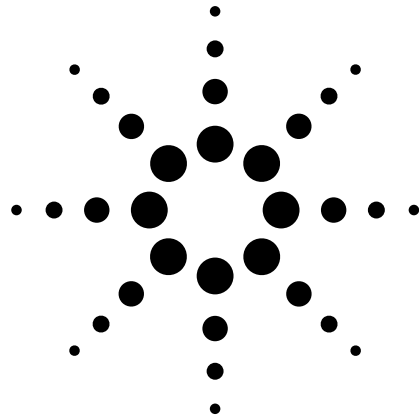


**Agilent 3070
In-Circuit Test**

*Flexible Test:
Your World,
You Shape It*



The Agilent 3070 In-Circuit Test (ICT) System is flexible test on a global scale. Its four key attributes—agile test technology, worldwide business services, constant innovation and global presence—make the 3070 a perfect fit for electronics manufacturing. No other platform provides the flexibility required to thrive and survive in a chaotic world.

**Agilent 3070 In-System
Programming (ISP) Family**

On-Board Programming, Bottom-Line Benefits

According to industry sources such as the SIA Worldwide Semiconductor Forecast, flash devices and programmable logic devices (PLDs) are increasing at a rate of over 10 percent per year on today's printed circuit boards. Printed circuit board manufacturers are being asked to program these devices in their production lines at an ever-increasing rate. The reasons are clear:

- **Faster programming.** Inline programming of Flash devices and PLDs can occur at near-databook speeds. No more production line detours to discretely program devices.
- **Greater flexibility.** Devices can be reprogrammed on-the-fly, after they're mounted, causing little or no interruption on the line when engineering change-orders come down.
- **Reduced inventory.** Device personalities are embedded as needed, after devices are mounted on boards, so a limited inventory can be used across a greater number of end products.
- **Less rework and scrap.** Boards and devices are handled less, so fewer defects are introduced by repair operators, reducing the potential for downstream failures while limiting expensive scrap.

These are bottom-line advantages in electronics manufacturing, and Agilent's ISP products bring them to your door. Now you can burn programs into soldered devices or update embedded code as boards move down your production line. It happens right on the Agilent 3070, saving time and steps in manufacturing.

Agilent ISP: Faster, Better Programming

The Agilent ISP family includes four distinct products that can be fully integrated into the Agilent 3070, so devices can be programmed at the same time a printed circuit board assembly is being tested for manufacturing defects. This system-embedded capability eliminates the time and cost of extra steps that were previously required to program flash components and PLDs. Devices are now programmed right on your Agilent 3070 in a single manufacturing step with Agilent ISP products.

Flash ISP

When upgrading to Flash ISP from Flash70 (Agilent's previous-generation flash solution), Agilent customers typically see production run-time improvements of 20 to 80 percent immediately. Flash ISP requires less memory in the testhead, so existing test systems can handle higher complexity boards. Flash ISP also provides more complete information on input data files at compile time, so programmers can correct problems early and save additional time at debug and production test.



PLD ISP

PLD ISP accelerates programming to near-databook speeds with embedded language (SVF, STAPL and Jam) byte players and boundary-scan support.



Programmers need only one Agilent 3070 Vector Control Language (VCL) test file plus the configuration data file to program with PLD ISP. Compile time takes just seconds to a few minutes, so programs are developed faster and implemented easier in the manufacturing environment.

ScanWorks™ for the Agilent 3070

This joint effort of Agilent and ASSET InterTech, Inc. allows boundary-scan tests and device programs to be written once and leveraged across the product life cycle. For the first time, boundary-scan test vectors developed in R&D can be reused downstream—in prototyping, in-circuit test, functional test, even field repair. A great solution for PLDs and flash devices adjacent to BSCAN chains, ScanWorks for the Agilent 3070 reduces duplication of effort and saves program development time.



Flash70

Agilent customers typically see run-time improvements of around 50 percent when upgrading from standard Agilent 3070 flash programming to Flash70 (and an additional 20 to 80 percent improvement when upgrading from Flash70 to Flash ISP). In environments with moderate beat rates, Flash70 is a cost-effective upgrade for integrated on-board programming. Flash70 is supported in Agilent 3070 system software B.03.10 and later.

For more information about Agilent Technologies products and solutions in electronics manufacturing, visit our website: www.agilent.com/go/manufacturing. To learn about other Agilent test and measurement products, applications and services, or for a current sales office listing, visit our website: www.agilent.com/find/tmdir. You can also contact one of the following centers and ask for a test and measurement sales representative.

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	Parallel Programming		Serial Programming	
	Flash ISP	Flash 70	PLD ISP	ScanWorks
PC Controller Supported	Yes	Yes	Yes	Yes
UNIX Controller Supported	Yes	Yes	Yes	No
Hardware Requirements	ControlXTP	ControlXT	ControlXTP	PCI 400 PCB BSI PCB Performance Port
Software Requirements	Ver. 5.0+	Ver. 3.10+	Ver. 5.0+	Ver. 5.2+
Parallel Flash Programming	Yes	Yes	No	No
Parallel Flash Programming Adjacent to BSCAN Chain	No	No	No	Yes
Programming PLDs using BSCAN Chain	No	No	Yes	Yes
Throughput Multiplier Supported	Yes	Yes	Yes	Partial
Datafiles Supported	S-record Intel Hex Record Binary ASCII Binary	S-record Intel Hex Record	SVF, JAM, STAPL, JBC, IEEE-1532	SVF, JAM, STAPL, JBC, IEEE-1532
Programming Speed	Extremely Fast	Fast	Extremely Fast	Extremely Fast

