## 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. Multilayer PCB Printed Company

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. China Multilayer pcb manufacturer

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**

#### High quality pcb wholesalers

| 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   |

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# 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

O-LEADING SUPPLY CHAIN (HK) CO., LIMITED

No. SZXEC1900530401

1313,FLOOR 13, FORTUNE BUILDING, DANSHUI TOWN, HUIYANG DISTRICT, HUIZHOU, GUANGDONG, CHINA

Date: 30 Mar 2019 Page 1 of 6

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\*\*

(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, IEC682321-5:2013, 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              | 12    | mg/kg | 5   | ND  |
| Tribromobiphenyl             | 15    | 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            | 6     | 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        | 12    | mg/kg | 5   | ND  |
| Tribromodiphenyl ether       | 2     | mg/kg | 5   | ND  |
| Tetrabromodiphenyl ether     | -     | mg/kg | 5   | ND  |
| Pentabromodiphenyl ether     |       | mg/kg | 5   | ND  |



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- Remark (14.0 post-times-days-scene)
(2586g to 4.1 post-times-form) (14.0 post-times-for

Member of the SGS Group (SGS SA)

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

22 Mar 2019 - 30 Mar 2019 Testing Period :

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 chiromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBBcs) and Phthalates such as Bis(2-ethylbexyl) phthalate (DBFP). Bibutyl phthalate (DBFP). Tolbutyl phthalate (DBFP), and Diisobutyl phthalate (DBFP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/85/EU.

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

lina

Tina Fan Approved Signatory



Max

Max

### UL Product iQ™



## ZPMV2.E490354 - WIRING, PRINTED - COMPONENT

### Wiring, Printed - Component

See General Information for Wiring, Printed - Component

**Cond Width** 

#### O-LEADING SUPPLY CHAIN (HK) CO LTD

E490354

ROOM 1205, 12/F TAI SANG BANK BLDG 130-132 DES VOEUS ROAD CENTRAL, HONG KONG

|                   |                 | Min             | Cond                 | SS/ | Area       | Solo | der | Oper |       | Meets        | c   |
|-------------------|-----------------|-----------------|----------------------|-----|------------|------|-----|------|-------|--------------|-----|
|                   | Min             | Edge            | Thk                  | DS/ | Diam       | Lim  | its | Temp | Flame | <b>UL796</b> | T   |
| Туре              | mm(in)          | mm(in)          | mic(mil)             | DSO | mm(in)     | c    | sec | c    | Class | DSR          | 1   |
| Multilayer (m     | ass laminate) p | rinted wiring l | ooards.              |     |            |      |     |      |       |              |     |
| O-LEADING-<br>401 | 0.1 (0.004)     | 0.3 (0.012)     | 34 (1.34)            | DS  | 12.7 (0.5) | 260  | 10  | 130  | V-0   | 3            | 153 |
| O-LEADING-<br>407 | 0.08 (0.003)    | 0.2 (0.008)     | 17 (0.67)            | DS  | 9.7 (0.4)  | 260  | 10  | 130  | V-0   | All          | -   |
| Multilayer pri    | nted wiring bo  | ards.           |                      |     |            |      |     |      | 3     |              |     |
| O-LEADING-<br>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 p    | rinted wiring b | oards.          |                      |     |            |      |     |      | 3 77  | 7.57         |     |
| O-LEADING-<br>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-<br>003 | 0.38 (0.015)    | 1.14 (0.045)    | 34 (1.34)            | SS  | 19.1 (0.8) | 260  | 10  | 130  | V-0   | <b>A</b>     | -   |
| O-LEADING-<br>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-<br>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-<br>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-<br>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-<br>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-<br>S02 | 0.2 (0.008)  | 0.2 (0.008)  | 17 (0.67) | SS | 25.4 (1.0) | 260 | 4 | 130 | НВ  | <b>A</b> | * |
|-------------------|--------------|--------------|-----------|----|------------|-----|---|-----|-----|----------|---|
| O-LEADING-<br>S03 | 0.25 (0.010) | 0.25 (0.010) | 34 (1.34) | SS | 25.4 (1.0) | 260 | 4 | 130 | V-0 | All      | * |

 $<sup>\</sup>mbox{\ensuremath{\star}}$  - 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.

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# 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-4.5m

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