

SGCircuits
PCB Group
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Sunshine PCB Penang

Company Profile

February 2026

Worldwide Reach



 **Frontier Sales & Tech Support**

Texas, USA
Chemnitz, Germany

 **Factory Quick turn & Prototypes**

Remscheid, Germany
Penang, Malaysia
Shenzhen, China

 **Factory Mass Production & Automation**

Jiujiang, China
Zhuhai, China (in progress)
Penang, Malaysia (in progress)

Factories

Sunshine Shenzhen HMLV Technology Center



Site Focus	R&D/Prototype/ QTA/HMLV
Floor Area	20,000 m ² (215K ft ²)
Layer Count	2L - 70L
Technologies	HDI, Stacked Microvias Low Loss Laminates, Advanced Technology ATE (Load boards, Probe Cards, BIB)
Best Lead-Time	2-8L: 7 working days 10L+: 10-15 work-days
Benefits to Customers	Technology focus, HMLV support, QTA R&D

Sunshine Jiujiang Volume Production Center



Site Focus	High Mix L/M/H Volume
Floor Area	145,200 m ² (1563K ft ²)
Layer Count	2L - 42L
Technologies	High Speed Digital, Heavy Copper, HDI Rigid-Flex and Flex, RF Microwave, AL-PCB
Best Lead-Time	2-8L: 7-10 work-days
Benefits to Customers	High Volume Support, Transfer from Penang or Germany

Sunshine Europe QTA/Prototype Center



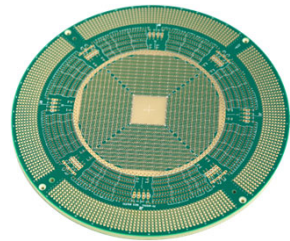
Site Focus	QTA/Prototype/ Sample
Floor Area	3,300 m ² (35 K ft ²)
Layer Count	2L - 20L
Technologies	Rigid PCB 2-20L, Sequential Lamination, Heavy Copper, Rigid-Flex
Best Lead-Time	2-6L: 5 working days 8-16L: 8 working days
Benefits to Customers	Early Engineering Involvement · Frontline support, Domestic Service

Sunshine Penang QTA/HMLV Center

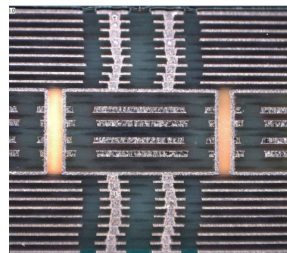


Site Focus	QTA/Prototype/ HMLV
Floor Area	2,800 m ² (30K ft ²)
Layer Count	2L - 20L
Technologies	Rigid PCB 2-20L, RF Microwave, Hybrids, Cavity
Best Lead-Time	2-8L: 5-10 work-days 10L+: 15 working days
Benefits to Customers	QTA Service, South East Asia PCB option

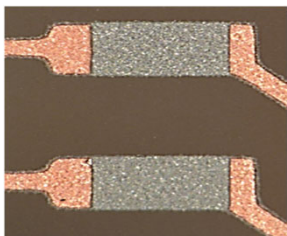
Technology & Innovation



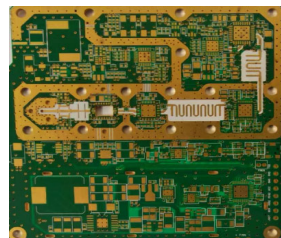
ATE
Semiconductor
Test Boards



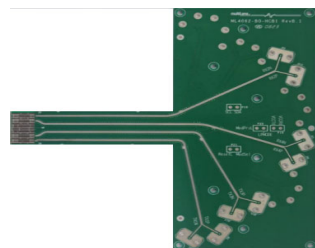
ELIC
Every Layer
Interconnect



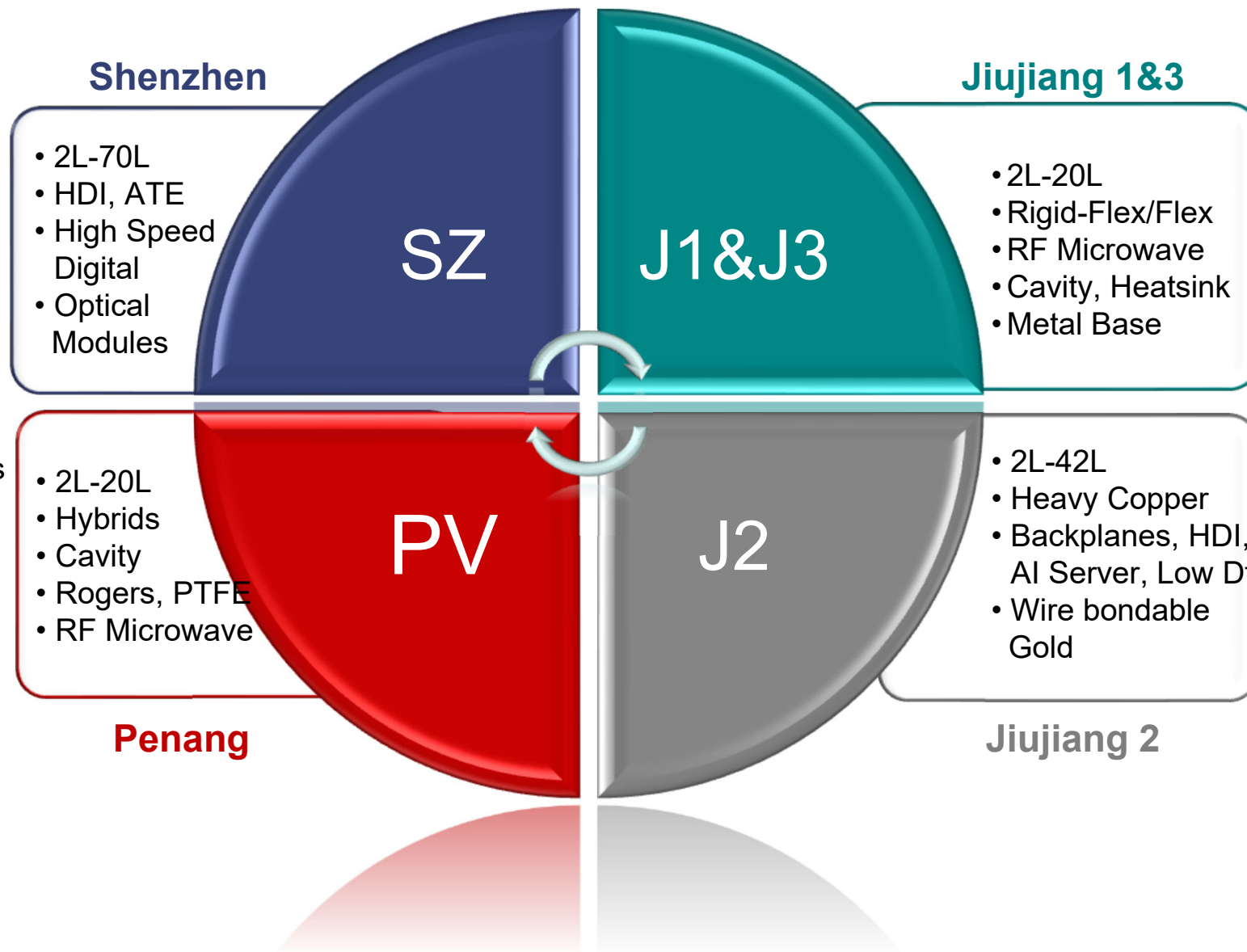
Embedded Passives
Buried Resistors
Buried Capacitors



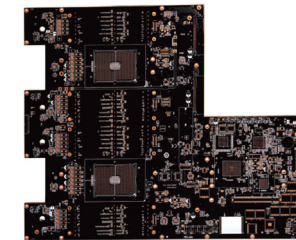
RF Microwave



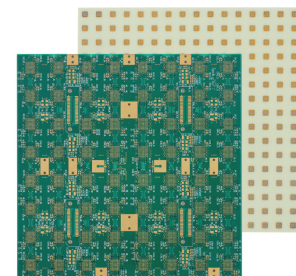
High Speed



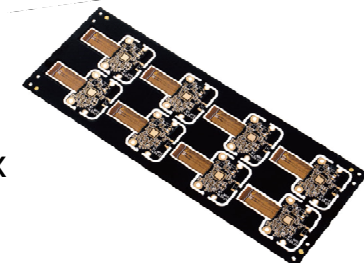
High Speed
Low Dk/Df



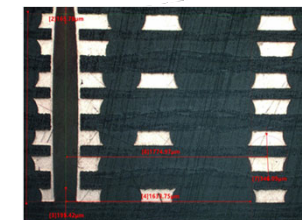
RF
Microwave



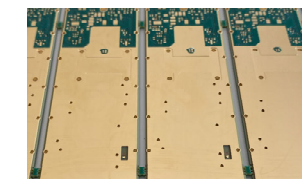
Rigid-flex



Heavy
Copper



Thermal
Management
Solutions



Penang, Malaysia

Quick-turn & Low Volumes

Rigid FR4
2-20 Layers

RF Microwave
2-10 Layers

Founded **1989**
Acquired **2023**

100
Employees



Quick Turns
in **5-10** days



6 Surface Finishes

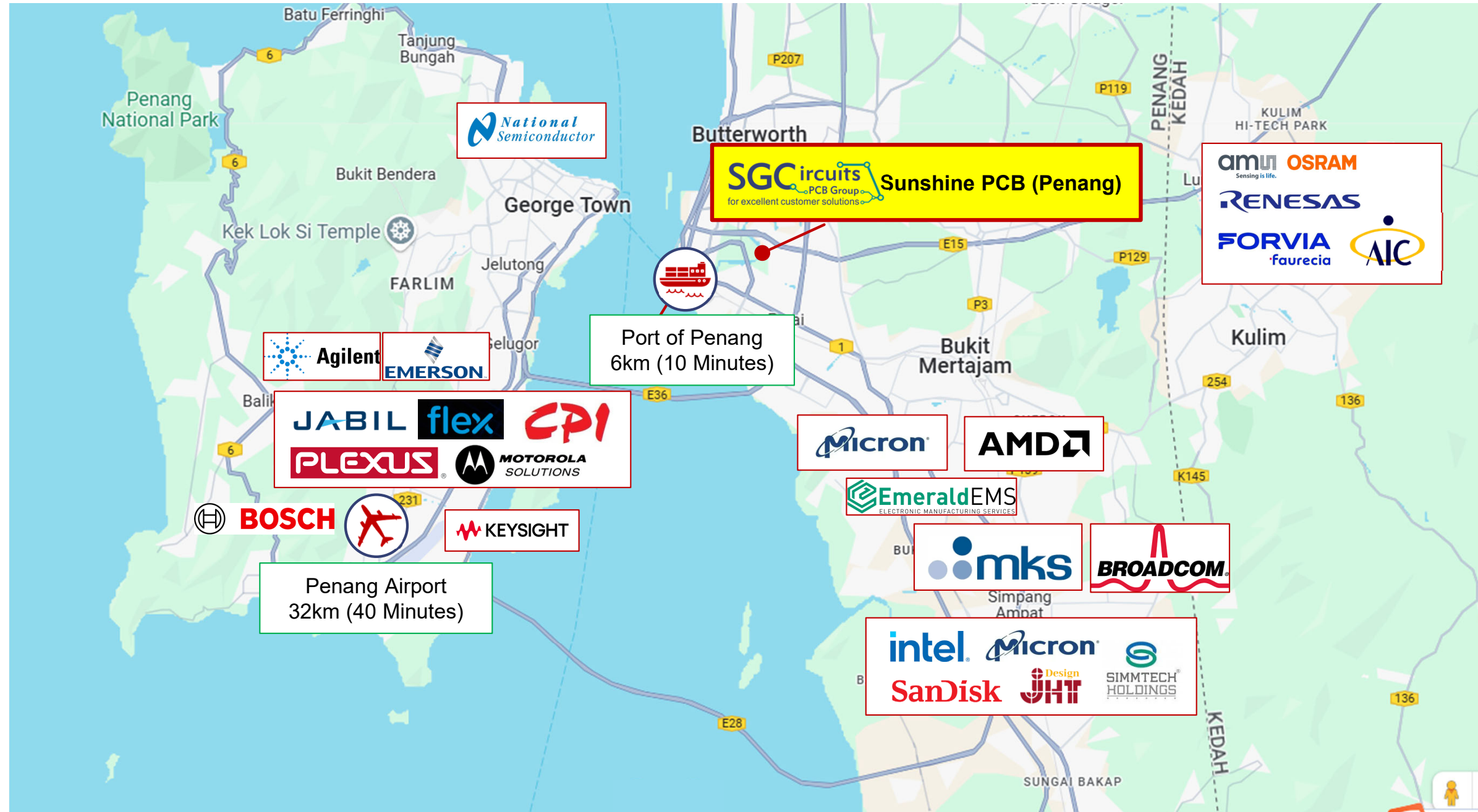
ENIG, LF-HASL, OSP,
ImmAg, Hard Au, Soft Au

2,800 m² Floor Space
2,500 m² Monthly Capacity

>> A short video of Penang plant can be found here (<https://youtu.be/g-Yp3ICsYa4?si=CGr7TuaVAHt1Y314>).

Penang, Malaysia

Numerous OEM and CM's have invested in Penang, making this a center for electronics design & manufacturing.

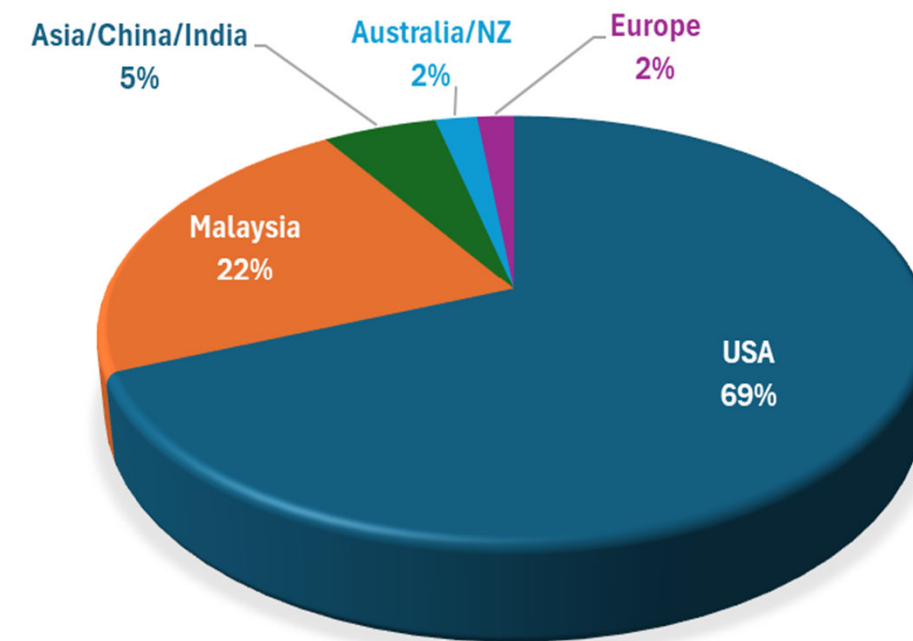


Customers & Markets

- **Target Markets: RF Microwave for Wireless Telecom + Industrial Automation (HMLV)**
- **US, European, International OEM's seeking supply chain diversification & China+1 strategy**
- **Malaysian customers interested in localization and support for prototypes & Quick Turn**



2025 SALES BY REGION



Current Capabilities

Specialist in RF Microwave PCB's and Rigid PCBs

- 2 to 20 Layer Rigid, PTH Technology
- Blind vias, Sequential lamination, Mixed Dielectrics
- Cavities, Castellated, Back Drill
- Impedance Control, tolerance down to +/- 5%
- Copper Weights: 3, 4, 5 oz
- Min/Max Thickness: .008" to .125" [.20 - 3.18mm]
- Min. Line & Space: .004"/.004" [.10/.10 mm]
- Minimum drill size: .008" [0.20 mm]
- Maximum aspect ratio: 8 to 1
- Soldermask: Gloss/Matte, Green, Blue, Black, White, Red
- Finishes: ENIG, OSP, Imm Ag, LF-HAL, Hard & Soft Gold
- ISO-9001: 2015 certified
- ISO-14001 by Q4-2026

MATERIAL OPTIONS

Rogers

- RO3000 Series
- RO4000 Series, RO4350B, LoPro, RO4360G2
- RO4532, RO4533, RO4534, RO4835
- RT/Duroid 5870, 5880, 6002, 6006, 6010LM, 6035HTC
- TMM10, TMM10i

Taconic/AGC

- RF35, RF35A, RF35HTC, RF35TC, RF60
- TLY, TLC, TLX, TLE Series, TSM-DS/Fast-Rise

High Tg FR-4

- TU-768, 185HR, VT-47, EM-827(I)
- Shengyi, ITEQ, Kingboard

High Speed Digital

- TUC, EMC, Isola FR408HR, I-Speed

Extensive UL and Material Portfolio

- Contact Sales Engineer for material not listed above

Technical Capabilities

inch[mm]		Standard	Advanced
Key Attributes	Layer Count	Up to 16L	Up to 20L
	Min/Max Thickness	.012" [.30]/.126" [3.2]	.008" [.20]/.126" [3.2]
	Largest Panel	18x24 [457 X 610]	21x24 [533 X 610]
Minimum Line & Space	O/L Line Width/Space	.004" [.10] @ 1 oz	.003" [.076] @ 1 oz
	I/L Line Width/Space	.003" [.076] @ H oz	.0003" [.076] @ H oz
	Tolerance	+/- .001" [.025mm] @1 oz	+/- .0005" [.013mm] @1 oz
Drilled Vias Size	Drill Size	.008" [.20]	.006" [.15]
	Pad Diameter	+.008" [.20]	+.008" [.20]
	Aspect Ratio	10:1	12:1

Base copper weights: 1 = 1 oz, H = 1/2 oz

Technical Capabilities

inch [mm]		Standard	Advanced
Soldermask	Registration	+/- .002" [.05]	+/- .001" [.025]
	Min Opening	.004" [.10]	.003" [.076]
	Dam Min Width	.003" [.076], .004" [.10] Black	.002" [.05] Green
Surface Finishes		ENIG, OSP	ENIG, OSP
		Immersion Ag	Immersion Ag
		LF HASL	LF HASL
		Hard Gold	Soft Gold
Material Options [Additional Materials Available]		Rogers 3000/4000	Hybrid PCBs
		TU-768, 408HR, EM827(I), 185HR, 370HR	
		Duroid, ARLON 25FR, NELCO N4205-6	
		VT47, IT180A	

Equipment



AOI



LDI / DI



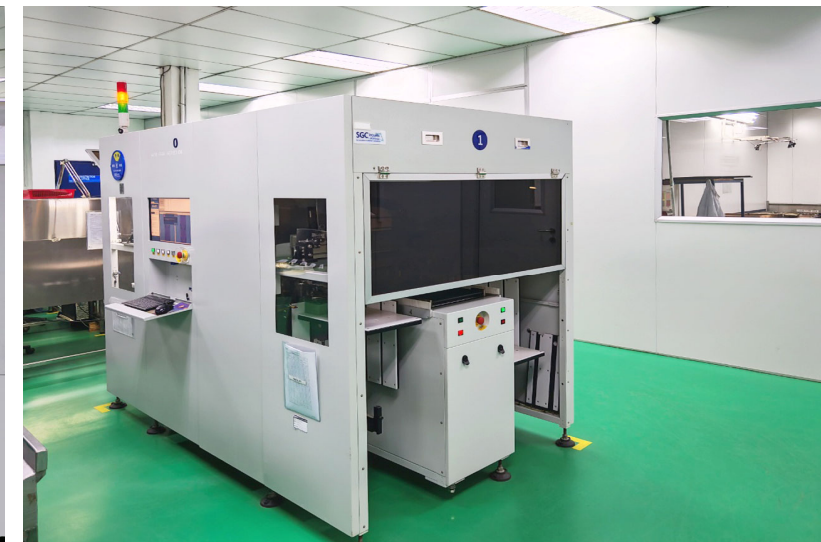
ENIG



Developer



E-Test (Flying Probe)

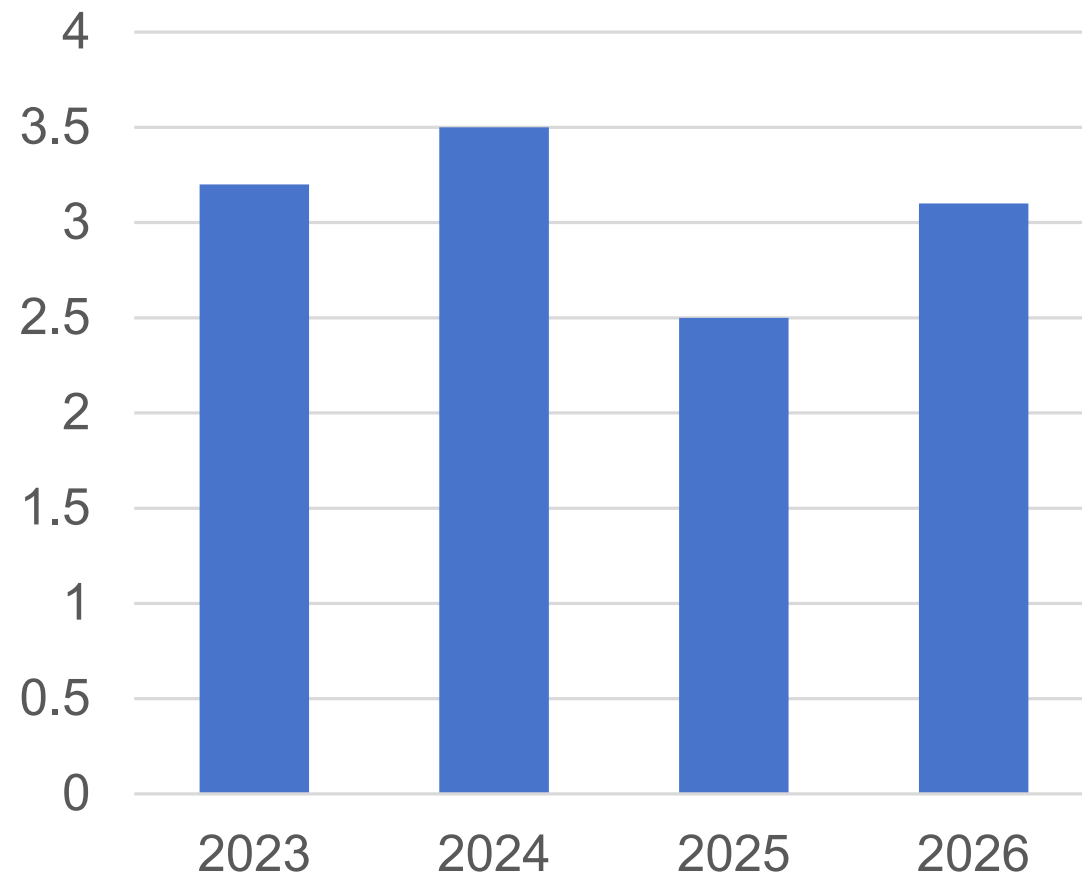


AVI

Investment Plan

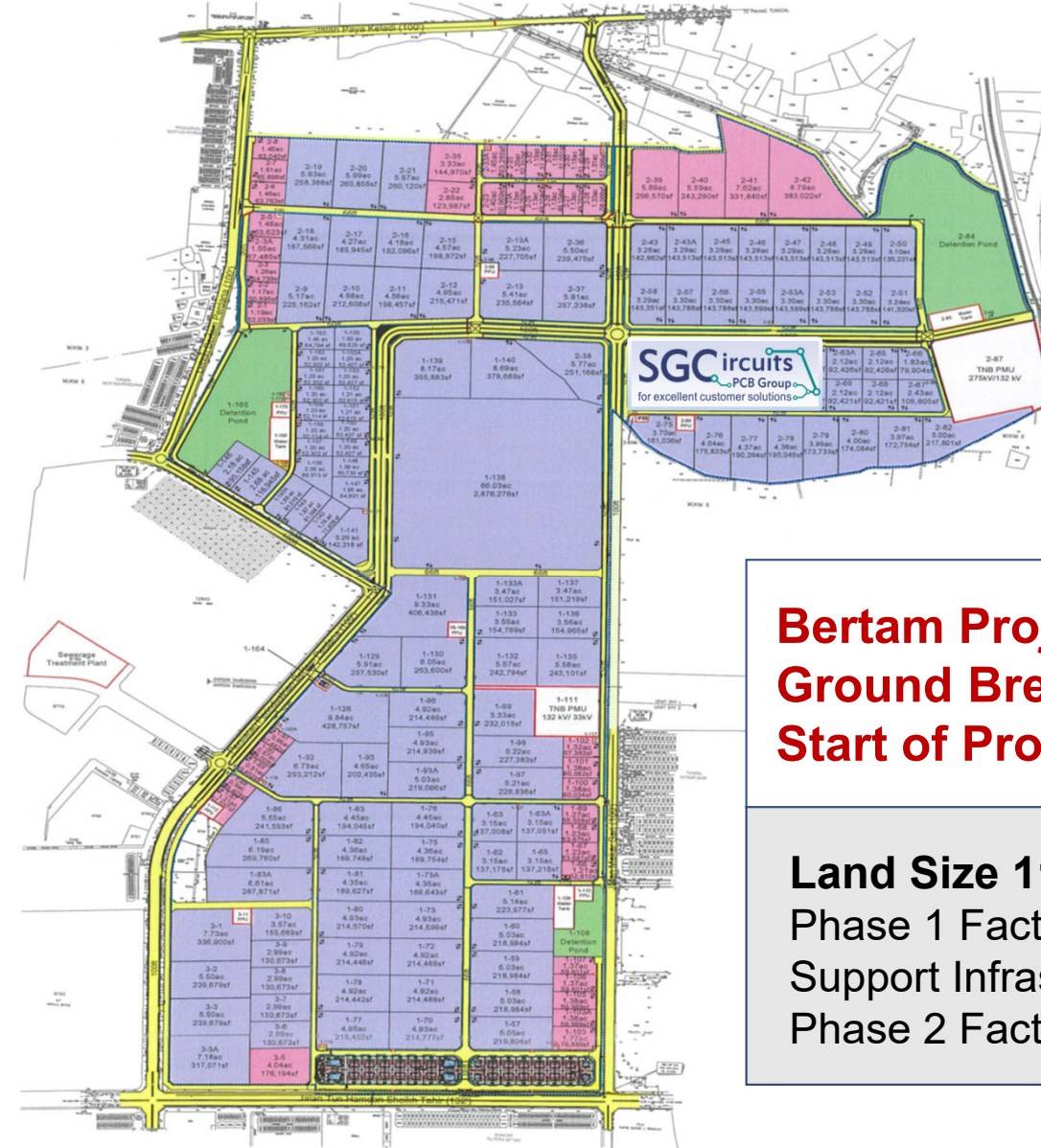
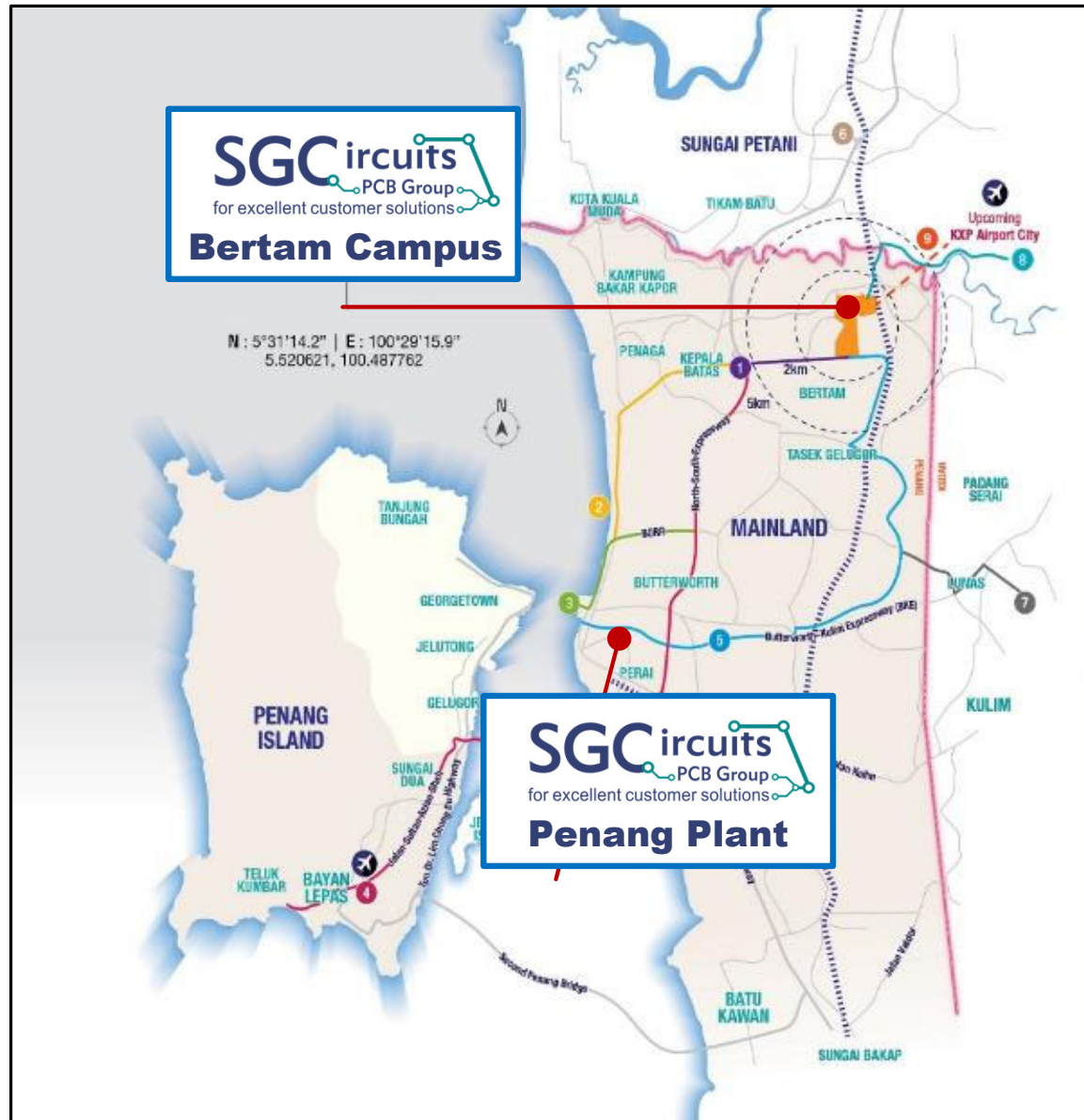
Sunshine has invested over \$8M USD in the Penang factory and will continue to invest in 2026.

Cap Ex Plan in USD (\$M)



- Added state-of-the-art equipment (2023-2025)
- Upgrade product engineering software (2024)
- Upgrade water and waste treatment system, doubling capacity (2024-2025)
- Implement SAP Software (July 2025)
- Increasing production capacity (Ongoing)
- Upgrading test and measurement equipment (Ongoing)
- Increasing technical capabilities (Ongoing)

Future Bertam Facility



Bertam Project in progress
Ground Breaking in Q2-2026
Start of Production in Q2-2027

Land Size 112K m² (27.6 acres)
 Phase 1 Factory Area 65,000 m²
 Support Infrastructure: 10,000 m²
 Phase 2 Factory Area: 65,000 m²

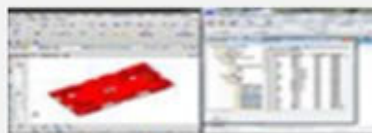
Bertam Factory Plan

Product Position: HDI, Hi-Speed Advanced PCB's, Hi Mix, Low to Medium Volumes

Strategic Applications: Telecom, Servers, Data Center, Medical Devices, Clean Energy, Industrial Controls



Sunshine PCB Bertam will employ the same state-of-the-art automated intelligent factory model as currently in use in Sunshine Jiujiang Plant 2.



Engineering System
InPlan/InCAM
PLM



ERP
SAP
CRM,SRM, APS



MOM
IMS
MES,QMS,SPC,EAM



Intelligent Warehouse/Logistics
WMS/MCS



Platform Support System
eHR, OA, Ding, Document,
BPM, Report Platform, BI

Thank You.

SALES SUBSIDIARIES:

Sunshine PCB (HK) Co., Limited
Room 706A, Harbour Crystal Centre
100 Granville Road, Tsim Sha Tsui
Kowloon, Hong Kong

Sunshine Circuits USA, LLC
3400 Silverstone Drive, Suite 139
Plano, Texas, USA 75023
Tel. +1 972 867 8886
Fax +1 972 867 8002

Sunshine PCB GmbH
Wildparkstraße 7 D-09247
Chemnitz, Germany
Tel. +49 3722 59967 12

MANUFACTURING LOCATIONS:

Sunshine Global Circuits Co., Ltd.
Bldg B, #32 Nanhuan Road, Shangxing #2 Industrial Zone
Xinqiao, BaoAn, Shenzhen, Guangdong, China 518125
Tel. +86 755 2724 3597
Fax +86 755 2724 3609

Jiujiang Sunshine Circuits Technology Co., Ltd.
GangCheng Rd, ChengXiGang Economic Development Zone,
Jiujiang City, Jiangxi, China 332000
Tel. +86 792 238 5678
Fax +86 792 2385668

Sunshine PCB GmbH
Walter-Freitag -Straße 17 D-42899
Remscheid, Germany
Tel. +49 2191 9573 0

Sunshine PCB (Penang) Sdn. Bhd.
2541 & 2542 Lorong Jelawat 6, Seberang Jaya,
13700 Perai, Penang, Malaysia
Tel. +60 4 399 0791