

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.

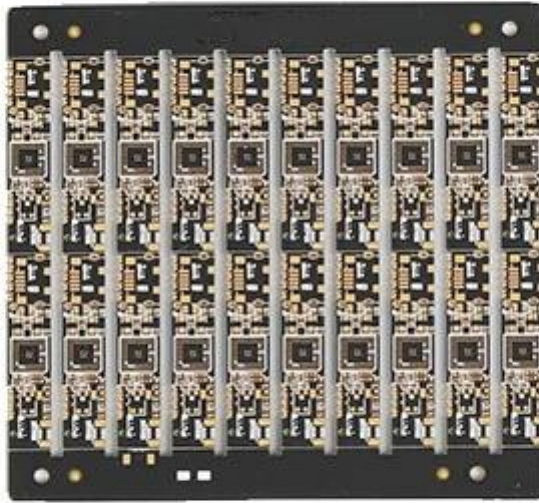
We are professional PCB manufacturer with more than ten years experiences . Products range-single, double side ,multi-layer PCB ,flexible PCB and MCPCB.We can provide fast prototype service - S/S in 24hrs , 4-8layers in 48-96 working hrs production time. [HDI PCB manufacturer china](#)

COPPER PLATE HOLES MINIMUM .025 AVG, .020 MIN.. HOLES MAY NOT BE PLUGGED

Pack with colorless transparent bubble film ,25 PCS/ bag, put desiccant in flank, put humidity indicator card on top side

Product Description

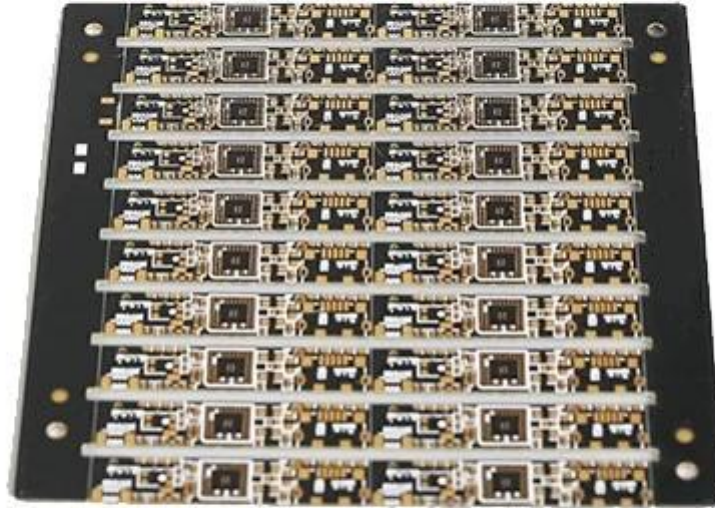
PCB P/N	Black solder mask pcb with half plated hole
Layer Count	4L
Material	FR-4 TG170
Board thk	1.6mm
copper thk	1/1/1/1oz
Smallest hole size	0.3MM
No. of holes (pcs)	98
line w/s	5/5mil
Impedance control. Y / N (Tol %)	N
Surface Finishing	ENIG Au:0.05-0.10UM
Solder Mask Silkscreen	Black / White
Single board size	Dim X (mm):21;Dim Y (mm):12
Panelisation	Dim X (mm):90;Dim Y (mm):68;No Of UPS:16
Special:peelable mask	N
Routing/Punching	CNC



www.o-leading.com

High quality pcb manufacturer

•
•



www.o-leading.com

- [Printed Circuit Board PCB Manufacturing Company](#)

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





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 (PDBEs) 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 on the back, available on request or accessible at <http://www.spa.com/terms-and-conditions> and, for electronic formal documents, subject to Terms and Conditions for Electronic Documents at <http://www.spa.com/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is deemed to have read, understood and accepted the terms and conditions of the document and to have agreed to follow the Client's instructions, if any. The Company's sole responsibility is to its Client and the document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the Company. Any unauthorized use or reproduction 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 samples tested.

99-5555, No.4, Jiangnan Industrial Park, No.43, Jiao Road, Saitan, Longgang District, Shenzhen, China 518129 | (86-755) 25326888 | (86-755) 83106190 | www.sgsigroup.com.cn
中国·深圳·龙岗区坂田南环路43号江田工业园4955555号 邮编: 518129 | (86-755) 25326888 | (86-755) 83106190 | sales.china@sgs.com

Member of the SGS Group (SGS SA)



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) $1 \text{ mg/kg} = 1 \text{ ppm} = 0.0001\%$

(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	Q27
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
Tri bromobiphenyl	-	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
Tri bromodiphenyl 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 elsewhere, available on request or accessible at <http://www.spa.com/terms-and-conditions.asp>, and for electronic formal documents, subject to Terms and Conditions for Electronic Documents at <http://www.spa.com/terms-and-conditions/Terms-Electronic-Documents.asp>. It is drawn in the jurisdiction of Spain. The company and jurisdiction resulting from this form shall prevail over any other agreement entered into between the parties. I hereby acknowledge that I have read and understood the above conditions and I have accepted them. I agree to indemnify and hold harmless the Client's instructions, if any. The Company's sole responsibility is to its 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 without the prior written consent of the Company. Any reproduction or unauthorized use of this document may constitute an infringement of intellectual property rights. The appearance of this text report refers only to the samples) tested.

SGS Bldg. 4, Jangde Industrial Park, No.400, Jiahu Road, Bantian, Lingyuan District, Shenzhen, China 518129 t (86-755) 25328888 f (86-755) 83106190 www.sgsgroup.com.cn
中国·深圳·龙岗区坪地街道430号江鹏工业园4栋SGS大厦 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgscn@china.sgs.com

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					
	Min	Min			Area	Solder	Oper	Flame	Meets	C	
	mm(in)	Edge mm(in)			Diam	Limits	Temp	Class	UL796	T	
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