

# O-leading

O-Leading PCB PCB PCB PCB PCB EMS HDIPCB  
PCB PCB PCB PCB PCB Fast  
PCB

O

O-leading PCB PCB

PCB



WE ALWAYS PROVIDE YOU  
BEST RIGID-FLEXIBLE CIRCUIT

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

WE ALWAYS PROVIDE YOU

BEST HIGH DENSITY INTERCONNECT PCB



Keep *LEARNING*

There's a phrase in Buddhism, 'Beginner's mind.'

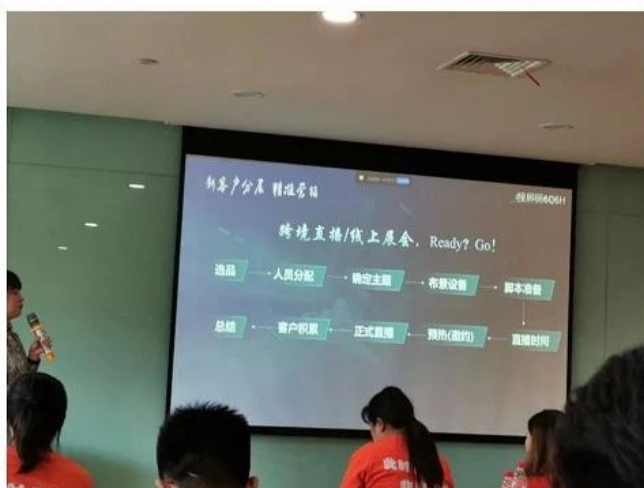
It's wonderful to have a beginner's mind

WE HAVE A *DREAM*

Keep *RUNNING*

I would like to live to study, and not study to live.

---Bacon

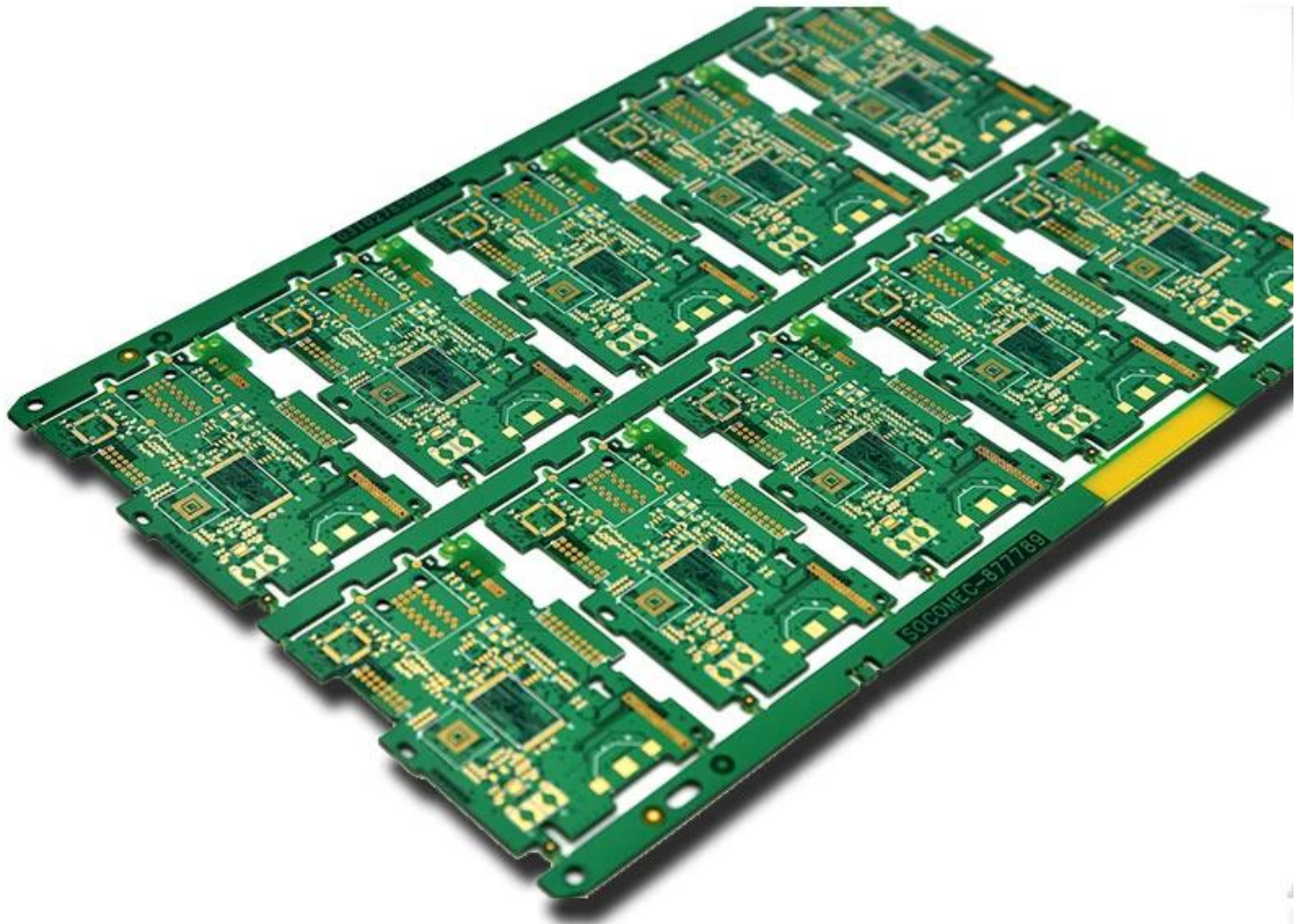


□□□□

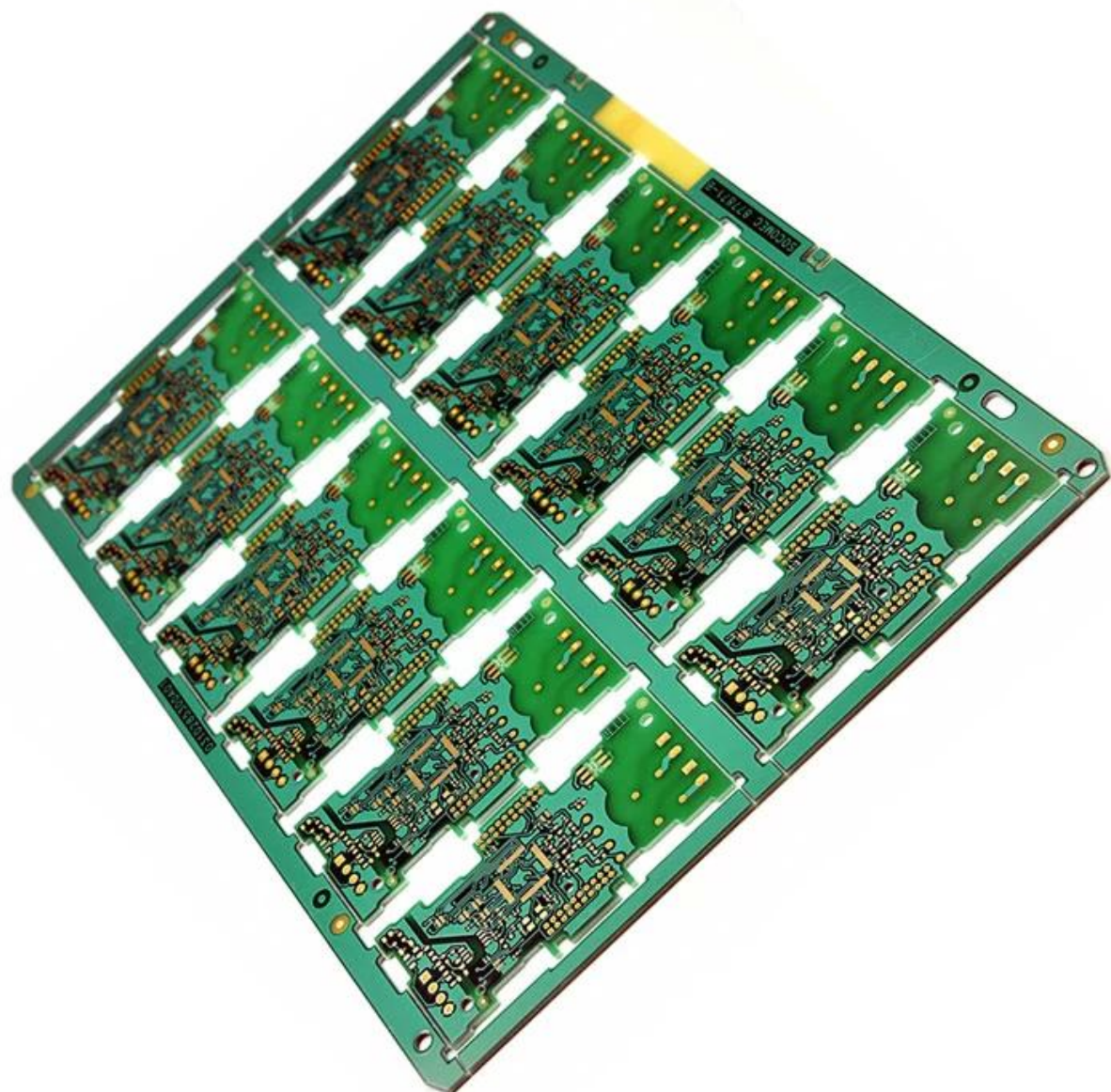
PCB PCB OEMPCB PCB PCB  
0.26mm

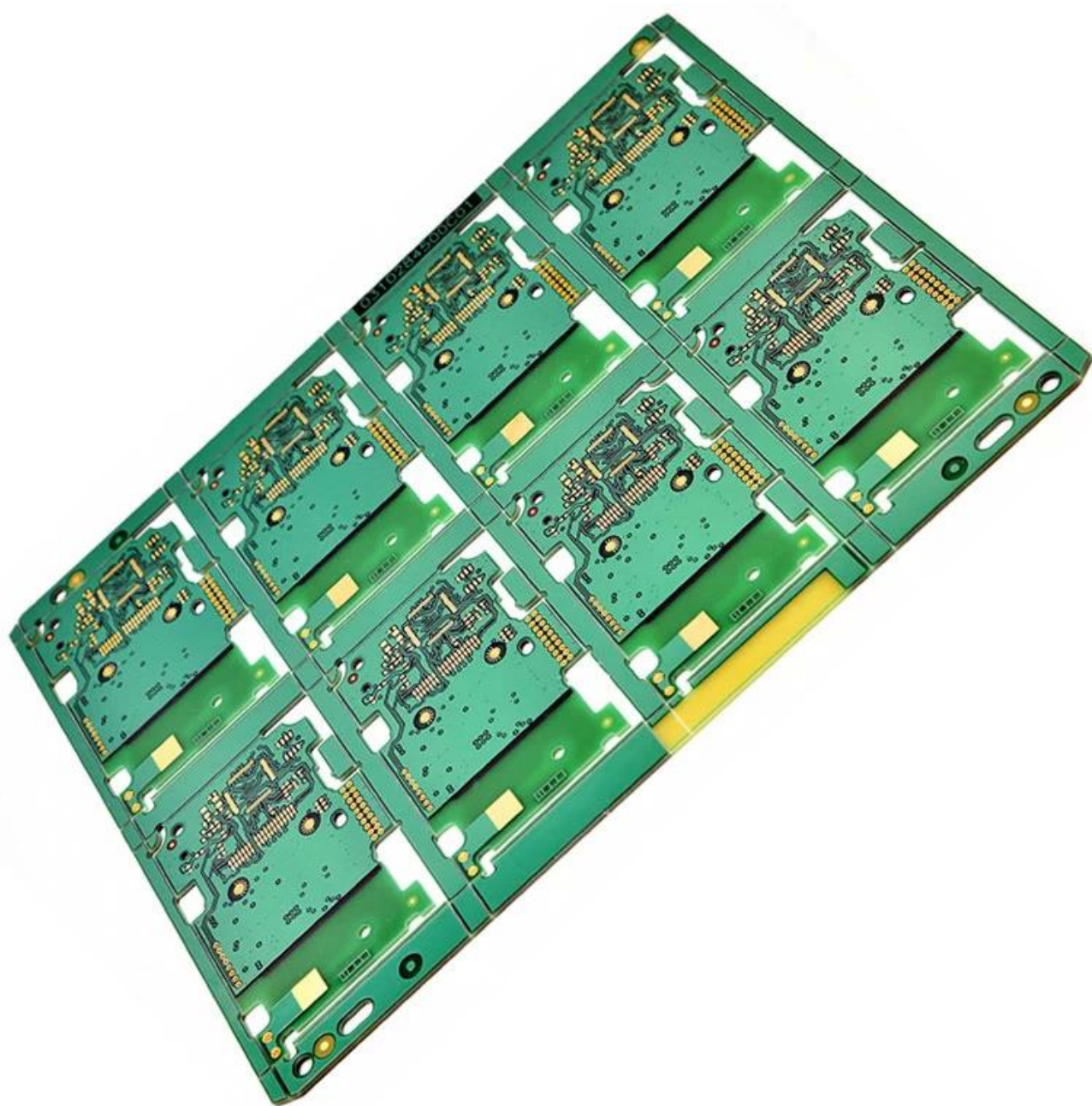
TOP QUALITY PCBA

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



MAKE YOUR IDEA COME **TRUE**





TOP QUALITY PCBA

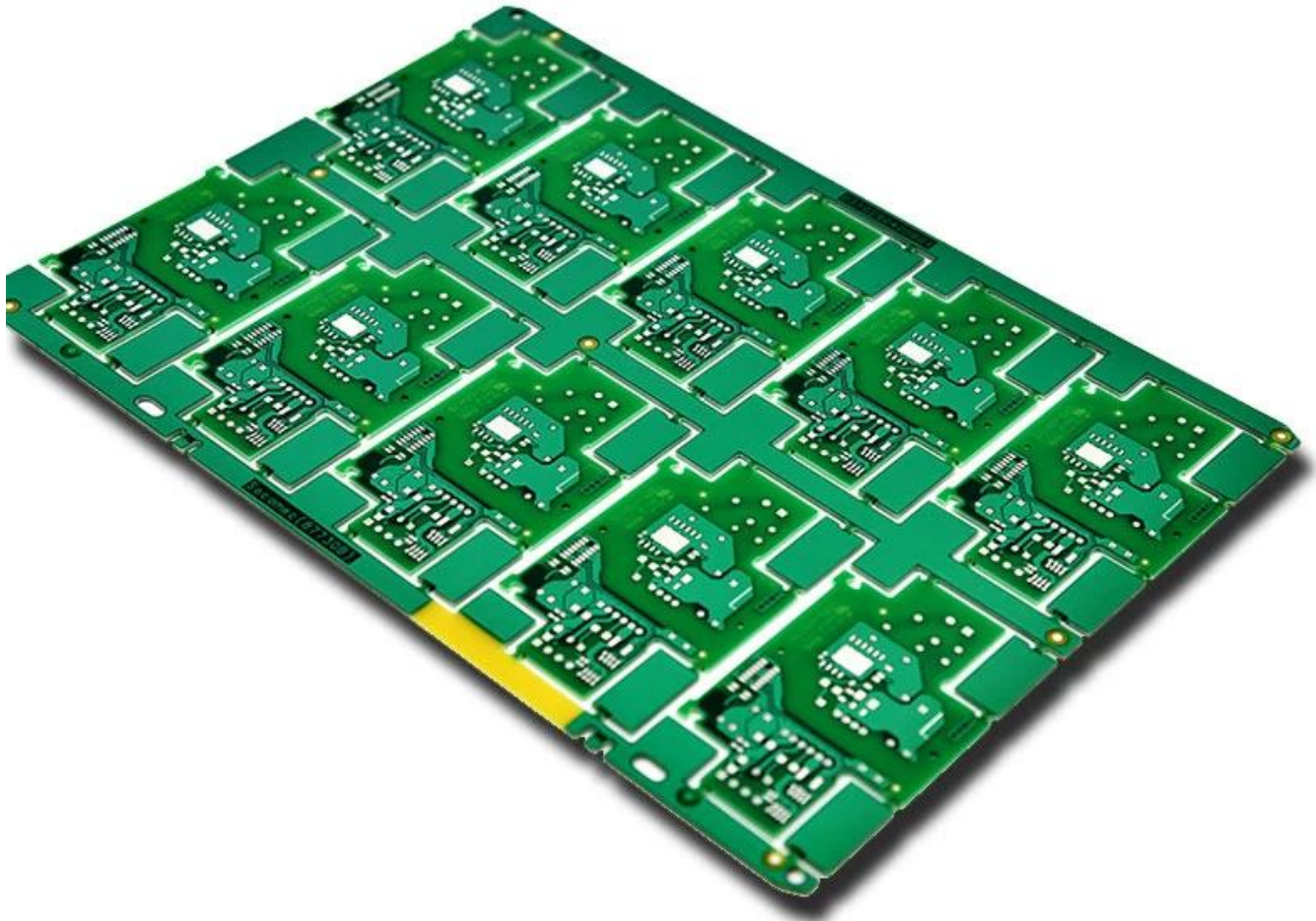
**O-LEADING**  
To Be Reliable, To Be Valuable



MAKE YOUR IDEA COME **TRUE**

TOP QUALITY PCBA

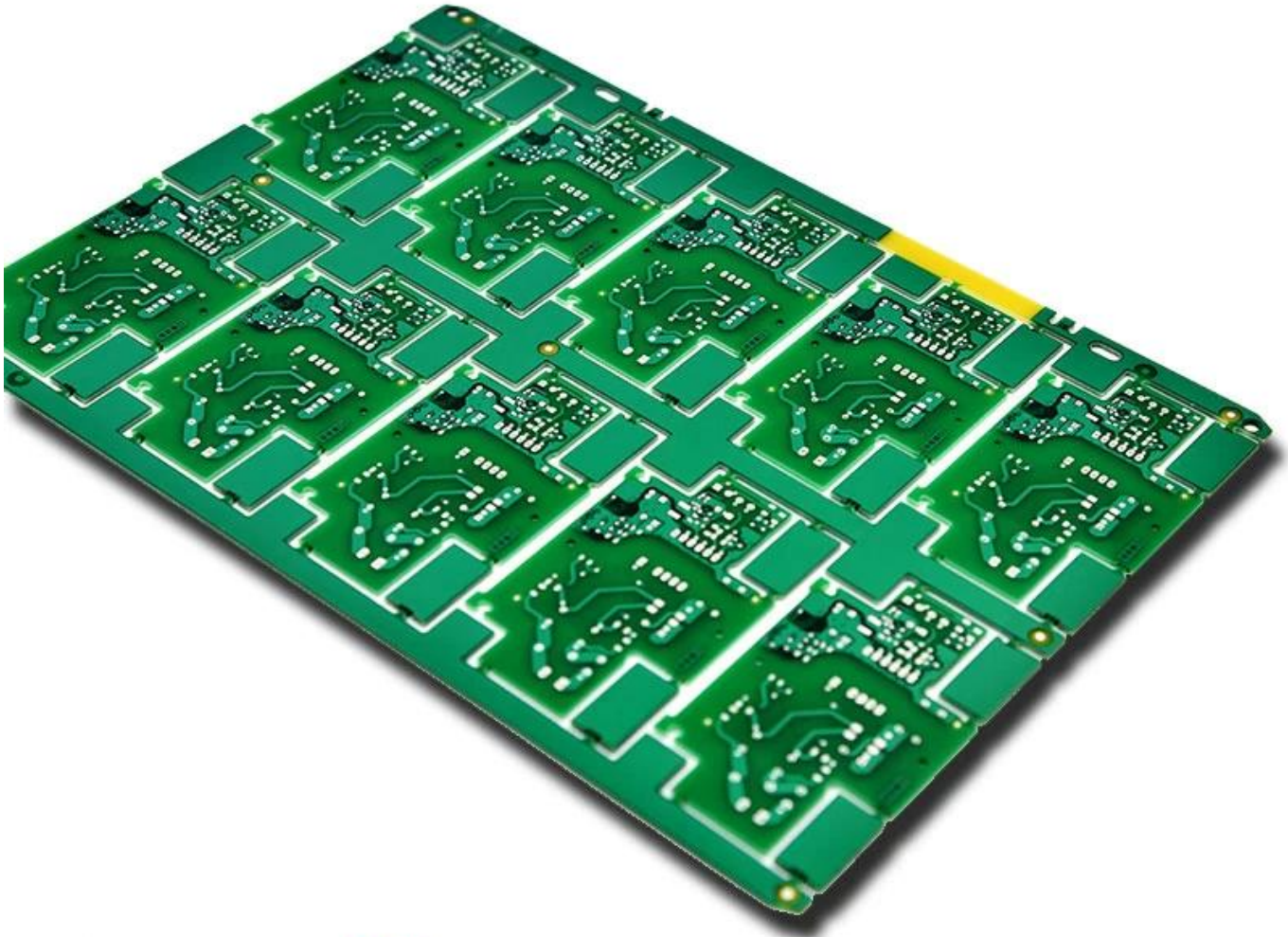
**O-LEADING**  
To Be Reliable, To Be Valuable



MAKE YOUR IDEA COME **TRUE**

TOP QUALITY PCBA

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



MAKE YOUR IDEA COME **TRUE**

# Market Share

 CONSUMER ELECTRONICS

 AUTOMOTIVE ELECTRONICS

 INDUSTRIAL CONTROL

 INTELLECTUALIZED HOUSEHOLD CONTROL

 OTHER



**30%**  
CONSUMER ELECTRONICS



**18%**  
INTELLECTUALIZED HOUSEHOLD CONTROL

**20%**  
AUTOMOTIVE ELECTRONICS

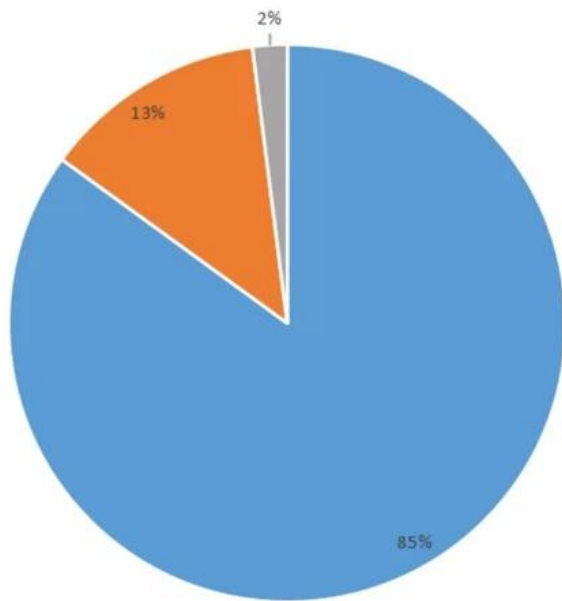


**12%**  
OTHER

**20%**  
INDUSTRIAL CONTROL



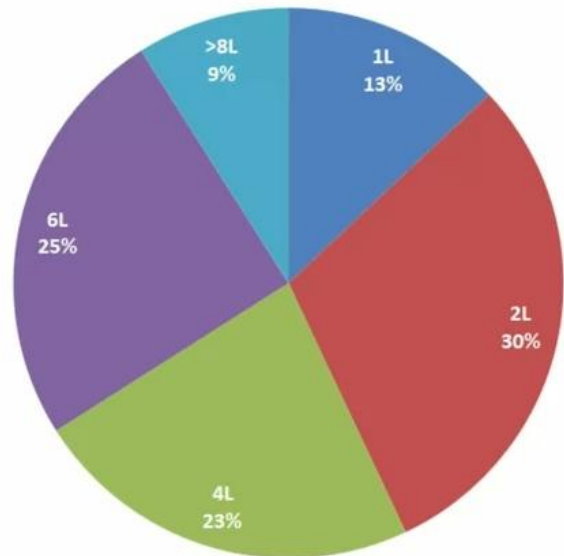
Product types



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

Product layers

■ 1L ■ 2L ■ 4L ■ 6L ■ >8L



# Production Process

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





## 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



# HOW O-LEADING MAKE A PROJECT FOR YOU

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

Hardware Dispenser Application Not

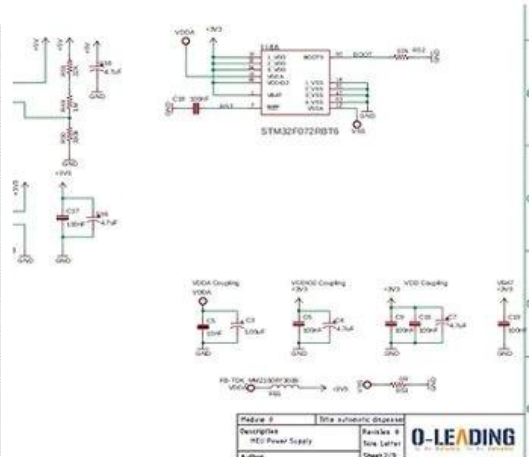
## Automatic Dispenser Application Not

Voltage Table

| Volt Pin Number | Description     |
|-----------------|-----------------|
| VDD             | Battery Voltage |
| +3V3            | +3.3V           |
| +5V             | +5V             |
| USB +5V         | USB 5V input    |
| +5V2            | Isolated +5V    |
| +12V            | 12V DC Drive    |

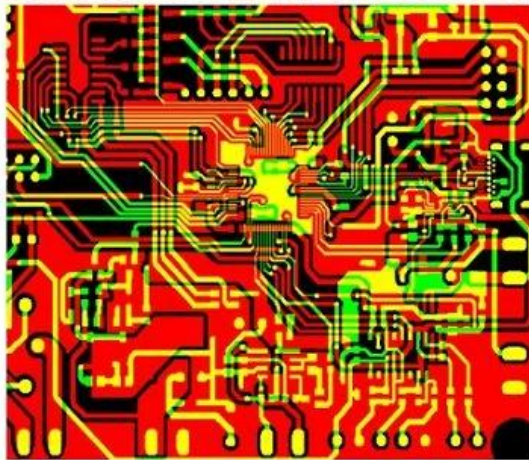
STM32F072 Pinout table

| Wire Name   | Description                                  | DIO      | Mode                  | Note |
|-------------|----------------------------------------------|----------|-----------------------|------|
| SHDN_T0F    | Shutdown Time of flight sensor               | Output   | Logic '1' to shutdown |      |
| I2C_SCL_T0F | I2C communication with time of flight sensor | I2C1_SCL |                       |      |
| I2C_SDA_T0F | I2C communication with thermopile sensor     | I2C1_SDA |                       |      |
| I2C_SCL_IR  | I2C communication with thermopile sensor     | I2C2_SCL |                       |      |
| I2C_SDA_IR  | I2C communication with thermopile sensor     | I2C2_SDA |                       |      |
| RATE_LC     | Load cell control pins                       | Output   |                       |      |
| DOUT_LC     | Load cell control pins                       | Output   |                       |      |

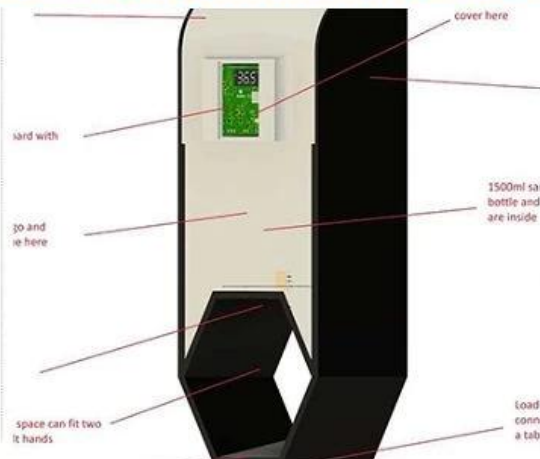


## HARDWARE schematics

## PCB PRODUCTION COMPONENTS SOURCING



| Qty | Value   | Device        | Parts   | Description                     |
|-----|---------|---------------|---------|---------------------------------|
| 4   | AK500/1 | AK500/2       | X1, X2  | CONNECTOR                       |
| 1   | AK500/1 | AK500/3       | X7      | CONNECTOR                       |
| 1   | 124114  | MA04-2        | SV2     |                                 |
| 1   | PPPC04  | MA04-2        | SV1     | 8 POS, 4*2 FEMALE PIN HEAD      |
| 1   | ML10    | ML10          | SV4     | HARTING                         |
| 1   | 8MHZ    | XTALL CSTCE8M | X5      | STCE8M00G52-R0 RESONATOR        |
| 1   | 0R      | R-0603        | R53     | Thick Film Resistors - SMD 0603 |
| 2   | 10R     | R-0603        | R12, R5 | Thick Film Resistors - SMD 0603 |
| 8   | 100R    | R-0603        | R1, R2  | Thick Film Resistors - SMD 0603 |
| 1   | 270R    | R-0805        | R15     | Thick Film Resistors - SMD 0605 |
| 1   | 330R    | R-0603        | R11     | Thick Film Resistors - SMD 0603 |
| 9   | 680R    | R-0603        | R20, R3 | Thick Film Resistors - SMD 0603 |
| 17  | 1k      | R-0603        | R9, R10 | Thick Film Resistors - SMD 0603 |
| 2   | 4.7k    | R-0603        | R17, R6 | Thick Film Resistors - SMD 0603 |
| 2   | 5.1k    | R-0603        | R18, R1 | Thick Film Resistors - SMD 0603 |
| 9   | 10k     | R-0603        | R16, R3 | Thick Film Resistors - SMD 0603 |
| 1   | 100k    | R-0603        | R22, R7 | Thick Film Resistors - SMD 0603 |



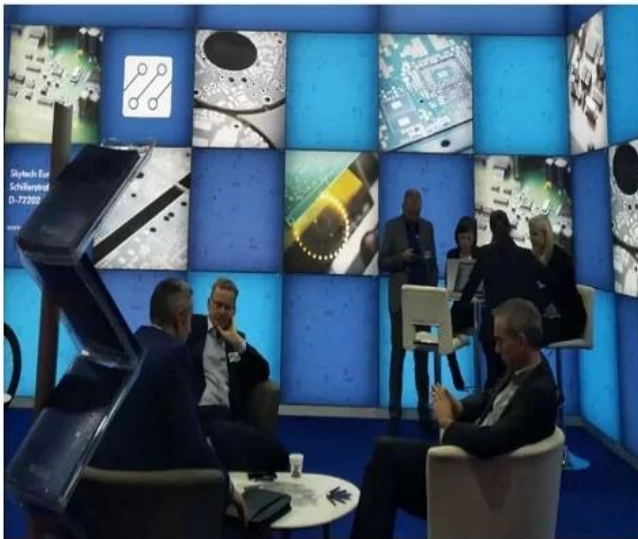
## PCB Assembly MECHANICAL DESIGN

To be *RELIABLE*

**Q**uality first ,  
**C**ustomer supreme ,  
**S**cientifically management ,  
**S**triving for famous brand



*THE CUSTOMER IS KING*



To be *VALUABLE*

**S**cience and technology keeps head ,  
**P**ut people first ,  
**B**e precise and practical ,  
**C**ontribute sincerely

Skyworth 创维

**HAT** 和而泰  
HAT INTELLIGENT CONTROL

dongweikeji  
东威科技

美的 Midea

STAR-NET  
星网锐捷

FORYOU  
ADAYO 华阳集团

**EDIFIER**®

Cultraview 金锐显

3nod 三诺

**T&W**

**TCL**

AcBel 康舒科技  
ACBEL POLYTECH INC.

**Honeywell**

Schneider  
Electric

**ZTE** 中兴

**EMERSON**

**BYD**

**PHILIPS**

**TE**  
connectivity

**VIDEOTON**

CUSTOMER VOICE IS **EXTREMELY IMPORTANT** TO US

订单编号: 49335463501024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **High quality usb power pcb ,pcba manufacturer**  
★★★★★  
Fancy has done an excellent job, whenever we write, she answered us within 1 second, O-leading is very perfect with fast delivery, fast logistics, the most important thing is good quality, good packaging, thank you!

[回复该评论](#)

 **oem customized rohs pcb drawing schematic s...**  
★★★★★  
We received the boards, the quality is very good, the price is very reasonable, Fancy is very nice & smart & experienced, the logistics is super fast, I will come to see more in the future.

[回复该评论](#)

订单编号: 49298271001024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **High TG180 FR-4 Circuit HDI PCB 94V0 Board ...**  
★★★★★  
perfect product, perfect PCB supplier!

[回复该评论](#)

 **oem customized rohs pcb drawing schematic s...**  
★★★★★  
Very good and professional PCB product as usual!

[回复该评论](#)

 **Strip LED Aluminum FR-4 lighting PCB board 9...**  
★★★★★  
High quality, fast delivery, good service, competitive price, lucky and happy to purchase from O-leading!

[回复该评论](#)

订单编号: 49822411001024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **High TG180 FR-4 Circuit HDI PCB 94V0 Board ...**  
★★★★★  
This is a very difficult PCB design, but we are lucky to find O-leading to support the PCB for us very good to a PCB supplier.

 **universal FR4 Multilayer PCB washing machine...**  
★★★★★  
Fancy gives us very excellent service, very professional and experienced, O-leading is the best one of our suppliers, very happy to work with them.

订单编号: 49024962001024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **High quality Keyboard pcb & pcba Factory SMT...**  
★★★★★  
Top quality, it's the right choice to choose O-leading to make the PCB & PCBA

[回复该评论](#)

订单编号: 4093862301024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **Professional Printed Circuit Board Manufacturer...**  
★★★★★  
Very high quality PCB products, O-leading is the best PCB supplier that we have ever worked with.

订单编号: 44068794501024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **High TG180 FR-4 Circuit HDI PCB 94V0 Board ...**  
★★★★★  
We bought two batches, one by DHL, the other one by air, good quality and fast delivery!

LISTEN TO **CUSTOMER VOICE**

订单编号: 4090347501024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **Strip LED Aluminum FR-4 lighting PCB board 9...**  
★★★★★  
Very fast delivery! Fantastic, good job!!

 **Professional Printed Circuit Board Manufacturer...**  
★★★★★  
Very happy to great support from O-leading, they are not only professional on the PCB, but also provide good PCB products, very good supplier!

 **hot sale rigid-flexible PCB with 0.2mm BGA an...**  
★★★★★  
very professional supplier

 **High Quality custom FPCB/Flex PCB/FPC/Flexi...**  
★★★★★  
Good product

 **OEM ODM PCBA Bluetooth Wireless Marking G...**  
★★★★★  
high soldering quality

 **Electronic parts haptic pcba Circuit Board asse...**  
★★★★★  
Very Good product

订单编号: 37378603001024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **Raspberry pi 0 Zero Raspberry Pi Zero Pi W ver...**  
★★★★★  
Fantastic products!!

 **double layer pcb with red S/M and LF-HASL su...**  
★★★★★  
Good!

订单编号: 36919647001024670

供应商服务: 非常满意 (5 stars) 按时发货: 非常满意 (5 stars)

 **AML-S802 Quad-core Android embedded board...**  
★★★★★  
Good products

 **Fast delivery low cost pcb fabrication O-leadin...**  
★★★★★  
Good supplier

 **Lidar IR Sensor board pcba(H08R6x)**  
★★★★★  
perfect product

 **Customized PCBA design PCB design**  
★★★★★  
perfect

 **Audio Speaker and Headphone Jack (H07R3x)**  
★★★★★  
High quality, good

 **half hole pcb, half hole pcb module, half hole m...**  
★★★★★  
Top half hole pcb supplier, very perfect goods

 **High Quality custom FPCB/Flex PCB/FPC/Flexi...**  
★★★★★  
this rigid-flexible pcb quality is perfect!

 **Electronic parts haptic pcba Circuit Board asse...**  
★★★★★  
Very satisfied with O-leading products and quality, especially their on-time delivery, fantastic!

**Be kind to your client,  
because he has many choices,  
but he chooses you instead.**





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 (PBDs) 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



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www.chinasag.com.cn

SAG-805, No.4, Jiangnan Industrial Park, No.40, Jiang Road, Suzhou, Jiangsu District, Suzhou, China 518129 | (86-756) 25326888 | (86-756) 83106190 | www.sagsgroup.com.cn

中国·苏州·江枫工业园4号路430号江枫工业园4号SAG-805楼 邮编: 215129 | (86-756) 25326888 | (86-756) 83106190 | e: sas.china@sag.com.cn

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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  |

[illegible]

SQS Bldg. M-1, JCNH Industrial Park, No.400, Shua Road, Beibei, Longgang District, Shenzhen, China 518129 t (86-755)25328888 f (86-755)83106190 www.sqsgroup.com.cn  
中国·深圳·龙岗区田面华路430号江田工业园4楼SQS大厦 邮编:518129 t (86-755)25328888 f (86-755)83106190 e sqs\_china@sqsg.com

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## 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  |    | Solder<br>Limits<br>C | Oper<br>Temp<br>C | Flame<br>Class | Meets<br>UL796<br>DSR | C<br>T<br>I |
|---------------------------------------------------|---------------|---------------|-------------------------|-------------------|------------|------|----|-----------------------|-------------------|----------------|-----------------------|-------------|
|                                                   | Min           | Min           |                         |                   | Area       | Oper |    |                       |                   |                |                       |             |
|                                                   | mm(in)        | mm(in)        |                         |                   | Diam       | sec  |    |                       |                   |                |                       |             |
| 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.

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PCB

|                 |                   |
|-----------------|-------------------|
| PCB             |                   |
| 1               | 1-32              |
| 1 / 3oz-12oz    |                   |
| 3.0mil / 3.0mil |                   |
| 4.0mil / 4.0mil |                   |
| 10              | 1                 |
| 0.2mm-5.0mm     |                   |
| 635 * 1500mm    |                   |
| 4mil            |                   |
| Plated          | +/- 3mil          |
| Blind / AI      |                   |
|                 |                   |
|                 | FR-4FR-4high Tg   |
|                 | HASLOSPENIGHAL-LF |

SMT

|     |                   |
|-----|-------------------|
| PCB | FR-4CEM-1CEM-3FPC |
| PCB | 510x1500mm        |
| PCB | 50x50mm           |
| PCB | 0.5mm-4.5mm       |
|     | 0.54mm            |
|     | 0201              |
|     | 0603              |
|     | 15mm              |
|     | 0.3mm             |
| BGA | 0.4mm             |
|     | +/- 0.03mm        |

PCB

# Shipping service





- 4.1 物料清單BOM
- 4.2 PCB
- 4.3 PCBPCBA
- 4.4
- 4.5

5. PCB

→ → AOI → → PTH → → → E / T →

6. HDI

VCP LDI LDI

7. O-lead

O- ENIG OSP LF-HASL / HDI OSP ENIG OSP + ENIG BGAPAD 0.3mm OSP OSP + ENIG

8. FPC O-Leading SMT

O-Leading 8 FPC 2000mm \* 240mm SMT

9. PCB

; ; ; ; PCB; ;

10. PCB PWB FPC

PCB PWB FPCFlexiblePrintedBoard

11. PCB

PCB Tg CTE PCB 50 250°C PCB / PCB

12. O-leading rigid-flex PCB

O-leading PCB FPC PCB

13.

SI6000 POLARINSTRUMENTS CITS500s