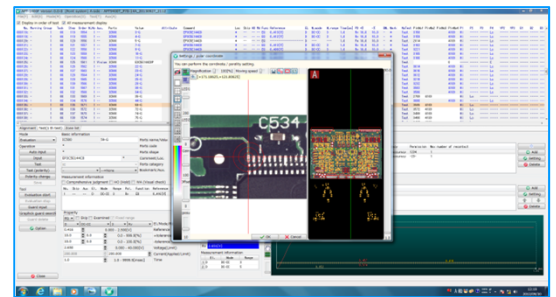
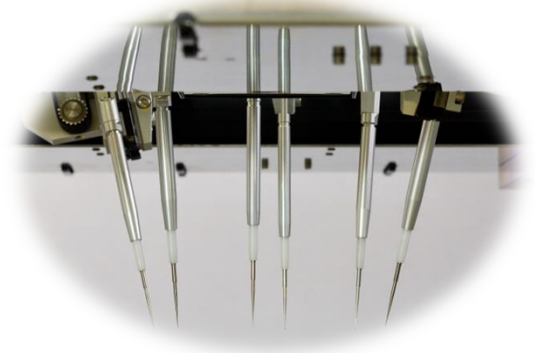


ULTRAFAST SPEED & HIGH PERFORMANCE FIXTURELESS TESTER

APT-1400F

The APT-1400F is a next-generation flying probe test system which has unprecedented performance in terms of test speed, positioning accuracy and test coverage. Removing the requirement for a conventional bed-of-nails fixture and providing a wide variety of test facility will contribute largely to your R&D department and NPI section that ought to validate low-volume productions. The APT-1400F with automated conveyor system will also deal satisfactorily with medium-volume productions due



FLYING 4-HEAD & 6 Z-MECHANISMS

In addition to the four standard moving probes which are installed diagonally to the board under test, the APT-1400F is designed to use another two Z mechanisms (option) where can be installed by either moving probe or IC-open test probe that moves up and down vertically. The vertical Z axis units enable to get access to the test points where are hard for the standard moving probes to do that and also enable to contact the location at different height with accuracy. In addition, it's possible to directly contact the through-holes and the head of connector pins by using dagger and inverse cone head type of probe, resulting in increased test coverage.

HIGHLY ACCURATE MEASUREMENT SYSTEM

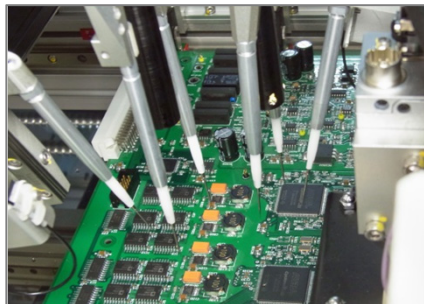
The new measuring unit includes three 4-quadrant sources & measurement systems (include option) embedded with 16-bit ADC/DAC and AC programmable generator which is also finding uses as function generator, so that the tester is capable of apply the best suited measuring signals according to each specification of electronic components. Also, the high measuring accuracy circuit embedded to the flying heads gives aid to measure very small capacitance and the dedicated measuring modes realizes the circuit test and dynamic characteristics test.

STRONG AND RIGID XY STAGE

The tester's XY stage, crucial to stable and accurate probe contact, is made of highly polished native granite, as well as the APT-9xxx series which is thought of as the global standard model of the flying probe testers. In addition, the structure of the XY stage has been completely reviewed according to faster moving speed of the probes and the precision components adopted in the tester have the quality to last long. Also the positioning accuracy is finely tuned tester by tester. Therefore, the APT-1400F ensures the superfast movement of the probes and also increases the positioning accuracy by 25% comparing to the conventional models.

ULTRAFAST TEST SPEED

The APT-1400F uses not only state-of-the-art high power & fast-moving driving motor system but also incorporates new control software developed for eliminating wasting time to the utmost limit. These new technologies contribute speed up test 30 to 50% faster than the conventional models. In addition, utilizing 3 bottom probe units will make combination test more efficient and cut the test time down.



COLORED TOS SYSTEM (NEW) AND REAL MAP

The APT-1400F is equipped with new Vision test system TOS-7F which offers a simple AOI function. Owing to the megapixel color digital camera and the ring illuminations with high-intensity white LED, the TOS-7F can import sharp color image to detect missing, wrong orientation and positioning error on the spot. In addition, the TOS-7F can not only import the barcodes (include 2D codes) but also offer color identification test, OCR function and the optional software that adds the Library function. Also, the APT-1400F is equipped with the colored Real map function which will be of remarkable help to check and modify the contact points during debugging the programs.

EASY & USER-FRIENDLY SOFTWARE AND SECURITY FUNCTION

The software was fully-refurbished to provide versatile functions which reflect the opinions of our users from more than 40 countries, such as Menu-customized function, Multi-language display function (option), Data library function (option) and SCM function that can maintain a history of automatic settings, operation and so on. All these features give aid to cut down your time to programming test and manage the test programs in safety.

ATTENUATING CONTACT PRESSURE OF PROBES

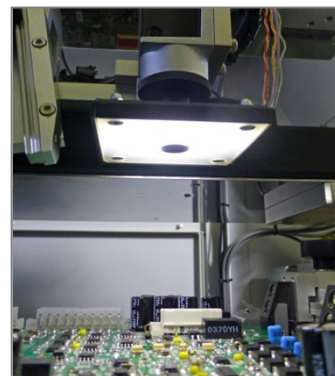
The APT-1400F has enough ability to freely control the probing speed just before it contacts. This enables to minimize the probing marks without the need to slow down the movement all the way to the bottom.

VERSATILE TEST OPTIONS

The APT-1400F serves its customers with options that fit their needs, such as the LED color test system that enables to turn on LED device populated on the board under test and test the color and the brightness with use of a dedicated sensor, the various hardware and software to realize the boundary test and the function tests.

IN-LINE SYSTEM

An in-line model can be built-to-order to establish full automated operation in your production line or rack-to-rack system. To meet various user's needs, it's possible to provide the conveyor installed with buffer stations to cut down the transport time as much as possible and an auto-conveyor width adjustment unit.



Specifications

Flying probes for top side	4 tilted+2 vertical contact probes(option), 2 IC-open test probes(option), 2 LED color test sensors(option)
Fixed probes with magnet base for bottom side	3 vertical contact probes, 8 IC-open test probes(option)
Signal terminals of bottom side for extension test (option)	3 channels with power relay board, 8 channels with function scanner board, etc.
Positioning resolution of flying probes	X and Y axis: 1.25μm (0.05mil), Z axis: 5μm (0.2mil)
Test time (at 2.5mm pitch movement)	Single test: Max. 0.05 - 0.06sec./step, Combination test: Max. 0.02 - 0.03sec./step
Positioning repeatability of flying probe (X/Yaxis)	Approx. ±25μm(±1.0mil) in the high precision mode
Minimum pad pitch which can contact by flying probes	150 to 190μm(6 to 7mil) in use of needle probes
Minimum pad size which can contact by flying probes	60 to 80μm(2.4 to 3.2mil) in use of needle probes
Measuring sources	DC voltage/current generator, AC constant voltage generator(available as function generator)
Test & measuring ranges (options are included)	DC voltage & current, AC voltage & current, Frequency, Resistors, Capacitors, Inductors, Transformers Zener voltage, Diodes/transistors/FETs, Relays/opto couplers/switching devices, Lighting color of LED Open fault detection of IC leads, Isolation test, Continuity test, etc.
Vision test system TOS-7F	Application : Alignment, simple vision test, reading of barcode & 2D code, OCR/color identification(option) Test item : Missing/shifting components, incorrect components, polarity, etc.
Testable PCBs specifications (max.)	Test area: 540 x 483mm(21" x 19"), Component height: top side 60mm(2.4") bottom side 120mm(4.7")
OS	Microsoft® Windows 7 (32bit version)
Power & air supply	AC200 to 240V(single phase), 50/60Hz, 2.8KVA Air: 0.6 to 0.7Mpa (dry clean air)
Environmental requirements	Temperature: 16 to 30°C (60 to 86°F) Humidity: 30 to 75% (no condensation)
Dimensions (excluding Display / Printer) / Weight	W1400(55") × D1500(59") × H1400mm(55") / 1350Kgs(3000 lb)

※This leaflet contains untested technologies being developed as of end-November, 2013.

※Specifications are subject to change without any obligation on the part of the manufacturer.



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