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.

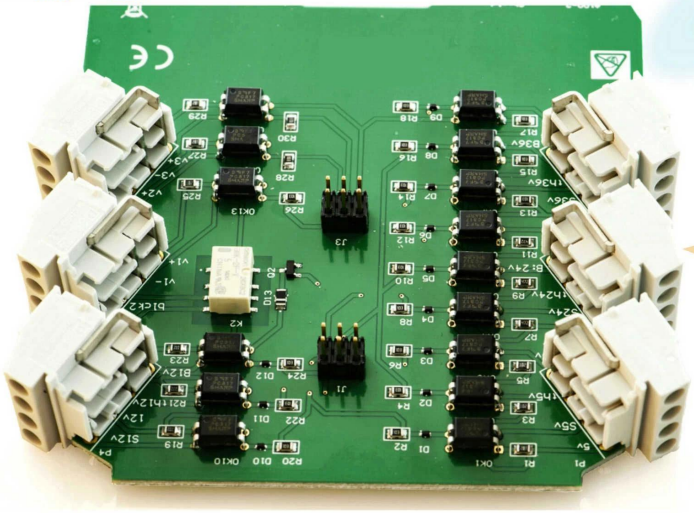
PLEASE CLICK THESE FOR MORE INFORMATION**Halogen free pcb factory china**

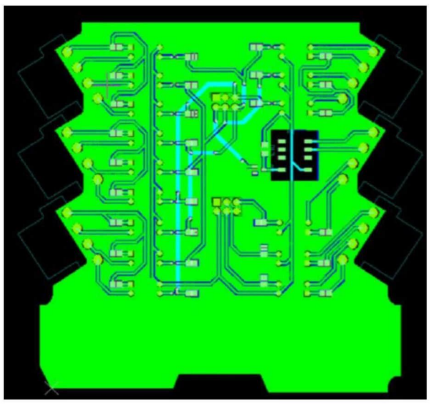
Product Description

BOM

Manufacturer	Manufacturer Part Number	Designator (required)	Qty (required)	Description (required)
Panasonic	ERJ-6GEYJ103V	R2, R4, R6, R8, R10, R12, R13, R14, R15, R16, R17, R18, R20, R22, R24, R26, R28, R30	18	Thick Film Resistors 0805 10Kohms 5% AEC-Q200
Panasonic	ERJ-6GEYJ222V	R19, R21, R23	3	RES SMD 2.2K OHM 5% 1/8W 0805
Panasonic	ERJ-6GEYJ472V	R7, R9, R11	3	4.7 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film
Panasonic	ERJ-6GEYJ102V	R1, R3, R5, R25, R27, R29	6	Thick Film Resistors 0805 1Kohms 5% AEC-Q200
ON Semiconductor	BAT54XV2T1G	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12	12	Schottky Barrier Diode, 2-Pin SOD-523, Pb-Free, Tape and Reel
Bourns	CD1206-S01575	D13	1	Diodes - General Purpose, Power, Switching IO=150mA VR=75V HIGH SPEED
Omron	G6K-2F-Y DC5	K2	1	Signal Relay 5VDC 1A DPDT(10x7.8x5.2)mm SMD
Samtec	DW-03-08-F-D-200	J1,J3	2	Board to Board & Mezzanine Connectors .100" Flex Stack, Flexible Board Stacker, .110" Tail
SHARP/Socle Technology	PC817XNNSZ0F	OK1, OK2, OK3, OK4, OK5, OK6, OK7, OK8, OK9, OK10, OK11, OK12, OK13, OK14, OK15	15	Transistor Output Optocouplers 4 PIN DIP

O-LEADING

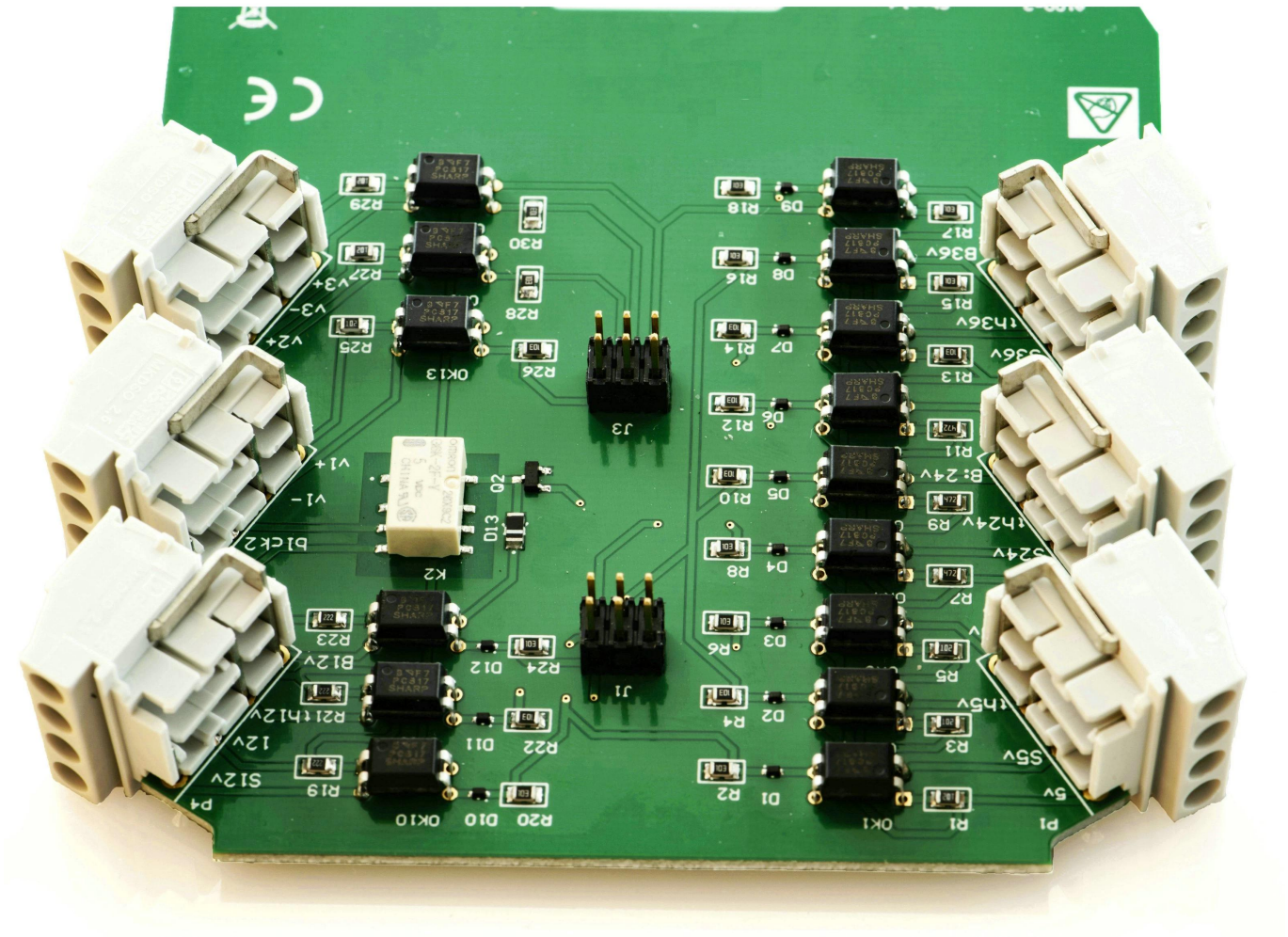




PCBA

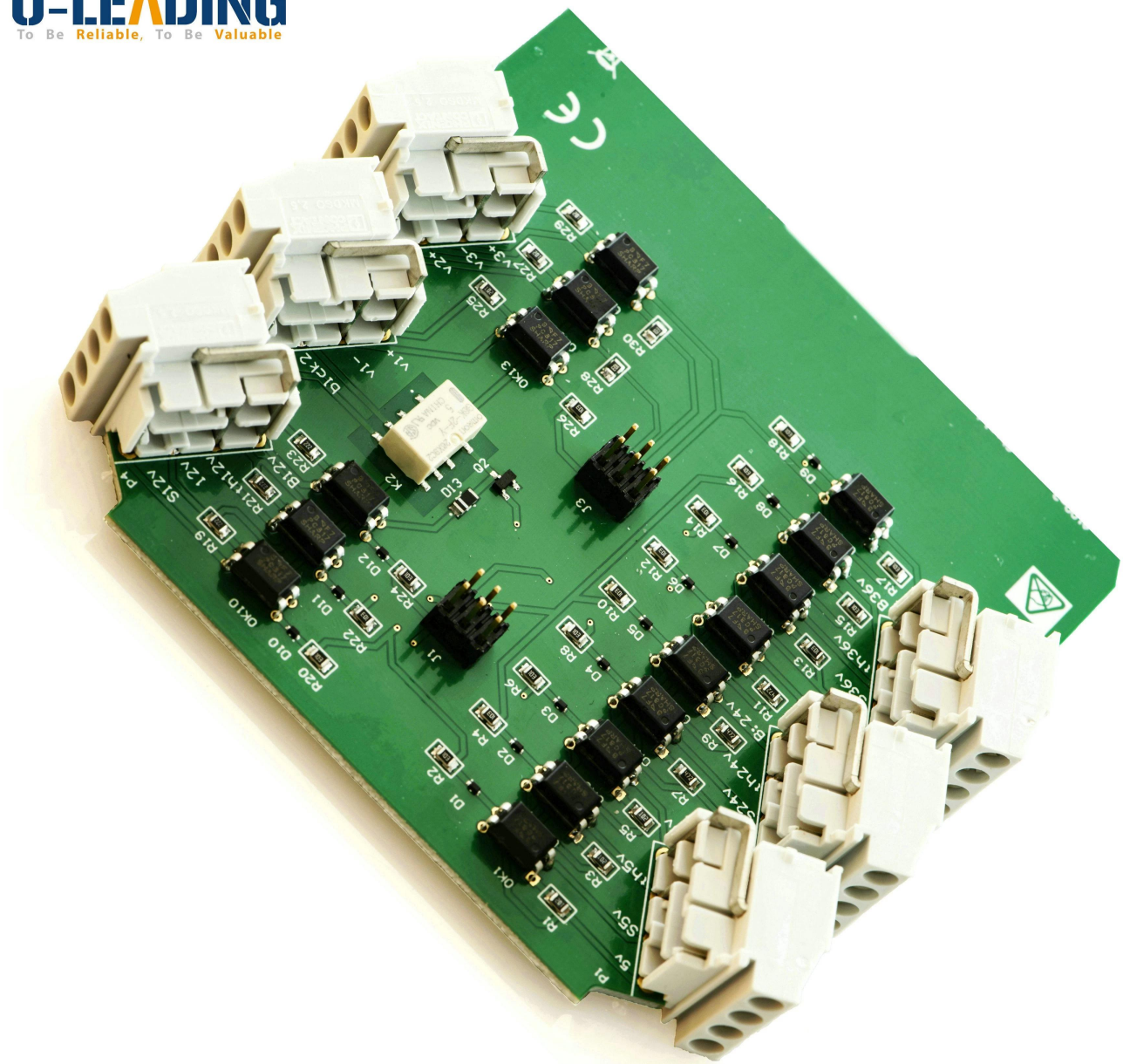
PCB

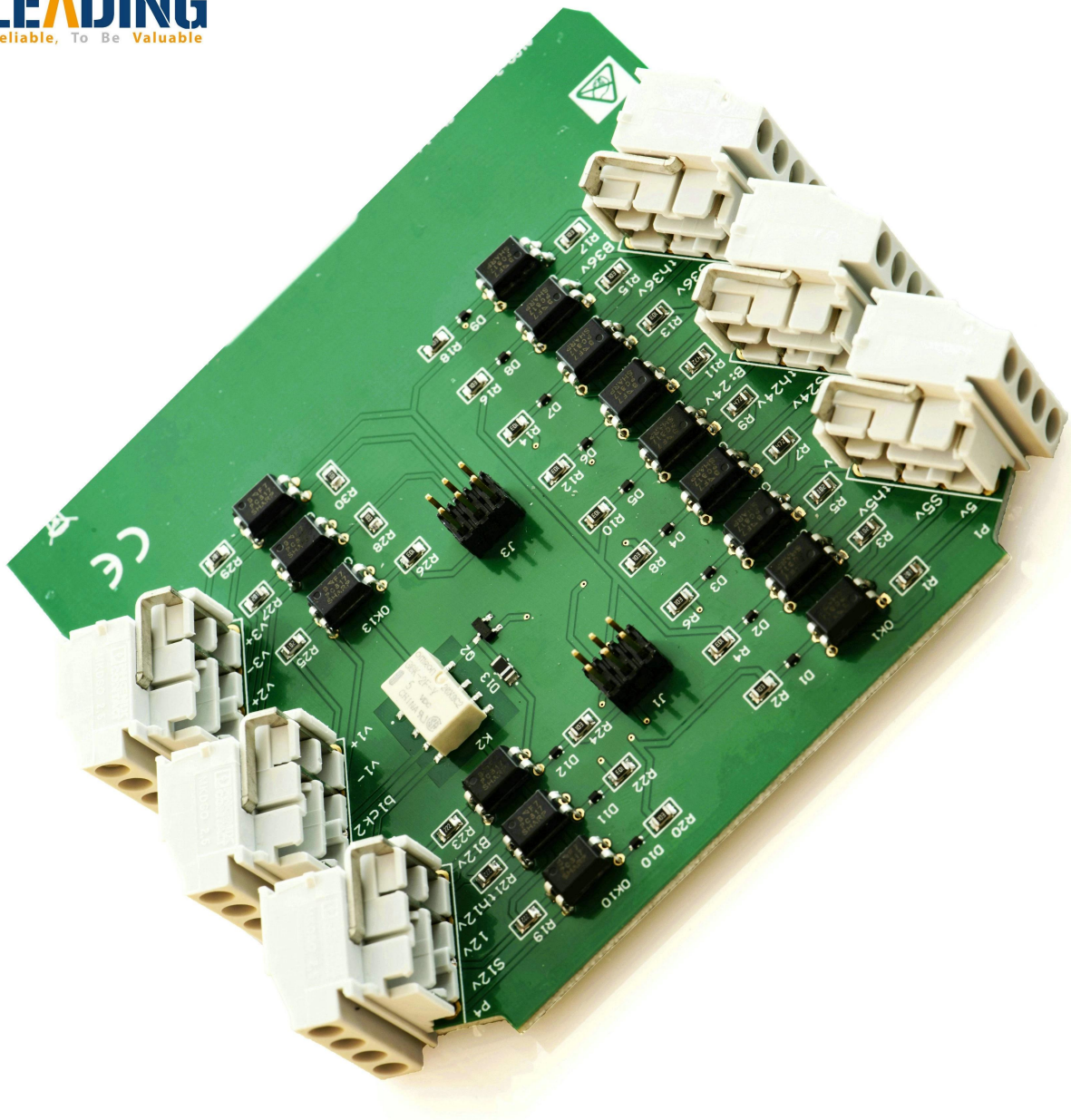
O-LEADING
To Be Reliable, To Be Valuable



O-LEADING

To Be Reliable, To Be Valuable





Remote Control PCB solution

Our Team


O-LEADING

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

CICC CERTIFICATION
嘉泰认证

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 18118Q10347R0S

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 VOEUS ROAD CENTRAL HK

Business Add: 1313, Floor 13, Fortune Building, Danshui Town, Huiyang District, Huizhou, Guangdong, China

Has implemented and maintains a **Quality Management System**

Which fulfils 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

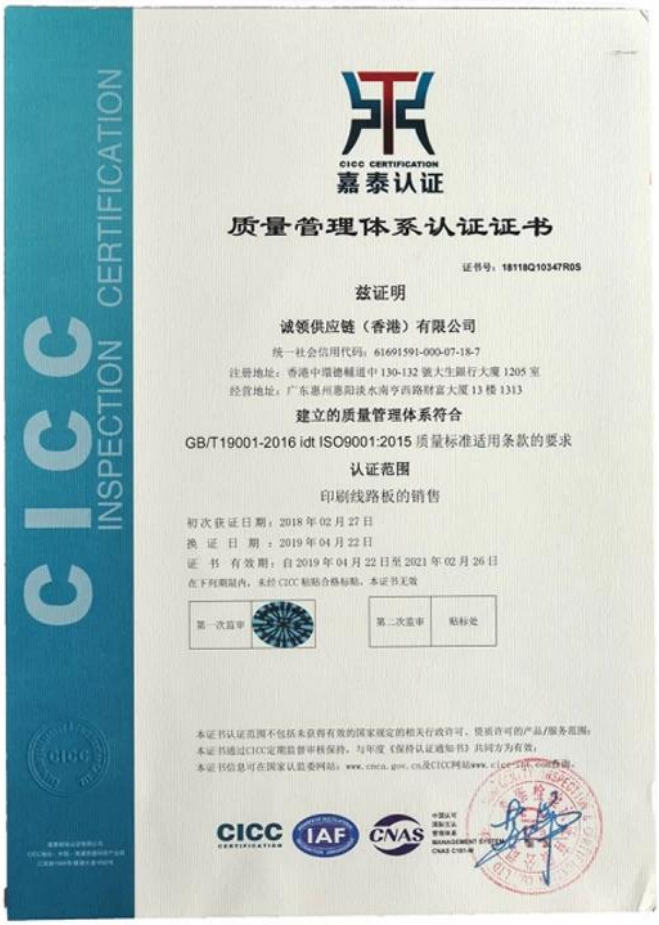
Renewal date: April 22, 2019

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

CICC IAF CNAS



CICC INSPECTION CERTIFICATION

CICC CERTIFICATION
嘉泰认证

质量管理体系认证证书

证书号：18118Q10347R0S

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

在下列期间内，未经 CICC 贴贴合格标贴，本证书无效

第一次监审		第二次监审	贴标处

CICC IAF CNAS

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 Fan
Approved Signatory

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
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, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	8
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1,000	mg/kg	8	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND

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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
SGS-CSTC Standards Technical Services Co., Ltd.
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中国 · 深圳 · 龙岗区坂田吉华路430号江厦工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com
Member of the SGS Group (SGS SA)

UL Product iQ™

ZPMV2.E490354 - WIRING, PRINTED - COMPONENT

Wiring, Printed - Component

See General Information for Wiring, Printed - Component

O-LEADING SUPPLY CHAIN (HK) CO LTD
ROOM 1205, 12/F
TAI SANG BANK BLDG
130-132 DES VOEUS ROAD
CENTRAL, HONG KONG

E490354

Type	Cond Width Min mm(in)	Min Edge mm(in)	Cond Thk mic(mil)	SS/ DS/ DSO	Max Area Diam mm(in)	Solder Limits C	sec	Max Oper Temp C	Flame Class	Meets UL796 DSR	CTI
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.

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

DHL WORLDWIDE EXPRESS TNT FedEx Express UPS

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℃ 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.