

# O-leading 專業 製造 各種 PCB

O-Leading 專業 PCB 製造, PCB 設計及 PCB 組裝 (PCBA) 服務。EMS 服務商 為 客戶 提供 各種 專業 服務。包括 HDI PCB, 剛性 PCB, 剛-柔性 PCB 及 各種 專業 PCB 製造 服務。 歡迎 垂詢 各種 專業 服務 及 各種 專業 服務。 [pcba 服務](#) [PCB](#)

專業 製造 各種 專業 服務, 專業 製造 各種 專業 服務 及 各種 專業 服務。 歡迎 垂詢 各種 專業 服務 及 各種 專業 服務。 O 專業 服務 及 各種 專業 服務。

專業 O-leading 專業 服務 各種 專業 服務 及 各種 專業 服務, 歡迎 垂詢 各種 專業 服務 及 各種 專業 服務。 PCB 及 PCBA 專業 服務 及 各種 專業 服務。

專業 服務 各種 專業 服務。 [EMS 服務](#) [UL 服務](#) [pcba 服務](#) [pcb 服務](#) [各種 專業 服務](#)

**O-LEADING**  
To Be Reliable, To Be Valuable  
WE ALWAYS PROVIDE YOU  
BEST HIGH DENSITY INTERCONNECT PCB

**O-LEADING**  
To Be Reliable, To Be Valuable  
WE ALWAYS PROVIDE YOU  
BEST RIGID-FLEXIBLE CIRCUIT

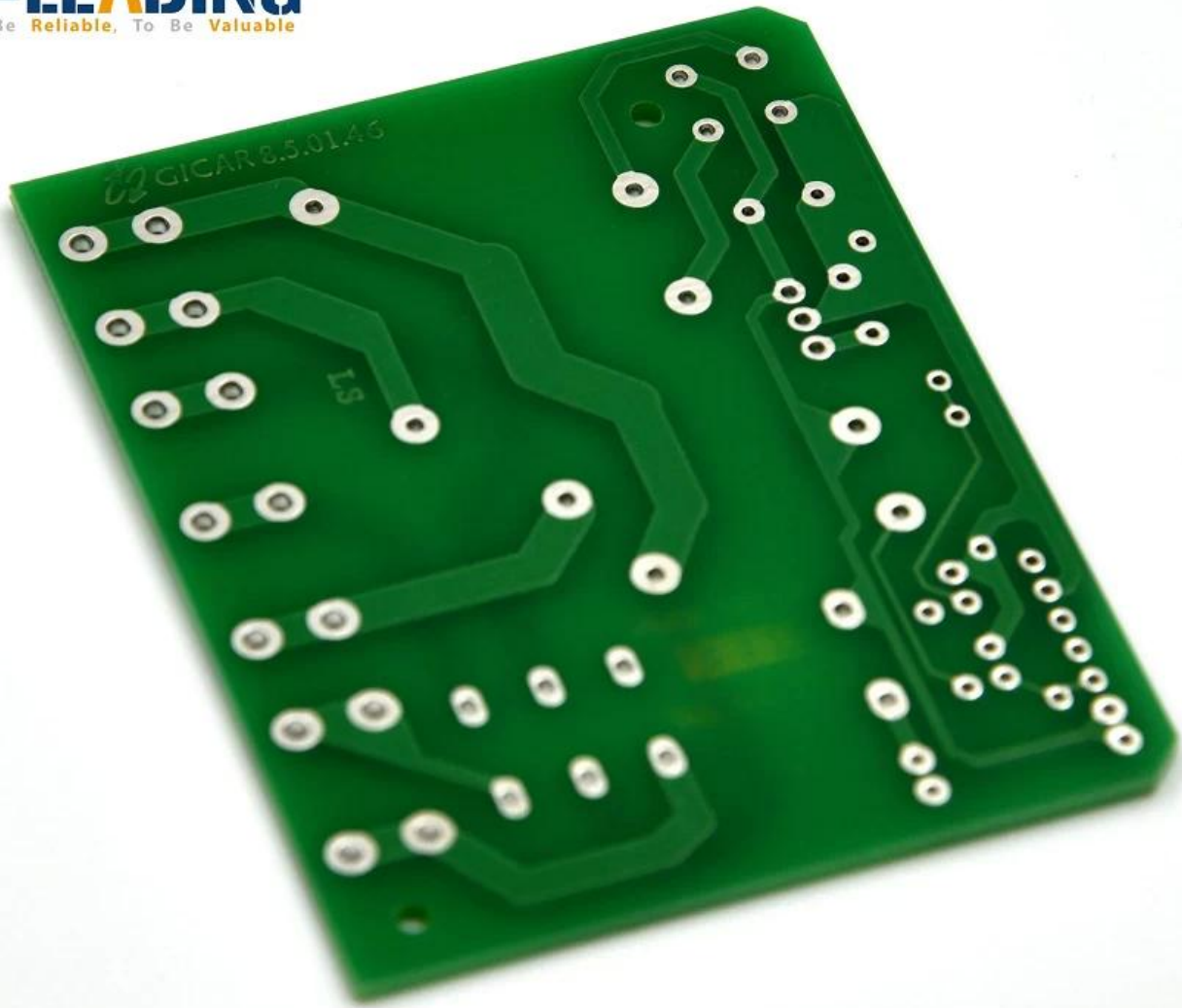
專業 服務

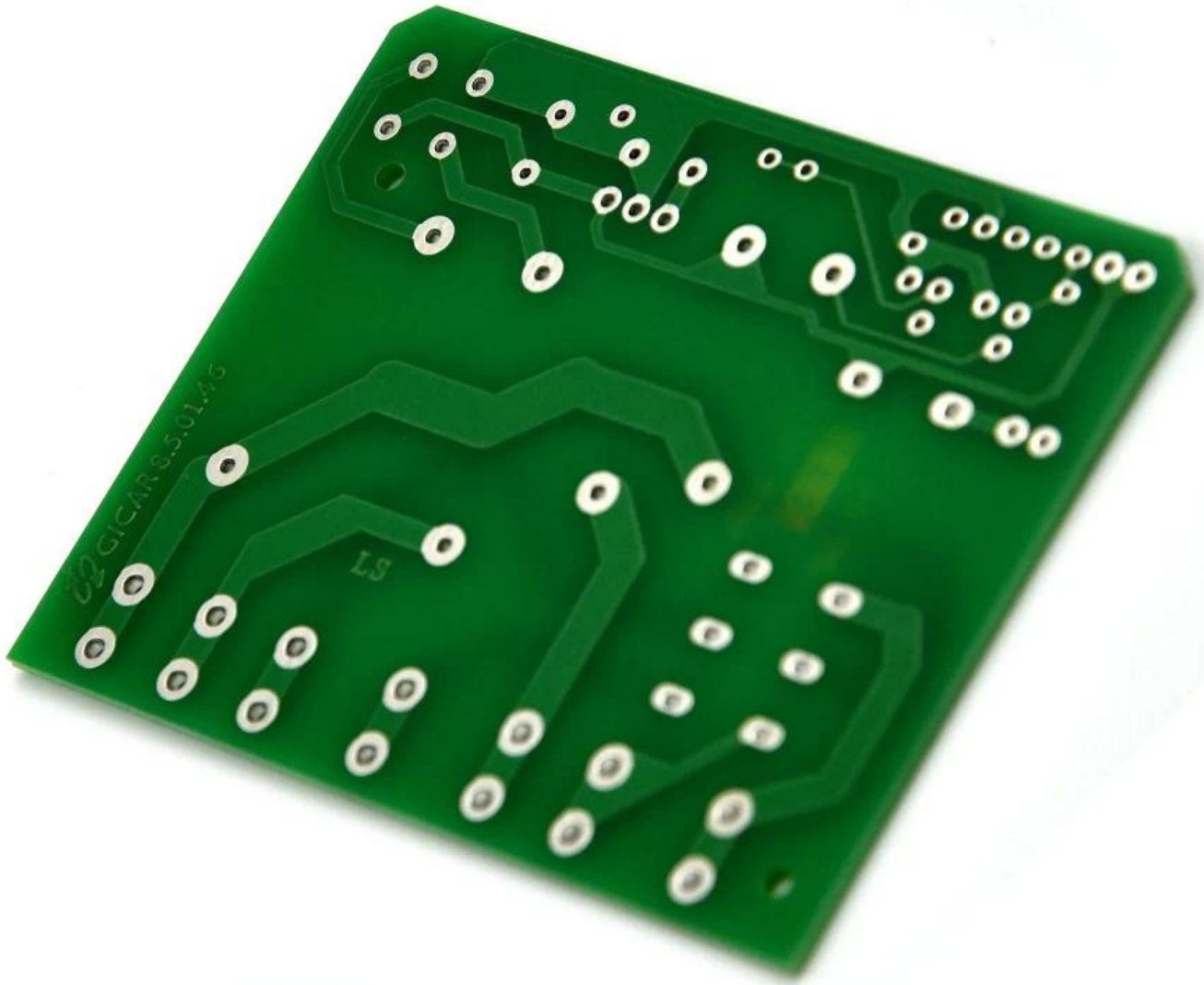
**O-LEADING**  
To Be Reliable, To Be Valuable

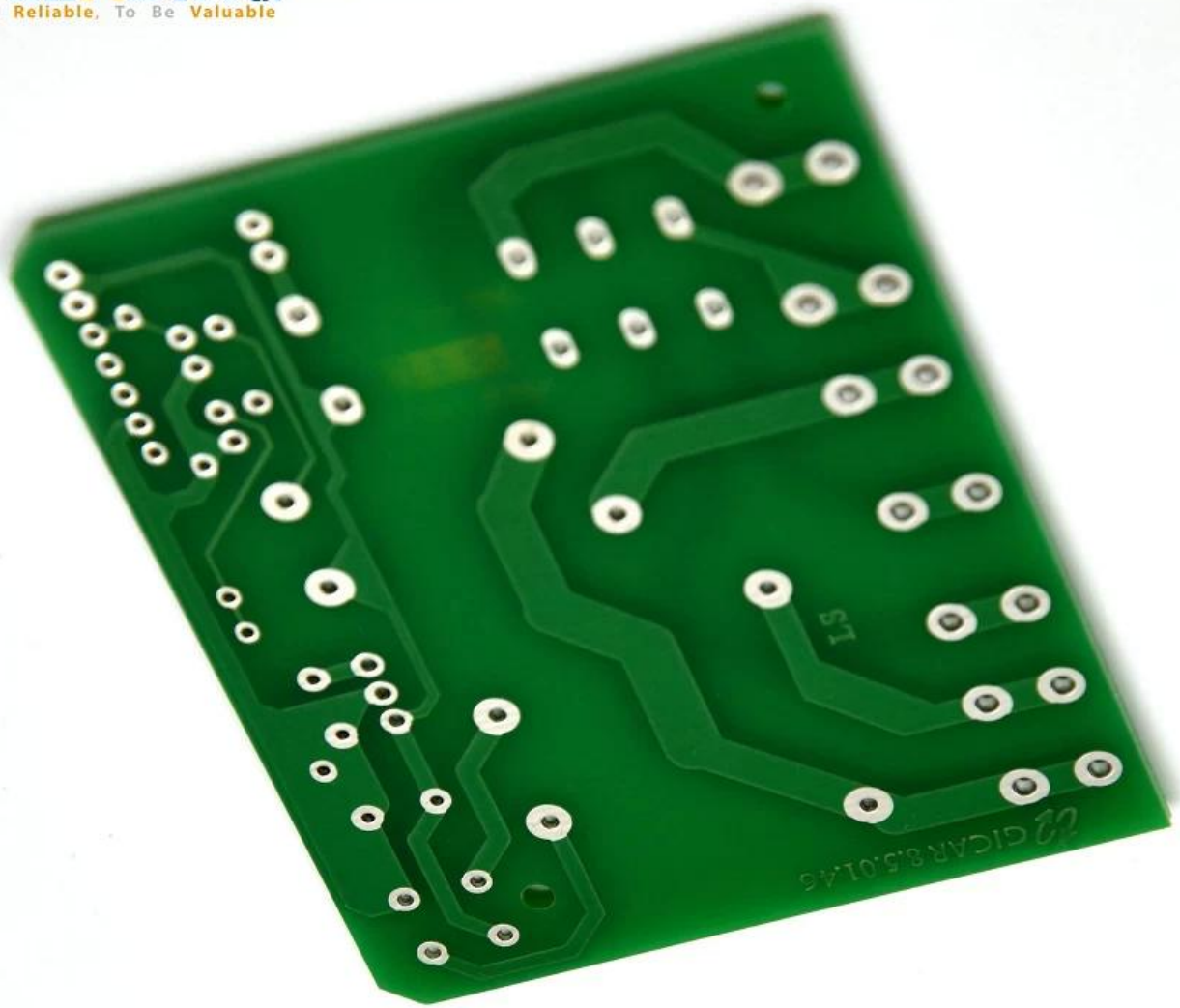
**QUALITY IS OUR CULTURE**











# Production Process

18 years experience in one-stop PCB and PCBA, we can make your idea come true,



 CONSUMER ELECTRONICS

 AUTOMOTIVE ELECTRONICS

 INDUSTRIAL CONTROL

 INTELLECTUALIZED HOUSEHOLD CONTROL

 OTHER



**30%**  
CONSUMER ELECTRONICS



**12%**  
OTHER



**20%**  
INDUSTRIAL CONTROL

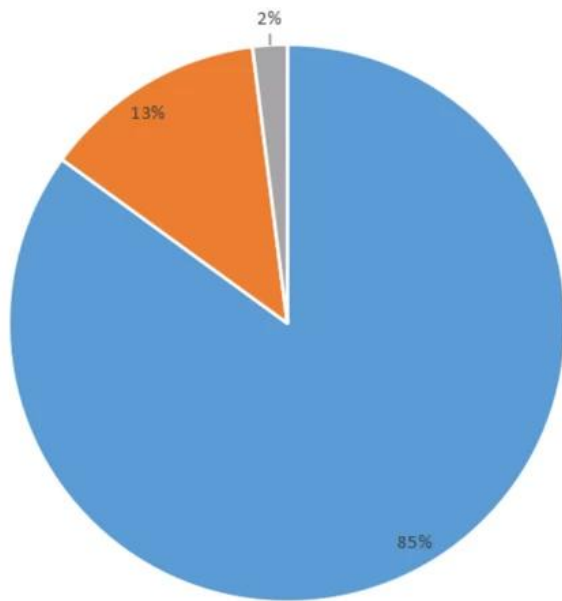


**18%**  
INTELLECTUALIZED HOUSEHOLD CONTROL

**20%**  
AUTOMOTIVE ELECTRONICS



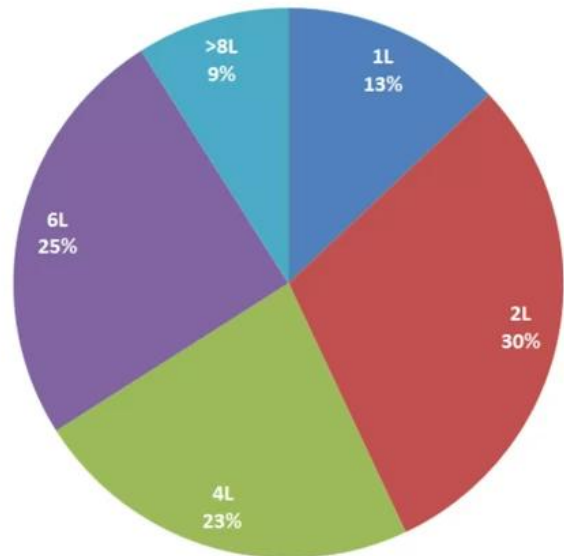
Product types



■ FR-4 PCB ■ MC PCB ■ rigid-flexible PCB

Product layers

■ 1L ■ 2L ■ 4L ■ 6L ■ >8L





## 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







## 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](mailto:CHN.Sales@sgs.com)  
SGS (Shenzhen) Co., Ltd. (Shenzhen) Sales Representative (Shenzhen) 5181201 / (86-755) 8308888 / (86-755) 83106190 [www.sgs.com](http://www.sgs.com) or [www.cn.sgs.com](http://www.cn.sgs.com)  
中国·深圳·龙岗区政府后街430号工业路4楼405室 邮编: 5181201 / (86-755) 8308888 / (86-755) 83106190 [www.sgs.com](http://www.sgs.com)

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](mailto:CHN.Sales@sgs.com)  
SGS (Shenzhen) Co., Ltd. (Shenzhen) Sales Representative (Shenzhen) 5181201 / (86-755) 8308888 / (86-755) 83106190 [www.sgs.com](http://www.sgs.com) or [www.cn.sgs.com](http://www.cn.sgs.com)  
中国·深圳·龙岗区政府后街430号工业路4楼405室 邮编: 5181201 / (86-755) 8308888 / (86-755) 83106190 [www.sgs.com](http://www.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<br>Thk<br>mic(mil) | SS/<br>DS/<br>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)<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”

PCB 規格

|                              |                                           |
|------------------------------|-------------------------------------------|
| PCB 層数                       | 1-32 層                                    |
| 銅箔厚さ                         | 1 / 3oz-12oz                              |
| 銅箔厚さ / 銅箔厚さ                  | 3.0mil / 3.0mil                           |
| 銅箔厚さ / 銅箔厚さ                  | 4.0mil / 4.0mil                           |
| 銅箔厚さ                         | 10 : 1                                    |
| 銅箔厚さ                         | 0.2mm-5.0mm                               |
| 銅箔厚さ (mm)                    | 635 * 1500mm                              |
| 銅箔厚さ (mm)                    | 4mil                                      |
| Plated 銅箔厚さ                  | +/- 3mil                                  |
| Blind / Buried Vias (All 銅箔) | 銅箔                                        |
| 銅箔 (銅箔、銅箔)                   | 銅箔                                        |
| 銅箔                           | FR-4, FR-4high Tg. 銅箔厚さ 銅箔、銅箔、銅箔厚さ銅箔厚さ、銅箔 |
| 銅箔                           | HASL, OSP, ENIG, HAL-LF, 銅箔厚さ 銅箔、銅箔厚さ 銅箔  |

|           |                             |
|-----------|-----------------------------|
| SMT 規格    |                             |
| PCB 厚さ    | FR-4, CEM-1, CEM-3, 銅箔厚さ 銅箔 |
| 銅箔 PCB 厚さ | 510x460mm                   |
| 銅箔 PCB 厚さ | 50x50mm                     |
| PCB 厚さ    | 0.5mm-4.5mm                 |
| 銅箔厚さ      | 0.5-4mm                     |
| 銅箔厚さ 銅箔厚さ | 0201                        |
| 銅箔厚さ 銅箔厚さ | 0603 銅箔                     |
| 銅箔厚さ 銅箔厚さ | 15mm                        |
| 銅箔厚さ 銅箔   | 0.3mm                       |
| 銅箔 BGA 銅箔 | 0.4mm                       |
| 銅箔厚さ      | +/- 0.03mm                  |

銅箔 規格

# 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                |

## 品質管理

### 1. O-Leading 品質管理 何をしますか？

品質管理 何をしますか？

1.1 ISO 9001 : 2008 品質管理 何をしますか？

1.2 品質管理 何をしますか？

1.3 品質管理 何をしますか？ : 品質管理, X-ray 検査, AOI (Automated Optical Inspector) 検査 ICT (in-circuit testing).

1.4 品質管理 何をしますか？

1.5. 品質管理 何をしますか？

### 2. O-Leading 品質管理 何をしますか？

品質管理 10 年 品質管理 (品質 : 品質, 品質管理) 品質管理 品質管理. 品質管理 品質管理 品質管理 31 % 品質管理. 品質管理 品質管理.

品質管理 O-Leading 品質管理 品質管理. 品質管理 品質管理, 品質管理 品質管理 品質管理 品質管理 品質管理. 品質管理 品質管理 品質管理 品質管理 品質管理.

品質管理 品質管理 品質管理. 品質管理 品質管理 品質管理 品質管理 品質管理 品質管理 品質管理 品質管理.

### 3. O-Leading 品質管理 何をしますか？

品質 FR4, 品質 TG 品質管理 品質, Rogers, Arlon, Telfon, 品質管理 / 品質管理 品質, PI 品質



0000 00 0000 00 000 00, SI6000 soft 0 POLAR INSTRUMENTS0 CITS 500s 000 0000 00000.  
 000 000 000 00 000 00 0 0000 00 00 000 00000 00000.