

Elephantech Starts Operations at its Large Mass-Production and Research Complex

Elephantech Inc. (head office: Chuo-ku, Tokyo, CEO: Shinya Shimizu, hereinafter “Elephantech”) manufactures P-Flex®, a single-sided flex PCB that can be produced in an environmentally friendlier manner. Elephantech is pleased to announce that, as of January 2021, the company has started operations at its large mass-production and research complex for P-Flex® (“AMC Nagoya”).



<AMC Nagoya>

Having raised a total of JPY 1.8 billion in October 2019 and established a large mass-production and research complex within the Nagoya factory rented from Mitsui Chemicals Co., Ltd. since July 2020, we started production and shipment of prototypes in January of this year and plan to continuously fine-tune our equipment and start production and shipment of mass-produced products in April.

As for production capacity, the monthly production capacity will be 5,000 m² in 2021 and we will expand our equipment to secure a monthly production capacity of 20,000 m² in 2024. The maximum capital investment amount including this expansion is expected to be JPY 1.4 billion.

With the realization of the world's first large-scale mass production of inkjet-printed electronic circuits and the provisions of inkjet printing technologies by Seiko Epson Corporation and of the factory building and mass-production know-how by Mitsui Chemicals Co., Ltd., we aim to utilize the strengths of large corporations to break down the barriers to mass-production faced by startups.

Although we had already been offering small-scale mass-production in Hatchobori, Tokyo, the beginning of operations at AMC Nagoya as "the world's first large mass-production and research complex using inkjet printing technologies for the production of electronic circuits" allows us to deliver environmentally friendlier and highly cost competitive products to many customers and represents the next step in accomplishing our corporate mission of "Making the world sustainable with new manufacturing technologies."

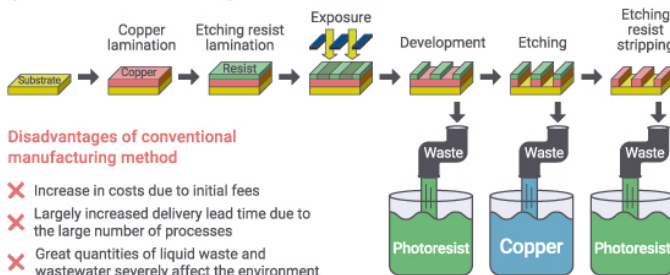
Elephantech's manufacturing method (Pure Additive™ processing)



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.

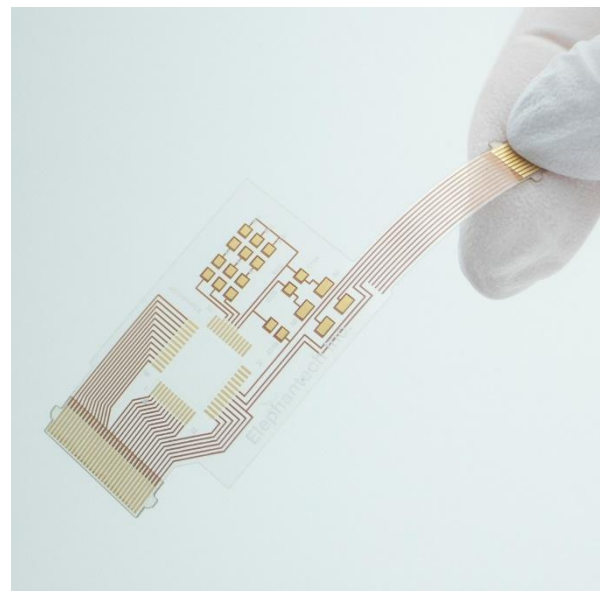
Conventional manufacturing method (subtractive method)



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

<Pure Additive™ processing >



<P-Flex®>

P-Flex® is an environmentally friendly single-sided flex PCB manufactured using the Pure Additive™ processing that uses inkjet printing to only print metals where necessary and plating technology to grow the metal.

This research is based on results obtained from a project subsidized by the New Energy and Industrial Technology Development Organization (NEDO).

We had planned to invite guests and hold an unveiling party to mark the commencement of operations at AMC Nagoya but have had to reconsider the event in respect of health and safety measures and preventing the spread of the novel coronavirus.

Overview of the large mass-production and research complex

Name	AMC Nagoya
Address	c/o Mitsui Chemicals Inc. Nagoya Works, 2-1 Tango-dori, Minami-ku, Nagoya-shi, Aichi 457-0801, Japan
Factory manager	Yuji Miwa
Start of manufacturing and shipping	Prototypes in January 2021, mass-produced products in April 2021
Investment amount	Up to JPY 1.4 billion
Number of employees	10 (at beginning of operations)
Building overview	Total floor area of approx. 2,600 m ² , three-storied steel structure

Company Overview

Name	Elephantech Inc.
Establishment	January 2014
Headquarters	4-3-8 Hatchobori, Chuo-ku, Tokyo 104-0032, Japan
Representative	Shinya Shimizu, CEO
Capital	JPY 100 million
Number of employees	48
Business description	Development of printed electronics manufacturing technology and provision of related services
URL	https://www.elephantech.co.jp/en/

As of February 17, 2021
Contact for inquiries regarding this matter
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