



Elephantech

# P-Flex<sup>®</sup> PET Applications

## The transparent touch sensor electrode

Highly transparent touch sensor circuit boards can be made by combining high transparency PET materials and PEDOT:PSS transparent electrodes



## Introduction benefits

The electrostatic capacitive touch sensor electrode uses the transparent soldermask of P-Flex<sup>®</sup> PET, a single-sided flexible PCB. As a product, it comes without initial cost and is suitable for use in switches that value thinness or design as it can be made in any shape and form.

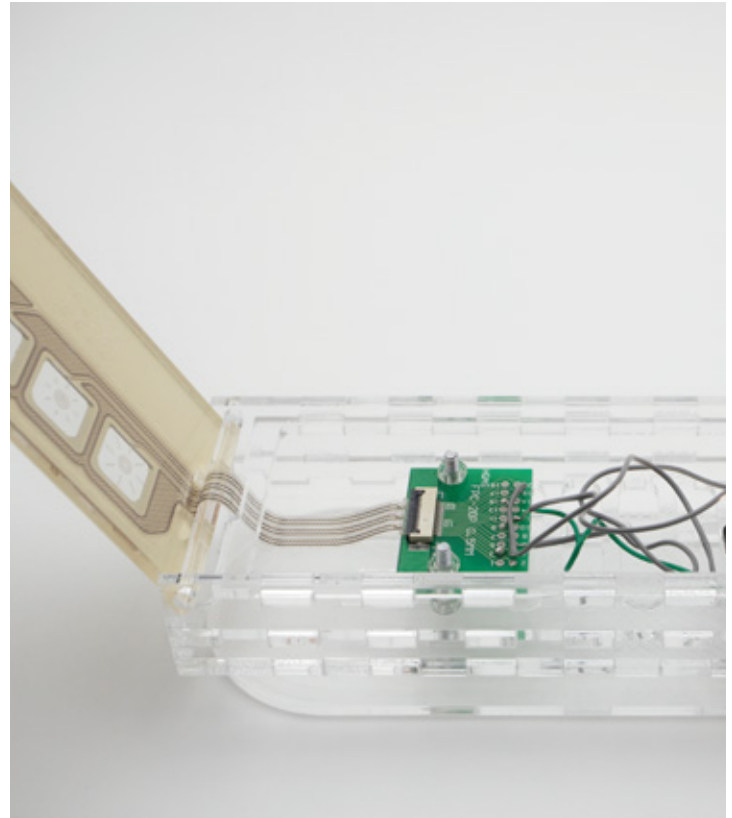
- ✓ No initial cost and can be produced in any shape and design
- ✓ Uses transparent soldermask allowing for permeability in all but the wiring (additional fees apply)
- ✓ Space-saving is possible as parts such as LEDs can be mounted
- ✓ The connector to the main board utilizes the technological know-how accrued from the development of our own custom flat cable
- ✓ Switches can be formed with glass or acrylic as the top layer

## Applications

Switches that place a premium on thinness and design and that do not deteriorate

## Industries

Vehicle mounted appliances, Lighting, design centered appliances, home appliance switches that are prone to being wet, industry equipment that do not use mechanical switches



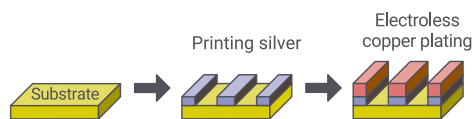
主な仕様	
Line width / interval	200/200 μm min., 200/150 μm min. (option)
Wiring layer	Single-sided
Panel size	180 × 270 mm max.
Surface treatment	Transparent insulation film
Substrate	50μm PET
Soldermask	Transparent

## About P-Flex®

### About Elephantech's manufacturing method (Pure Additive™ processing)

This manufacturing method consists of inkjet-printing silver nano-ink onto the substrate before electroless copper plating is applied to form the circuit. By reducing the amount of metal, liquid waste and man-hours, we can lessen manufacturing costs and shorten the lead time. (\* Patent No. 6300213 acquired)

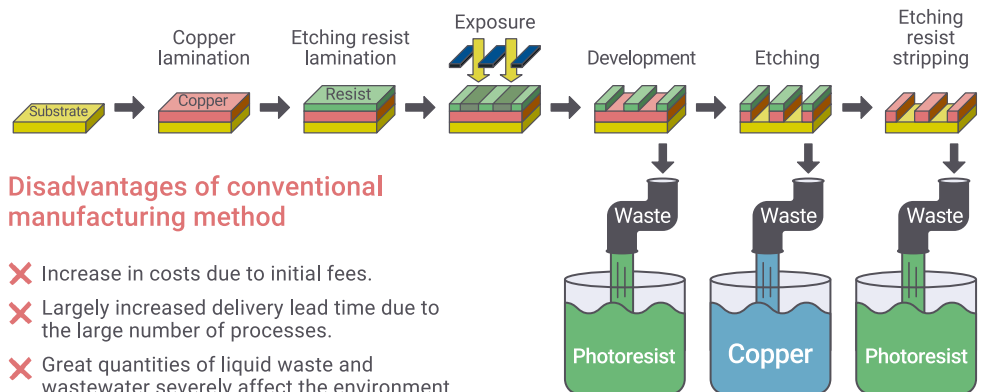
### Elephantech's manufacturing method (Pure Additive™ processing)



#### Advantages of Elephantech's manufacturing method

- ✓ Forming the circuit only where needed allows for a reduction in manufacturing cost and environmental footprint.
- ✓ A simple manufacturing process allowing for a shorter lead time.

### Conventional manufacturing method (subtractive method)



#### Disadvantages of conventional manufacturing method

- ✗ Increase in costs due to initial fees.
- ✗ Largely increased delivery lead time due to the large number of processes.
- ✗ Great quantities of liquid waste and wastewater severely affect the environment.

## Company Overview



# Elephantech

Elephantech Inc. (Formerly AgIC Inc.\*)

Contact QR code



Establishment  
Address  
Capital  
Representative  
Business description

Website  
Contact

January 2014  
4-3-8 Hatchobori, Chuo-ku, Tokyo 104-0032, Japan  
JPY 310 million  
Shinya Shimizu, CEO  
Development of printed electronics manufacturing technology and provision of related services  
<https://www.elephantech.co.jp/en>  
<https://www.elephantech.co.jp/en/about/#contact>

\*Changed corporate name on September 4, 2017