



Product Brochure

FLYING PROBE TESTER

One Vision, One Team, One Goal



About IFREE

IFREE (Suzhou) Test Technology Co., Ltd. is located in Suzhou Industrial Park, China. IFREE creates value, delivers value and shares value. IFREE hold the spirit of customer-oriented, technology, innovation and common growth, based on China and targeting the worldwide.

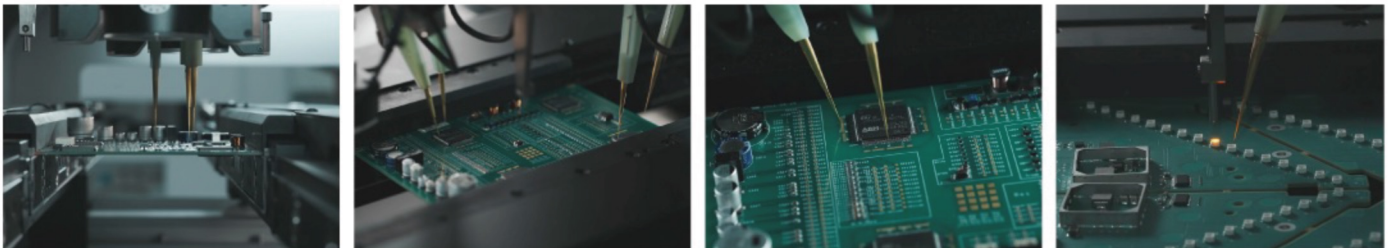
IFREE is the first company in China who can manufacture multi-functional flying probe test system with high precision and high speed. The flying probe tester can be widely used in 5G communication, server, laptop, automotive electronics, medical electronics, aerospace and other application scenarios. We can provide value-added testing and maintenance

About Flying Probe Test

Flying Probe Test is a circuit board test method used to detect process defects and board functionality in the production of circuit boards. In flying probe testing, the test probe moves over the PCBA surface at high speed and is subjected to contact testing at each test point. This test method does not require the use of traditional test fixtures and is therefore relatively inexpensive. Since the flying probe does not depend on the test point, it can improve the test coverage by touching the pads of the component, which is very different from traditional ICT.

The flying probe test can effectively detect short, open, electrical characteristics and connectivity of various components on the PCBA, and can perform simple functional tests on the circuit board. It is widely used in electronics manufacturing, especially in prototyping and low-volume production.

Overall, flying probe testing is a common test method in PCBA testing that can effectively perform connectivity and functionality tests to ensure the quality and performance of circuit boards.



FPT can test

	Polarity	Presence	Value	Open	Short	Function
Inductor		✓	✓	✓		
Capacitor		✓	✓		✓	
Resistor		✓	✓	✓	✓	
Diode	✓	✓		✓	✓	
LED	✓	✓		✓	✓	✓
Zener	✓	✓	✓	✓	✓	✓
Transistor	✓	✓		✓	✓	✓
FET	✓	✓		✓	✓	✓
Relay	✓	✓		✓	✓	✓
Optocoupler	✓	✓		✓	✓	✓
PWR ConvertIC	✓	✓	✓	✓	✓	✓
IC	✓	✓		✓	✓	




- X4M
- X4E
- X6E
- X8S


FPT-X4M
 Single side 4 Flying probes
 Test System +


Key Features


- Four probes on TOP side with best price
- Support 0201 package
- Footprints are smaller
- Manual operation, it is very flexible
- Conveyor auto adjust
- Barcode auto reading


Standard configuration


In Circuit Test



Optical Check



Flatness Check



Barcode


IFREE Convert Tool

Option


DFT


Open-Pin


LED Test

Technical Data

Application	NPI
Probe Side	Top
Probe Qty	4
Max Test Area (L * W)	500*410mm
Footprint (L * W * H)	1500 * 1400 * 1520mm

* Information above is only for reference. Please contact the salesman to learn more.



- X4M
- X4E
- X6E
- X8S

FPT-X4E

Single side 4 Flying probes Test System

+

Key Features

- Four probes on single side with best price
- High accuracy(01005 package supported)
- Online/Inline transmission supported
- Precision linear rail system with high repositioning accuracy
- Horizontal transmission
- Static LCRD test supported

Standard configuration

In Circuit Test

Optical Check

Flatness Check

Barcode

IFREE Convert Tool

Option

DFT

Open-Pin

LED Test

Technical Data

Application	NPI
Probe Side	Top
Probe Qty	4
Max Test Area (L * W)	520*460mm
Footprint (L * W * H)	1610*1250*1700mm

* Information above is only for reference. Please contact the salesman to learn more.



- X4M
- X4E
- X6E
- X8S

FPT-X6E

Dual side 6 Flying Probes Test System



Key Features

- Six probes on dual sides (4 on TOP +2 on BOT) with best cost performance
- High accuracy (01005 package supported)
- High accuracy ergodicity test supported
- Offline/Inline transmission supported
- Precision linear rail system with high repositioning accuracy
- Horizontal transmission
- Static LCRD test supported

Standard configuration

In Circuit Test

Optical Check

Flatness Check

Barcode

DFT

IFREE Convert Tool

Option

Power Up

LED Test

5G Test

Open-Pin

OBP

Technical Data

Application	NPI / Production Test / Repair
Probe Side	Dual Sides
Probe Qty	6 (4 TOP + 2 BOT)
Max Test Area (L * W)	640 * 600 mm
Footprint (L * W * H)	1900*1550*1950mm

* Information above is only for reference. Please contact the salesman to learn more.



- X4M
- X4E
- X6E
- X8S

FPT-X8S


Dual side 8 Flying Probes Test System




Key Features

- Eight probes on dual sides (4 on TOP +4 on BOT) with best test efficiency
- High accuracy (01005 package supported)
- High accuracy ergodicity test supported
- Offline/Inline transmission supported
- Precision linear rail system with high re-positioning accuracy
- Horizontal transmission
- Static LCRD test supported


Standard configuration




In Circuit Test




Optical Check




Flatness Check



Barcode




DFT



IFREE Convert Tool

Option



Power Up



LED Test



5G Test



Open-Pin



OBP

Technical Data

Application	NPI / Production Test / Repair
Probe Side	Dual Sides
Probe Qty	8 (4 TOP + 4 BOT)
Max Test Area (L * W)	640*600mm
Footprint (L * W * H)	1900*1550*1950mm

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APT-F4

Inline on-board programming machine



Product Application

Positioning: Automatic programming of MCU, domain controller, flash memory, logic memory and other chips of PCBA of intermediate and advanced electronic products, and it could expand the test functions such as ICT / FCT / Boundary Scan etc.

Application: 3C, automotive, mobile phone, communication base station, laptop, server, medical, new energy etc.

Product advantages



Safe and Reliable
X-type downward pressure mechanism, the downforce on PCBA is evenly, support inline and



High Speed
Clock can up to 50Mhz, it will solve the production bottlenecks.



Parallel Test
Support Parallel programming, mainstream chips are supported.



Cost Saving
License is free, and the average cost per unit is lower than other programmer.

Support multiple chips

- The universal programmer supports most mainstream chips.
- Supported programming protocols: SWD, DAP, UART, JTAG, I2C etc.
- Supported chip types: Microcontrollers, Serial Memories, CPLDs, FPGAs, Parallel Memories.
- One programmer can support 4 different chips to be

Inline / offline mode

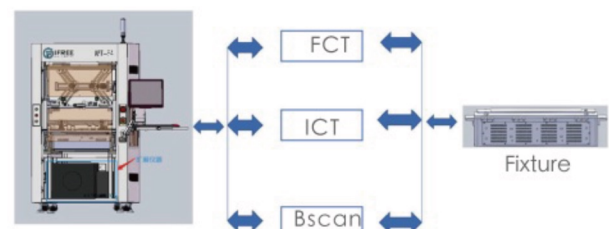
According to user' s production layout, it can support Inline/Offline mode.

- In-Line
It can be connected to front/rear conveyer or loader/unloader machine which can make our production line automated.
The direction of board in/out can be set according to actual production line situation. (Left in Right out, Left in Left out, Right in Right out, Right in Left out)
- Off-Line
Board in/out can use conveyer tracks in manual mode.

Programming more stable

Compared with the single-wire or twisted pair programming solution of traditional programmer, NovaFlash connect to test fixture with Category 6 network cable, and POD Head of Nova Link installed clear to test point, which can better shield external interference, it can improve stability greatly when programming, and improve the best guarantee for large-capacity

Expansion module



Can support expansion of ICT/FCT/BSCAN and other modules according to customer needs.



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