FUJIFILM Dimatix Operations by Location

California:
- Headquarters
- Technology Development Center
- Wafer Fab (MEMS) production
- Material Deposition Printer Assembly & Test

New Hampshire:
- Printhead Assembly & Test
- Analytical Testing
- Integration Solution Development
- Marketing & Customer Support
# DMP systems

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DMP-2800</th>
<th>DMP-3000</th>
<th>DMP-5000</th>
<th>DMP-5005</th>
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<tbody>
<tr>
<td>DMC-11601</td>
<td>DMC-11610</td>
<td>D-128/1 DPN</td>
<td>D-128/10 DPN</td>
<td>SX3</td>
</tr>
</tbody>
</table>
How does Dimatix technology compare to others?

- Nozzle technology
  - Silicon
  - Electroformed Ni/Au
  - Stainless Steel
How is Dimatix Different? Silicon MEMS Implementations
How does Dimatix technology compare to others?

- Highest frequency performance
  - Typical Dimatix range 20kHz – 60kHz, Samba technology 100kHz
  - Competition – 6kHz – 25kHz
- High temperature capability – 125 deg. C
- Best Fluid Compatibility – Aqueous, solvent, UV, Hot Melt
Silicon MEMS Jet Straightness Benefits

- Delivers exceptional drop placement accuracy
- Increased throw distance

Nozzle Error Distributions

- 150 MEMS Jet Modules
- S-Class
- Best Laser Drilled
- Typical Laser Drilled

Error (milliradians)
DMP Usage Combined

DMP-2831 Application Usage Updated

- Photovoltaic: 41%
- Flexible Electronics: 8%
- Touch Panel: 8%
- Bio-sensor Electronics: 17%
- Pseudo Production: 1%
- Displays: 4%
- Formulation: 7%
- Test Strips: 6%
- Organic: 7%
- LCD: 1%
Sample Markets
FUJIFILM Dimatix Printhead Clusters Platforms
Dimatix Merlin™ Controller Platforms

Merlin FG
SID 2012 Confidential

Merlin DW

Merlin D

Configurable to Drive:
- Various Head Clusters
- Various Inks
- Full Production Speeds
SAMBA
Breakthrough Inkjet Technology

- Increased inkjet design know-how
  - Matrix array architecture for compact design
  - Reliable small drop ejection
  - Ink recirculation at the nozzle for temperature control and to maintain fluid viscosity
  - VersaDrop jetting technology applied to small drops
  - Maintenance friendly design
  - Low voltage requirement

- Enhanced MEMS manufacturing capability
  - Higher feature precision
  - Increased channel-to-channel uniformity
  - Broader range of nozzle coatings
SAMBA Technology

- Joint Collaboration between FUJIFILM Corporation & Dimatix

- Significant breakthrough in single pass DOD inkjet
  - 1200-dpi resolution
  - 4-level grayscale
  - High productivity
    - 100 kHz jetting frequency
  - VersaDrop capable
    - Binary or grayscale
  - Compact & scaleable design
    - 720mm print width
    - 4 colors in < 200 mm print depth
Performance today, platforms for tomorrow