



NEWS RELEASE

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## Expansion of Production Capacity of Thin Embedded Capacitor Materials

Mitsui Mining & Smelting Co., Ltd. (hereafter “Mitsui Kinzoku”) (President: Sadao Senda) announces that it has expanded the production capacity of thin embedded capacitor materials (product name: FaradFlex®).

FaradFlex® is used as a material for improving power delivery, reducing resonances and noise, major challenges that information and communication equipment must overcome. This enables higher processing speeds and higher capacity, in multi-layer printed circuit boards for high-speed transmission routers, servers, and supercomputers. It is also a key enabling material for MEMS microphones inside smartphones and most current generation of mobile devices. Demand for FaradFlex® has been increasing rapidly, particularly in Asian markets, where the production bases of these electronics are located. Demand for the product is expected to grow further in the future.

In order to respond to the rapid increase in demand, in addition to manufacturing at the existing Oak-Mitsui Technologies LLC, an integrated production line was added to MITSUI COPPER FOIL (MALAYSIA) SDN.BHD. in Malaysia (hereinafter Malaysia Plant) in April of this year, which transitioned to full-scale operation in July, with the approval of Mitsui Kinzoku’s main customers.

Although the Malaysia Plant was already handling part of the process for FaradFlex®, Mitsui Kinzoku believes that the introduction of the integrated production line will significantly reduce lead time for Asian markets, the main source of demand, and contribute to improved convenience for customers.

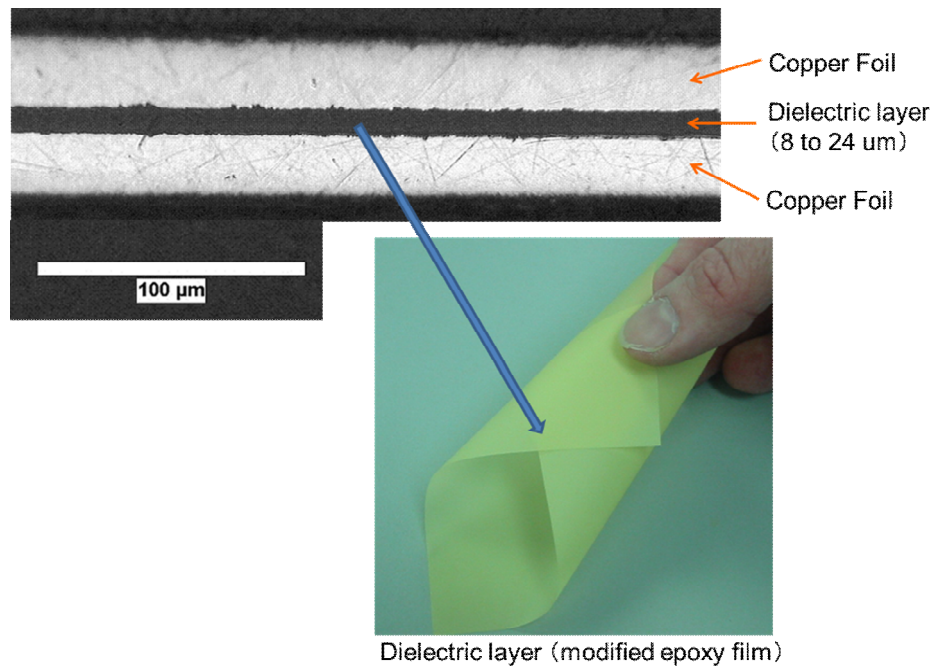
Mitsui Kinzoku will remain focused on maintaining the high quality and stable supply of FaradFlex® as demand continues to grow.

(For more details, please contact the following office)  
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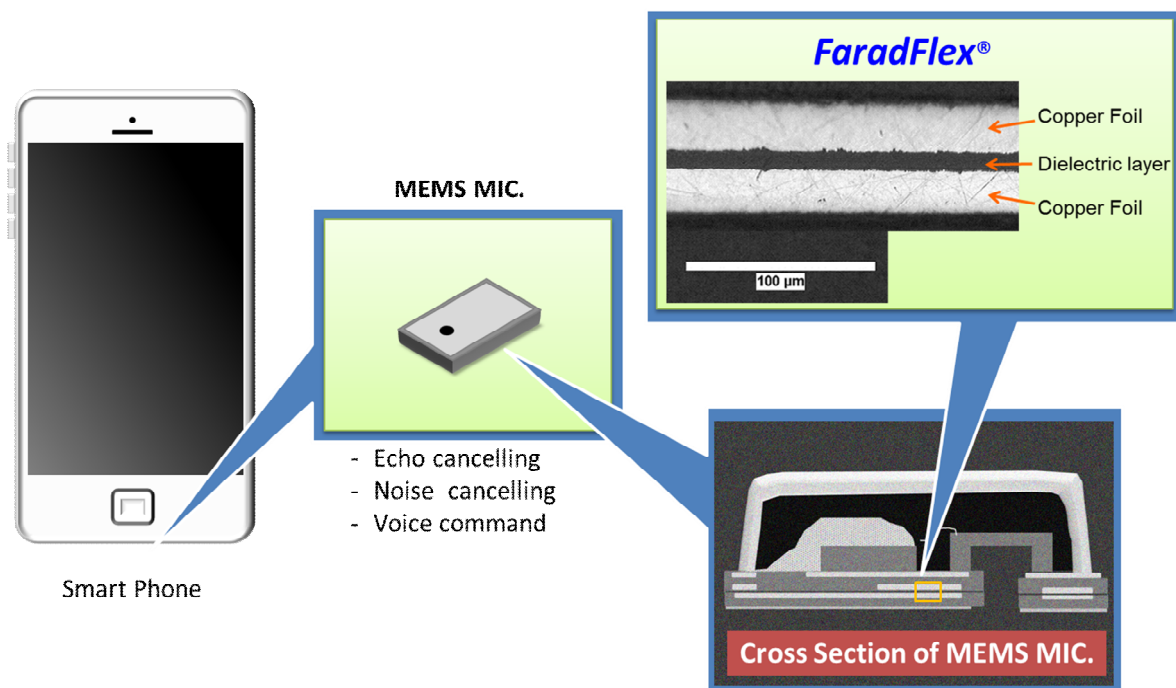
## 【Reference】

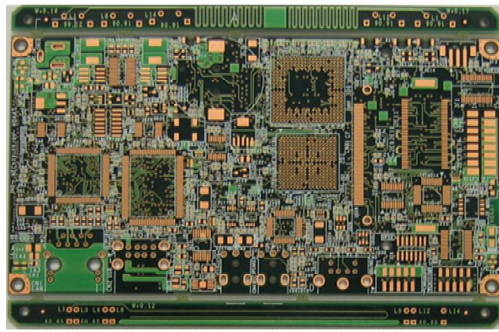
### 1. Construction of the embedded capacitor material

FaradFlex® is mainly based on Cu foil technology from Mitsui Kinzoku in Japan. It consists of a film-type resin (modified epoxy resin with the thickness of 8~24  $\mu\text{m}$ ) with Cu foil on both sides (with typical thickness range of 18 to 70  $\mu\text{m}$ ).



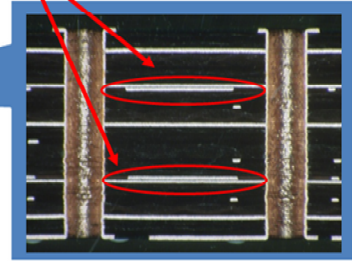
### 2. Example using the embedded capacitor





PCB  
(PCB with embedded components)

Embedded capacitor



Cross section of PCB

\*Embedded capacitor is construction into PCB as a condenser.