

Small to Middle Capacity Device Programmer

For programming of small to middle capacity NOR/NAND Flash, serial Flash, and Flash microcontrollers

Mass Production Device Programmer



AF9725
1 Gbit devices
Max. 8

High speed data transfer

USB2.0 interface for high speed transfer and remote control realizes faster transfer of high density data.
1 Gbit binary data transfer: approx. 20 sec

Full pin checking

Checks whether all pins of devices on adapters correctly contacted before programming. Loose connections due to deteriorated terminals, device mounting failure, and short circuits between terminals are detected, improving programming efficiency and reliability. * Some devices not supported.

High speed programming

High speed programming/reading with the R/W cycle of up to 80nsec, 10 times faster than AF3845, and maximum 1 Gbit data bus access.

Engineering Device Programmer



AF9711
1 Gbit devices
Max. 1

USB 2.0 host function

Connectable with commercially available USB Flash memories, enabling downloading of master and algorithm data without PCs.

Automatic recognition & concurrent operation

A concurrent function is incorporated to begin automatic processing when the device mounting is detected, largely reducing the cycle time.

* Only when 2 slots are used. Not installed in AF9711.

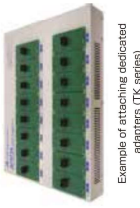
Programmer	Program	B.P.V
AF9724 / 25 / 11	75	85
Previous models(AF9723B + AF9845B/C)	175	270

Quick & Flexible

AF9724 / 25 / 11

High speed programming to SPI Flash memories

Dedicated adapters enables high speed programming without disturbing device capabilities. Support single, dual, and quad modes.



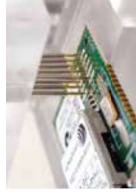
Models used	Program (sec)
AF9724+AF9851A+TF005-SRFSPI-200	100
AF9724+TK001-SRFSOP-200	18

* The programming time depends on devices and environments.

Examples of customization

Programming tools for wireless modules

For wireless modules, which are increasing due to IoT, we offer clip-type programming tools with pins that vertically descend and correctly contact with module terminals. Connecters are not needed on circuit boards, which reduces component cost, work processes, and board size.



Contact pins



Example of attaching adapters

We can produce various custom tools

Tests

We can establish various test systems to ensure reliability of programming quality.



Example of a custom burn-in board

Product specifications

	AF9724	AF9725	AF9711
Supported devices	Up to 1 Gbit, 1.8 to 5V Flash memories, Flash microcontrollers, and other memories	Up to 1 Gbit, 1.8 to 5V Flash memories, Flash microcontrollers, and other memories	Up to 1 Gbit, 1.8 to 5V Flash memories, Flash microcontrollers, and other memories
Speed	80nsec, 10 times faster than AF3845, and maximum 1 Gbit data bus access.	80nsec, 10 times faster than AF3845, and maximum 1 Gbit data bus access.	80nsec, 10 times faster than AF3845, and maximum 1 Gbit data bus access.
Buffer memory	1 Gbit as a standard (expandable to 1 Gbit as an option)	1 Gbit as a standard (expandable to 1 Gbit as an option)	1 Gbit as a standard (expandable to 1 Gbit as an option)
Concurrent programming	16 devices 16 slots	8 devices 8 slots	1 device 1 slot
No. of slots	16 slots	8 slots	1 slot
Device functions	COPY - ERASE - BLANK - PROGRAM - VERIFY - B.P.V - E.P.V - E.P - P.V	COPY - ERASE - BLANK - PROGRAM - VERIFY - B.P.V - E.P.V - E.P - P.V	COPY - ERASE - BLANK - PROGRAM - VERIFY - B.P.V - E.P.V - E.P - P.V
Programming power (Vcc)	1.2V to 6.5V (max=50mA / 2 sockets)	1.2V to 6.5V (max=50mA / 2 sockets)	1.2V to 6.5V (max=50mA)
External interfaces	USB2.0 and USB host function	USB2.0 and USB host function	USB2.0 and USB host function
Data bus	Up to 1 Gbit	Up to 1 Gbit	Up to 1 Gbit
Monitor display	20 characters x 4 rows, LCD	20 characters x 4 rows, LCD	20 characters x 4 rows, LCD (option)
Input voltage/frequency	AC100 to 240V / 50 to 60Hz	AC100 to 240V / 50 to 60Hz	AC100 to 240V / 50 to 60Hz
Power consumption	Up to 200VA	Up to 200VA	Up to 33VA
Size (excluding protrusions)	W465 x D330 x H67mm	W465 x D330 x H67mm	W135 x D180 x H50mm
Weight (excluding accessories)	Approx. 6kg	Approx. 5.9kg	Approx. 0.7kg
Other	Compliant with 3gHS	Compliant with 3gHS	Compliant with 3gHS

DIP conversion units enabling use of previous conversion adapters

Conversion adapters for previous models can be used with dedicated DIP units (a paid option), which enables efficient use of your equipment. (Some adapters are not supported)

Model name	Supported adapters	Names of previous models
48DIP Unit AF9851A	48 pin DIP Adapter	AF9845 series, AF9708/09 series, AF9710
40DIP Unit AF9852A	40 pin DIP Adapter	AF9837
32DIP Unit AF9853B	32 pin DIP Adapter	AF9833, AF9708/09 series

* In some cases, algorithm software needs to be updated. (free)



Example of attaching a DIP unit + adapter

Conversion adapter

As compact, high-density, and complexed Flash memories rapidly increased, packages tailored to application specifications have been popular.

A wide variety of packages includes custom DIMM for each customer and many types of cards.

We offer conversion adapters for programmers that support memories of various semiconductor manufacturers.

