O□□□□□□□□□□□

O-Leading□□PCB□□□PCB□□□PCB□□□□□□PCBA□□□□EMS□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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□□□□□□□□□□□□□□□□□□□□□□**HDI PCB□□□□□□**

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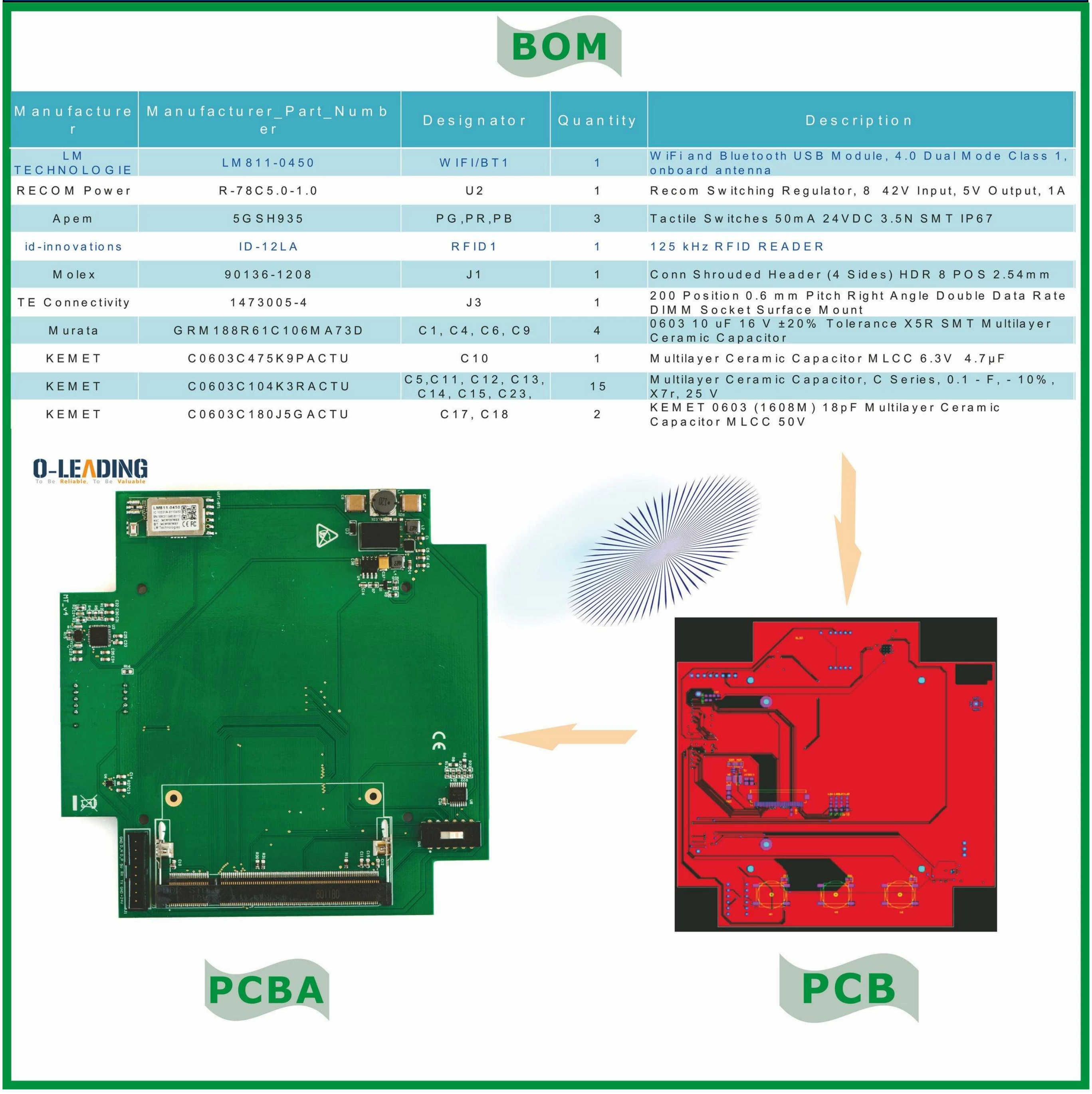
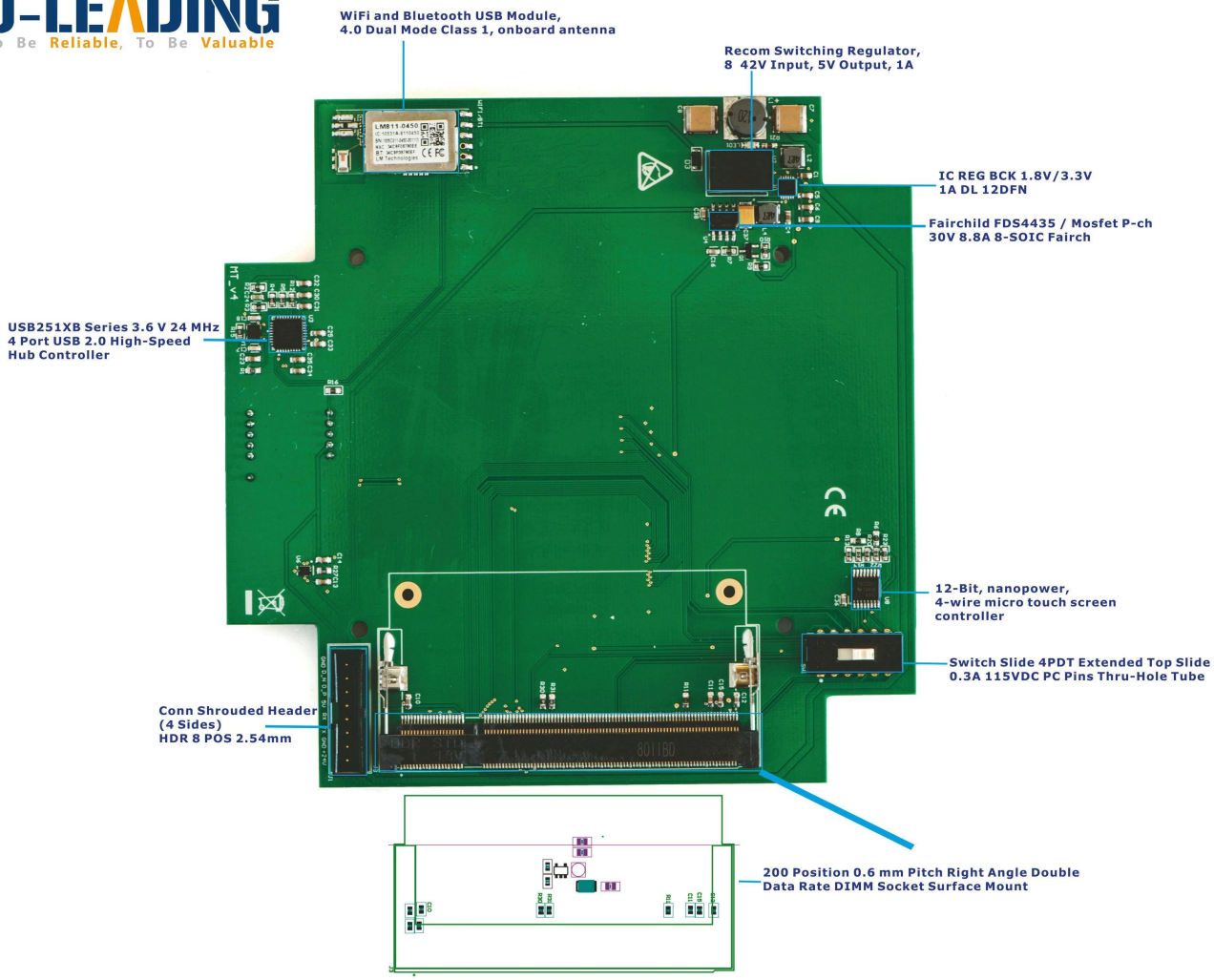
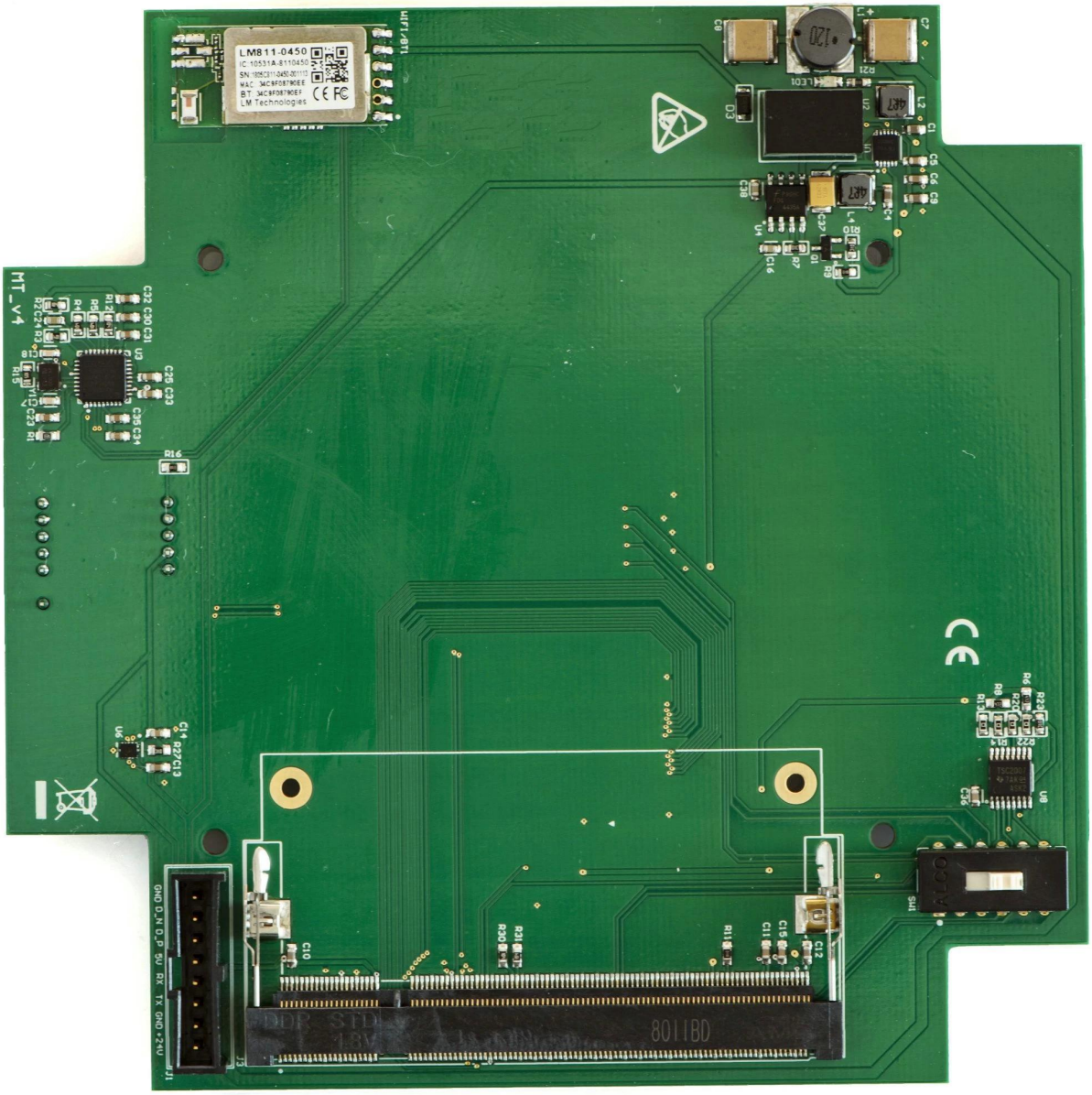


Manufacturer	Manufacturer_Part_Number	Designator	Quantity	Description
LM TECHNOLOGIE	LM811-0450	WIFI/BT1	1	WiFi and Bluetooth USB Module, 4.0 Dual Mode Class 1, onboard antenna
RECOM Power	R-78C5.0-1.0	U2	1	Recom Switching Regulator, 8 42V Input, 5V Output, 1A
Apem	5GSH935	PG,PR,PB	3	Tactile Switches 50mA 24VDC 3.5N SMT IP67
id-innovations	ID-12LA	RFID1	1	125 kHz RFID READER
Molex	90136-1208	J1	1	Conn Shrouded Header (4 Sides) HDR 8 POS 2.54mm
TE Connectivity	1473005-4	J3	1	200 Position 0.6 mm Pitch Right Angle Double Data Rate DIMM Socket Surface Mount
Murata	GRM188R61C106MA73D	C1, C4, C6, C9	4	0603 10 uF 16 V ±20% Tolerance X5R SMT Multilayer Ceramic Capacitor
KEMET	C0603C475K9PACTU	C10	1	Multilayer Ceramic Capacitor MLCC 6.3V 4.7µF
KEMET	C0603C104K3RACTU	C5,C11, C12, C13, C14, C15, C23,	15	Multilayer Ceramic Capacitor, C Series, 0.1 - F, - 10%, X7r, 25 V
KEMET	C0603C180J5GACTU	C17, C18	2	KEMET 0603 (1608M) 18pF Multilayer Ceramic Capacitor MLCC 50V

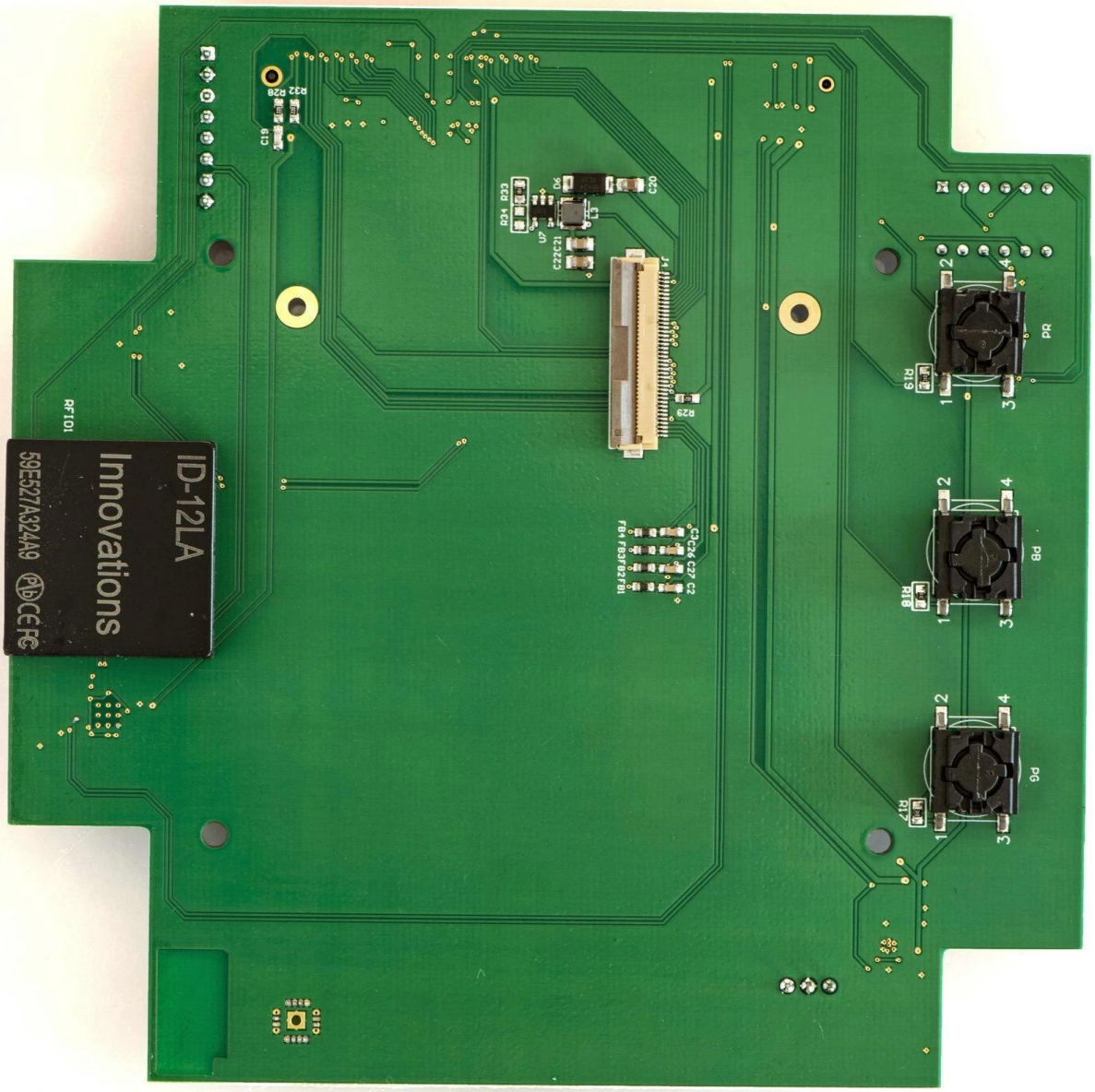
O-LEADING
To Be Reliable, To Be Valuable



O-LEADING
To Be Reliable, To Be Valuable

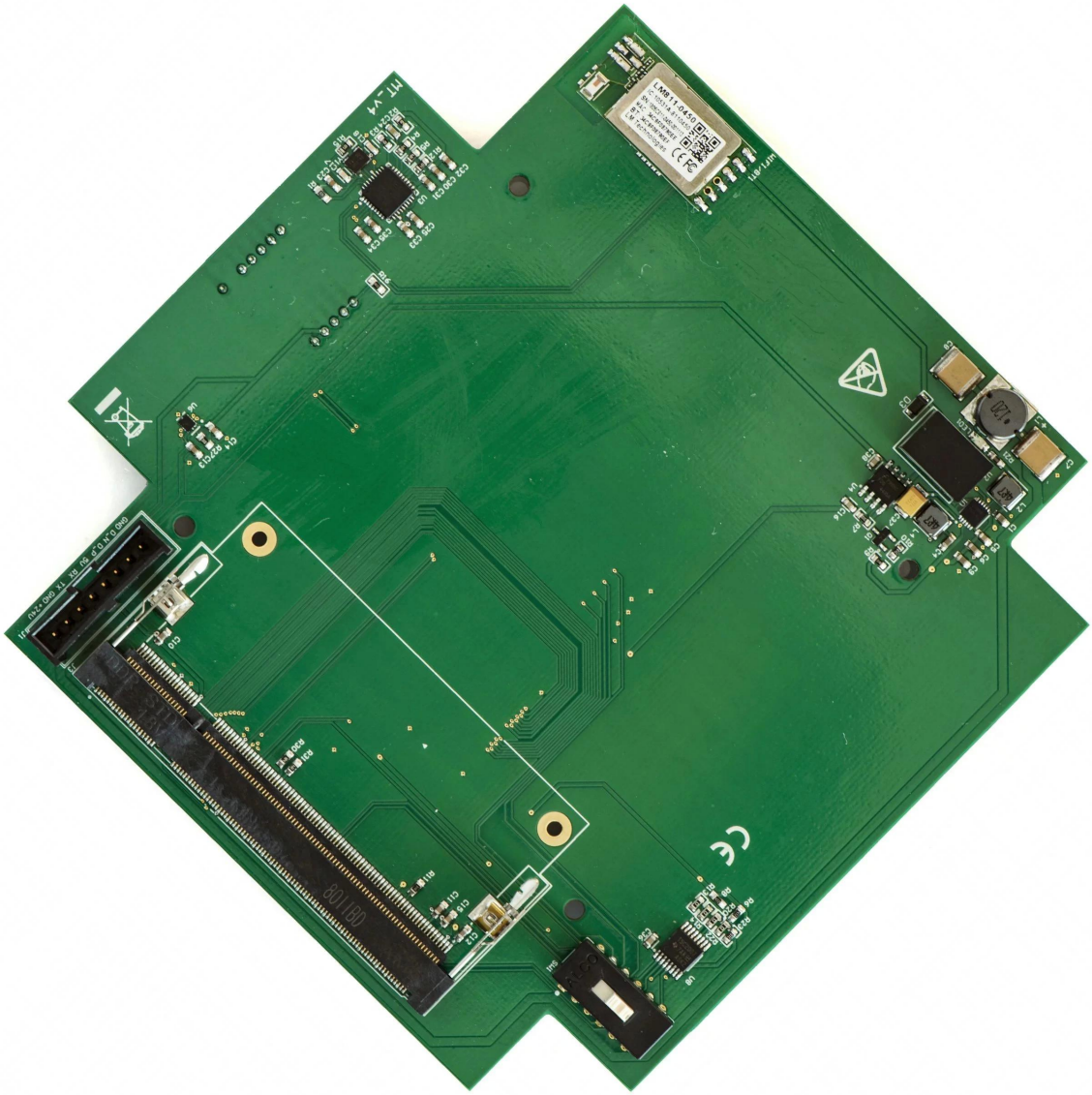


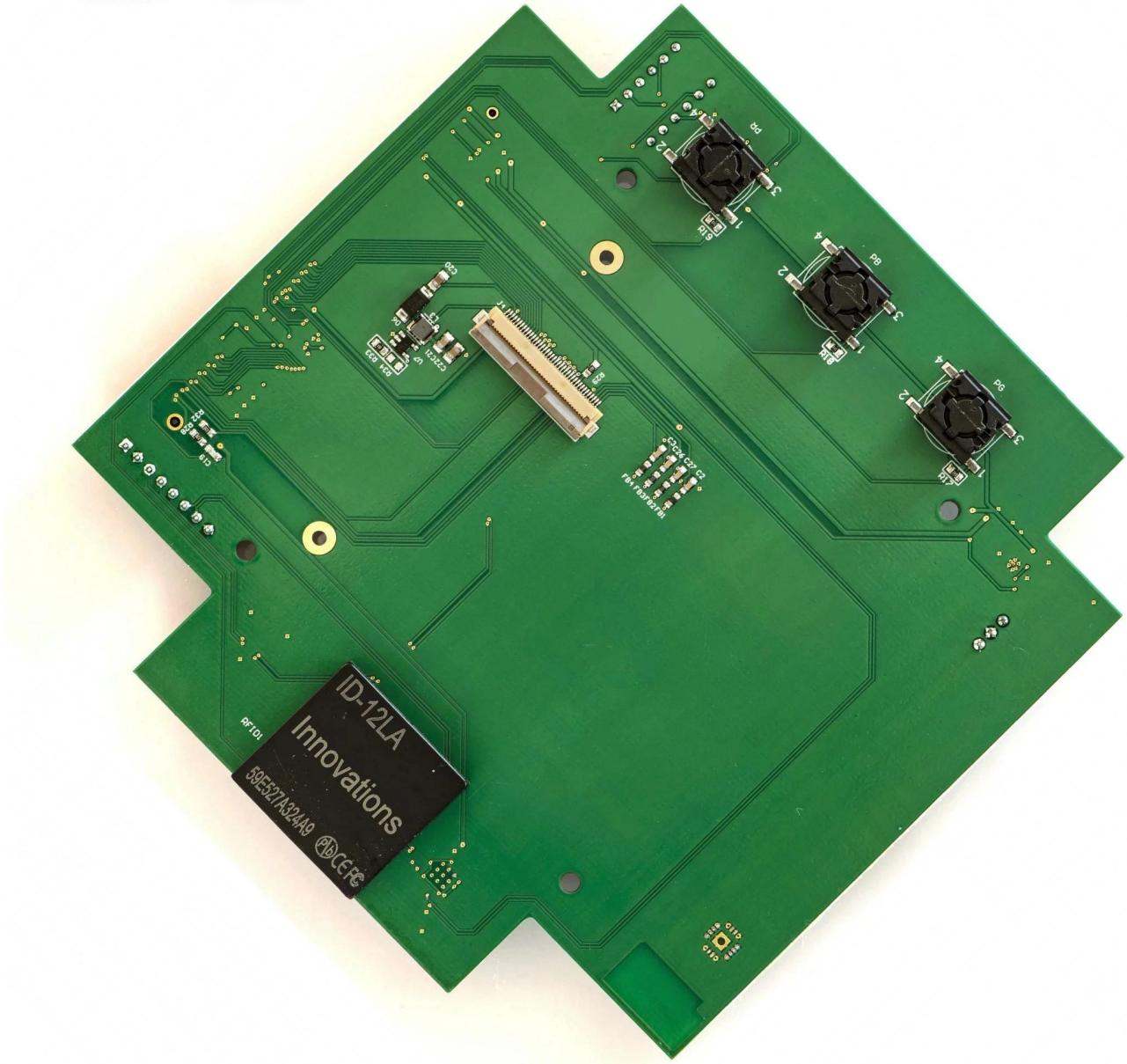
O-LEADING
To Be Reliable, To Be Valuable



O-LEADING

To Be Reliable, To Be Valuable





□□PCB□□□□□□

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O-LEADING

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

CICC INSPECTION CERTIFICATION

CICC CERTIFICATION
嘉泰认证

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 18118Q10347R0S

We hereby certify that

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

Credit No：61691591-000-07-18-7

Registration Add: FLAT/RM 1205 12/F TAI SANG BANK BUILDING 130-132 DES VOEUS ROAD CENTRAL HK

Business Add: 1313, Floor 13, Fortune Building, Danshui Town, Huiyang District, Huizhou, Guangdong, China

Has implemented and maintains a **Quality Management System**

Which fulfils the requirements of the following standards

GB/T19001-2016 idt ISO9001:2015

Scope of certification

Sales of printed circuit boards

Initial Issuance period: February 27, 2018

Renewal date: April 22, 2019

This certificate is valid during: April 22, 2019 ~ February 26, 2021

This certificate is invalid without CICC qualified label in the following period

First supervision and audit		Second supervision and audit	Qualified mark

CICC IAF CNAS

CICC INSPECTION CERTIFICATION

CICC CERTIFICATION
嘉泰认证

质量管理体系认证证书

证书号：18118Q10347R0S

兹证明

诚领供应链（香港）有限公司

统一社会信用代码：61691591-000-07-18-7

注册地址：香港中環德輔道中 130-132 號大生銀行大廈 1205 室

经营地址：广东惠州惠阳淡水南亨西路财富大厦 13 楼 1313

建立的质量管理体系符合

GB/T19001-2016 idt ISO9001:2015 质量标准适用条款的要求

认证范围

印刷线路板的销售

初次获证日期：2018 年 02 月 27 日

换 证 日 期 ：2019 年 04 月 22 日

证 书 有 效 期：自 2019 年 04 月 22 日至 2021 年 02 月 26 日

在下列期间内，未经 CICC 贴贴合格标贴，本证书无效

第一次监审		第二次监审	贴标处

本证书认证范围不包括未获得有效的国家规定的相关行政许可、资质许可的产品/服务范围；

本证书通过CICC定期监督审核保持，与年度《保持认证通知书》共同方为有效；

本证书信息可在国家认监委网站：www.cnca.gov.cn及CICC网站www.cicc-[illegible].com查询。

CICC IAF CNAS

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

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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch
SGS Bldg, No.2, Jingshan Industrial Park, No.498, Jihua Road, Bantian, Longgang District, Shenzhen, China 518129 t (86-755) 25328888 f (86-755) 83106190 www.sgsgroup.com.cn
中国·深圳·龙岗区坂田吉华路430号江灏工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com
Member of the SGS Group (SGS SA)

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, 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	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	-	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

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中国·深圳·龙岗区坂田吉华路430号江灏工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com
Member of the SGS Group (SGS SA)

UL Product iQ™

ZPMV2.E490354 - WIRING, PRINTED - COMPONENT

Wiring, Printed - Component

See General Information for Wiring, Printed - Component

O-LEADING SUPPLY CHAIN (HK) CO LTD
ROOM 1205, 12/F
TAI SANG BANK BLDG
130-132 DES VOEUS ROAD
CENTRAL, HONG KONG

E490354

Type	Cond Width Min mm(in)	Min Edge mm(in)	Cond Thk mic(mil)	SS/ DS/ DSO	Max Area Diam mm(in)	Solder Limits C	sec	Max Oper Temp C	Flame Class	Meets UL796 DSR	CTI
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) 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

O-LEADING-S02	0.2 (0.008)	0.2 (0.008)	17 (0.67)	SS	25.4 (1.0)	260	4	130	HB	▲	*
O-LEADING-S03	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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[illegible]

PCB[illegible]		SMT[illegible]	
[illegible]	1[illegible]-32[illegible]	PCB[illegible]	FR-4[illegible]CEM-1[illegible]CEM-3[illegible]
[illegible]	1 / 3oz-12oz		
[illegible]/[illegible]	3.0mil / 3.0mil	[illegible]PCB[illegible]	510x460mm
[illegible]/[illegible]	4.0mil / 4.0mil	[illegible]PCB[illegible]	50x50mm
[illegible]	10[illegible]1	PCB[illegible]	0.5mm-4.5mm
[illegible]	0.2mm-5.0mm	[illegible]	0.5-4mm
[illegible]	635 * 1500mm	[illegible]	0201
[illegible]	4mil	[illegible]	0603[illegible]
Plated Hole Tolerance	+/- 3mil	[illegible]	15mm
Blind / Buried Vias[illegible]All[illegible]	[illegible]	[illegible]	0.3mm
Via Fill[illegible]	[illegible]	[illegible]BGA[illegible]	0.4mm
[illegible]	FR-4[illegible]FR-4high Tg[illegible]	[illegible]	+/- 0.03mm
[illegible]	HASL[illegible]OSP[illegible]ENIG[illegible]HAL-LF[illegible]		

[illegible]

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

[illegible]

1. O[illegible]
[illegible]
1.1[illegible]ISO 9001[illegible]2008[illegible]
1.2[illegible]
1.3[illegible]X[illegible]AOI[illegible]ICT[illegible]
1.4[illegible]
1.5[illegible]

2. O[illegible]
[illegible]10[illegible]2[illegible]3[illegible]4[illegible]31[illegible]
[illegible]O[illegible]
[illegible]Win-Win[illegible]

3. O-Leading[illegible]
[illegible]FR4[illegible]TG[illegible]/[illegible]PI[illegible]

4. PCB[illegible]PCBA[illegible]

4.1 BOM[illegible]
4.2 PCB Gerber[illegible]
4.3 PCB[illegible]PCBA[illegible]
4.4[illegible]
4.5[illegible]

5.[illegible]PCB[illegible]
[illegible]→[illegible]→[illegible]→[illegible]AOI→[illegible]→[illegible]→[illegible]→PTH→[illegible]→[illegible]→[illegible]→[illegible]→[illegible]AOI→[illegible]→[illegible]→[illegible]→[illegible]→E / T→[illegible]

6. HDI[illegible]
[illegible]VCP[illegible]LDI[illegible]
[illegible]LDI[illegible]Screen[illegible]

7. O[illegible]
O-[illegible]ENIG[illegible]OSP[illegible]LF-HASL[illegible]/[illegible]HDI[illegible]OSP[illegible]ENIG[illegible]OSP +ENIG[illegible]BGAPAD[illegible]0.3 mm[illegible]OSP OSP + ENIG[illegible]

8. FPC[illegible] O-Leading[illegible]SMT[illegible]
O-Leading[illegible]FPC[illegible]8[illegible]2000mm * 240mm[illegible]SMT[illegible]

9. PCB[illegible]
[illegible];
[illegible];
[illegible];
[illegible]
PCB[illegible]
[illegible];
[illegible]

10. PCB[illegible]PWB[illegible]FPC[illegible]
PCB[illegible]Printed Circuit Board[illegible]
PWB[illegible]Printed Wire Board[illegible]Printed Circuit Board[illegible]
FPC[illegible]Flexible Printed Board[illegible]

11. PCB[illegible]
PCB[illegible]
[illegible]Tg[illegible]
[illegible]CTE[illegible]
[illegible]PCB[illegible]50[illegible]250℃[illegible]
[illegible];[illegible]PCB[illegible]/[illegible]PCB[illegible]

12. O[illegible]rIgid-flex PCB[illegible]
O-leading[illegible]PCB[illegible]FPC[illegible]PCB[illegible]

13.[illegible]
[illegible]SI6000[illegible]POLAR INSTRUMENTS[illegible]CITS 500s[illegible]