

Agilent Medalist i3070 In-Circuit Test System

Data Sheet



*Trusted,
Robust,
Simple-To-Use*



The Agilent *Medalist i3070* In-Circuit Test system combines all the features of a state-of-the-art Agilent *Medalist 3070* with the advanced architecture and streamlined usability of the Agilent *Medalist i5000*. You get an intuitive point-and-click interface, automated test debug and optimization tools, and a host of other features to accelerate every aspect of test programming and deployment.



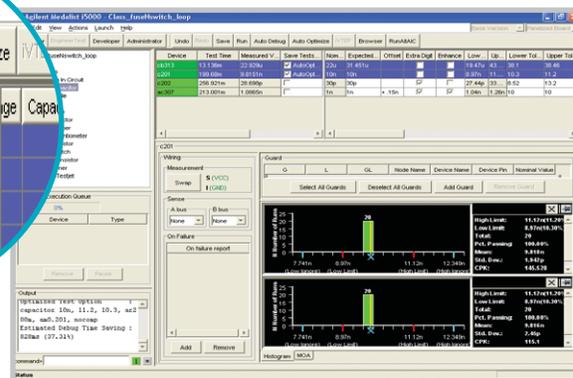
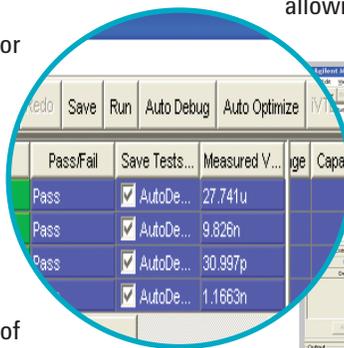
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Ease of Use. The new point-and-click interface removes the user's need to type in commands during the operation of the tester. All commands are menu based, thus the user does not need to remember each command to be executed. This allows inexperienced users to start using the system quickly.

AutoOptimizer. Agilent *Medalist* i3070 tests can be optimized with the click of a button, reducing test time by 10 to 50 percent per test. AutoOptimizer checks to see that tests are stable, and cleans up any conflicts in code to get a clean, smooth - running test. It's great for cleaning up programs that have been modified during production runs, allowing tests to once again run fast, clean and reliably.

Board Locator. The Board Locator allows the user to search for any component on the board under test as well as probes and testhead resources. This tool is an enhancement over the find pins command. This tool can be used during the test debug process to identify the location of a failing component or the location of a probe on the fixture. Together with the handheld probe, the connectivity of a component pin to the tester can be checked quickly using this tool.



Test Development Improvements. The algorithm for test development has been improved. For resistors and capacitor tests, wires selection and test points selection has been improved such that they reduce the test times of these tests. It is possible for a typical board to see 20% improvements to the analog test time. The node sequencing in the shorts test has been recalculated to reduce the occurrence of phantom shorts.

AutoDebug. With the Agilent *Medalist* i3070, unpowered passive analog components can be debugged with the click of a button, so even someone with limited ICT experience can perform a complete analog test debug in a matter of hours. AutoDebug fine-tunes tests so boards pass reliably in production. It runs the selected test, captures measurement data, evaluates the data, adds or deletes measurement options, and compiles the tests. You set the rules, and AutoDebug does the rest.

Specifications

	Agilent <i>Medalist</i> i3070 Un-multiplexed	Agilent <i>Medalist</i> i3070 Multiplexed
Maximum channels	5184	1152
Maximum nodes	5184	5184
Pin Card	Un-multiplexed hybrid 144 channel	HybridPlus double density
Driver/receiver mux ratio	1:1 tester-per-pin	9:2 multiplexing
Vector application rate	6.25MPs	6MPs, 12MPs, 20MPs
Logic level	0 to 4.75V (Per Pin programmable)	-3.5V to 5V (Per Digital Channel pin programmable)
Logic threshold	Single threshold	Dual Threshold
Slew rate	300V/usec (Optimized fixed rise/fall time)	25V/usec to 275V/usec (per digital channel pin programmable)
Digital driver/Receiver offset	Not Applicable	-30n to +100n (per digital channel pin programmable)
Operating system	Windows XP Professional	
Test generation toolset	Time-to-money test development	Board Consultant Fixture Consultant Test Consultant
Board/Fixture graphics display	Browser	Browser Board Consultant Fixture consultant
Circuit analysis	Automatic (IPG) with Monte Carlo Simulation	
Agilent <i>Medalist</i> i3070 Application Software	Windows graphical user interface (support localization)	
Probe pin locator	Interactive probe/Pin locator with guided probed	
Runtime yield display	Real time FPY (First Pass Yield) display at runtime	
Probe/fixture maintenance tools	Worse probe reporting (Reports real time fixture probe number that fails frequently)	
Yield enhancement tool	IYET (Intelligent Yield Enhancement Tool)	
Analog unpowered debug interface	Graphical user interface in spread sheet format (support localization)	
Digital/Analog powered debug interface	PushButton Debug	
AutoDebug	AutoDebug on Analog unpowered tests, Testjet and VTEP v2.0 (VTEP, iVTEP and NPM)	
Modular construction for flexibility/scalability	(1 to 4) Standard	
Dual-well construction for maximum throughput	Standard	
Throughput multiplier	Standard	
Failure message printer	Standard (strip printer)	
Vacuum solenoids	Built-in standard	
Input power connections	Included (specify type)	
Shipping and installation assistance	Included (Agilent authorized representative)	
Analog unpowered measurement	2, 4, 6 wire measurement	
Backdriving current	750 mA	
Backdriving test program setup	Automatic by logic family	

Overvoltage protection	Yes
Capacitor discharge protection	Yes
Arbitrary waveform generator	Yes
Fixture types supported	Short wire, NoWire, long wire
Repeatability	Excellent
Transportability	Excellent
Temperature compensation	AutoAdjust @ Every 5 degrees celsius temperature drift/1000 Hrs

Standard Software and Firmware Features (included in base system)

	Agilent Medalist i3070 Un-multiplexed	Agilent Medalist i3070 Multiplexed
Open/short testing		Automatic IPG
Analog testing		Yes
Vector programming		VCL and PCF
Vectorless testing		VTEP V2.0 and TestJet
NAND tree program generator		Language based
Disabling analysis		Automatic (IPG)
Digital test pattern generator		Yes
Frequency measurement		60 MHz (Beyond 60Mhz measurement possible using fixture electronics solution)
Multilevel disable (digital isolation)		Yes
High-voltage testing capability		100V
Low-voltage testing capability		No limit
Number of analog guarding points		Unlimited
Worst probe report		Yes
First pass yield report		Yes
Component-level coverage report		Yes
Intelligent yield enhancement test		Yes
Limited access tools		Yes
Flash 70 device programming		Yes
Polarity check software		Yes
ICT Boundary Scan		Yes
PanelTest for panelized PCBAs		Yes
AwareTest		Yes
Simplexpress fixturing software		Yes
No-wire fixture development software		Yes
Standard i3070 operating system		Yes
Multiple board versions software		Yes
Dual-well sharing		Yes
Throughput multiplier		Yes
Relay-level diagnostics tool		1-year license
SPC quality tool		Push-button Q-Stats

Options

Software Products

Test development software bundle (stand alone)	Includes: Express fixturing Multiple board versions Drive thru Dual-Well sharing Flash programming Magic test	Flash ISP PLD ISP Advanced probe spacing VTEP V2.0 TestJet InterconnectPlus Boundary scan	Polarity check Throughput multiplier Silicon nails AwareTest Panel test Flaash70
InterconnectPlus boundary scan	Advanced boundary scan tool suite		
Drive-thru for VTEP v2.0	Test development software for Vectorless Test Extended Performance tool		
CAMCAD for ICT	CAMCAD Translation software for ICT test and fixture development		
Flash ISP	In-system programming for flash memory devices		
PLD ISP	In-system programming for programmable logic devices		
ISP suite	Combined Flash and PLD in-system programming software suite		
ScanWorks	ScanWorks advanced boundary scan deployment tools		
Silicon nails	Test development tools for limited access test coverage		
Medalist repair tool	Automated product failure diagnostic and repair tool		
Magic test	Analog testing in a limited access environment		

Modules and Pin Cards

	Agilent Medalist i3070 Un-multiplexed	Agilent Medalist i3070 Multiplexed
Hybrid pin card	Un-multiplexed hybrid 144 channel	Hybrid plus double density Analog plus double density Access plus Hybrid 32 value series
Analog stimulus card	ASRU (Analog Stimulus Response Unit)	
Control card	Control XTP	
No. of modules supported	1 to 4 modules (Additional modules activation package to expand capabilities of systems having unused empty modules. Required additional hybrid card, Control XTP, ASRU card and associated cabling and hardware)	

DUT Power Supplies

	Agilent Medalist i3070 Un-multiplexed	Agilent Medalist i3070 Multiplexed
DUT power supplies type*	Agilent PS6751 Quad Output (0-50V/0-5A) Agilent 6624 Quad Output (0-20V/0-2A, 0-7V/0-5A, 0-50.5V/0.0824A, 0-20.2V/0-2.06A) Agilent 6621A Dual Output (0-7V/0-10A, 0-20.2V/0-4.12A) Agilent 6634 Single Output (0-100V/0-1A) Agilent 6642 Single Output (0-20V/ 0-10A)	
No. of supply channel	Up to 24 programmable supplies	

* Refer to Agilent Medalist i3070 Test Method and Specifications for more detail.

Accessories

Bar code reader	For data entry of DUT board serial number
Pin verification fixture	For system diagnostics
Performance port	To add external signal capabilities to your i3070 system
Product support kits	Multiple optional kits to choose from
Consulting services	Multiple service options and products to choose from
User training	Multiple optional training programs to choose from



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Related Web Resources

For more information on Agilent *Medalist* i3070 In-Circuit Test Platform, please visit: www.agilent.com/see/ict

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Phone or Fax

United States:

(tel) 800 829 4444
(fax) 800 829 4433

Canada:

(tel) 877 894 4414
(fax) 800 746 4866

China:

(tel) 800 810 0189
(fax) 800 820 2816

Europe:

(tel) 31 20 547 2111

Japan:

(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Korea:

(tel) (080) 769 0800
(fax) (080) 769 0900

Latin America:

(tel) (305) 269 7500

Taiwan:

(tel) 0800 047 866
(fax) 0800 286 331

Other Asia Pacific Countries:

(tel) (65) 6375 8100
(fax) (65) 6755 0042
Email: tm_ap@agilent.com

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