

Galaxy PH 256/80 HM

**256-Channel
Ink Jet Printhead**



Galaxy PH 256/80 HM

Features:

- 80 picoliter calibrated drop size
- 256 individually addressable, inline nozzles
- Excellent channel to channel uniformity
- High frequency continuous operation
- Head Interface Board for serial data transmission
- Ink reservoir, deaeration system, and fluid filter
- Ink level sensor
- Permits high viscosity hot melt fluids
- Orientation independent
- Designed for long service life
- Temperature control

The Galaxy PH 256/80 HM is a high performance, robust and reliable printhead designed for a broad range of industrial and commercial, hot melt printing applications at resolutions up to 450 dpi.

The Galaxy Printhead 256/80 HM is an ink jet printhead offering complete fluid support and signal processing capabilities for hot melt jetting fluids.

Within the printhead's jetting assembly, four electrically independent piezoelectric slices, each with 64 addressable channels, are combined to provide a total of 256 jets. The nozzles are arranged in a single line at a 0.010 inch distance between nozzles.

The jetting assembly contains serial-to-parallel converters for selecting which jets to fire. The channels are daisy-chained into two serial data streams using the Head Interface Board. A high-voltage fire pulse with controlled slew rates is used to actuate the pumping chambers within each channel.

The fluid interface is through the on-head reservoir, which has an integrated filter and fluid level sensor. This permits tight control over the fluid supply and also helps maintain a meniscus vacuum, used to prevent fluid weeping and air ingestion at the nozzles. An additional pneumatic interface allows for an external deaeration vacuum (incorporating Dimatix's patented lung technology).

For thermal control, a heater cartridge and thermistor temperature sensor are built into the printhead's jetting assembly.

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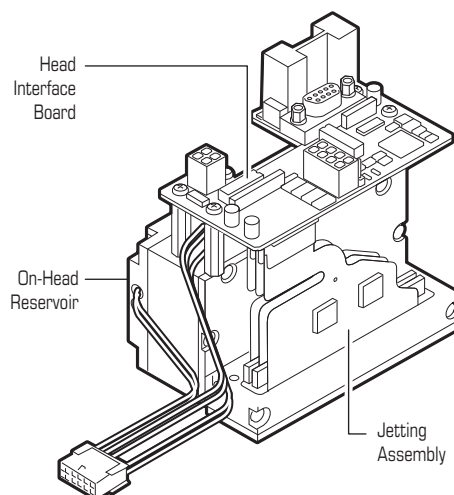
Dimatix
TM

FUJIFILM Dimatix is the world leader in the manufacture of drop-on-demand inkjet products and technologies with over 870 patents since its inception as Spectra Corporation in 1985. We provide exceptional products and customer support.

Parameter	Galaxy PH 256/80 HM
Number of addressable jets	256
Nozzle spacing	254 microns [0.010 in.]
Nozzle diameter	52 microns
Calibrated drop size	80 picoliters
Adjustment range for drop size	75 - 85 picoliters
Drop size variation, 1 sigma*	5%
Jet straightness, 1 sigma	5 mrad [0.29°]
Nominal drop velocity	8 m/sec
Drop velocity variation, 1 sigma*	5%
Crosstalk, maximum	5%
Operating temperature range	up to 125°C [257°F]
Fluid viscosity range (at jetting temperature)	8 - 20 cP
Compatible jetting fluids	Hot melt
Maximum operating frequency	12 kHz
Electrical interface	RS-422
Ink filter	8 microns absolute
Meniscus vacuum	6.3 - 8.7 mBar [2.5 - 3.3 in. wg]
Lung vacuum	750 mBar [22 in. Hg gage]

*at constant frequency

Physical Characteristics



Printhead footprint
65 mm x 102 mm
[2.57 in. x 4.0 in]

Nozzle plate footprint
25 mm x 102 mm
[1.0 in. x 4.0 in]

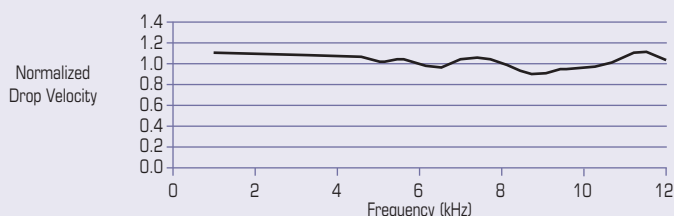
Nozzle line length
64.8 mm
[2.55 in]

Height
111.40 mm
[4.38 in]

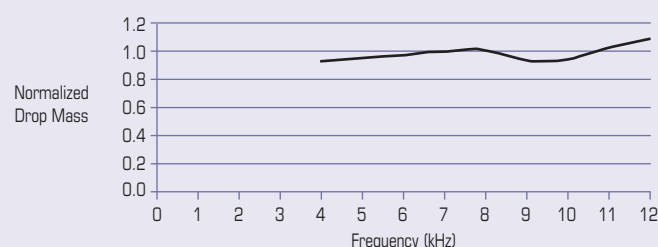
Approx. weight
640 g
[22.57 oz]

Jetting Characteristics

Galaxy PH 256/80 HM Typical Drop Velocity vs. Frequency



Galaxy PH 256/80 HM Typical Drop Mass vs. Frequency



Product data presented above are for guideline purposes only. For design and engineering work using this product, please contact Dimatix Technical Support for the appropriate Product Manual containing full Product Specifications.

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Corporate Office:
FUJIFILM Dimatix, Inc.
2250 Martin Avenue
Santa Clara, CA 95050
USA

Tel: (408) 565-9150
Fax: (408) 565-9151
Email: info@dimatix.com

New Hampshire Facility:
FUJIFILM Dimatix, Inc.
109 Etna Road
Lebanon, NH 03766
USA

Tel: (603) 443-5300
Fax: (603) 448-9870
Email: info@dimatix.com

Japan Office:
FUJIFILM Corporation
7-3, Akasaka 9-chome
Minato-ku, Tokyo 107-0052
Japan
Inkjet Business Division
Tel: +81 3 6271 3971
Email: dgi-ff-jhead@fujifilm.com

Europe Office:
Tel: +44 7739 863 505
Fax: +44 870 167 4328
Email: euro@dimatix.com

Korea Office:
Email: mdkorea@dimatix.com

Taiwan Office:
Email: mdtaiwan@dimatix.com

China Office:
FUJIFILM Dimatix China Service Center
Building 30, 1000 Jinhai Road
Pudong New Area, Shanghai
China 201206
Email: china@dimatix.com

Singapore Office:
Email: mdsingapore@dimatix.com