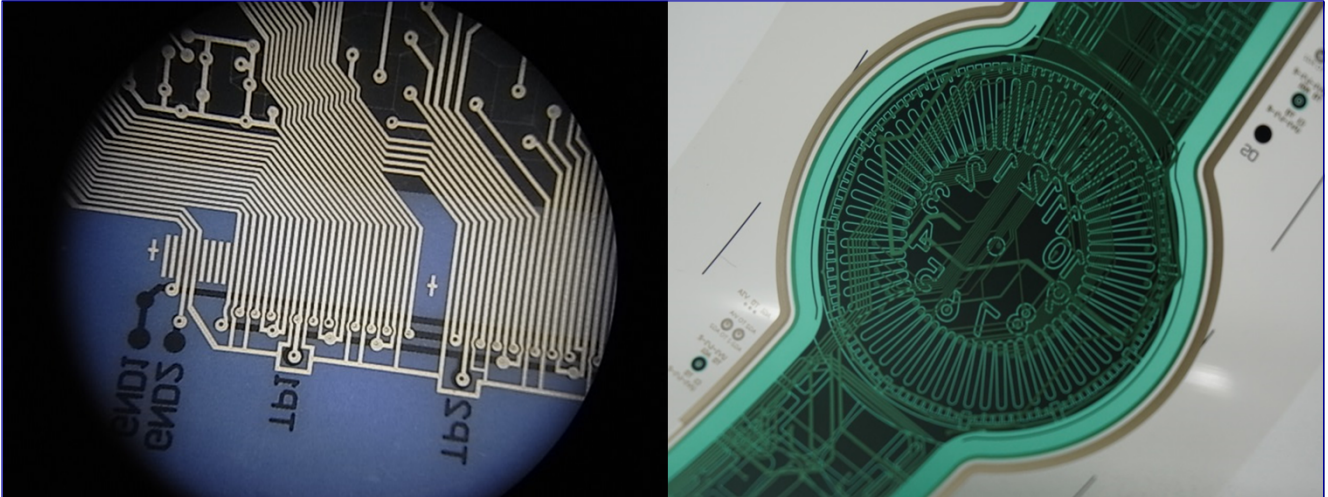


High-Density Multi-Layer Screen-Print Circuits



Product Features:

- ✓ Line width / Line space = 100um / 100um
- ✓ Multi-layer printings to 4-layers
- ✓ Resistance $\geq 10^{-5}\Omega/\square$
- ✓ RA Test: 85°C, 85%, 500 hours

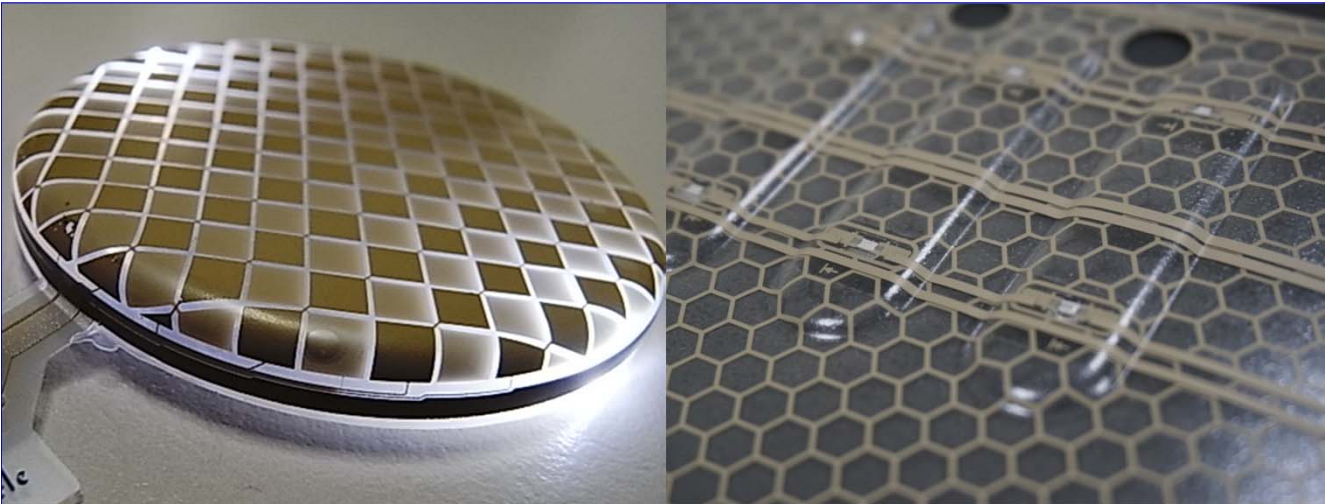
Material Options:

- ✓ Substrate PET film, PI film, PC film, PMMA film, FR-4
- ✓ Conductor Ag, Carbon
- ✓ Insulation UV, Thermo-cure, OCA
- ✓ Hardness $\leq 9H$

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Alliance Flex Tech

In-Mold Electronics (IME) Functional Circuits



Product Features:

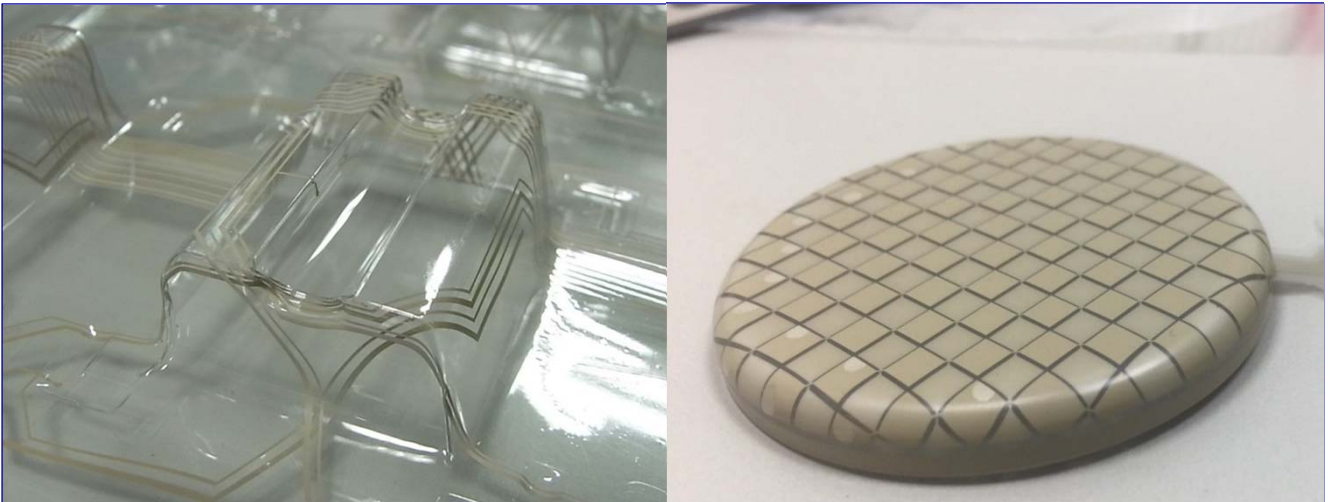
- ✓ Line width / Line space = 100um / 100um
- ✓ Radius \geq 2mm
- ✓ Double-side conductive layers
- ✓ SMT component attachments
- ✓ Process screen printing; etching

Material Options:

- ✓ Substrate PET film, PI film, Polycarbonate
- ✓ Conductor Ag, Ag nano, Copper foil
- ✓ Insulation UV, Thermo-cure, OCA
- ✓ Molded material ABS, PC
- ✓ Graphic color printing

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3D Formable Circuits



Product Features:

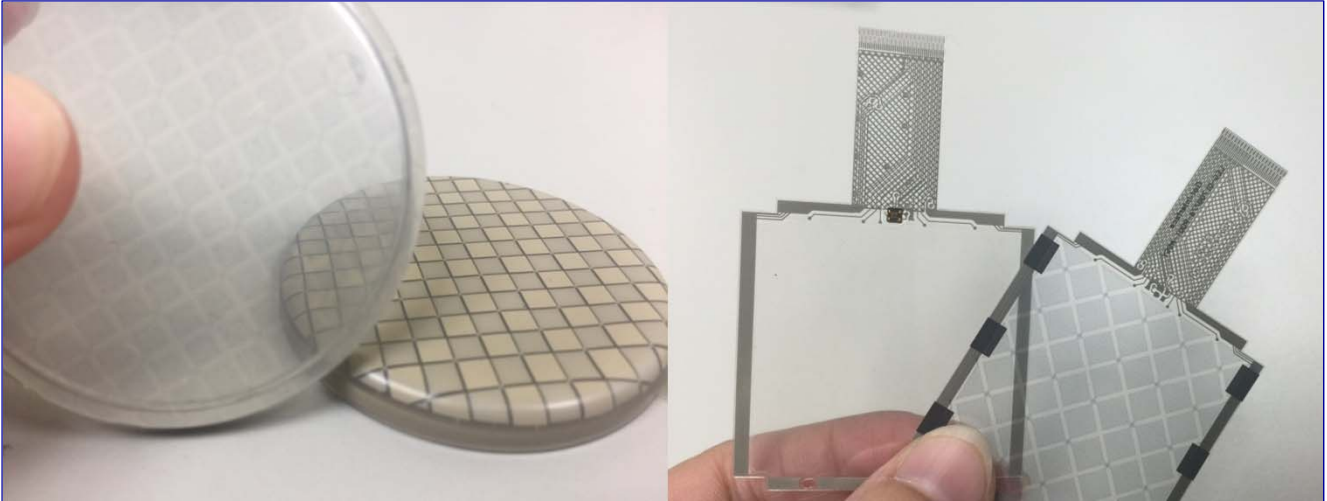
- ✓ Line width / Line space = 100um / 100um
- ✓ Depth \leq 10mm
- ✓ Radius \geq 2mm
- ✓ $\Omega^1 / \Omega^2 < 10\%$
- ✓ Double-side conductive layers
- ✓ SMT component embedded

Material Options:

- ✓ Substrate PET film, PI film, PC film, PMMA film
- ✓ Conductor PEDOT, Ag, Ag nano, Copper foil, CNT film
- ✓ Insulation UV, Thermo-cure, OCA
- ✓ Graphic color printing

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Transparent Circuits



Product Features:

- ✓ Line width / Line space = 50um / 50um
- ✓ Double-sided printings
- ✓ STH (silver-through-hole)
- ✓ VLT > 85% ~ 95%
- ✓ Volume resistance < 150 Ω /□
- ✓ Formable

Material Options:

- ✓ Substrate PET film, Polycarbonate, Colorless PI film
- ✓ Conductor Ag, Ag Nano, CNT, PEDOT
- ✓ Insulation UV, Thermo-cure, OCA
- ✓ Molded Material ABS, PC, PMMA

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In-Mold Electronics (IME) with LEDs / Connectors embedded



Product Features:

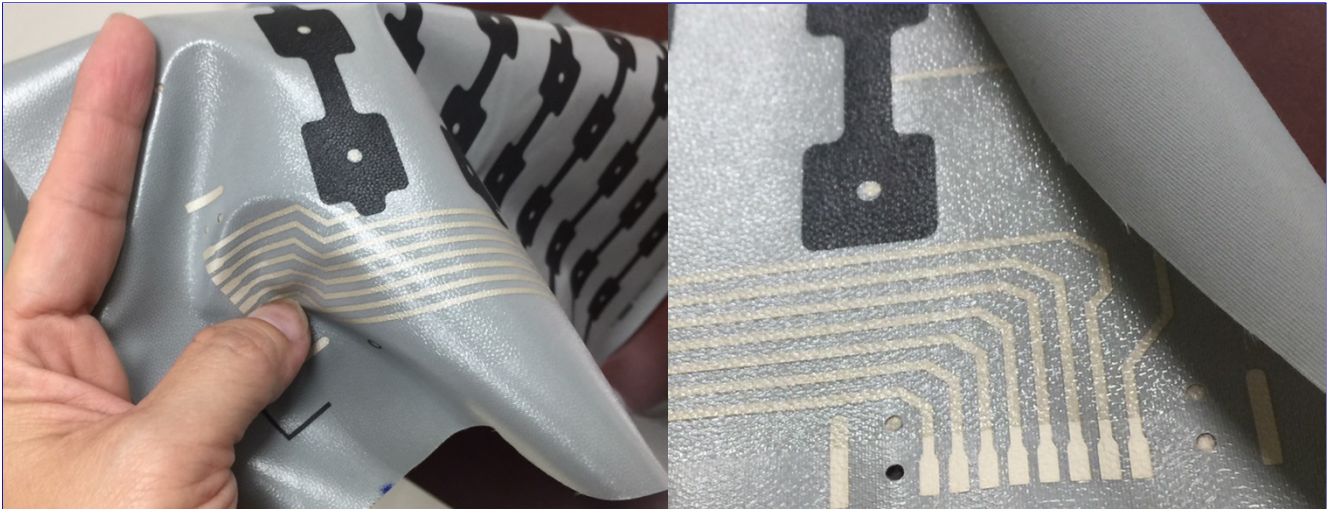
- ✓ Line width / Line space = 50um / 50um
- ✓ Double-sided printings
- ✓ STH (silver-through-hole)
- ✓ VLT > 85% ~ 95%
- ✓ Volume resistance < 150 Ω /□
- ✓ Connectors, Headers, LEDs can be in-molded to printed electronicse

Material Options:

- ✓ Substrate PET film, Polycarbonate, Colorless PI film
- ✓ Conductor Ag, Ag Nano, CNT, PEDOT
- ✓ Insulation UV, Thermo-cure, OCA
- ✓ Molded Material ABS, PC, PMMA

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Printed Conductors on Fabrics in Healthcare Applications



Product Features:

- ✓ Durable, Reliable, Light-weight !
- ✓ Conductors printed by silver, carbon inks
- ✓ Carbon switch contact
- ✓ Low resistance
- ✓ Volume resistance $< 150 \Omega / \square$

Material Options:

- ✓ Substrate men-made fiber, cotton, non-woven fabric, woven-fabric
- ✓ Conductor Ag, Ag/Cl, Carbon
- ✓ Insulation Clear insulation

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