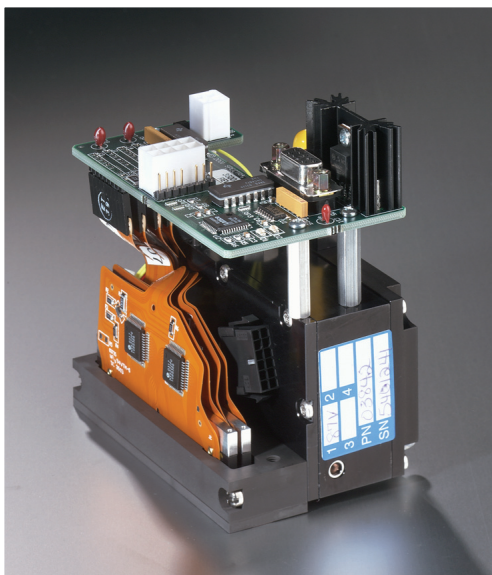


Galaxy PH 256/30 AAA

256-Channel
Ink Jet Printhead



Galaxy PH 256/30 AAA

Features:

- 28 picoliter calibrated drop size
- 256 individually addressable, inline nozzles
- Excellent jet straightness
- 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 jetting fluids
- Orientation independent
- Designed for long service life
- Temperature control
- Compatible with aqueous fluids

The Galaxy PH 256/30 AAA is a high performance, robust and reliable printhead designed for a broad range of industrial and commercial printing applications such as wide format graphics, addressing, and packaging at resolutions up to 900 dpi.

The Galaxy Printhead 256/30 AAA is an ink jet printhead offering complete fluid support and signal processing capabilities for a wide range of 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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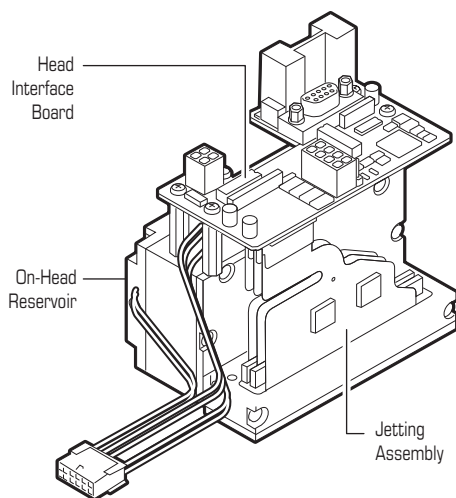
Dimatix
™

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 256/30 AAA
Number of addressable jets	256
Nozzle spacing	254 microns [0.010 in.]
Nozzle diameter	36 microns
Calibrated drop size	28 picoliters
Adjustment range for drop size	25 - 30 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 90°C [194°F]
Fluid viscosity range (at jetting temperature)	8 - 20 cP
Compatible jetting fluids	Organic solvents; UV curables, Aqueous
Maximum operating frequency	20 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.]

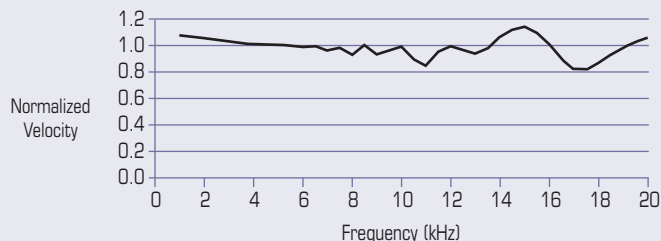
Nozzle line length
64.8 mm
[2.55 in.]

Height
111.40 mm
[4.38 in.]

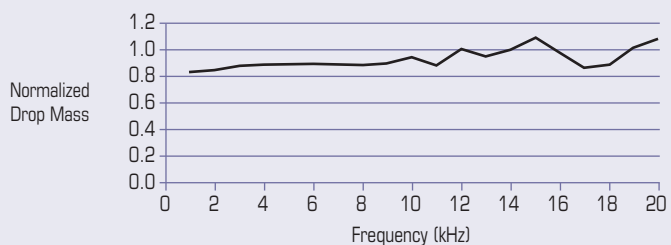
Approx. weight
640 g
[22.57 oz.]

Jetting Characteristics

Galaxy 30 AAA Velocity Frequency Response



Galaxy 30 AAA Drop Mass Frequency Response



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 Global Graphic Systems Co., Ltd.
2-26-30 Nishiazabu
Minato-ku, Tokyo 106-0031
Japan
Advanced Marking Strategy Division
Phone: +81 3 6419 0530
Fax: +81 3 6419 9840
E-mail: dmp_ffgs@ffgs.fujifilm.co.jp

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