

Emerald QE Printheads

**256-Channel
Inkjet Printhead**



Emerald QE Printhead

Features:

- Up to 80 picoliter nominal drop size
- 256 individual addressable nozzles
- Incorporates VersaDrop™ grayscale jetting capability
- Excellent channel-to-channel uniformity
- High frequency continuous operation
- Lightweight with thin profile
- Supports UV-curable, solvent, and aqueous-based inks
- Dual-ported with minimal wetted surface area
- OEM accessible non-volatile memory area for tracking purposes
- Integral temperature sensor
- Operation up to 90°C (194°F)

The Emerald QE printheads are high performance inkjet printheads designed for a broad range of industrial and commercial printing applications at resolutions of up to 100 dpi. Robust construction and design make it ideal for solvent, UV and aqueous based wide format printers built for demanding production environments.

Fujifilm Dimatix continues to build upon its long history of printhead reliability and performance. The Emerald QE family of printheads uses field proven materials and a robust design to deliver a long service life and consistent output.

The Emerald QE Printheads have 256 independent channels arranged in a single row at 100 dpi spacing for single color operation. The printheads are designed for grayscale jetting using 30 and 80 picoliter native drop size depending on the printhead, with 8-meters per second nominal drop velocity for jetting fluids in the 8 to 20 centipoise range. Using VersaDrop jetting technology, the printhead is capable of adjustable binary operation at drop sizes up to 200 picoliters.

Dimatix' breakthrough VersaDrop™ jetting technology is featured within the Emerald QE printhead. It allows unparalleled flexible modes of operation including adjustable binary drop size and grayscale capability at unprecedented throughput rates.

The Emerald QE Printhead is compatible with a broad range of inks, including UV-curable, aggressive organic solvent and aqueous inks and associated maintenance fluids.

The unique design of Emerald QE Printhead allows each 256-channel module to be replaced and accurately registered in the field with no special tools or recalibration. An integral mounting bezel with precision registration points enables drop-in alignment with other carriage features.

Shared physical features and identical interfaces as other Q-Class products allow the Emerald QE to be intermingled with the same or complementary printhead models to create a multitude of single and multiple-color configurations.

Each 256-channel QE module is dual ported to facilitate easy priming, flushing and ink recirculation. The printhead features single color operation and is available with barbed ink ports or O-rings depending on user preference. Heaters and a built in thermistor allow precise control of ink viscosity at jetting temperatures up to 90°C.

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FUJIFILM Dimatix is the world leader in the manufacture of drop-on-demand inkjet products and technologies with over 1,000 patents since its inception as Spectra Corporation in 1985. We provide exceptional products and customer support.

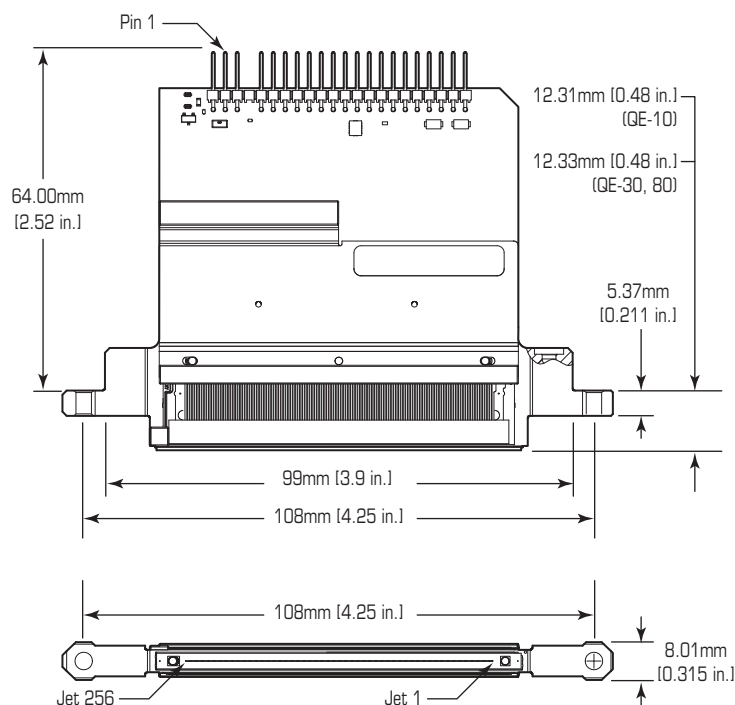
Parameter

Number of addressable Jets per module
 Print width
 Native resolution
 Native drop size
 Largest drop size
 VersaDrop Max Productivity
 Firing frequency
 Inkjet operating temperature range
 Nominal fluid viscosity
 Compatible jetting fluids
 Nozzle Plate technology
 OEM accessible non-volatile memory
 Integral temperature sensor

Emerald QE Printhead

256
 64.77 mm (2.55 inches)
 100 dpi
 See chart below
 See chart below
 See chart below
 See chart below
 Up to 90° C [194° F]
 8-20 cp (10-14 recommended)
 UV-cureable, organic solvents, aqueous
 Metal
 Two 256-bit pages, write once
 Included

Physical Characteristics



Emerald QE Printhead Models

Emerald QE Printhead Model	QE-30	QE-80
Native Drop Size	30 pl	80 pl
Largest Drop Size	80 pl	200 pl
VersaDrop Max Productivity	1000 ng-kHz with drop sizes between 30 and 80 ng	1600 ng-kHz with drop sizes between 80 and 200 ng
Firing Frequency	33 kHz	20 kHz

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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