Konica Minolta Inkjet Products for TTL printing

13th Digital Tag, Ticket, Label Printing Conference
Feb. 2, 2006

Konica Minolta IJ Technologies, Inc.
## Current Standard Models

<table>
<thead>
<tr>
<th>Model</th>
<th>nozzle</th>
<th>dpi</th>
<th>ink</th>
<th>pl</th>
<th>KHz</th>
<th>with</th>
<th>without</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM512L</td>
<td>512</td>
<td>360</td>
<td>Oil</td>
<td>42</td>
<td>7.6</td>
<td>X</td>
<td>X</td>
<td>Single-pass : 360dpi Binary</td>
</tr>
<tr>
<td>KM512M</td>
<td></td>
<td></td>
<td>Solvent</td>
<td>14</td>
<td>12.8</td>
<td>X</td>
<td>X</td>
<td>Fine print image 4 Step GS / Binary</td>
</tr>
<tr>
<td>KM512S</td>
<td>4</td>
<td>20</td>
<td>UV Special</td>
<td></td>
<td></td>
<td></td>
<td>(X)</td>
<td>High quality print : +1440 dpi 4 Step GS / Binary(upto 7dpd)</td>
</tr>
</tbody>
</table>

Slim Chassis, Independent Channel Type, Water-base Ink Model & Highest Accuracy Model Available
Advantages of the KM IJ Heads for TTL Printing

1. 360 nozzles/inch – Suitable for High Resolution Printing
   1 head → available for 1-pass printing at 360dpi
   2 heads → available for 1-pass printing at 720dpi
   or 1-pass printing at 360dpi with double speed

2. 512 nozzles
   → high productivity

3. Stitch Arrangement Available
   → wider print area with compact print unit

4. Commonly Designed Models with Various Drop Volumes
   → adaptable to a wide range of applications
   → easy to develop a product family
Examples of Head Arrangement

A. KM512L(40pl) x1pcs → 36mm, 360dpi, 500mm/s

B. KM512L(40pl) x2pcs → 36mm, 360dpi, 1000mm/s

C. KM512M(14pl) x2pcs → 36mm, 720dpi, 450mm/s

D. KM512L(40pl) x N pcs → 36xN mm, 360dpi, 500mm/s
720dpi Print Bar Prototype

Features:
- 720dpi double stitched layout
- Slim chassis heads
- Common ink pass with inlet & outlet ports

Print width: 216mm
Print resolution: 720dpi
Print speed: 450mm/s max
IJ Evaluation System EB-100

Features:
- Flexible to test or print with your inks
- Adapt to Konica Minolta 512/256/128 nozzle series
- Capable of up to 4 heads
- Evaluation software included
- X-Y table optional
IJ Label Printer Prototype (Oil ink)

Head: KM512L (512 nozzle, 40pl) x 1pc
Ink: Oil ink
Print width: 36mm
Print resolution: 360dpi
Print speed: 500mm/s max
IJ Label Printing Evaluation System  (UV ink)

Afit KEGON-R1 with Konica Minolta IJ Head
Head: KM512LH (512 nozzle, 40pl) x 1pc
Ink: UV curable ink
Print width: 36mm
Print resolution: 360dpi
Print speed: 500mm/s max
New Evaluation System (Preliminary)

Top View

- UV Lamp
- Ink Supply Unit
- Ink Tank
- Print Bar (4 heads)
  - KM512LH (40pL)
  - or KM512MH (14pL)
- Line Print Unit
- Head Maintenance Unit

Front View

- UV Lamp
- Ink Supply Unit
- Print Bar
- Ink Tank
- Head Maintenance Unit
- Roll Paper

Up to 5 ”

New Evaluation System (Preliminary)
Possible to provide components to build in customer’s system
Feature

1. Good curing properties
   → Good adhesion and flexibility after curing
   Good chemical resistance
   High curing speed

2. Extra-low odors (both ink and print)
   → adaptable to a wide range of applications

3. Superior weather durability
   → 2 to 3 years weather proof for out-door use

4. Excellent Safety
   → No mutagenicity materials, No sensitizing materials,
     Very low skin irritation
Thank you!