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**True Parallel**

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**High-Performance**

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**In-System Programmer**

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**FlashRunner Quattro**

# FlashRunner Quattro Series

## True Parallel In-System Programmers



- Four fully parallel in-system programming channels
- Channel demultiplexing: each of the four main channels can be demultiplexed to 2 or 4 ISP channels (for a total of 8 or 16 ISP channels, respectively)
- Easy integration in all ATE systems
- Galvanic isolation (on the 8 ISP channels configuration)
- Controllable by a host PC or ATE through RS-232, Ethernet or parallel control lines

FlashRunner Quattro is a high-integration in-system gang programmer, based on the FlashRunner patented technology. FlashRunner Quattro is designed for programming multi-PCB panel assemblies, and is based on the FlashRunner technology. This means:

- Extremely fast programming (FlashRunner is one of the fastest in-system programming system on the market);
- Standalone operations (projects and code images stored on memory cards);
- Compact and robust design for production environments.

FlashRunner Quattro is composed of a mainboard which hosts the programming and demultiplexing modules, plus various connectors used to interface to the target system and host/ATE. FlashRunner Quattro is available in three different models, to best suit different gang programming needs:

- 4 ISP channels system (4 true parallel channels), no ISP channel demultiplexing;
- 8 ISP channels system (4 parallel channels, each demultiplexable to 2 channels, with galvanic isolation);
- 16 ISP channels system (4 parallel channels, each demultiplexable to 4 channels).

In all of the above configurations, each of the ISP channels is composed of:

- Six digital, bidirectional lines;
- Two analog/digital lines (analog out, digital in/out);
- Two power lines;
- One ground line (common for all channels).

### Technical Specifications

- Power supply: 9-18V DC
- Dimensions: 165 x 155 x 55 mm
- Driven through parallel control lines or ASCII commands (through RS-232 or Ethernet port)

#### ISP Lines

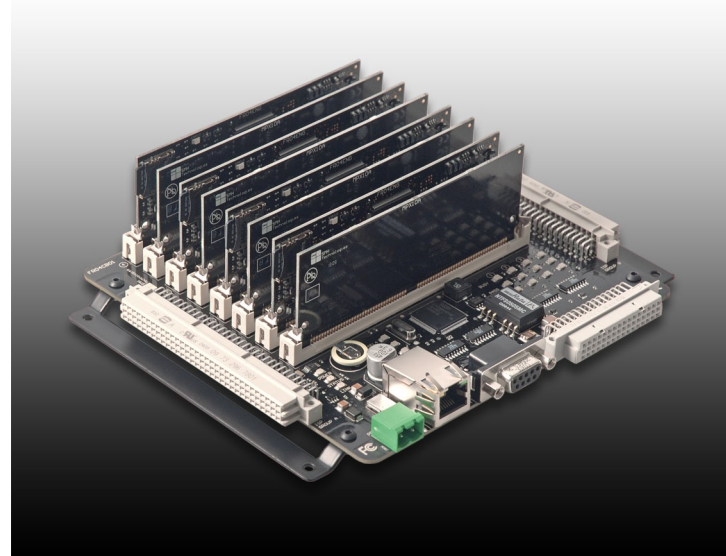
- 6 Digital Lines (0-5.5V DC)
- 2 Analog Lines (0-14.5V DC)
- 2 Programmable Power Lines (1.6-5.5V DC, 3.0-14.5V DC)

#### Switching Technology

- FR04A08: Reed Relay Switching
- FR04A16: CMOS/Reed Relay Switching

#### Connectors

- ISP Channels: Two 96-Way Female
- Parallel Control Lines: 48-Way Female
- RS-232: 9-Way D-Sub Female
- LAN: RJ-45
- Power: Terminal Block, pitch = 2.54 mm



### Order Codes

- FR04A04** FlashRunner Quattro, In-System Standalone Gang Programmer (4 Channels)
- FR04A08** FlashRunner Quattro, In-System Standalone Gang Programmer (8 Channels)
- FR04A16** FlashRunner Quattro, In-System Standalone Gang Programmer (16 Channels)

### Supported Manufacturers



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