

# Nova JA 256/80 AAA

256-Channel  
Jetting Assembly



Nova JA 256/80 AAA

## Features:

- 75 picoliter calibrated drop size
- 256 individually addressable, inline nozzles
- Excellent channel to channel uniformity
- Excellent jet straightness
- High frequency continuous operation
- Orientation independent
- Designed for long service life
- Operation up to 90°C (194°F)
- Permits high viscosity jetting fluids
- Compatible with aqueous liquids
- Dual ported for ease of flushing
- Optional temperature control

*The Spectra® Nova JA 256/80 AAA is a high performance, robust and reliable jetting assembly designed for a broad range of industrial and commercial printing applications such as wide format graphics, textiles, addressing and packaging at resolutions up to 450 dpi.*

The Nova JA 256/80 AAA is a compact ink jet jetting assembly designed specifically for applications using a variety of jetting fluids and requiring multiple printheads packed tightly together.

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 0.011 inch distance between nozzles.

The fluid interface and electrical connection are at the top of the jetting assembly. Several mounting configurations are possible. This arrangement permits extremely tight packing in the print process direction. The dual ported fluid interface facilitates flushing for quick change-overs and for displacing drying fluids with inert fluids during periods of non-use.

This jetting assembly contains serial-to-parallel converters for selecting which jets to fire; all jets can be fired simultaneously or individually. By using an optional Head Interface Board, image data can be daisy-chained into one serial stream to reduce the data interface hardware requirements. A high voltage fire pulse with controlled slew rates is used to actuate the pumping chambers within each channel.

Optional temperature control components are available for precise control of fluid viscosity. Optional deaeration hardware is also available.



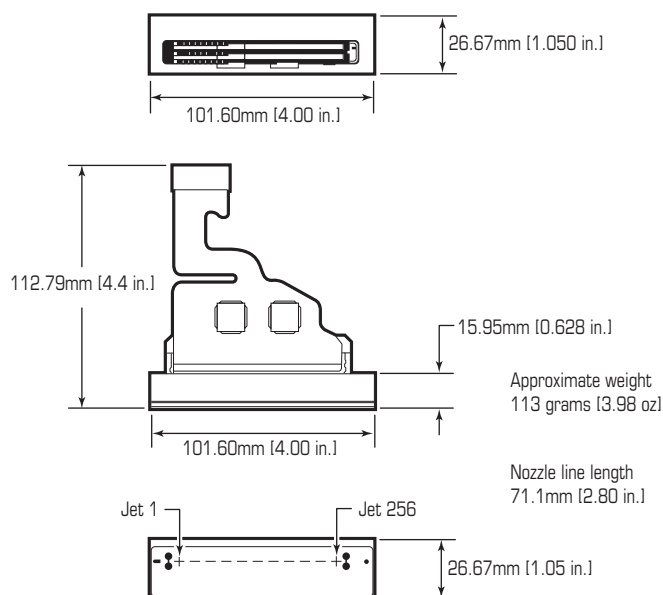
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Parameter	NOVA JA 256/80 AAA
Number of addressable jets	256
Nozzle spacing	279 microns [0.011 in.]
Nozzle diameter	52 microns
Calibrated drop size	75 picoliters
Adjustment range for drop size	70 - 85 picoliters
Drop size variation, 1 sigma*	5%
Jet Straightness, 1 sigma*	4 mrad [0.23°]
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	Aqueous, Organic solvent, UV curable
Maximum operating frequency	20 kHz

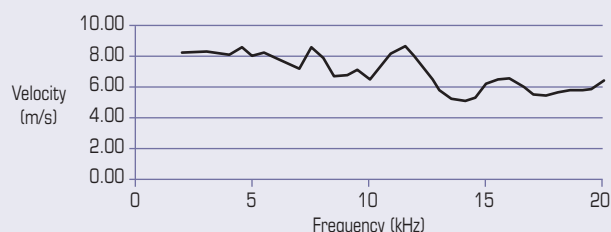
\*at constant frequency

### Physical Dimensions

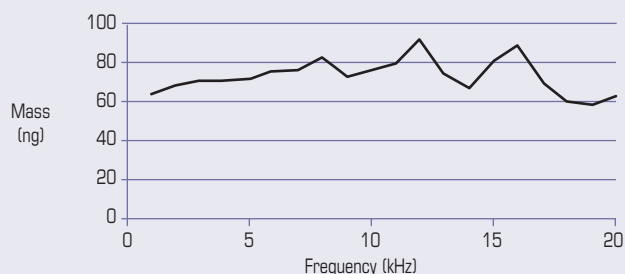


### Jetting Characteristics

Nova AAA Velocity Frequency Response



Nova AAA 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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