

# FR3070A Programming Board for Agilent Medalist In-Circuit Test Utility Card

## Data Sheet

### 1. Overview

FR3070A is a programming board that can be mounted on the Agilent Medalist In-Circuit Test System Utility Card. The FR3070A comes with the necessary software and drivers that can be integrated into the Agilent Medalist Window<sup>®</sup> XP environment to improve users' experience in developing and debugging production tests.

FR3070A is directly offered by SMH Technologies. It shares the same programming engine of the FlashRunner series of In-System Programmers. It currently supports over 3000 microcontrollers and serial memories from the most popular Silicon Manufacturers (Atmel, Catalyst, Cypress, Freescale, Fujitsu, Infineon, Microchip, NEC, NXP, Renesas, Rohm, Silicon Labs, SST, STMicroelectronics, Texas Instruments) and, thanks to its flexible architecture, is ready to support other architectures.

Up to three FR3070A boards can be fitted in the Agilent Utility Card. The figure below shows the Agilent Utility Card with three FR3070A boards mounted.

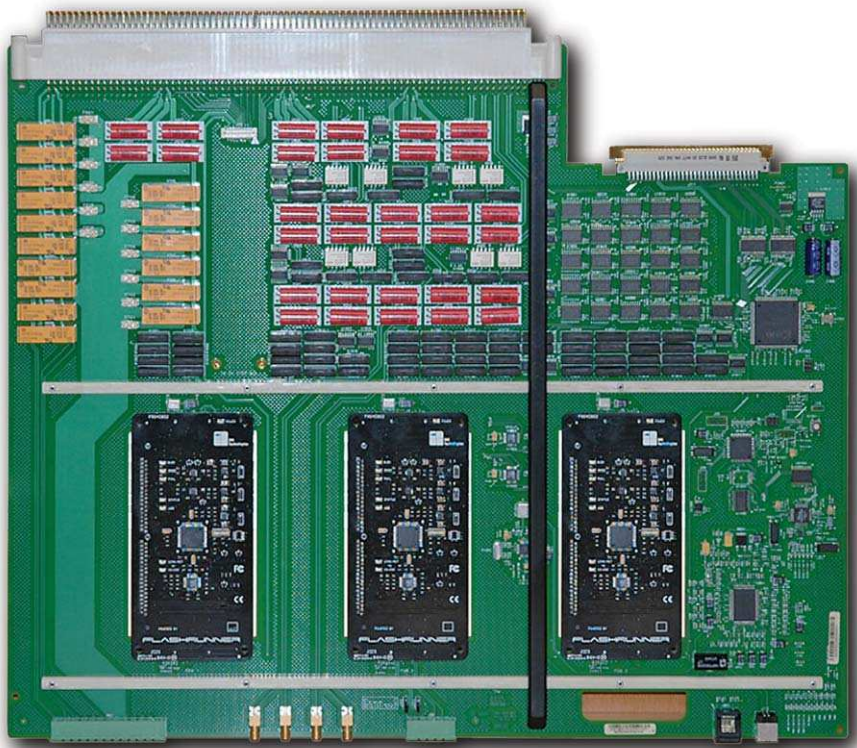


Figure 1. Instrument image



**Agilent Technologies**

## 2. Hardware Features of the FR3070A

- Power supply: 12 V DC, 2 A max
- Five digital I/O lines
- Two digital I/O or analog output lines
- Two programmable output voltages (0 to 15 V, 0.25 A and 0 to 5 V, 0.5 A);
- One analog input line
- One programmable clock output
- Micro Secure Digital memory card (up to 2 GB);
- 512 bytes on-board dynamic memory;
- I/O protection;
- Ethernet connections

Table 1: Signals used by FR3070A to interface with the Agilent Utility Board (Agilent signal names).

J4, J6, J8 (top side connector)			J5, J7, J9 (bottomside connector)		
Pin	Utility Card Description	FR3070A	Pin	Utility card Description	FR3070A
2	Signal 1	DI00/A00	2	USB Vdd	USB Vdd
4	Signal 2	DI01/A01	4	USB GND	USB GND
6	Signal 3	DI02	6	USB Data +ve	USB Data +ve
8	Signal 4	DI03	8	USB Data -ve	USB Data -ve
10	Signal 5	DI04	10	Spares (NC)	NC
12	Signal 6	DI05	12	Spares (NC)	NC
14	Signal 7	DI06	14	Spares (NC)	NC
16	GND	GND	16	External Power supply Sense Hi	NC
18	Signal 8	CLKOUT	18	External Power supply Sense Lo	NC
20	Signal 9	GND	20	External Power supply Hi	NC
22	Signal 10	VPROG0	22	External Power supply Hi	NC
24	Signal 11	VPROG1	24	External Power supply Lo	NC
26	Signal 12	AIN0	26	External Power supply Lo	NC
28	Signal 13	NC	28	Universal Clear	Universal Clear
30	Signal 14	NC	30	Plug-in Card Reset	Plug-in Card Reset
1	Signal 15	NC	1	Spares (NC)	NC
3	Signal 16	NC	3	Spares (NC)	NC
5	Signal 17	NC	5	Spares (NC)	NC
7	Signal 18	NC	7	Spares (NC)	NC
9	GND	GND	9	AGND	AGND
11	Spares (NC)	NC	11	Ethernet TX+	Ethernet TX+
13	Spares (NC)	NC	13	Ethernet TX-	Ethernet TX-
15	Spares (NC)	NC	15	AGND	AGND
17	Spares (NC)	NC	17	AGND	AGND
19	Spares (NC)	NC	19	Ethernet RX+	Ethernet RX+
21	Spares (NC)	NC	21	Ethernet RX-	Ethernet RX-
23	GND	GND	23	AGND	AGND
25	GND	GND	25	GND	GND
27	+12V	+12V	27	Plug-in card detect 1	Plug-in card detect 1
29	+12V	+12V	29	Plug-in card detect 2	Plug-in card detect 2

### 3. Software Features of the FR3070A

FR3070A can receive and execute commands in two ways:

1. Over the Ethernet connection;
2. Via "scripts" stored in its Micro SD card.

A DLL is provided which allows FR3070A to be controlled by BT-Basic.  
The FR3070A firmware and programming algorithms are fully upgradable via the FR3070A software.

### 4. Physical Dimensions

FR3070A comprises a main board (which plugs into the Agilent Utility Card) and the actual programming engine. The programming engine is contained in a SIMM module placed on the bottom of the main board, in order to save vertical space.

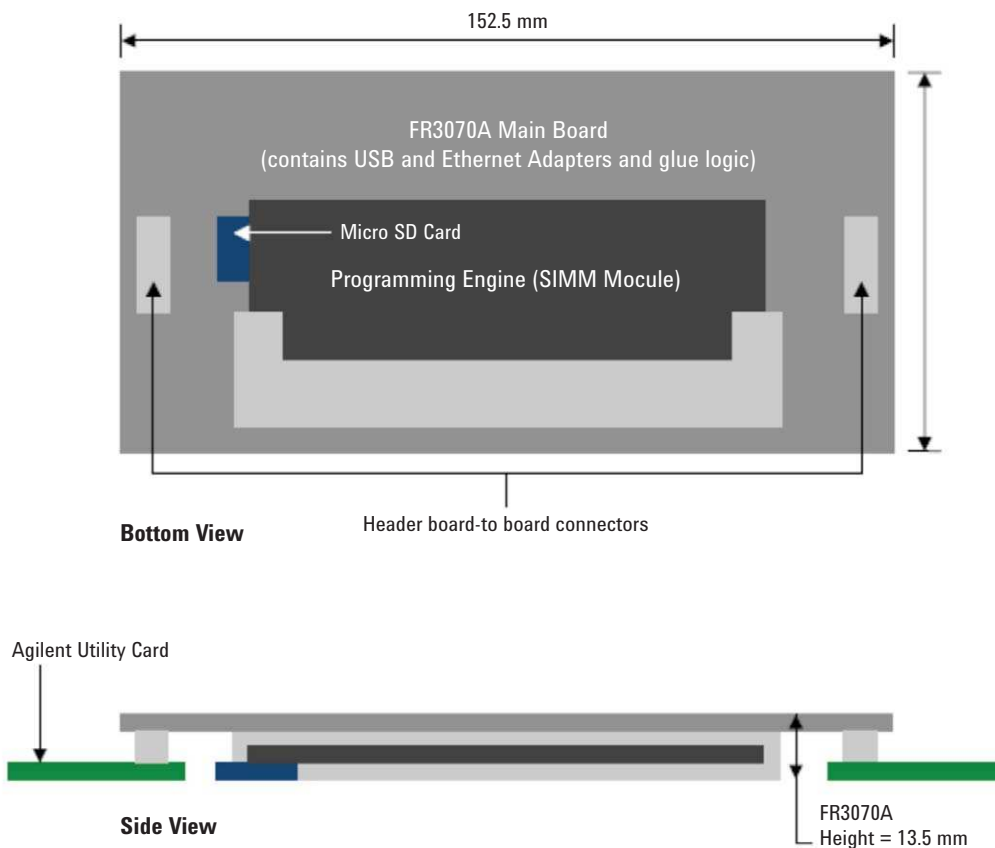


Figure 2: The illustrations show the bottom and side views of the FR3070A.

To order the FR3070A programming board, please contact the following vendor directly:



**SMH Technologies**  
Via Giovanni Agnelli, 1  
33083 Villotta di Chions (PN)  
Italy  
[www.smh-tech.com](http://www.smh-tech.com)  
Phone: +39 0434 421111  
E-mail: [info@smh-tech.com](mailto:info@smh-tech.com)

For more information on the Agilent Utility Card, please visit:  
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