

Welcome to O-leading

O-Leading strives to be your one stop solution partner in EMS supply chain, including PCB design , PCB fabrication and PCB assembly (PCBA).We provide some of the most advanced PCB technology, including HDI PCBs,multilayer PCBs, Rigid-Flexible PCBs.We can support from quick turn prototype to medium & mass Production.

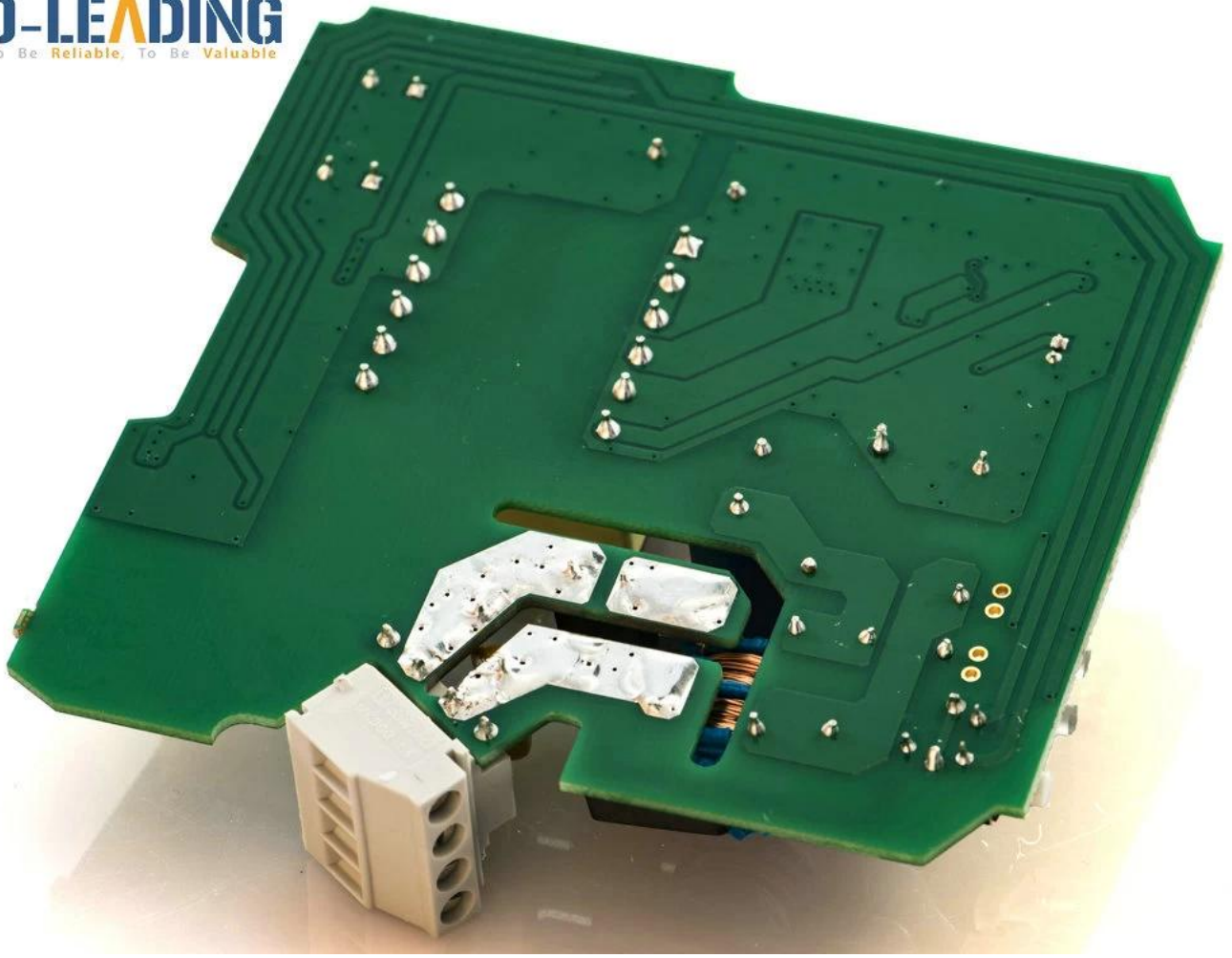
In general, our global customers are very impressed with our services:Rapid response, competitive price and quality commitment.Providing more valuable technical service and overall solution is the way O-leading forward.

Looking to the future, O-leading will concentrate on the innovation and development of electronics manufacturing technology as always, and make persistent efforts on PCB & PCBA one-stop service to provide first-class services and create more value for our customers.

PLEASE CLICK THESE FOR MORE INFORMATION [Rigid-flexible pcb factory](#)

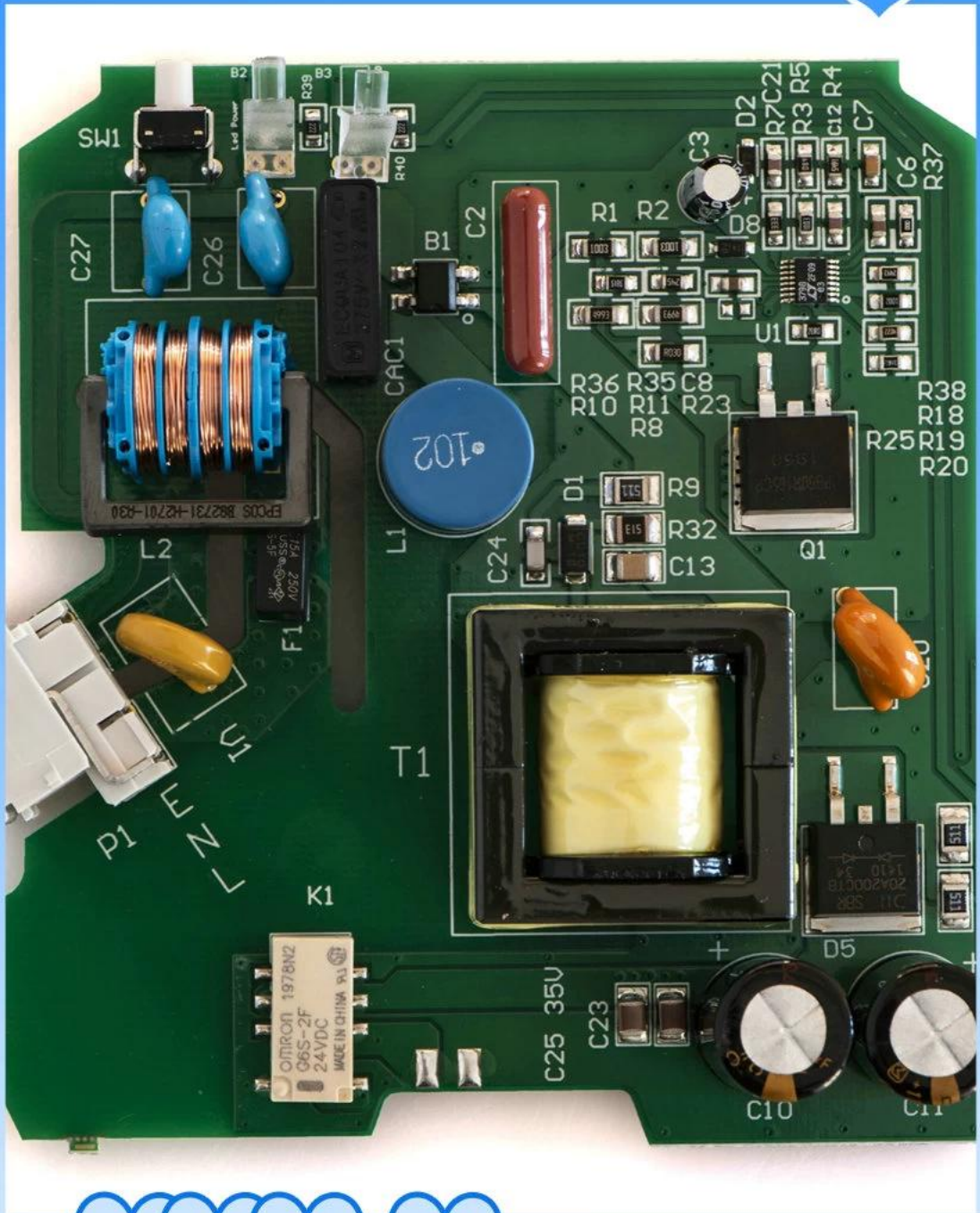
Product Description





[Multilayer pcb manufacturer china](#)

15 YEARS EXPERIENCE

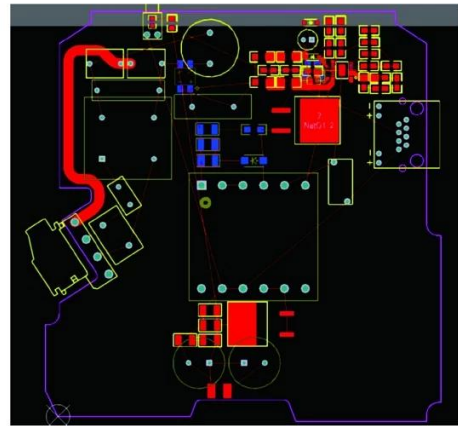


O-LEADING
To Be **Reliable**, To Be **Valuable**

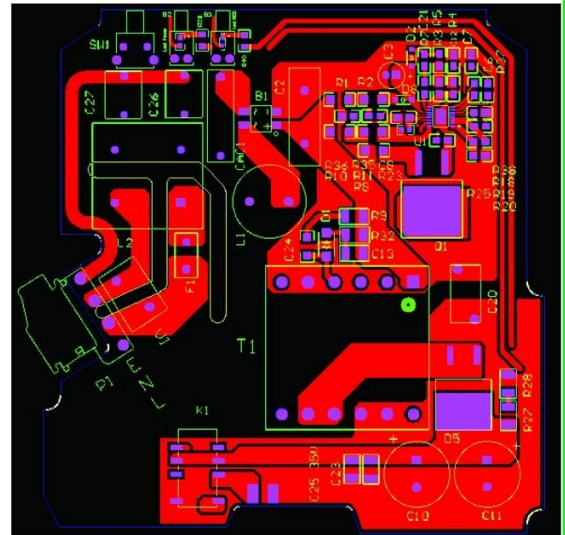
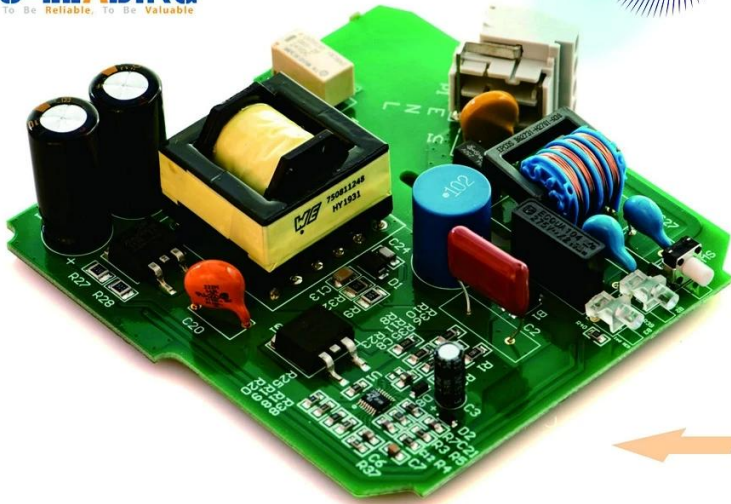
BOM

Item	Qty	Reference	Part Description	Manufacturer / Part #
1	1	B1	RECTIFIER, BRIDGE 600V 0.8A	DIODES INC. HD06-T
2	1	CAC1	CAP. 0.1uF 20% 250V/275VAC ECQ-UL	PANASONIC, ECQUAAF104M
3	1	C2	CAP. FILM, 0.22uF 20% 400V	PANASONIC ECQE4224KF
4	1	C3	CAP. 10uF 20% 50V ALUM	RUBYCON 50YXJ10M 5X11
5	1	C6	CAP. 0805 0.1uF 10% 50V X7R	TDK, C2012X7R1H104K
6	1	C7	CAP. 0805 2.2uF 10% 50V X5R	TDK, C2012X5R1H225K
7	1	C8	CAP. 0805 4.7uF 20% 16V X5R	AVX 0805YD475MAT2A
8	2	C10,C11	CAP. 1000uF 20% 35V ELEC	Panasonic EEUF1V102
9	1	C13	CAP. 1210 2.2nF, 5% 630V U2J	Murata, GRM32A7U2J222JW31D
10	1	C20	CAP. 2.2nF 20% 400V, Y5U TYPE "Y1"	VISHAY, 440LD22-R
11	2	C12,C21	CAP. 0805 22pF +/-0.25pF 50V NPO	AVX,08055A220JAT2A
12	2	C23,C25	CAP. 1210 10uF 20% 35V X5R	Murata, GRM32ER7YA106KA12L
13	1	C24	CAP. 1206 47pF 10% 630V NPO	Murata, GRM31A5C2J470JW01D
14	2	C25,C26	CAP. 2.2nF 20% 300VAC RADIAL	Murata, DE6E3KJ222MN3A
15	1	D1	DIODE, ULTRA FAST RECTIFIER	CENTRAL SEMI,CMR1U-10M
16	1	D2	DIODE, FAST SWITCHING	DIODES INC., BAV20W-7-F
17	1	D5	DIODE, SUPER BARRIER RECIFIER 20A	DIODES INC, SBR20A200CTB
18	1	D8	DIODE, FAST SWITCHING	DIODES INC., 1N4148W-7-F
19	1	F1	FUSE, 3.15A, FAST ACTING	COOPER BUSSMAN, SS-5F-3.15A

SCH



O-LEADING
To Be Reliable, To Be Valuable



PCBA

PCB

Our Team



Factory PCB



Automatic vacuum press machine



Drilling Machine



Pattern Plating Machine



Scrubbing Machine



Developing Machine



Routing Machine



High-speed flying probe machine



E-test Machine

Factory SMT



Certifications

CICC INSPECTION CERTIFICATION



嘉泰认证

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 18118Q10347R05

We hereby certify that
O-LEADING SUPPLY CHAIN(HK) CO.,LIMITED
 Credit No: 61691591-000-07-18-7
 Registration Add: FLAT/RM 1205 12/F TAI SANG BANK BUILDING 130-132 DES VODEUS ROAD CENTRAL HK
 Business Add: 1213, Floor 13, Fortune Building, Danshui Town, Huiyang District, Huizhou, Guangdong, China

Has implemented and maintains a **Quality Management System** Which fulfills the requirements of the following standards
 GB/T19001-2016 idt ISO9001:2015

Scope of certification
 Sales of printed circuit boards

Initial issuance period: February 27, 2018
 Renewal date: April 22, 2019
 This certificate is valid during: April 22, 2019 – February 26, 2021
 This certificate is invalid without CICC qualified label in the following period

First supervision and audit	Second supervision and audit	Qualified mark
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The certification registration number does not include those production stages which fail to be covered by the relevant effective administrative procedures and qualification procedures stipulated by the client. The effectiveness of this certificate shall be restricted to actual surveillance scope of CICC. The certificate shall be valid when used together with the surveillance audit records.

The initial issuance of this certification can be searched on the portal of CICC www.cicc.com.cn by the code of inquiry www.cicc.com.cn.






CICC INSPECTION CERTIFICATION



嘉泰认证

质量管理体系认证证书

证书号: 18118Q10347R05

兹证明
诚领供应链(香港)有限公司
 统一社会信用代码: 61691591-000-07-18-7
 注册地址: 香港中環德輔道中130-132號大生銀行大廈1205室
 经营地址: 广东惠州惠阳淡水南亨西路财富大厦13楼1313

建立的质量管理体系符合
 GB/T19001-2016 idt ISO9001:2015 质量标准适用条款的要求

认证范围
 印刷线路板的销售

初次获证日期: 2018年02月27日
 换证日期: 2019年04月22日
 证书有效期: 自2019年04月22日至2021年02月26日
 在下列期限内, 未经CICC黏贴合格标贴, 本证书无效

第一次监督	第二次监督	黏贴处
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本证书认证范围不包括未取得有效的国家规定的行政许可、资质许可的产品/服务范围; 本证书通过CICC定期监督审核保持, 与年度《保持认证通知书》共同方为有效; 本证书信息可在国家认监委网站: www.cnca.gov.cn及CICC网站www.cicc.com.cn查询。








Test Report

No. SZXEC1900530401 Date: 30 Mar 2019 Page 1 of 6

O-LEADING SUPPLY CHAIN (HK) CO., LIMITED

1313.FLOOR 13, FORTUNE BUILDING, DANSHUI TOWN, HUIYANG DISTRICT, HUIZHOU, GUANGDONG, CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : OSP

SGS Job No. : RP19-005089 - SZ
Date of Sample Received : 22 Mar 2019
Testing Period : 22 Mar 2019 - 30 Mar 2019
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Tina
Tina Fan
Approved Signatory



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Test Report

No. SZXEC1900530401 Date: 30 Mar 2019 Page 2 of 6

Test Results :

Test Part Description :

Table with 3 columns: Specimen No., SGS Sample ID, Description. Row 1: SN1, SZX19-005304.001, Green"PCB"

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
(2) MDL = Method Detection Limit
(3) ND = Not Detected (< MDL)
(4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Table with 5 columns: Test Item(s), Limit, Unit, MDL, QZT. Lists various heavy metals and brominated compounds with their respective limits and units.



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ZPMV2.E490354 - WIRING, PRINTED - COMPONENT

Wiring, Printed - Component

See General Information for Wiring, Printed - Component

O-LEADING SUPPLY CHAIN (HK) CO LTD

E490354

ROOM 1205, 12/F
TAI SANG BANK BLDG
130-132 DES VOEUS ROAD
CENTRAL, HONG KONG

Type	Cond Width			SS/ DS/ DSO	Max	Max			Meets UL796	C T	
	Min	Cond	Area		Solder	Flame	Class				
	Min	Edge			Thk			Oper			
mm(in)	mm(in)	mic(mil)	Diam	Limits	Temp	DSR	I				
Multilayer (mass laminate) printed wiring boards.											
O-LEADING-401	0.1 (0.004)	0.3 (0.012)	34 (1.34)	DS	12.7 (0.5)	260	10	130	V-0	-	-
O-LEADING-407	0.08 (0.003)	0.2 (0.008)	17 (0.67)	DS	9.7 (0.4)	260	10	130	V-0	All	-
Multilayer printed wiring boards.											
O-LEADING-408	0.125 (0.005)	0.125 (0.005)	12 (0.47) Int:136	DS	50.8 (2.0)	280	20	130	V-0	All	*
Single layer printed wiring boards.											
O-LEADING-002	0.38 (0.015)	1.14 (0.045)	34 (1.34)	SS	19.1 (0.8)	260	10	105	V-0	All	-
O-LEADING-003	0.38 (0.015)	1.14 (0.045)	34 (1.34)	SS	19.1 (0.8)	260	10	130	V-0	▲	-
O-LEADING-033	0.15 (0.006)	0.3 (0.012)	34 (1.34)	SS	25.4 (1.0)	260	10	120	V-0	All	-
O-LEADING-205	0.1 (0.004)	0.3 (0.012)	34 (1.34)	DS	69.6 (2.7)	260	10	130	V-0	All	-
O-LEADING-206	0.15 (0.006)	0.33 (0.013)	17 (0.67)	DS	69.6 (2.7)	260	10	130	V-0	All	-
O-LEADING-D01	0.14 (0.006)	0.15 (0.006)	33 (1.30)	DS	25.4 (1.0)	260	10	130	V-0	All	*
O-LEADING-S01	0.25 (0.010)	0.25 (0.010)	17 (0.67)	SS	25.4 (1.0)	260	4	130	V-0	All	*

WIRING, PRINTED - COMPONENT | UL Product iQ

O-LEADING-S02	0.2 (0.008)	0.2 (0.008)	17 (0.67)	SS	25.4 (1.0)	260	4	130	HB	▲	*
O-LEADING-S03	0.25 (0.010)	0.25 (0.010)	34 (1.34)	SS	25.4 (1.0)	260	4	130	V-0	All	*

* - CTI marking is optional and may be marked on the printed wiring board.

Marking: Company name or file number and type designation. May be followed by a suffix to denote factory identification or burning test classification.

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Process Capability

PCB Production Capabilities		SMT Production Capabilities	
Layer Count	1Layer-32Layer	PCB Material	FR-4,CEM-1,CEM-3,Aluminum-based board
Finished copper thickness	1/3oz-12oz		
Min Line width/spacing internal	3.0mil/3.0mil	Max PCB size	510x460mm
Min Line width/spacing external	4.0mil/4.0mil	Min PCB size	50x50mm
Max Aspect Ratio	10:1	PCB Thickness	0.5mm-4.5mm
Board thickness	0.2mm-5.0mm	Board thickness	0.5-4mm
Max Panel size(inches)	635*1500mm	Min Components size	0201
Minimum Drilled Hole Size	4mil	Standard chip size component	0603 and larger
Plated Hole Tolerance	+/-3mil	Component max height	15mm
Blind/Buried Vias (All Types)	YES	Min lead pitch	0.3mm
Via Fill(Conductive,Non-Conductive)	YES	Min BGA ball pitch	0.4mm
Base Material	FR-4,FR-4high Tg,Halogen free material,Rogers,Aluminium base,Polyimide,Heavy Copper	Placement precision	+/-0.03mm
Surface finishes	HASL,OSP,ENIG,HAL-LF,Immersion silver,Immersion Tin,Gold fingers,Carbon ink		

Packaging & Delivery

Shipping service



Quick Turn Lead Time		
Layer Count:	Lead Tim	Special Requirement
1L/2L	2-3days	24 Hours,48 Hours
4L	3-4days	48 Hours
6L	4-5days	72 Hours
8L	5-6days	NA
10L	6-7days	NA
12L	7-8days	NA
14L	8-9days	NA

Standard Lead Time		
Layer Count:	Sample Lead Time	Volume order lead time
2L	4 days	10 days
4L	5 days	11 days
6L	6 days	12 days
8L	8 days	14 days
10L	10 days	16 days
12L	12 days	18 days
14L	14 days	20 days
16-32L	18 days	24 days

FAQ

1. How do O-Leading ensure quality?

Our high quality standard is achieved with the following.

1.1 The process is strictly controlled under ISO 9001:2008 standards.

1.2 Extensive use of software in managing the production process

1.3 State-of-art testing equipments and tools. E.g. Flying Probe, X-ray Inspection, AOI (Automated Optical Inspector) and ICT (in-circuit testing).

1.4.Dedicated quality assurance team with failure case analysis process

1.5.Continuous staff training and education

2. How do O-Leading keep your price competitive?

Over the last decade, prices of many raw materials (e.g. copper, chemicals) had doubled, tripled or quadrupled; Chinese currency RMB had appreciated 31% over US dollar; And our labor cost also increased significantly.

However, O-Leading have kept our pricing steady. This owns entirely to our innovations in reducing cost, avoiding wastes and improving efficiency. Our prices are very competitive in the industry at the same quality level.

We believe in a win-win partnership with our customers. Our partnership will be mutually beneficial if we can provide you an edgeon cost and quality.

3. What kinds of boards can O-Leading process?

Common FR4, high-TG and halogen-free boards, Rogers, Arlon, Telfon, aluminum/copper-based boards, PI, etc.

4. What data are needed for PCB & PCBA production?

4.1 BOM (Bill of Materials) with reference designators: component description, manufacturer's name and part number.

4.2 PCB Gerber files.

4.3 PCB fabrication drawing and PCBA assembly drawing.

4.4 Test procedures.

4.5 Any mechanical restrictions such as assembly height requirements.

5. What's the typical process flow for multi-layer PCB?

Material cutting → Inner dry film → inner etching → Inner AOI → Multi-bond → Layer stack up Pressing → Drilling → PTH → Panel Plating → Outer Dry Film → Pattern Plating → Outer etching → Outer AOI → Solder Mask → Component Mark → Surface finish → Routing → E/T → Visual Inspection.

6. What's the key equipments for HDI manufacturing?

Key equipment list is as following: Laser drilling machine, Pressing machine, VCP line, Automatic Exposing machine, LDI and etc.

The equipments we have are the best in the industry, laser drilling machines are from Mitsubishi and Hitachi, LDI machines are from Screen(Japan), Automatic Exposing machines are also from Hitachi, all of them make we can meet customer's technical requirements.

7. How many types of surface finish O-lead can do?

O-the leader has the full series of surface finish, such as: ENIG, OSP, LF-HASL, gold plating (soft/hard), immersion silver, Tin, silver plating, immersion tin plating, carbon ink and etc. .. OSP, ENIG, OSP + ENIG commonly used on the HDI, we usually recommend that you use a client or OSP OSP + ENIG if BGA PAD size less than 0.3 mm.

8. What's your capability for FPC? Can O-Leading provide SMT service also?

O-Leading can fabricate FPC from single layer to 8layer, the working panel size can be as large as 2000mm*240mm, please find the details in the page "Flex Capability"

We also provide SMT one stop service to customer.

9. What are the main factors which will affect the price of PCB?

Material;

Surface finish;

Technology difficulty;

Different quality criteria;

PCB characteristics;

Payment terms;

Different manufacturing countries.

10. What's the definition of PCB, PWB and FPC and what's the difference?

PCB is short for Printed Circuit Board;

PWB is short for Printed Wire Board, same meaning as Printed Circuit Board;

FPC is short for Flexible Printed Board.

11. What factors should be considered when choosing the material for a PCB board?

Below factors should be considered when we choose the material for PCB:

The material's Tg value should be greater than the operation temperature;

Low CTE material has good performance of thermal stability;

Good thermal resistance performance: Normally PCBs are required to resist 250°C for at least 50s.
Good flatness; In consideration of the electrical properties, low loss/high permittivity material is used on high frequency PCB; Polyimide glass fiber substrate used for flexible PCB; Metal core is used when the product has strict requirement of heat dissipation.

12. What's the merits of O-leading's rigid-flex PCB?

O-leading's rigid-flex PCB has the characters of both FPC and PCB, so it can be used in some special products. Some part is flexible while the other part rigid, it can help save product's interior space, reduce product volume and improve performance.

13. How to you make the impedance calculation?

The impedance control system is done using some test coupons, the SI6000 soft and the CITS 500s equipment from POLAR INSTRUMENTS.

The equipment measures the impedance on a representative track configuration coupon of which the client has given us a determinate value and tolerance.