Head Interface Board for Fujifilm Dimatix Starfire SG1024 Printheads

GIS Inkjet Operating System

The HIB-FD-A4D is a Head Interface Board designed to provide communications between the Fujifilm Dimatix StarFire SG1024 (S/M/L) printheads and the GIS Print Manager Boards.

It is able to drive up to 2 x StarFire SG1024 printheads.

Printhead Control

The HIB-FD-A4D will allow grayscale, multidrop or binary printing at full-speed. It will generate independent waveforms for each printhead. Customers will be able to shape each waveform with accurate slew-rate and amplitude control in very fine time-slices throughout each pulse, making it ideal for graphics, textiles, ink development and materials deposition applications.

Temperature monitoring is incorporated, as is thermostatic control over heating elements in up to four thermal zones.

Power Control

Power up and power down sequencing is automatically controlled with voltage level auto-sensing circuitry.

Flexible

Full control over waveform definition from the GIS software interface allows users to get the best performance from the SG1024 printhead.

Tune waveform amplitudes, timings, rise and fall rates for each of the fire pulse inputs to each of your heads. The system supports VersaDrop®, multiple pulses per grey level and tickle-pulse generation.

Connectivity

The HIB-FD-A4D is a native component of the GIS Inkjet Operating System. It is designed to drive Fujifilm Dimatix SG1024 printheads using a GIS Print Manager Board and GIS Software.

Connectors

The HIB-FD-A4D assembly requires just three connectors to drive the printhead:

Data Connector
A standard RJ45 for connection to a GIS Print Manager Board using CAT 6a shielded cabling (up to 10m).

Power Connector
A standard 24V DC connector to supply the HIB-FD-A4D board and 2 x Fujifilm Dimatix SG1024 printheads with power. There is no requirement for separate printhead power.

Printhead Connectors
Standard ribbon cables up to 300mm long.

Software, Machine Control and Sub-systems for Industrial Inkjet

GIS provides a complementary suite of products that companies can easily customise and rebrand - accelerating technology design and cutting development time:

Software Support

GIS offers a range of software with its Atlas® platform to drive the HIB-FD-A4D.

The Atlas suite of products includes a customisable User Interface (UI) as well as a powerful server technology for managing the entire printing and sub-system process, Atlas Machine Control Services (MCS).

Built using Microsoft industry standard software and approaches, Atlas can be configured for different types of users and customised with different languages.

Specifications

General
Supported printheads : StarFire SG1024 (S/M/L)
Dimensions H 140mm (Uncased) W 144.5mm D 30mm Weight: 150g
Specifically designed for use with GIS software products
High Speed (400Mb/s) data channel
Capable of continuous running at 100% duty cycle in XY or single pass systems
Power Supply
24V DC
Printhead Control
Heater Control
Independent Waveform Shaping
Supports greyscale and multipulse waveforms up to 32kHz
Supports binary waveforms up to 35kHz
Fire pulse amplitude between 30V and 130V
Cable Length
From PMB: 10m
From HIB to head: 300mm

Ink System Components

GIS also provides a comprehensive range of ink delivery system components suitable for the controlled flow requirements of the HIB-FD-A4D printhead product line.

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