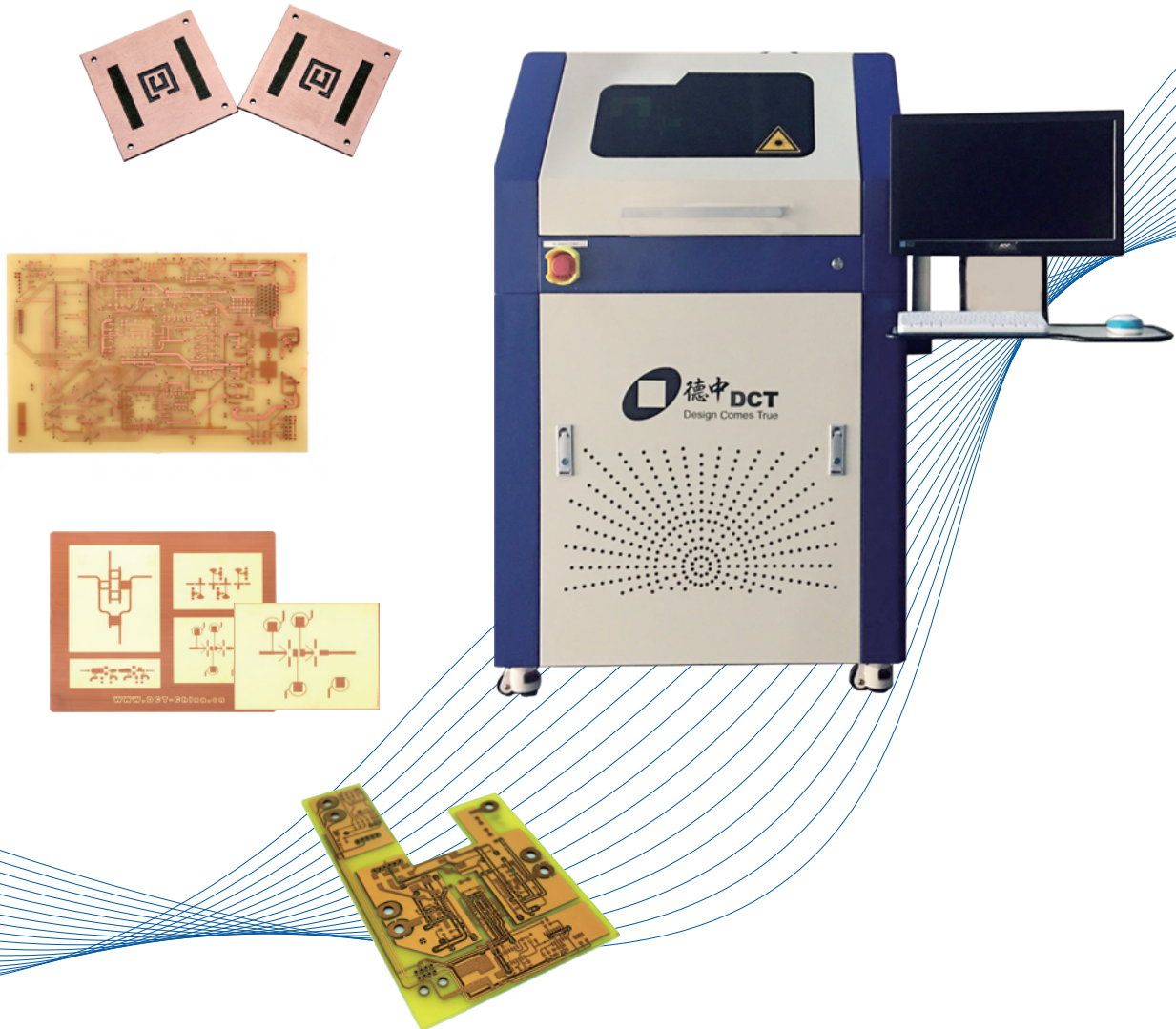


# DCT DLC Series

## Circuits Structuring with Direct Laser Technology



Structuring conductive pattern as simple as printing, DirectLaser C is a serial of machines for making PCBs, for short run production of variety of PCB at home, especially suitable for generating high geometric accuracy pattern on RF and microwave PCBs.

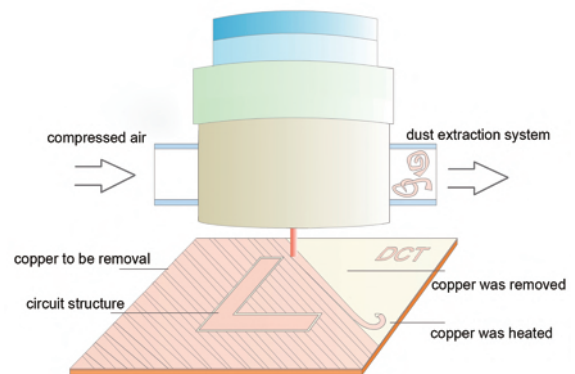
High processing quality, high speed, compacted and easy to use, reliable, low cost of ownership and daily operation, DirectLaser C sets up a new standard of cost performance ratio for laser PCBs processing equipment.

Doing business in electronics, setback and failure occur usually during turning the design into products, other than in the design stage. Therefore, equipment, which could cure the problem of “easy to design PCBs, hard to turn the design into reality”, is rigid demand, not soft demand.

Chemical PCB processing is an indirect technology, troublesome and unfriendly to environment. It limits the freedom of design with manufacturability. Mechanical PCB processing, is slow and with limited precision. The laser PCBs processing, ablating and removal of material spot by spot, line by line with laser beam, is not so fast and may hurt the dielectric substrate.



The criterion to judge a technology or an equipment, high processing quality is a must, fast processing speed is a matter of course, low cost of ownership and daily running is much preferable. DirectLaser C is just the best choice to have all the features above.

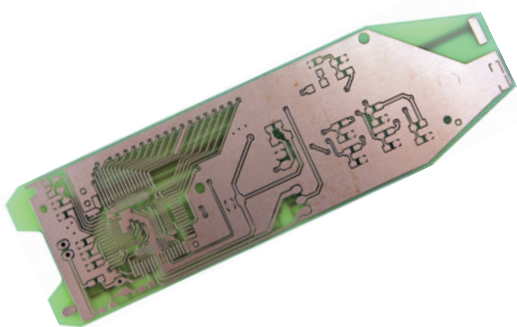


The innovative features of Striping&Stripping technology (referred to as S&S), is of high processing quality, and fast processing speed. The unique technology of DCT satisfies the needs perfectly.

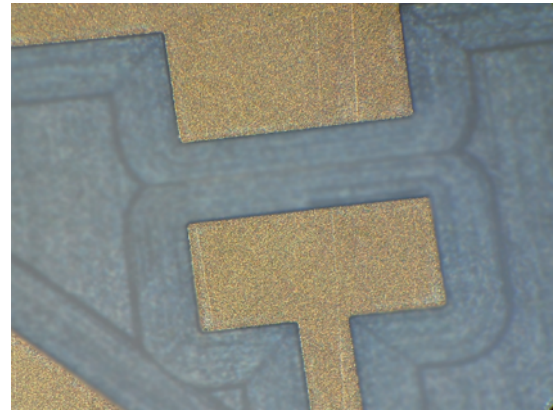
Firstly, with depth control function, focused laser beam separates the copper foil to be removed into small thermal isolate pieces, that is, stripping. Then, with help of the difference in thermal conductivity, thermal expansion and shrinking properties between different material, defocused laser beam stripe off the copper pieces with laser heating, at the same time the exhaust unit collect the copper, thus the copper could be easily and quickly removed flake by flake, not particle by particle, that is, stripping.

Without masks or tools for graphic transition, Direct Laser Circuits Technology S&S, makes conductive circuit pattern directly, no deviation caused by indirect etching processing, no loss on surface smoothness of the copper, geometric deviation tolerance of conductive structure can be limited within 5 $\mu$ m. It is especially suitable for processing impedance and loss-sensitive circuits such as high-speed, RF and microwave circuits, and other high end PCBs.

The data processing software CircuitCAM and machine operating software DreamCreaTor are very important parts of S&S technology of DCT DirectLaser C Series. Powerful, intuitive, fluent and easy to use, the software optimizes the laser processing path and parameters according to individual conductive pattern of circuit boards smartly, make full use of the advantages of direct laser circuit processing.



The DirectLaser C series are featured with simple and well sealed optical path, and with stable performance. The humanized designed equipment comply with CE and CCC standards. DirectLaser C series is equipped with CCD automatic alignment system, industrial control computer, vacuum adsorption platform for



workpiece loading. Further more, DirectLaser C series is also equipped with DCT specially developed exhaust unit for Direct Laser Circuits technology, featured with lower noise and high efficiency, is used to collect copper. Engaged in Direct Laser Circuit technology for many years, focus on innovation and improvement continuously, DCT delivers turnkey solution. Solid structure, high reliability, compact and small in occupation, both hardware and software are from one hand and time tested, DCT equipment is suitable for installation in laboratory with narrow space and plug-and-play, suitable for PCBs processing on demand at any time, break through the last mile for turning the electronic design into real products.

DCT has professional service and application engineers, as well as application centres in Shenzhen, Suzhou, Tianjin and Chengdu. DCT service system is always ready to provide presales training and aftersales technical support for new and old customers.

For application reports and more information, welcome to contact DCT!

Technical data	DL C1	DL C6
Working area	300mmx300mm	533mmx610mm
Wave length	1064nm	1064nm
Minimum track/gap	25µm/25µm	25µm/25µm
Processing speed	Up to 20cm <sup>2</sup> /min*	Up to 30.6cm <sup>2</sup> /min*
Repeat positioning accuracy	≤±2µm	≤±2µm
Resolution scan field	1µm	1µm
X/Y step resolution	0.5µm	0.5µm
Weight	270kg	2.1t
Dimension (L x W x H)	850mm x 900mm x 1450mm	1750mm x 1400mm x 2115mm
Data acceptance	Gerber, HPGL, Sieb &Meier, Excellon, ODB++, DXF	

Ancillary facilities	DL C1	DL C6
Data processing software	CircuitCAM 7 LaserPlus	CircuitCAM 7 LaserPlus
System operating software	DreamCreaTor	DreamCreaTor
Dust exhaust system	inclusive	inclusive
Industrial PC	inclusive	inclusive
Positioning	Automatic CCD camera fiducial positioning	Automatic CCD camera fiducial positioning
Work piece fixation	Vacuum absorbing platform	Vacuum absorbing platform

Operation environment	DL C1	DL C6
Power supply	220/230VA, 50Hz	380VAC, 50Hz
Power consumption	1.7kW	3kW
Operation temperature	22C°±2 C°	22C°±2 C°

\* Based on 18µm Cu

All technical data are subject to change without notice



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