Functional Fluid applications
Xaar’s a world leader in inkjet technology
Developing deposition solutions for your Functional Fluid application

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.

Digital inkjet deposition for displays

Jettable layers using Xaar printheads

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

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

3. Active layers
   - Emissive layers
   - Transport layers

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

5. Back-end layers
   - Antenna
   - Conductive tracking

6. Product print
   - Phone case decoration and personalisation
## Xaar printhead portfolio

### Xaar 128
- **Nozzle density:** 185 npi
- **Drop volume:** 40 or 80 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 2

### Xaar 501
- **Nozzle density:** 180 npi
- **Drop volume:** 8 to 40 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 6

### Xaar 502
- **Nozzle density:** 180 npi
- **Drop volume:** 15 to 75 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 6

### Xaar 1003
- **Nozzle density:** 360 npi
- **Drop volume:** GS6 - 6 to 42 pL, GS12 - 12 to 84 pL, GS40 - 40 to 160 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 5, 8

### Xaar 1003 AMp
- **Nozzle density:** 360 npi
- **Drop volume:** 1 to 3 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 8

### Xaar 1003 AMx
- **Nozzle density:** 360 npi
- **Drop volume:** 6 to 42 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 6

### Xaar 2002
- **Nozzle density:** 720 npi
- **Drop volume:** 6, 12 or 40 pL
- **Fluid types:** [ ]
- **Maximum greyscale levels:** 8

*Dependent upon printhead model and ink type
*GS40 variant only

### Fluid type key:
- [ ] **Solvent**
- [ ] **UV**
- [ ] **Oil**
- [ ] **Soluble salts**