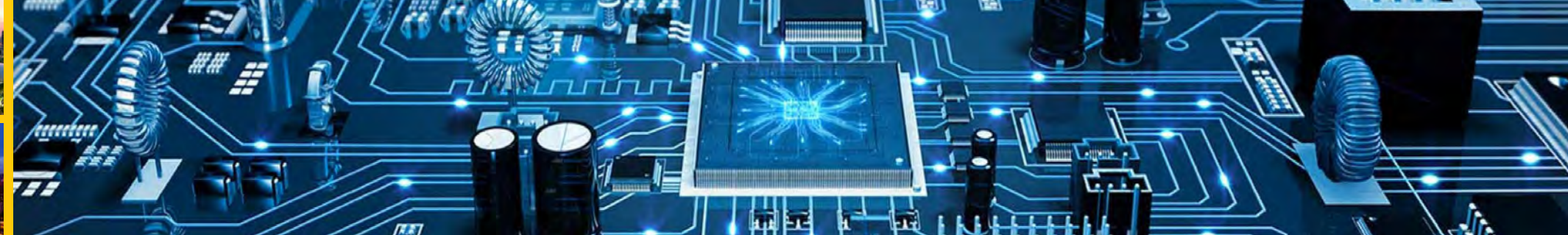


South East Asia EMS

NEWS OF PEOPLE, PRODUCTS AND PROCESSES

2 0 1 7

M E D I A K I T



South East Asia – a \$425 Billion+ Electronics Market

South East Asia is a vibrant hub of electronics manufacturing. From IC's, components and micro assemblies to finished consumer and industrial electronic products south east Asia is a major supplier meeting the demands of the world markets.

In 2015 six countries in the region – Malaysia, Philippines, Singapore, Thailand, Vietnam, India and Indonesia - exported over \$425 Billion in electronics products. All economic forecasts predict this growth will soon exceed \$500 Billion.

Malaysia's electrical and electronic industry has benefited from the global demand for mobile devices (smartphones, tablets), storage devices (cloud computing, data centers), optoelectronics (photonics, fiber optics, LEDs) and embedded technology (integrated circuits, PCBs, LEDs). Malaysia's E&E manufacturers have continued to move-up the value chain to produce higher value-added products. These include intensification of research and development efforts and outsource non-core activities domestically.

The E&E industry in **Malaysia** can be categorized into four sub-sectors:

Consumer Electronics - which includes the manufacture of LED television receivers, audio visual products such as blu-ray disc players/recorders, digital home theater systems, mini disc, electronics games consoles and digital cameras.

The sector is represented by many renowned Japanese and Korean companies which have contributed significantly towards the rapid growth of the sector. The leading companies are now undertaking R&D activities in the country to support their global and Asian markets.

Electronic Components Products/activities which fall under this sub-sector include semiconductor devices, passive components, printed circuits and other components such as media, substrates and connectors.

Within the electronic components sub-sector, the semiconductor devices have been the leading contributor in the performance of

exports for the E&E industry. The presence of companies such as Intel, TF AMD, NXP Semiconductors, ASE, Infineon, STMicroelectronics, Texas Instruments, Renesas and major Malaysian-owned companies such as Silterra, Globetronics, Unisem and Inari have contributed to the steady growth of the semiconductor industry in Malaysia. To date, there are more than 50 companies, largely MNCs producing semiconductors devices.

The presence of IC design firms strengthens the semiconductor ecosystem by providing IC design services for their own products or outsourced. Today, IC design firms have added more value to their capabilities. Companies such as Efinix, Pixart, Baysand and Symmid have the capability to feed the market needs of the mobility, medical, industrial, automotive as well as the emerging markets in the likes of IoT and autonomous vehicles. More IC design firms and fabless companies are needed to create a wider set-up of new technology and products.

Industrial Electronics This sub-sector consists of multimedia and information technology products such as computers, computer peripherals, telecommunication products and office equipment.

Electrical The major electrical products produced under this sub-sector are lightings, solar related products and household appliances such as air-conditioners, refrigerators, washing machines and vacuum cleaners. The electrical sub-sector is the largest sub-sector, comprising 44.4% of the total investments approved in the E&E sector for 2016.

The electrical & electronics (E&E) industry is the leading sector in Malaysia's manufacturing sector, contributing significantly to the country's exports (36.6%) and employment (25.3%) in 2016.

Singapore's manufacturing output in the electronics sector reached \$US 56 billion in 2013, contributing to 28% of Singapore's manufacturing output. There are:

- 14 silicon IC wafer fabrication plants,
- 15 assembly and test operations, and about
- 30 IC design centres in Singapore.

This includes four 12-inch fabrication plants, the world's top three wafer foundry companies, five of the world's top assembly and test subcontractor companies, and nine of the world's top fifteen fabless IC design companies. Some of these include Avago, Fairchild, Micron, MediaTek, United Microelectronics Corporation ("UMC"), United Test and Assembly Center ("UTAC"), Qualcomm, and Systems on Silicon Manufacturing Co ("SSMC"). Today, Singapore accounts for one in ten of the world's ICs.

Singapore is a major hard disc media manufacturing location, accounting for over 40% of the world's hard disc media volume. Top storage players like Seagate, Showa Denko, and Hoya are expanding their operations here.

Six of the world's top 10 Electronics Manufacturing Services (EMS) companies are present in Singapore including Flextronics, Sanmina, Celestica, Jabil Circuit, and Venture. Prominent ODM players such as Asustek, Lite-On, and Wistron also have HQ and R&D activities in Singapore.

The **Indian** electronics is poised for significant growth thanks to enormous demand in its domestic market and an ongoing shift to building an end-to-end manufacturing ecosystem. This growth is being encouraged both by government "Made in India" policies, incentives and by international investment. Its key and most resource-intensive segment – the semiconductor industry has substantial potential for growth since demand is growing briskly.

India's electronics market, one of the largest in the world in terms of consumption, is predicted to grow to approximately US\$400 billion by 2020 from \$69.6 billion in 2012.

India's appliance and consumer electronics market, which was worth US\$9.7 billion in 2014, is predicted to grow at a compound annual rate of 13.4%, and reach \$20.6 billion by 2020.

Vietnam has attracted major investment due to low labor costs, geography and other advantages. Global electronics manufacturers have invested billions in **Vietnam** over the past few years. A small player in the global electronics supply chain just a decade ago, **Vietnam** exported \$38 billion in devices and components in 2013, according to data from the International Trade Center. Vietnam now ranks as the 12th largest electronics exporter in the world.

Many manufacturers have shifted to **Vietnam**, because of challenging macroeconomic conditions in China. There, an aging workforce, rising wages, and other trends make low-cost production increasingly untenable in many industries. China will remain the

world's leading production zone for years to come, but its competitive advantage in low-end manufacturing and assembly work is waning.

This trend benefits several Southeast Asian countries, including **Vietnam, Indonesia, Thailand**, and the **Philippines**. They all have large pools of low-cost labor that are ready and willing to pick up China's slack. Global electronics manufacturers moved into these markets over the past few years, but expanded most aggressively in Vietnam, where electronics exports grew at some of the fastest rates in the world.

Samsung invested billions of dollars in a cluster of factories that will produce a large percentage of the company's smartphone handsets in coming years. Intel and LG each also invested over \$1 billion each, while dozens of other companies have made nine- and eight-figure investments.

Vietnam's geography plays an important role in its growth. Vietnam's proximity to China makes it easier to integrate into existing supply chains. Growing domestic demand also entices manufacturers. "Many electronics manufacturers seek more than low-cost labor when they choose a location for production," according to Glenn Maguire, chief economist for the Asia-Pacific region at ANZ Bank. "They also look for countries that can emerge as large domestic markets. Vietnam seems to have all the right ingredients for that to happen."

DIVERSE MARKET

The electronics industry in South East Asia is diverse. Starting with electronic components, the products manufactured in the region range from semiconductor devices, passive components, and micro assemblies to printed circuits and other components such a media, substrates and connectors.

The final products into which these components are incorporated are also diverse. They include:

- ▶ Mobile devices, Tablets and Laptops,
- ▶ LED televisions,
- ▶ Audio visual products such as blur-ray disc players/recorders,
- ▶ Electronics game consoles,
- ▶ Digital cameras;
- ▶ Computers and computer peripherals,
- ▶ Telecommunication products,
- ▶ Office equipment,
- ▶ Household appliances such as air conditioners, refrigerators, washing machines and vacuum cleaners;
- ▶ Lighting and solar related products.



EMS and OEMs

The leading EMS providers and major OEM's have operations in South East Asia. The list of EMS providers include:

- ▶ Foxconn
- ▶ Jabil
- ▶ Flextronics
- ▶ Benchmark
- ▶ Sanmina
- ▶ Plexus
- ▶ Celestica
- ▶ Globetronics

Major OEM's operating in South East Asia include:

Sony	NEC	Bosch	Honeywell
Hitachi	Toshiba	Sanyo	Panasonic
Brother	Canon	JVC	GE
Fuji	Samsung	Sharp	Agilent
Mitsubishi	Tyco Electronics	Hamilton Standard	Boston Scientific
Freescala	Intel	Dell	Medtronic
Motorola	Seagate	Nokia	Konica-Minolta



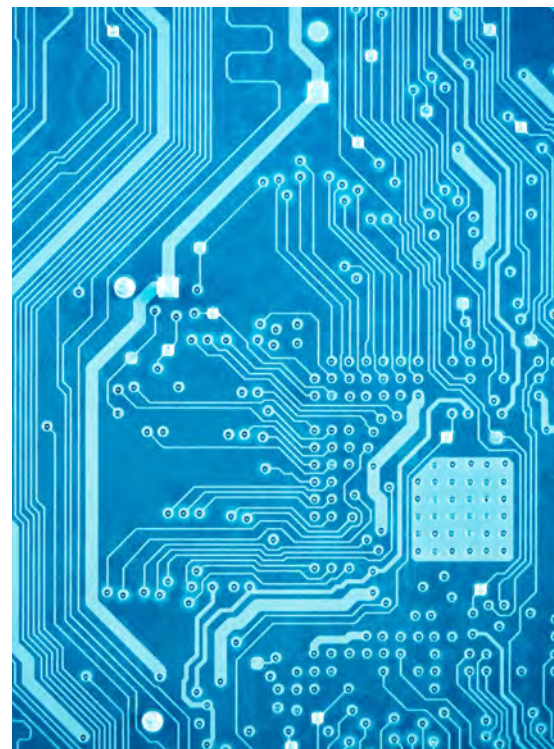
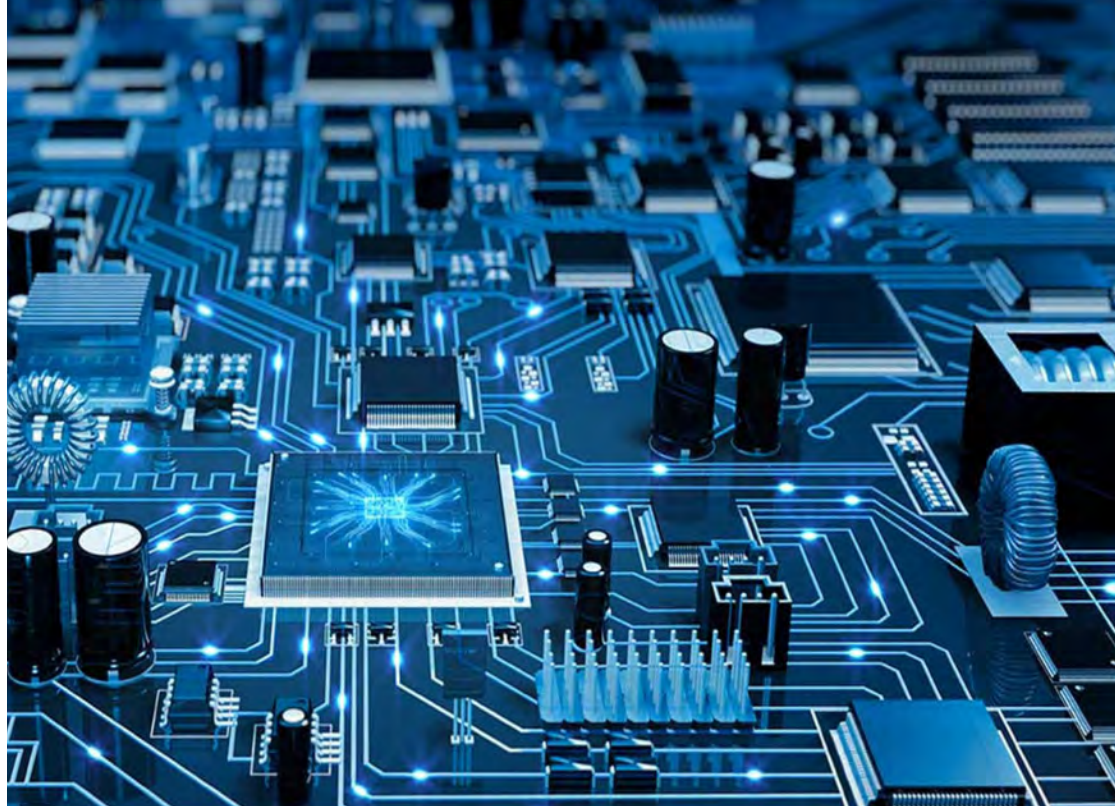
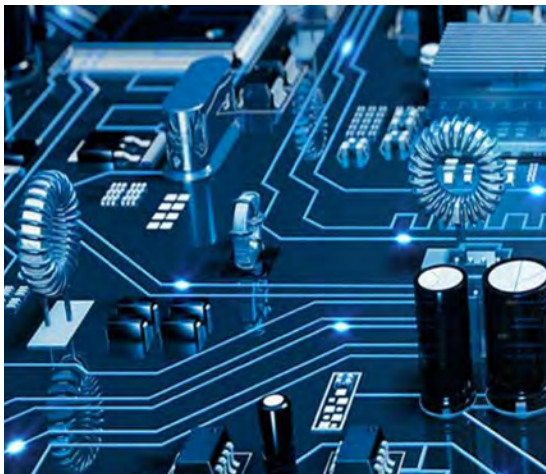
EDITORIAL

South East Asia EMS is an e-newsletter which reports the news of people, products and processes involved in electronic products manufacturing in south east Asia.

- ▶ Solder and Soldering Technology
Materials & Components
- ▶ Printing & Dispensing
Test & Inspection
- ▶ Cleaning
Repair & Rework
- ▶ Thermal Management
Software & Programing
- ▶ Packaging & Connectors
MEMS
- ▶ South East Asia EMS is published twice each month.

EDITORIAL SUBMISSIONS

Submit your press and product releases to:
Ron@seasiaems.com



CIRCULATION

South East Asia EMS has an initial circulation of 10,000 going to managers and engineers in Malaysia, Philippines, Singapore, Thailand, Vietnam, India and Indonesia.

CIRCULATION BY JOB FUNCTION

20% Management
25% Engineering
30% Test & QC
15% Design
5% Consultant
5% Distributors and Representatives

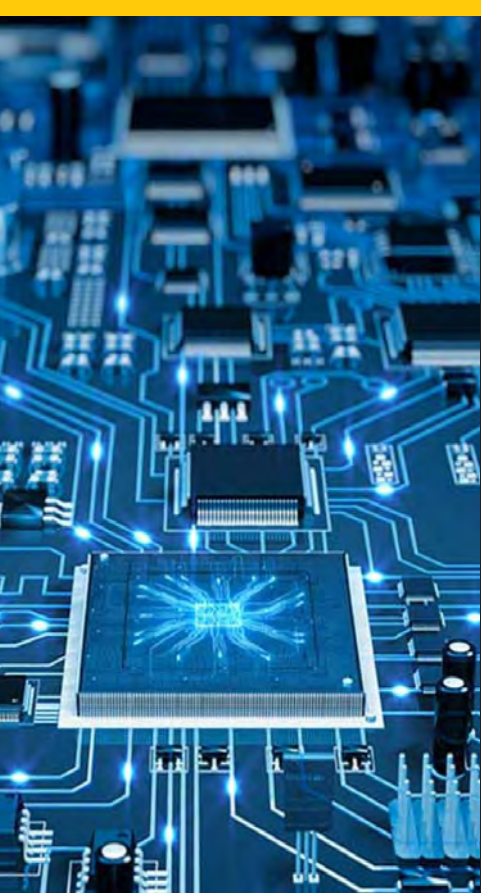
PUBLISHING SCHEDULE

South East Asia will be pulished the weeks of:

January	15,	29	
February	12,	26	
March	12,	26	
April	9,	23	
May	7,	21	
June	4,	18	
July	2,	16,	30
August	13,	27	
September	10,	24	
October	8,	22	
November	5,	19	
December	3,	17	

Deadline for press releases and advertising materials are due on Thursday, prior to publication.





ADVERTISING RATES

South East Asia EMS is published twice each month and offers three different sizes of ads – top banners, side bar banners and text ads.

AD SPECIFICATIONS

Side Bar	160 px wide x 300 px long
Top Side Bar*	160 px wide x 300 px long
Text Ad	Up to 150 words
Top Banner	700 px wide x 100 px long
Max file size	60K

Ad Style	1X	6X	12X	18X	24X
Side Bar	\$700	\$625	\$550	\$500	\$450
Top Side Bar*	\$800	\$750	\$700	\$650	\$600
Text Ad	\$700	\$625	\$550	\$500	\$450
Top Banner	\$1,000	\$900	\$800	\$700	

*The Top Side Bar ad will appear at the top of the left or right column. Only two top side bar ads available per issue.

Contact us:
Ronald Friedman, Publisher
ron@seasiaems.com
1-860-523-1105
ron@seasiaems.com
www.seAsiaEMS.com

South East Asia EMS
NEWS OF PEOPLE, PRODUCTS AND PROCESSES

