

# 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.[PCB Assembly manufacturer china](#)

## Product Description

### Quick Details

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| PCB P/N                          | CD539                                      |
| Layer Count                      | 2L                                         |
| Material                         | FR-4 TG130                                 |
| Board thk                        | 0.8mm                                      |
| copper thk                       | 2/2oz                                      |
| Smallest hole size               | 0.5mm                                      |
| No. of holes (pcs)               | 477                                        |
| line w/s                         | 12/12mil                                   |
| Impedance control. Y / N (Tol %) | N                                          |
| Surface Finishing                | HASL-LF                                    |
| Solder Mask Silkscreen           | White / N/A                                |
| Single board size                | Dim X (mm):301; Dim Y (mm):75.8            |
| Panelisation                     | Dim X (mm):320; Dim Y (mm):240;No Of UPS:3 |
| Special:peelable mask            | N                                          |
| Routing/Punching                 | CNC                                        |

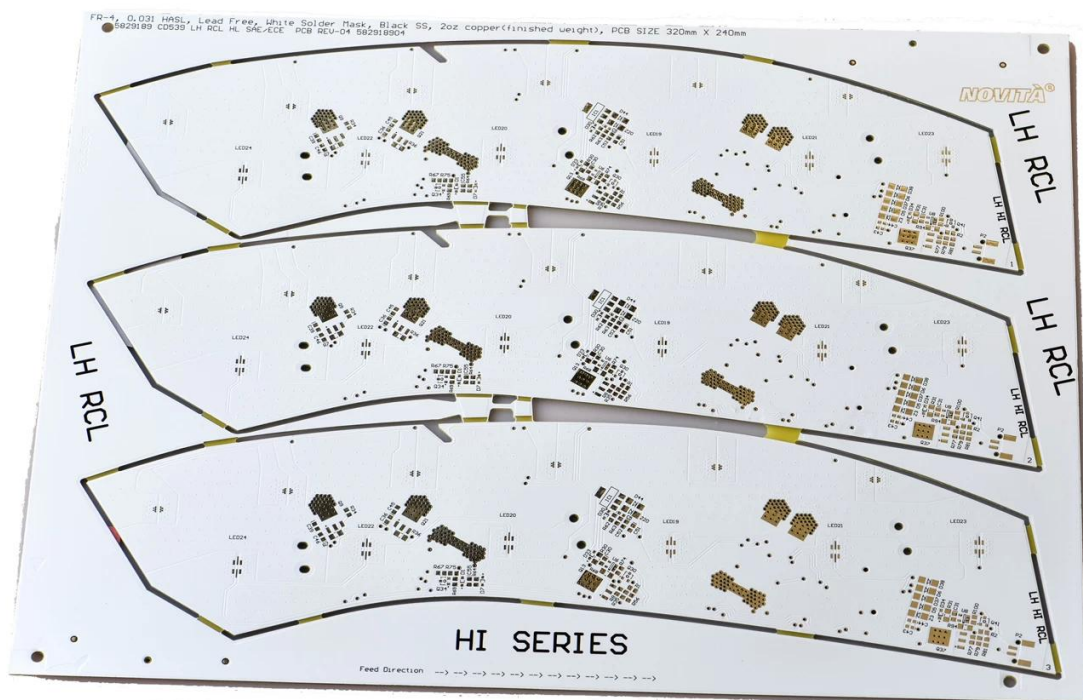
### Production Capability

16 years professional OEM pcb board manufacture([PCB layout manufacturer china](#))

| 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 |       |       |       |       |       |

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



[www.o-leading.com](http://www.o-leading.com)

**Mobile Phone PCB supplier china**

**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](http://www.sgsigroup.com.cn)  
中国·深圳·龙岗区坂田南环路43号江田工业园4楼SGS中国总部 邮编: 518129 | (86-755) 25326888 | (86-755) 83106190 | [e.sas.china@sgs.com](mailto:e.sas.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-Document.asp>. It is drawn in the translation of Spanish. The Company and jurisdiction respectively of the holder of the document is not admitted. The Company does not accept any liability for the use of the document at any time or in any form, or within the limits of 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 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. The 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 samples) tested.

SGS Bldg, 4/F, 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楼SGS大厦 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgscn@china.sgsgroup.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<br>Thk<br>mic(mil) | SS/<br>DS/<br>DSO | Max        |        | Max  |       | Meets<br>UL796<br>DSR | C<br>T<br>I |   |
|---------------------------------------------------|---------------|---------------|-------------------------|-------------------|------------|--------|------|-------|-----------------------|-------------|---|
|                                                   | Min           | Min           |                         |                   | Area       | Solder | Oper | Flame |                       |             |   |
|                                                   | mm(in)        | mm(in)        |                         |                   | Diam       | Limits | Temp | Class |                       |             |   |
| 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)<br>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

|                      |              |              |           |    |            |     |   |     |     |     |
|----------------------|--------------|--------------|-----------|----|------------|-----|---|-----|-----|-----|
| <b>O-LEADING-S02</b> | 0.2 (0.008)  | 0.2 (0.008)  | 17 (0.67) | SS | 25.4 (1.0) | 260 | 4 | 130 | HB  | ▲   |
| <b>O-LEADING-S03</b> | 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