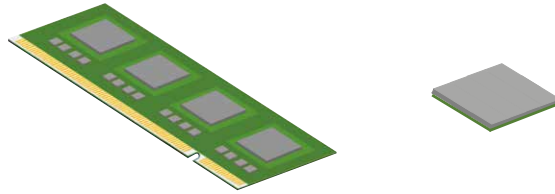


# PBGA

## Plastic Ball Grid Array

### 用途 Application

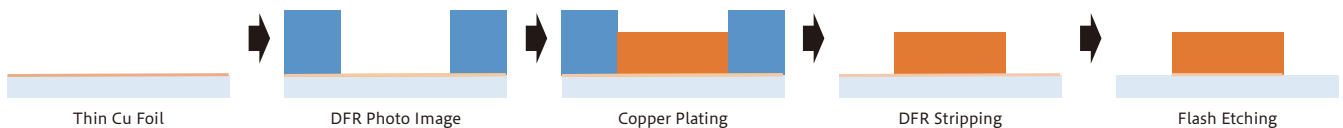
- メモリ、RFパターン  
Memory, Radio-Frequency pattern
- SiP  
System in package



### 工法 Construction method

#### MSAP

Modified Semi Additive Process



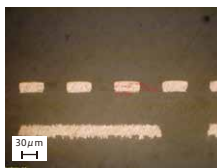
### 特長 Features

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

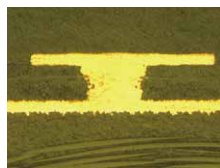
パターン幅ばらつき低減  
Pattern width variation reduction

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

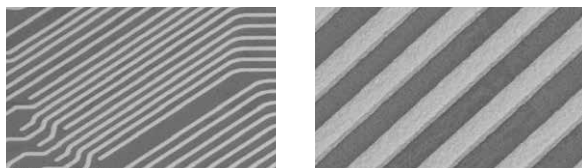
L/S=30/30  
(Cross section)



LVH (φ100)  
(Cross section)



L/S=25/25



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

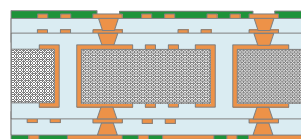
マイクロビア  
Micro Via



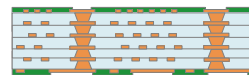
パターン形成 (MSAP法)  
Pattern (MSAP)



### 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