And, unlike other grayscale implementations, VersaDrop offers a robust solution for modulating drop size by producing a single drop at the nozzle, at high speed rather than on the substrate, resulting in superior drop placement accuracy and print quality.

Using VersaDrop to accommodate less optimal inks is an added bonus that allows a broader range of fluid characteristics and chemistries to produce exacting drop volumes and drop shapes for jetting straight and true at higher standoff distances onto a wider variety of substrates and surfaces.

VersaDrop Integration
A choice of integration options makes VersaDrop easy to implement and easy to use.

Simplified Waveform Development
The Dimatix Developer’s Environment helps systems designers and ink developers explore the rich features offered by VersaDrop. Using the Developer’s Environment, developers and formulators can evaluate their imaging strategies to assure optimal ink and systems performance.

Optional Integrated Electronics
Also available from Dimatix is a comprehensive VersaDrop electronics package including a programmable waveform generator, and fire pulse amplifier; scalable from low duty cycle scanning systems to ultra-high speed single pass systems.

Integration Support
If waveform development is not part of your current expertise, Dimatix Technical Support will assist you with integrating VersaDrop into your products by helping to adapt our reference waveforms and accelerate a faster time to market.

Open Architecture, Infinite Possibilities
With VersaDrop’s open architecture and flexible waveform development, system developers can advance entirely new concepts into their print system designs by incorporating multiple operating modes with just the right spot size for a given resolution, variable drop grayscale printing, and support for more ink types and properties with greater productivity than ever before – leaving the competition behind.

VersaDrop makes the best drop-on-demand print-heads even better with best-in-class performance, operational flexibility and unparalleled print quality…and all without impact to productivity.

And that’s what we mean by

VersaDrop Grayscale & Beyond

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VersaDrop™
Grayscale and Beyond

To combine outstanding print quality with unprecedented speed in the driving force behind high performance inkjet printing. As technological advances close the gap, Dimatix once again raises the bar with its VersaDrop Jetting Technology.

Whether designing scanning or single-pass systems, VersaDrop elevates Dimatix high performance graphic printheads to an entirely new level of operational excellence by providing unparalleled versatility without having to make trade-offs between print quality and production speed. Now you can achieve both, with a design that leaves the competition behind.

VersaDrop®
Makes Great, Even Better

We do this by making a great printhead even better. How? By leveraging the inherent characteristics of our printhead’s high frequency response and velocity, superb channel-to-channel uniformity, low crosstalk and unparalleled jetting straightness and velocity, superb channel-to-channel uniformity, low of our printhead’s high frequency response and velocity. Now you can achieve both, with a design that leaves the competition behind.

Practically speaking, this decreases the number and type of printheads required to accommodate diverse printing requirements such as in-store and outdoor, close-up and long distance viewing applications or when combining high resolution printing with surface coatings, underlayments or functional fluids.

Onboard high speed printhead electronic allow each channel not only to be addressed individually but to also precisely meter ink within each channel. This means that one or any number of channels can be programmed to behave quite differently, and on every firing cycle if necessary while maintaining unparalleled drop placement accuracy.

A VersaDrop enabled print system can satisfy the widest possible range of commercial requirements, from those demanding fine tonal rendering and crisp 4-point text within the same job to optimizing just the right spot size for multiple print resolution settings using the same printhead.

The defining characteristic of VersaDrop is our open systems approach to creating and editing waveforms to pump precisely metered amounts of ink into a single drop before the tail detaches from the nozzle. This capability can be exploited to produce drop sizes ranging from 6 to over 200 picoliters within the same printhead family and at higher drop velocities resulting in increased standoff distances. It allows the same printhead to be used with either UV, solvent, aqueous inks or conductive fluids.

The ability to precisely modulate the size and shape of individual ink drops, and accurately place them, gives VersaDrop the ability to produce extremely fine features. Like binary mode, when using grayscale mode, generating a drop size that is considerably smaller than native is possible too.