Xaar printheads

TF TECHNOLOGY®

Xaar 1003 AMx

The Xaar 1003 AMx is perfect for **small drop** fluid deposition on an industrial scale and is capable of consistently jetting droplets as small as 6 pL for the production of fine features, patterns and coatings. The combination of highly accurate, small drops and unrivalled reliability enables the industrialisation of advanced manufacturing processes in sectors such as display, printed electronics, semiconductors and photovoltaics.

A series of special internal and external coatings enable the printhead to jet a range of corrosive and reactive functional fluids. Combined with TF Technology these features enable a long running time with functional fluids and reduced maintenance.

Xaar 1003 AMp

The Xaar 1003 AMp is perfect for **very small drop** fluid deposition on an industrial scale and is capable of consistently jetting droplets as small as 1 pL for the production of fine features, patterns and coatings. The combination of highly accurate, very small drops and unrivalled reliability enables the industrialisation of advanced manufacturing processes in sectors such as display, printed electronics, semiconductors and photovoltaics.

This versatile printhead can jet a range of functional fluids, is fully scalable from small to large arrays, and is designed for optimum performance with Xaar's systems components. Altogether this enables fast process optimisation and reduced time-to-market.

Many applications require tight regulation of coating thicknesses, precise patterns and management of substrate surface characteristics. Both the Xaar 1003 AMx and the Xaar 1003 AMp combine highly accurate drop placement, consistent drop volume and high frequency jetting with variable drop size capability to deliver the precise fluid control essential for these processes. Both printhead variants feature the unbeatable combination of Xaar's TF Technology and Hybrid Side-Shooter architecture. This unique arrangement ensures that the printhead delivers unrivalled reliability even in the most challenging of industrial applications.

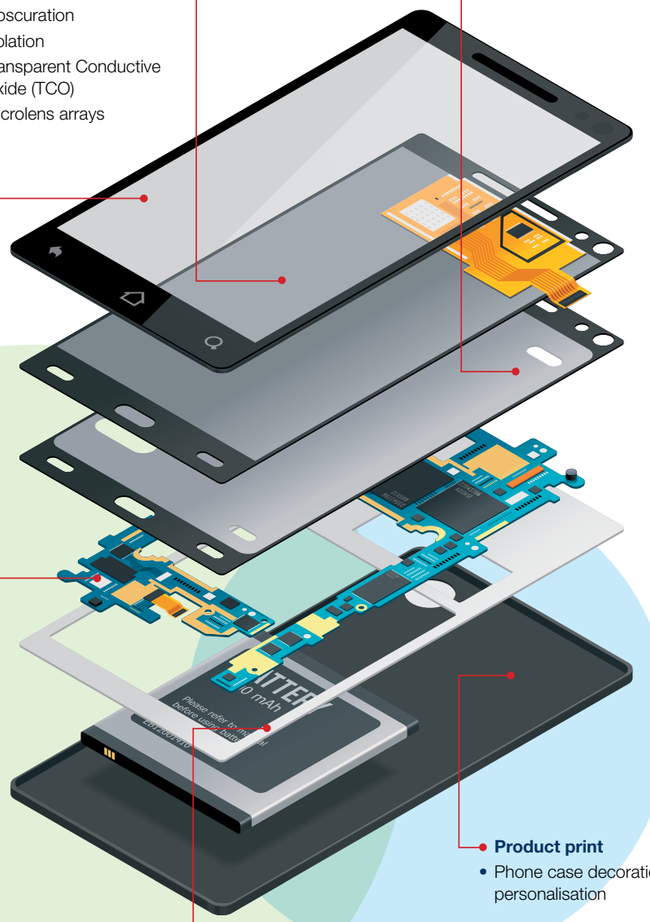
Digital inkjet deposition for displays

Jettable layers using Xaar printheads

Cover glass
- Obscuration
- Isolation
- Transparent Conductive Oxide (TCO)
- Microlens arrays

Passive thin film layers
- Encapsulation layers
- Polarizers
- RGB filters

Active layers
- Emissive layers
- Transport layers



Product print
- Phone case decoration and personalisation

Board/substrate layers
- Solder mask and etch mask
- Legend/notation
- Isolation barriers

Back-end layers
- Antenna
- Conductive tracking

XAAR®

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Get ahead
in functional fluid applications
with the world leaders in
inkjet technology

XAAR®

Get ahead

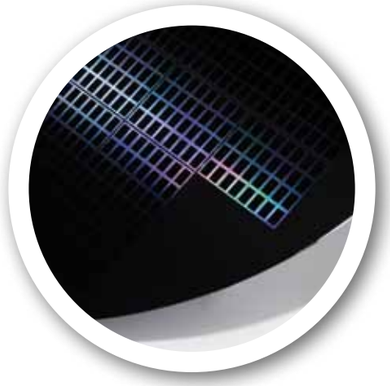
With access to innovative technology and inkjet expertise from the leaders for over 25 years, get ahead of the competition and achieve more with Xaar.

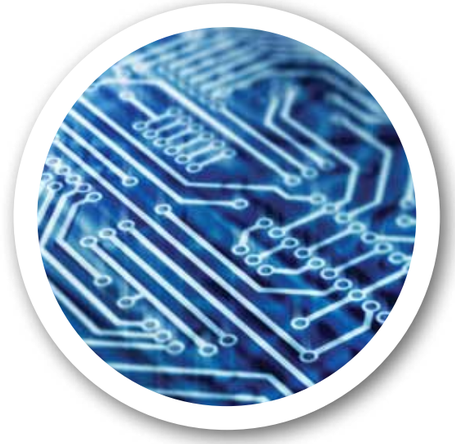
Save development time and reduce costs

- No early stage capital investment
- No large fluid volumes at the outset
- Very early fluid verification
- Application samples for review and test
- Easily scalable results

Improve application performance

- Optimised waveforms
- Consultancy and advice from inkjet specialists
- Take control of long term development
- Fast response to issues, application improvements and new technologies.





1 Early fluid evaluation

- Fluid development guidance
- Complex rheology testing
- Fluid physicals measurement
- Materials compatibility testing

2 Jetting optimisation

- Printhead waveform configuration
- Application and fluid optimisation
- In-flight droplet visualisation

3 Preliminary sample production

- Multiple configurations of drop deposition
- Pre and post jetting treatments
- Sample property measurement

4 Applications development

- Xaar Inkjet Development System
- Laboratory equipment populated with Xaar printheads
- Knowledge transfer, education and training

5 Technical support throughout

- Early application evaluation and testing
- Application improvements
- Product support and applications advice