

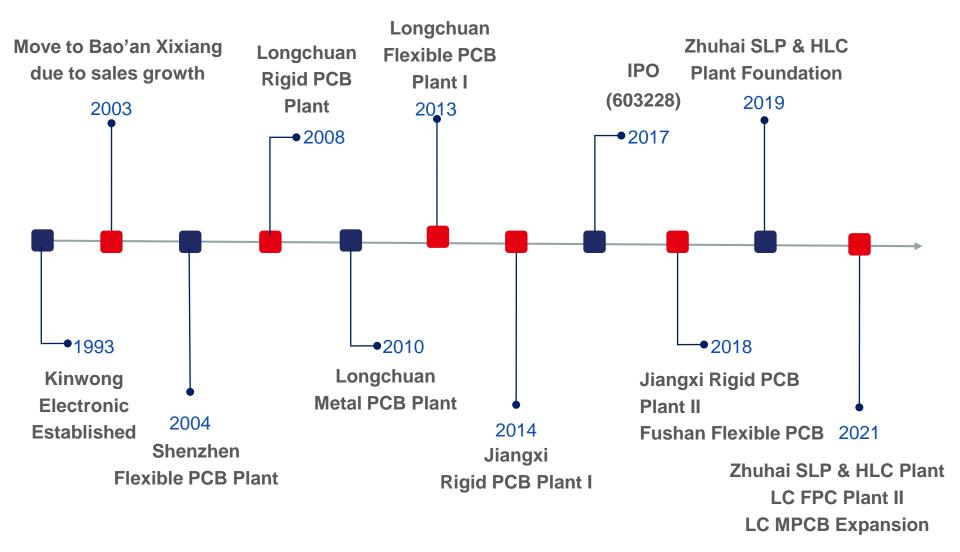
# Kinwong

To become the most reliable printed circuit board manufacturer in the world.

Stock Code: 603228





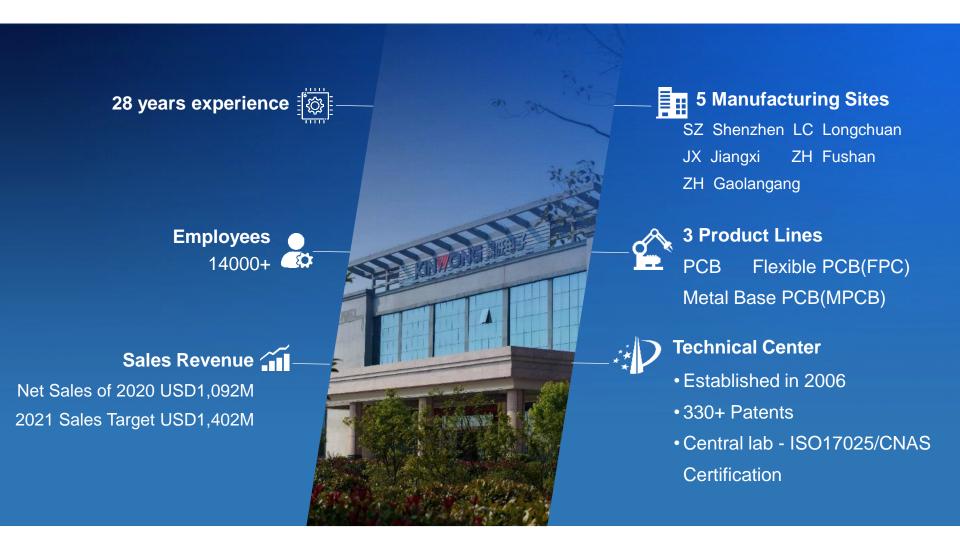


PCB: Printed Circuit Board; FPC: Flexible Printed Circuit (Board); MPCB: Metal Printed Circuit Board

HLC: High Layer Count; SLP: Substrate like PCB











#### WW HQ SZ

#### Manufacturing Sites

- SZ Shenzhen
- LC Longchuan
- JX Jiangxi
- ZH Fushan & Gaolangang

#### Sales Office

- HK Hongkong
- KS Kunshan
- FZ Fuzhou
- TW Taiwan
- EA Korea-Incheon

#### FAE&BD Office

- EA Japan-Tokyo
- EU Germany-Munich UK-Clitheroe
- NA US -Los Angeles US -Virginia MX-Guadalajara

#### Circuit Connects the World, Internet of Everything



### Five Manufacturing Sites Locations



#### O JX Site (On the North of SZ)

- 630km to SZ site, takes 8 hours by car.
- 76km to Jinggangshan Airport, takes 1 hour by car.



Fushan: 170km to SZ site and

takes 2.6 hours.

Gaolangang: 192km to SZ site,

takes 2 hours and 50 mins.



Fushan Gaolangang



**OLC Site (On the North of SZ)** 

290km to SZ site, takes 4 hours by car.

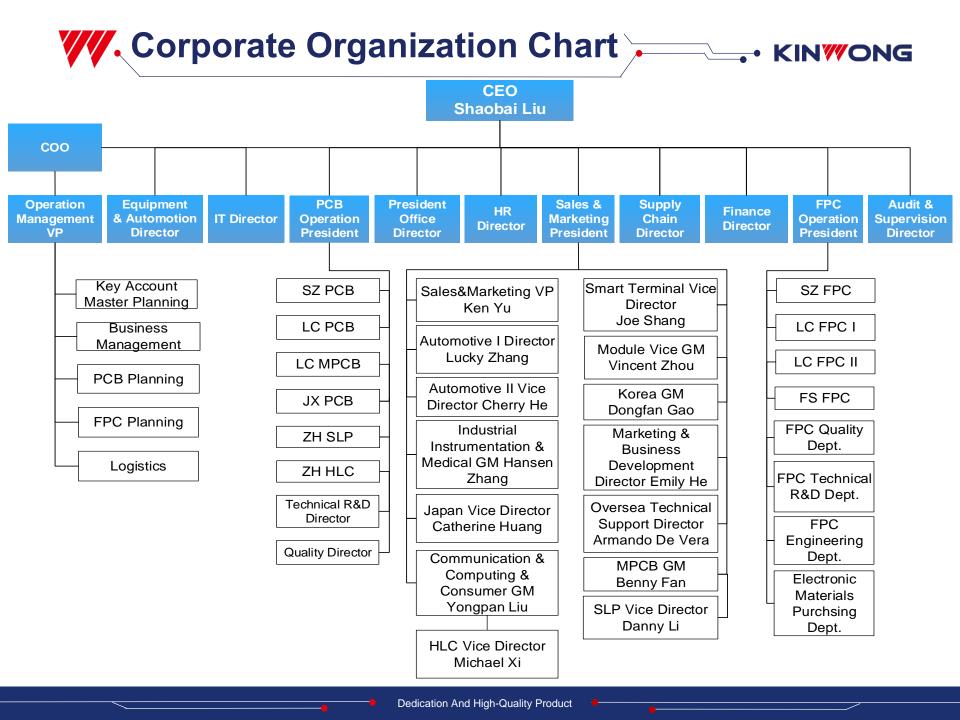
#### Longchuan



SZ Site

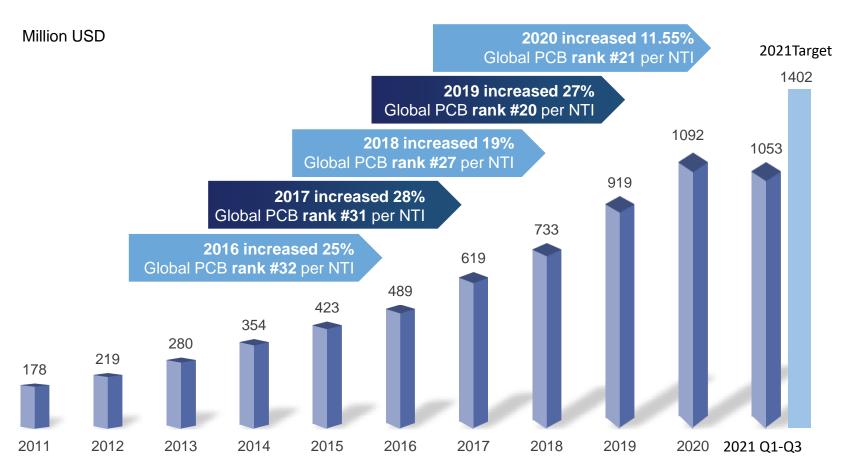
- 18km to SZ airport, takes
   20 mins by car.
- 70km to HK airport, takes 2 hours by car.

**Shenzhen** 









<sup>\*</sup> CAGR over 20% in the past 10 years, growth achieved by stable quality, competitive price and passion to service.

2021:Exchange 6.4192



#### → KIN**W**ONG

#### **Kinwong Group No.21**

World Top 128 PCB Makers in 2020 (US\$ Million)

#### **Kinwong FPC No.14**

Estimated Top FPC Makers in 2020 (\$ Million)

Rank	Maker	Local Name	Country	2019	2020	
1	ZD Tech*	瑧鼎科技	Taiwan	4,080	4,454	
2	Unimicron	欣興電子	Taiwan	2,801	2,982	
3	DSBJ (Mflex*+Multek)	東山精密	China	2,150	2,719	
4	Nippon Mektron*	メクトロン	Japan	2,652	2,639	
5	TTM Technologies	TTM Tech	USA	2,238	2,105	
6	Compeq	華通電脳	Taiwan	1,906	2,054	
7	Tripod	健鼎科技	Taiwan	1,851	1,885	
8	Shennan Circuit	深南電路	China	1,525	1,680	
9	Ibiden	イビデン	Japan	1,238	1,556	
10	HannStar Board	瀚宇博徳	Taiwan	1,464	1,551	
11	Samsung E-M	삼성전기	S.Korea	1,043	1,493	
12	KBC PCB Group	建滔集団	China	1,253	1,370	
13	AT&S	AT&S	Austria	1,153	1,360	
14	Nanya PCB	南亜電路	Taiwan	1,055	1,307	
15	Wus Group	滬士電路	Taiwan	1,205	1,243	
16	Young Poong Group*	영풍그룹	S.Korea	1,134	1,206	
17	Meiko	メイコー	Japan	1,082	1,117	
18	Fujikura*	フジクラ	Japan	977	1,073	
19	Shinko Denki	新光電気	Japan	764	1,061	
20	LG Innotek	LG이노텍	S.Korea	624	1,054	
21	Kinwong	景旺電子	China	917	1,023	

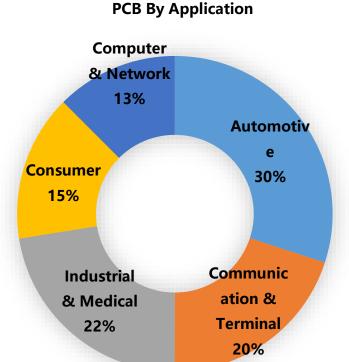
Maker	2020 Revenue	2020 FPC Revenue	Note
ZDT	4,454	3,560	Apple
Nippon Mektron	2,636	2,636	Apple
DSBJ	2,719	2,240	Apple
Fujikura	1,073	1,073	Apple
Flexium Technology	1,014	1,014	Apple
Young Poon Group	1,206	830	Apple & Samsung
BHF1ex	611	611	Apple
Career Technology	544	544	Apple small
Compeq	2,054	510	RFC, Apple
Murata	450	450	Apple
Nitto Denko	429	429	Expanding
SI Flex	391	391	Samsung
Xiamen Hongxin	382	382	_
SEMCO	1,493	340	\$250 to Apple
Kinwong Electronics	1,023	340	
STEMCO	289	289	COF
Unitech	488	240	Apple
AKM/AKM Meadville	756	200	
Ichia	187	187	
Leader Tech	174	174	
MFS	241	170	
Unimicron	2,982	150	
Top Total	25,596	16,760	

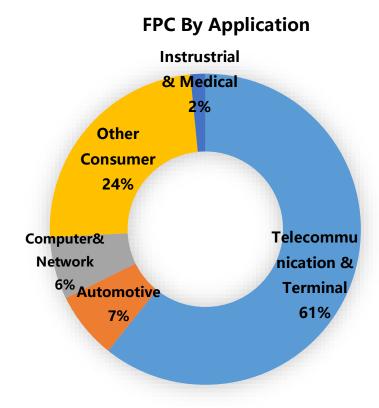
(N.T. Information Ltd)

Note: Apple requires PCBA by FPC makers





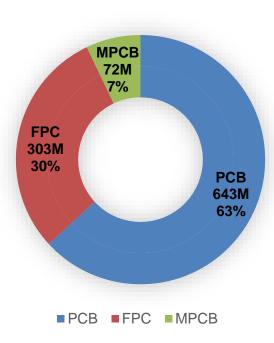






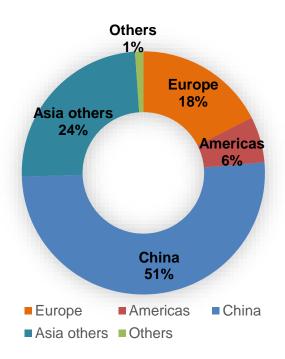


### Sales Revenue USD1018M

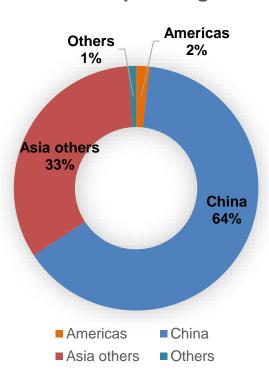


2021:Exchange 6.4192

**PCB Ship-to Region** 



**FPC Ship-to Region** 







#### **Plant Area**



50,000 m<sup>2</sup>

#### SZ Kinwong

- Headquarter
- PCB Division & FPC Division
- Monthly capacity: PCB63,000 m<sup>2</sup>, FPC25,000 m<sup>2</sup>
- Employee: 2,300+



230,000 m<sup>2</sup>

#### **LC Kinwong**

- · Subsidiary in Heyuan, South China's Guangdong Province.
- Three product lines: PCB, FPC, MPCB
- Monthly capacity: PCB100,000 m², FPC 140,000 m², MPCB40,000 m²
- Employee: 6,100+



240,000 m<sup>2</sup>

#### JX Kinwong-Intelligent factory

- · Subsidiary in Ji'an, east China's Jiangxi Province
- JX PCB Division, world-leading intelligent PCB factory
- Monthly capacity: PCB 390,000m<sup>2</sup>
- Employee: 3,000+



85,000 m<sup>2</sup> (F4-1)

150,000 m<sup>2</sup>

### ZH Kinwong Fu Shan

- Subsidiary in Zhuhai, Guangdong Province
- Fushan FPC Division
- Monthly capacity: 45,000 m<sup>2</sup> FPC
- Employee: 1,300+

#### **Gaolangang-High Tech. factory**

- Subsidiary in Zhuhai, Guangdong Province
- High Layer Count & SLP factory
- Monthly capacity:: 100,000 m² PCB (High Layer Count ), 50,000 m² SLP
- Employee:1600+

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HLC: High Layer Count; SLP: Substrate like PCB



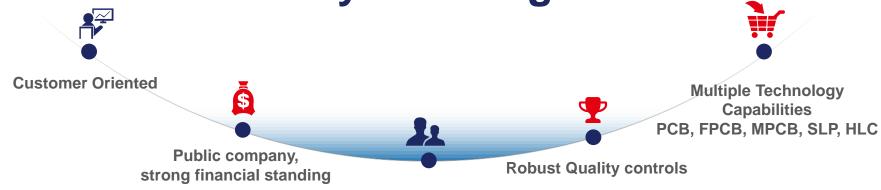
### Five Production Sites Product Types



Loca tion	Products	Monthly Capacity	РСВ	FPC	M- PCB	R- Flex	HDI	HLC	HF	Copper Inlay	Module/ Substrate /SIP	FPCA	Factory Specialty
SZ	PCB	63,000 m²	0			•	<b>Ø</b>	<b>Ø</b>	<b>Ø</b>				Low Volume, various product technology, special base material, unique processing; Rigid-flex, High Frequency, high layer count heavy copper and HDI covers application field of automotive, telecommunication, industry control, power supply and medical products etc.
	FPC	FPC: 25,000m <sup>2</sup> FPCA: 10KK		<b>Ø</b>		•						<b>Ø</b>	Use for Display Module, Touch Screen, Automobile, Industrial Control, UAV, Electronic Cigarette, Smart Home, Medical Industry.
	PCB	100,000m²						<b>Ø</b>	<b>Ø</b>				Middle & Large Volume; Multi-layer board, applied in telecommunication, power supply, automotive and industrial.
LC	FPC	FPC: 140,000 m <sup>2</sup> FPCA: 60KK		<b>Ø</b>		<b>Ø</b>						<b>Ø</b>	Middle & Large Volume; Use for Automobile, Display Module, Touch Screen, Smartphone, LED backlight, Electronic Cigarette, TWS.
	MPCB	40,000 m²			<b>Ø</b>					•			Middle& Large Volume, Dedicated to thermal management solutions applied in new energy automotive, automotive lighting, power module and other lighting.
JX	PCB	390,000 m²							<b>Ø</b>				Large volume normal FR-4 boards; Widely applied in automotive, consumer and telecommunication and etc.,.
	Fu Shan FPC	FPC: 45,000m <sup>2</sup> FPCA: 40KK		•		•						•	Large volume; Use for Medical Industry, Wireless Charging, Touch Screen, Automobile, TWS, Smart Home, Display Module, 5G etc.
ZH 2	Gao Langang HLC	100,000m²					<b>Ø</b>		<b>Ø</b>				Large Volume; Dedicated on high layer count, widely applied in telecommunication, network, server, storage and automobiles.
	Gao Langang SLP	50,000 m²					<b>Ø</b>				•		Large Volume; Dedicated to SLP, applied in telecommunication, consumer products.



### Why Kinwong?



Professional support at strategic locations

Kinwong Core Values Strong financial management

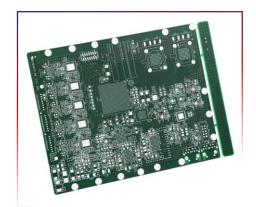
Real time technical and quality support

Received many outstanding awards from major customers

11 Facilities in 5 Manufacturing sites

### PCB Product Examples





18L Board
-Industrial Control



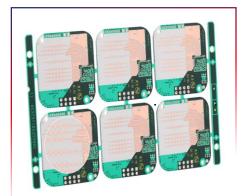
HLC+High Speed+HDN -Telecom



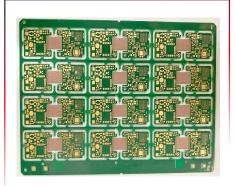
HLC+Heavy Copper



Multilay er



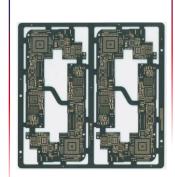
High Frequency
-ADAS



8L Semi-flex Board -Industrial



Rigid-flex Board



Any Layer Board
-Consumer

### FPC Product Examples









**OLED FPC** 

Camera Compact Module

FPC 5G Transmission Line



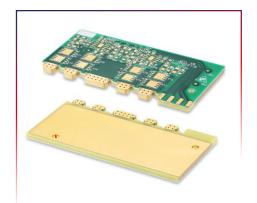




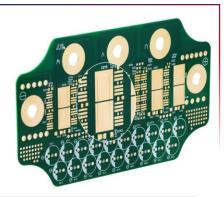
### MPCB Product Examples

on

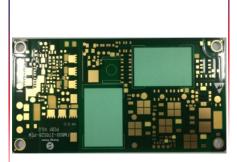




Cu Inlay, Side Metalliz Large Power -Telecom



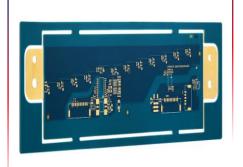
Cu Inlay -Automotive Lighting



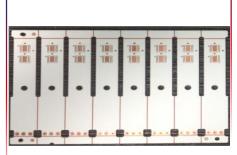
2L Al-Base ,Laser Blind Via



Double Side Al-Co -Lighting Bar



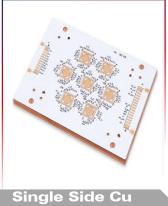
Double Side Cu Core with Thermal Conductive Resin



Double Side Cu Pedestal



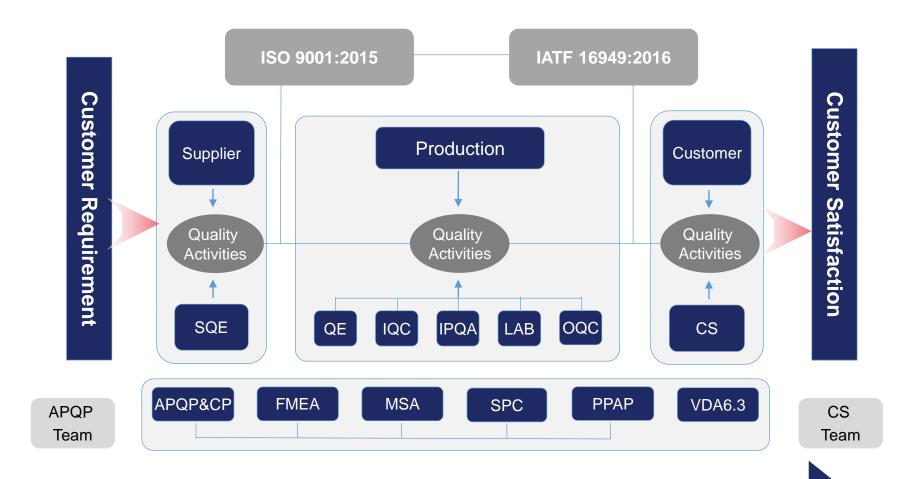
Flex on Al-Base -Lighitng



Single Side Cu Pedestal -Lighting





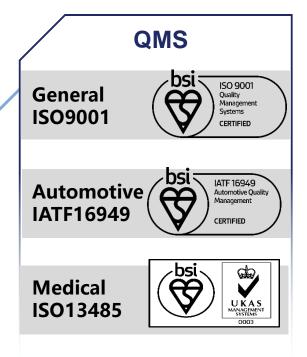


#### **Continuous Improvement Approach**





### **Kinwong System Management**







ISMS





Plant	ISO9001: 2015 Quality	IATF16949: 2016 /TS16949 Automotive	ISO13485: 2016 Medical	ISO27001: 2013 ISMS	IECQ QC080000: 2017 HSPM	ISO14001: 2015 EMS	ISO45001: 2018	GB/T23331- 2012 Energy	GB/T23001- 2017 I&I	ISO/IEC17025: 2017 CNAS
Shenzhen										
Original Registration Date	2006-5-18	2006-4-20	2015-11-2	2019-12-25	2016-1-5	2008-12-24	2009-10-16	2018-12-20	2019-1-8	2017-1-3
Longchuan										
Original Registration Date	2008-7-6	2008-7-6	2019-5-22	2019-12-25	2014-3-11	2008-7-14	2013-4-22			
Jiangxi										
Original Registration Date	2014-9-8	2015-6-8	2018-11-1	2019-12-25	2015-7-14	2014-8-29	2016-1-4			
Zhuhai FS										
Original Registration Date	2017-9-14	2017-9-14			2016-5-27	2019-6-29				
Zhuhai GLG	•									
Original Registration Date	2021-6-23	2022-04 EST			2021-7-08	2021-7-28	2021-7-28			

### Central Lab - ISO17025/CNAS Certification





**CAF Test System** 



**On-line Thermal Shock** 



SEM+EDS



Laser Scanning
Confocal Microscope

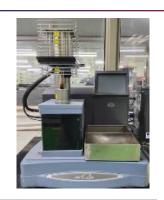




**Vector Netlist Analysis + Dk & Df Test System** 



DMA



**TMA** 





KIN**WONG** 











INTERNATIONAL GROUP

BERGOVIST



TAIYO INK



































### **WW.** Environmental Policy





- Environmental rule & law compliance,
   Reduce cost & waste
- Keep cleanness & safety production
- Continuous improvement on environmental protection

 Contribute to the environmental protection and the sustainable development of human society.



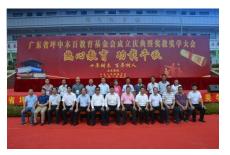




### Kinwong Business Philosophy

- People foremost
- Manufacturing competitive products
- Expanding the enterprise
- Repaying the society.

Kinwong participates in social charities on a routine basis, which ranges from financial donations for education, civil donations that help them build bridges and repair roads, and helping the elderly and children via young people volunteering their time and care.











## THANKS

To become the most reliable printed circuit board manufacturer in the world.