# Welcome to O-leading

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.

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**

#### **Quick Details**

Place of Origin:	Guang dong, China (Mainland)	Brand Name:	O-Leading	
Base	FR-4,,Aluminum	Copper	0.5oz-5oz	
Material:		Thickness:		
Min. Hole	0.2mm	Min. Line	0.2mm	
Size:		Width:		
Surface	immersion gold	Board	0.1-5mm	
Finishing:	,OSP,lead free HASL	Thickness		
applicable to:	led,mobile phone,air	character:	Industrial Control pcb	
	conditioners, washing			
	machines			
certificates:	ISO9001,UL,RoHS,SGS	Q/CTN:	10PCS-100PCS	
weight:	0.01kg -5kg	MOQ:	10pcs	
color	blue ,red	price	\$0.1-\$10	
	,green,black.yellow		7 - 7 - 7	
Model	power bank pcb	1.		
Number	assembly pcba manufacturer	size	0.01m3-10m3	
desigh type	client requirement	Min. Line Spacing	0.2mm	

Packaging & Delivery

Packaging	16 years professional OEM pcb board manufacturer
Details:	
Delivery	7-12days
Detail:	

### **Product Description**

16 years professional OEM pcb board manufacture

itom	2014		2015~2016		2017~201	18
item	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	0.15	0.10	0.15	0.10	0.15	0.10
diameter (mm)	0.13				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	50	40	40	30	40	30
copper) (μm)	30	40		50	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					

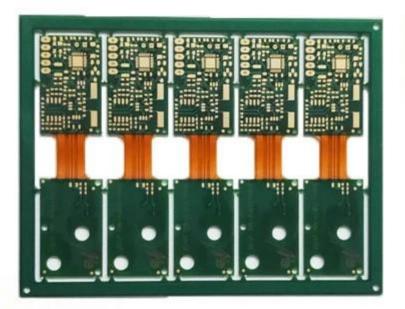








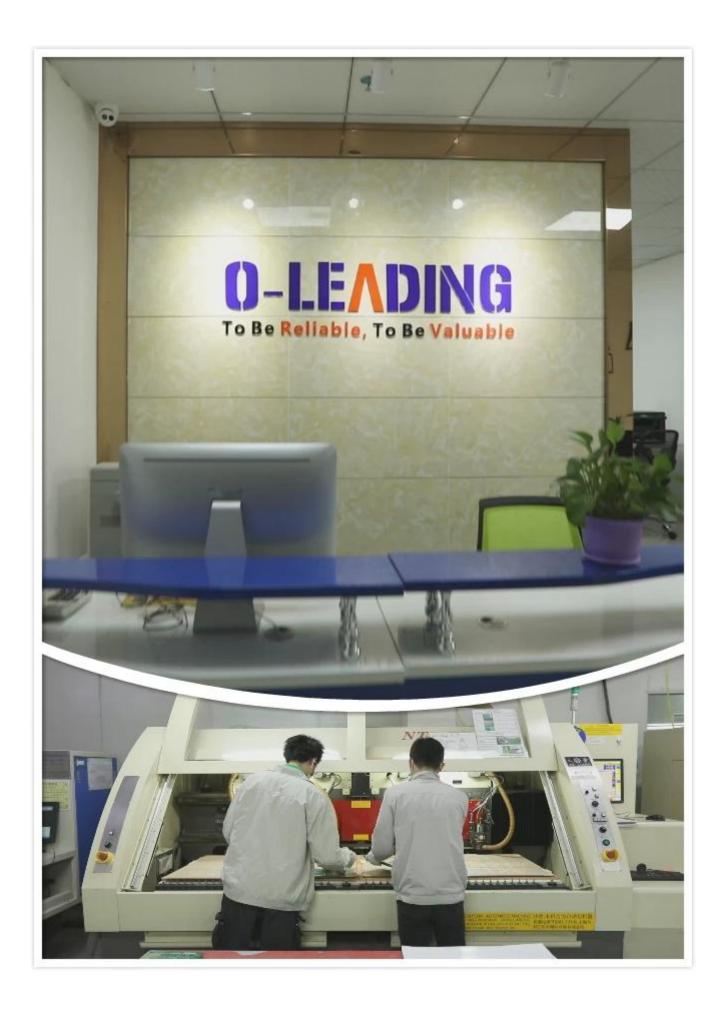




www.o-leading.com

HDI pcb Printed circuit board, Quick turn pcb Printed circuit board

# Our Team





Certifications





#### QUALITY MANAGEMENT SYSTEM CERTIFICATE

#### We hereby certify that O-LEADING SUPPLY CHAIN(HK) CO., LIMITED

Credit No: 61691591-000-07-17-2 Registration Act ROOM 6030.6F HANG PONT COMMERCIAL BULDING,31 TONKIN ST,CHEUNG SHA WAN,KI,HK Business Act 1313 Floor 13 Forture Building,Danstru Town,Huyang District, Huchou, Guangdong,Chris

Has implemented and maintains a Quality Management System

Which fulfils the requirements of the following standards GB/T19001-2016 ldt ISO9001:2015

#### Scope of certification

Sales of printed circuit boards

mark

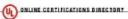
Initial Issuance period: February 27, 2018 This certificate is valid during: February 27, 2018 — February 26, 2021 This certificate is invalid without CICC qualified label in the following period

First	0.000	Second	
supervision	Qualified	supervision	Q:
and audit	man	and audit	

CICC TAB CNAS

2017/26

ZPWVZE40054 - Winny, Printed - Component



### ZPMV2.E490354 Wiring, Printed - Component

For enhanced search functionality, please visit  $0.1\times 10^{-6}$  Family of Databases. Citix on a product designation for complete information.

#### Wiring, Printed - Component

See General Information for Wiring, Printed - Component

O-LEADING SUPPLY CHAIN CO LIMITED

E490354

Fortune Building, Nanhang West Road Room 131,3 Huithou, Guangdons 516211 CHINA

Main   Edge   Thick   D5/   Diam   Limit   Temp   Plans   UL791		Cond	Width	1		Max	- 2		Max			
Type   men(in)   men(in)   men(ini)   men(ini)   Deb   men(in)   C   Sec   C   C   Deb   Deb    HullEtyper (masc lambase) printed wiring boards.  O-LEADING-402  O-LEADING-403    0.3 (0.0312)   0.4 (0.34)   De   1.2 (0.05)   Deb   1.0 (1.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0      0.08 (0.033)   0.2 (0.008)   1.2 (0.05)   Deb   0.2 (0.04)   Deb   0.0   0.0   0.0   0.0   0.0   0.0   0.0    HullEtyper printed wiring boards.  O-LEADING-408    0.125 (0.005)   0.125 (0.005)   1.2 (0.07)   Deb   Deb   Deb   Deb   Deb   0.0   0.0   0.0   0.0   0.0   0.0      0.125 (0.005)   0.125 (0.005)   1.2 (0.07)   Deb   Deb   Deb   Deb   0.0   0.0   0.0   0.0   0.0      0.125 (0.005)   0.125 (0.005)   0.125 (0.005)   0.0   0.0   0.0   0.0   0.0      0.125 (0.005)   0.14 (0.045)   0.4 (1.34)   0.0   0.14 (0.01)   0.0   0.0   0.0   0.0   0.0    O-LEADING-003    0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.0   0.0   0.0      0.14 (0.045)   0.0   0.0      0.14 (0.045)   0.0   0.0      0.14 (0.045)   0.0   0.0      0.15 (0.045)   0.0   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)   0.0      0.15 (0.045)	Т		Min	Cond	SS/	Aren	Sol	der	Oper		Nests	4
Hullistyer (mass instructe) printed wiring boards.   O-16/0014    0.3 (0.012)   34 (1.34)   D6   12.7 (0.5)   260   10   130   V-0   - O-16/0016-402     O-16/0016-402   0.3 (0.012)   37 (0.67)   D5   9.7 (0.4)   260   10   130   V-0   Al     Hullistyer printed wiring boards.   O-16/0016-408   0.125 (0.005)   0.125 (0.005)   12 (0.47)   D5   59.8 (2.0)   280   20   130   V-0   Al     Hullistyer printed wiring boards.   O-16/0016-408   0.125 (0.005)   0.125 (0.005)   12 (0.47)   D5   59.8 (2.0)   280   20   130   V-0   Al     Single byer printed wiring boards.   O-16/0016-408   0.125 (0.005)   0.125		Min	Edge	This	D5/	Diam	Lin	ette	Tump	Flame	UL796	,
O-LEADING-HO1    0.1 (0.004)   0.3 (0.012)   34 (1.34)   06   12.7 (0.5)   260   10   130   V-0   - O-LEADING-HO7   0.08 (0.003)   0.2 (0.008)   17 (0.67)   75   9.7 (0.4)   760   10   130   V-0   Al     Multitayer primise wirting beards.   O-LEADING-HO3   0.125 (0.005)   0.125 (0.005)   12 (0.07)   05   59.8 (2.0)   280   20   130   V-0   Al     Single Byer primise wirting boards.   O-LEADING-HO3   0.18 (0.015)   1.14 (0.045)   34 (1.34)   35   19.1 (0.0)   760   10   105   V-0   Al     O-LEADING-HO3   0.38 (0.015)   1.14 (0.045)   34 (1.34)   35   19.1 (0.0)   260   10   130   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   25.8 (1.0)   260   10   120   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   25.8 (1.0)   260   10   120   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   25.8 (1.0)   260   10   120   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   25.8 (1.0)   260   10   120   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   35.8 (1.0)   260   10   100   V-0   Al     O-LEADING-HO3   0.15 (0.006)   0.3 (0.012)   34 (1.34)   35   35.8 (1.0)   260   10   100   V-0   Al	ж	mm(in)	mm(in)	mic(mil)	090	me(in)	c	sec	c	Class	DSR	ī
0.1 (0.004)	Hila	yer (mass lan	ninate) printed	wiring boa	erds,						AT S	
0-4EADING-407  0-06 (0.003) 0-2 (0.006) 17 (0.67) 05 9-2 (0.4) 260 10 130 V-0 MI  MURITAGE PRIMARY PRIMARY BEARDS.  0-1EADING-408  0-125 (0.005) 0.125 (0.005) 12 (0.07) 05 95.8 (2.0) 280 20 130 V-0 MI  Single byer primary wiring beards.  0-16 DING-408  0-17 (0.015) 1.14 (0.045) 36 (1.34) 55 19.1 (0.0) 260 10 105 V-0 MI  0-18 DING-003  0-18 (0.015) 1.14 (0.045) 36 (1.34) 55 19.1 (0.8) 260 10 130 V-0 MI  0-18 DING-003  0-18 DING-004  0-18 DING-003	LEAD	DING-401										Т
0.08 (0.031)   0.2 (0.008)   17 (0.67)   DS   9.7 (0.4)   260   10   130   V-0   All	T	0.1 [0.004]	0.3 (0.012)	34 (1.34)	DE	12.7 (0.5)	260	10	130	V-0		ŀ
Hullistager printed wiring boards.	LEAL	DING-407										
O-LEADING-408  0.125 (0.005) 0.125 (0.005) 12 (0.47) D6		0.08 (0.003)	0.2 (0.008)	17 (0-67)	DS	9.7 (0.4)	260	10	130	V-0	All	ŀ
C.125 (0.005)   0.125 (0.005)   12 (0.07)   D6   50.8 (2.0)   280   20   130   V-0   M	Ella	yer printed w	iring boards.									•
Initial   Init	LEAD	DING-408	6							00	-0. 0	
O-LEADING-002  0.78 (6.015) 1.14 (0.045) 34 (1.34) 55 19.1 (0.0) 260 10 105 V-0 M  O-LEADING-003  0.38 (6.015) 1.14 (0.045) 34 (1.34) 55 19.1 (0.0) 260 10 130 V-0 ▲  O-LEADING-035  0.15 (0.066) 0.3 (0.012) 34 (1.34) 55 25.4 (1.0) 260 10 120 V-0 M  O-LEADING-205  0.3 (0.004) 0.3 (0.012) 34 (1.34) 55 25.4 (1.0) 260 10 120 V-0 M  O-LEADING-205	1	0.125 (0.005)	0.125 (0.005)		DS	50.8 (2.0)	280	20	130	940	All	ŀ
0.78 (0.015)   1.14 (0.045)   30 (1.34)   55   19.1 (0.0)   260   10   105   9-0   Al	gle	layer printed	wiring boards.									
0-LEADING-003  C.38 (6.015)	LEAD	DIN6-002	0		rs. 6	33 11					3 .	Ī
0.38 (0.015) 1.14 (0.045) 34 (1.34) 58 19.1 (0.8) 260 10 130 №     O-LEADING-033  0.15 (0.006) 0.3 (0.012) 34 (1.34) 55 25.4 (1.0) 260 10 120 №     O-LEADING-205  0.1 [0.004] 0.3 (0.012) 34 (1.34) 05 89.8 (2.7) 260 10 130 №     All	T	0.78 (0.015)	1.14 (0.045)	34 (1,34)	55	(9.1 (0.0)	260	10	105	V-0	M	ŀ
0-1EADING-033  0.15 (6.006) 0.3 (0.012) 34 (1.34) 55 25.4 (1.0) 260 10 120 9-0 48  0-1EADING-205  0.1 [0.004] 0.5 (0.012) 54 (1.34) 05 89.6 (2.7) 260 10 130 9-0 48	LEAD	DING-003				3 8						
0.15 (0.006) 0.3 (0.012) 34 (1.34) 55 25.4 (1.0) 260 10 120 9-0 44  0-1CADING-205  0.3 (0.004) 0.5 (0.012) 54 (1.34) 05 89.6 (2.7) 260 10 130 9-0 44	T	0.38 (0.015)	1.14 (0.045)	34 (1,34)	55	19.1 (0.8)	260	10	130	940	<b>A</b>	ŀ
0-1EADING-205  0.3 [0,004] 0.5 (0,012) 54 (1,34) DS 89.6 (2.7) 260 10 130 V-0 48	LEAL	DING-033		3								
0.1 [0.004]		0.15 (0.006)	0.3 (0.012)	34 (1,34)	55	25.4 (1.0)	260	10	120	9-0	44	ŀ
	LEAD	DING-205		3								
2.00.00.20.00	1	0.1 [0.004]	0.3 (0.012)	34 (1.34)	DS .	69.6 (2.7)	250	10	130	V+0	All .	-
O-LEADING-206	LEAL	DING-206		510	63 V							
0.15 (0.006) 0.33 (0.013) 17 (0.67) 05 69-6 (2-7) 260 10 130 9-0 44	1	0.15 (0.006)	0.33 (0.013)	17 (0-67)	DS .	69-6 (2-7)	260	10	130	9-0	All .	

\* - CTI marking is optional and may be marked on the printed wiring board.

Nording: Company name or file number and type designation. Nay be followed by a suffix to desoite factory identification or burning text desoitedation. Last ligitated on 2017-91-27

Questions? Print this gage Terms of Use rapidatase Journa (BAYVInglandSEKT/ERVINELLogoga) milkare ZEMVZ, Edition Landaudi Villing (Printe) +Corporation (- 12 SGS

Test Report

No. CANEC1805164701

Date: 03 Apr 2018 Page 2 of 6

Test Results :

Test Part Description :

scimen No. SGS Sample ID Description SN1 CAN18-051647.001 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, IEC62321-5:2013, IEC62321-7:22017, IEC 62321-6:2015 and IEC62321-6:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test item(s)	Limit	Unit	MOL	001
Cadmium (Cd)	100	mg/kg	2	NO
Lead (Pb)	1.000	mg/kg	2	9
Mercury (Hg)	1.000	mg/kg	2	NO
Hexavalent Chromium (CrVI)	1.000	mg/kg	8	NO
Sum of PBBs	1,000	mg/kg	12	NO
Manobromobiphenyl		mg/kg	5	NO
Dibromobiphenyl		mg/kg	5	NO
Tribromobiphenyl	4	mg/kg	5	NO
Tetrabromobiphenyl		mg/kg	5	NO
Pentatromotiphenyl		mg/kg	5	NO
Hexabromobiphenyl		mg/kg	5	NO
Heptabromobiphenyl		mg/kg	- 5	NO
Octabromobiphenyl		mg/kg	5	NO
Nonabromobiphenyl		mg/kg	5	NO
Decabromobiphenyl	7.5	mg/kg		ND
Sum of PBDEs	1.000	mg/kg	12	NO
Manabromodipheryl ether		mg/kg	5	NO
Dibromodiphenyl ether	-	mg/kg	5	NO
Tribromodiphenyl ether	4	mg/kg	5	NO
Tetrabromodiphenyl ether	-	mg/kg	5	NO
Pentahromodioheral ether		mafea		MO



## Packaging & Delivery

Packaging Details	16 years professional OEM pcb board manufacturer
Delivery Detail	7-12days



### **FAO**

- 1. How do O-Leading ensure quality?
- Our high quality standard is achieved with the following.
- 1. The process is strictly controlled under ISO 9001:2008 standards.
- 2.Extensive use of software in managing the production process
- 3.State-of-art testing equipments and tools. E.g. Flying Probe, X-ray Inspection, AOI (Automated Optical Inspector) and ICT (in-circuit testing).
- 4. Dedicated quality assurance team with failure case analysis process
- 5. Continuous staff training and education
- 2. How do O-Leading keep your price competitive?

Over the last decade, prices of many raw materials (e.g. copper, chemicals) had doubled, tripled or quadrupled; Chinese currency RMB had appreciated 31% over US dollar; And our labor cost also increased significantly. However, O-Leading have kept our pricing steady. This owns entirely to our innovations in reducing cost, avoiding wastes and improving efficiency. Our prices are very competitive in the industry at the same quality level.

We believe in a win-win partnership with our customers. Our partnership will be mutually beneficial if we can provide you an edge on cost and quality.

3. What kinds of boards can O-Leading process?

Common FR4, high-TG and halogen-free boards, Rogers, Arlon, Telfon, aluminum/copper-based boards, PI, etc.

- 4. What data are needed for PCB production? It is best to provide data in Gerber 274-X format. In addition, Cam350, CAD, Protel 99se, PADS, DXP and Eagle can also be processed.
- 5. What's the typical process flow for multi-layer PCB? Material cutting  $\rightarrow$  Inner dry film  $\rightarrow$  inner etching  $\rightarrow$  Inner AOI  $\rightarrow$  Multi-bond  $\rightarrow$  Layer stack up Pressing  $\rightarrow$  Drilling  $\rightarrow$  PTH  $\rightarrow$  Panel Plating  $\rightarrow$  Outer Dry Film  $\rightarrow$  Pattern Plating  $\rightarrow$  Outer etching  $\rightarrow$  Outer AOI  $\rightarrow$  Solder Mask  $\rightarrow$  Component Mark  $\rightarrow$  Surface finish  $\rightarrow$  Routing  $\rightarrow$  E/T  $\rightarrow$  Visual Inspection.