

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. ([china pcb manufacturer](#))

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: [power bank pcb board Printed](#)

Product Description

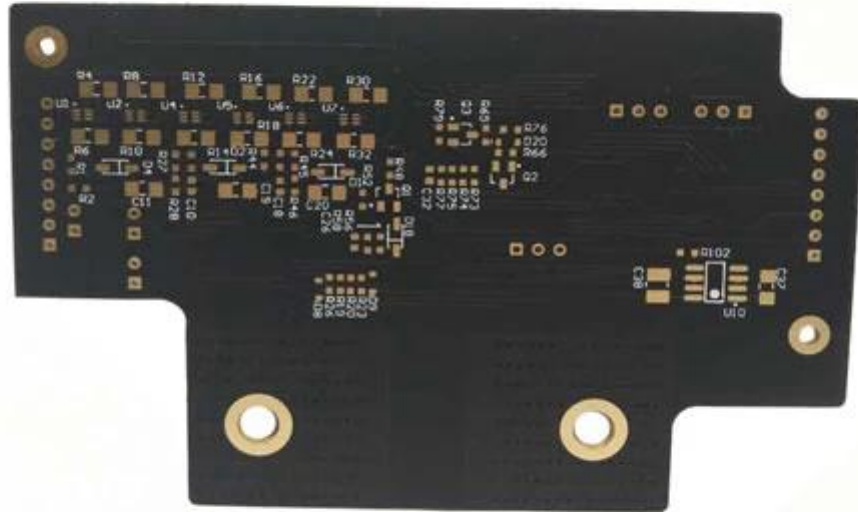
Place of Origin	Guang dong, China (Mainland)	Brand Name	O-Leading
Base Material	FR-4,,Aluminum	Copper Thickness	0.5oz-5oz
Min. Hole Size	0.2mm	Min. Line Width	0.2mm
Surface Finishing	Immersion gold ,OSP,lead free HASL	Board Thickness	0.1-5mm
applicable to	ed,mobile phone,air conditioners,washing machines	character	Industrial Control pcb
certificates	ISO9001,UL,RoHS,SGS	Q/CTN	10PCS-100PCS
weight	0.01kg -5kg	MOQ	10pcs
Model Number	power bank pcb assembly pcba manufacturer	Min. Line Spacing	0.2mm
color	blue ,red ,green,black,yellow	price	\$0.1-\$10
design type	client requirement	size	0.01m3-10m3

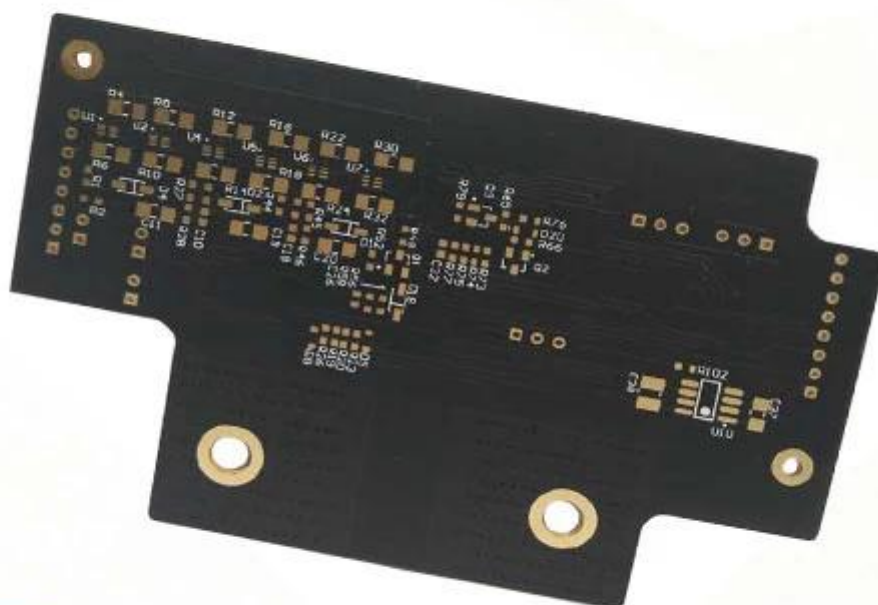
Production Capability

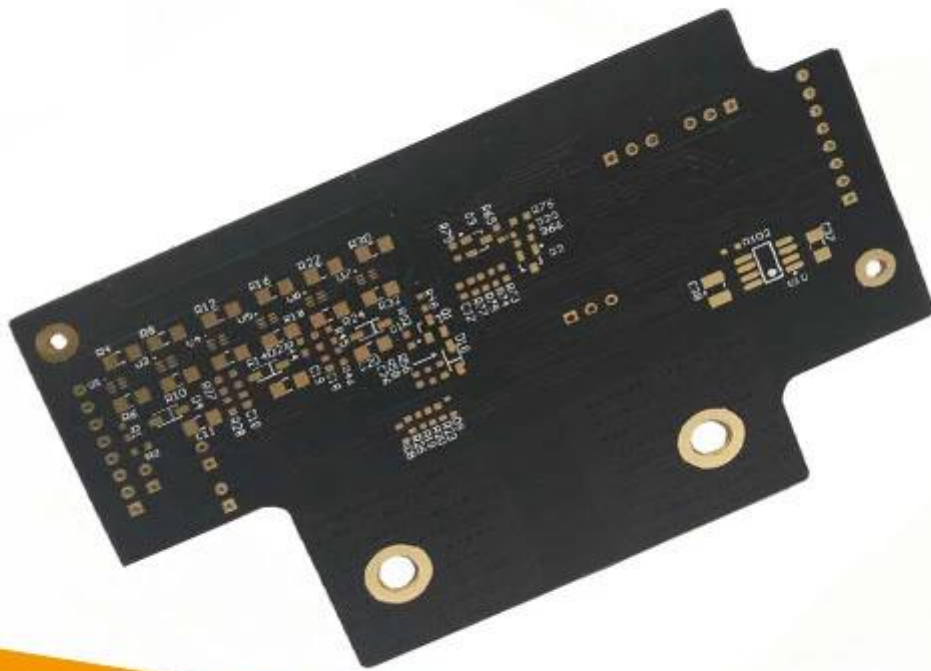
16 years professional OEM pcb board manufacture

item	2014		2015~2016		2017~2018	
	Volume	Sample	Volume	Sample	Volume	Sample
Layer count	32	42	38	44	42	48
Min Line/space (μm)	50/50	40/45	40/45	40/40	35/40	35/35
Min drill hole diameter (mm)	0.15	0.10	0.15	0.10	0.15	0.10
Aspect ratio of PTH	14:1	16:1	16:1	18:1	18:1	20:1
N+C+N	4+C+4	5+C+5	5+C+5	6+C+6	5+C+5	6+C+6
Any layer interconnection	5+2+5	6+2+6	5+2+5	6+2+6	5+2+5	6+2+6
Plate filling via	YES	--	YES	--	YES	--
Min. core thickness (exclude copper) (μm)	50	40	40	30	40	30
Min. Laser Drill diameter (μm)	75	65	65	50	50	40
Via on buried hole/stacked via	YES	--	YES	--	YES	--
Material	FR4, Megtron, Nelco, Rogers, Heavy Copper, etc.					

Embedded capacitor PCB	YES	--	YES	--	YES	--
Surface Process	Lead-free HASL, ENIG, OSP, Immersion silver, Immersion tin, Flash gold, Gold finger plating, Selective hard gold plating, Peelable solder mask, Carbon ink					







www.o-leading.com

HDI pcb Printed circuit board

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





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 Fan
Approved Signatory



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/terms-and-conditions> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/terms-and-conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions. If any, the Company's sole responsibility is to the Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

For more information, please contact our sales representative. Please contact us at telephone: (86-755) 8307 1442 or email: CHN.Sales@sgs.com
SGS (Shenzhen) Co., Ltd. (Shenzhen) Sales Representative (Shenzhen) 518129 | (86-755) 8308888 | (86-755) 83106190 | www.sgs.com or www.sgs.com.cn
中国·深圳·龙岗区政府后街430号工业园4楼405室 邮编: 518129 | (86-755) 8308888 | (86-755) 83106190 | www.sgs.com or www.sgs.com.cn

Member of the SGS Group (SGS SA)



Test Report

No. SZXEC1900530401

Date: 30 Mar 2019

Page 2 of 6

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, 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.

Test item(s)	Limit	Unit	MDL	Q/Z
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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/terms-and-conditions> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/terms-and-conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions. If any, the Company's sole responsibility is to the Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

For more information, please contact our sales representative. Please contact us at telephone: (86-755) 8307 1442 or email: CHN.Sales@sgs.com
SGS (Shenzhen) Co., Ltd. (Shenzhen) Sales Representative (Shenzhen) 518129 | (86-755) 8308888 | (86-755) 83106190 | www.sgs.com or www.sgs.com.cn
中国·深圳·龙岗区政府后街430号工业园4楼405室 邮编: 518129 | (86-755) 8308888 | (86-755) 83106190 | www.sgs.com or www.sgs.com.cn

Member of the SGS Group (SGS SA)



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

并不是所有出现在本数据库中的公司名称和产品都满足了UL 跟踪检验服务的要求。只有带有 UL 标志的产品，才应该被视为经过UL认证，并满足UL 跟踪检验服务的要求。注意查看产品上的标志。

UL 允许在线认证目录中所含材料的复制遵循以下条件：1.指南信息、装配、构造、设计、系统和/或认证（文件）必须在不篡改任何数据（或图纸）的情况下完整且无误导性地呈现。2.“经 UL 允许从在线认证目录转载”声明必须出现在所摘取材料的邻近位置。此外，转载材料必须包含以下格式的版权声明：“© 2019 UL LLC”

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

Process Capability

PCB Production Capabilities

Layer Count: 1Layer-32Layer

Finished copper thickness□ 1/3oz-12oz

Min Line width/spacing internal□ 3.0mil/3.0mil

Min Line width/spacing external: 4.0mil/4.0mil

Max Aspect Ratio: 10:1

Board thickness□ 0.2mm-5.0mm

Max Panel size(inches): 635*1500mm

Minimum Drilled Hole Size: 4mil

Plated Hole Tolerance: +/-3mil

Blind/Buried Vias (All Types): YES

Via Fill(Conductive,Non-Conductive): YES

Base Material: FR-4,FR-4high Tg,Halogen free material,Rogers,Aluminium base,Polyimide,
Heavy Copper

Surface finishes: HASL,OSP,ENIG,HAL-LF,Immersion silver,Immersion Tin,Gold fingers,Carbon ink

SMT Production Capabilities

PCB Material: FR-4,CEM-1,CEM-3,Aluminum-based board

Max PCB size: 510x460mm

Min PCB size□50x50mm

PCB Thickness□0.5mm-4.5mm

Board thickness□0.5-4mm

Min Components size: 0201

Standard chip size component: 0603 and larger

Component max height□15mm

Min lead pitch: 0.3mm

Min BGA ball pitch:0.4mm

Placement precision: +/-0.03mm