

# MSAP

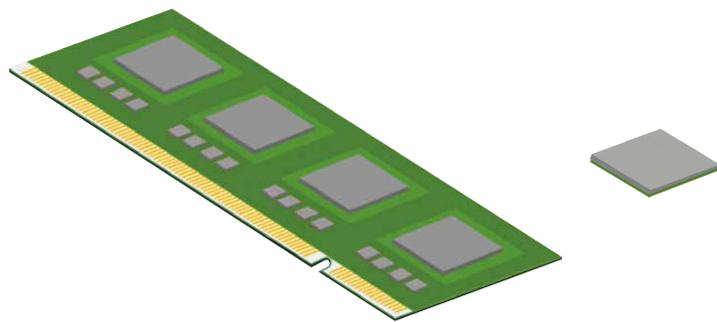
## Modified Semi-Additive Process

### 特長 Features

- 高精細パターン形成  
High definition pattern formation
- パターン幅ばらつき低減  
Pattern width variation reduction

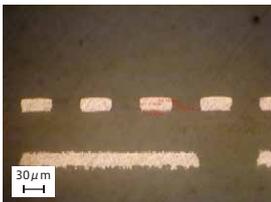
### 用途 Application

- メモリ、RFパターン  
Memory, Radio-Frequency pattern
- SiP  
System in package

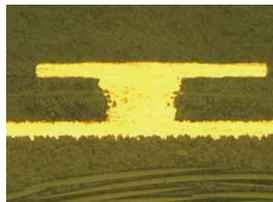


### 高精細パターン形成 High definition pattern formation

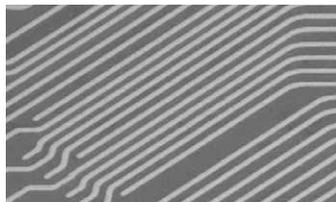
L/S=30/30  
(Cross section)



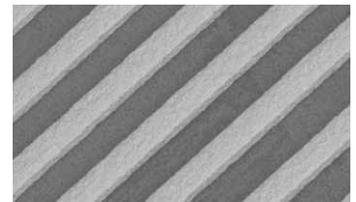
LVH (φ100)  
(Cross section)



L/S=25/25



LVH (φ50)



### パターン幅ばらつき低減 Pattern width variation reduction

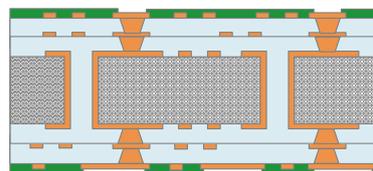
マイクロビア  
Micro Via



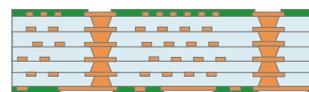
パターン形成 (MSAP法)  
Pattern (MSAP)



### 薄板対応 Compatible with thinner PCB thickness



従来  
コア : 60~100µm  
PP : 40~60µm  
Cu : 約15~20µm  
(図の例では約415µm)



コアレス  
コア : なし  
PP : 15~20µm  
Cu : 約5~8µm  
(図の例では約180µm)

コアレス工法との組み合わせにより薄板対応可  
Compatible with thinner PCB thickness by Coreless process