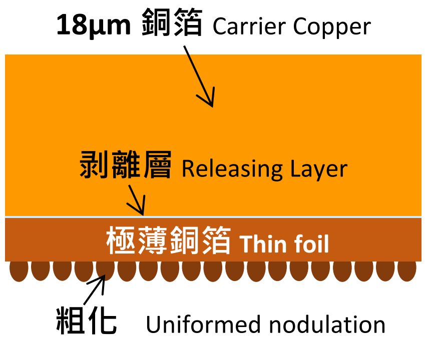
MicroThin™ Series

IC 封裝載板用極薄銅箔
Thin copper foil for IC Substrate

三井金属

- **最適用於 MSAP L/S ≦ 30/30μm 微細線路製程。**
  Useable for very fine pitch pattern under L/S=30/30μm formation by MSAP.

MicroThin™ Structure



MicroThin™ Line up

Variations		Surface roughness [μm]	Target L/S by MSAP*	Thickness [μm]			
				1.5	2	3	5
Low Profile	MT18(12)Ex	Rz 2.0	25/25μm		●	●	●
Very Low Profile	MT18(12)FL	Rz 1.3	15/15μm	●	●	●	
Special Low Profile	MT12(18)GN	Rz 0.9	10/10μm	●	●	●	

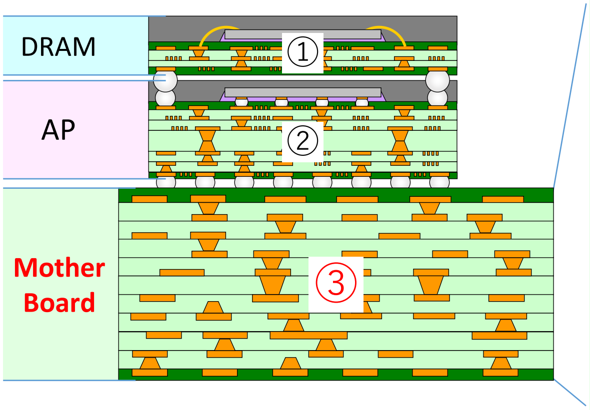
*MSAP: Modified Semi-Additive Process

MicroThin™ Main Applications

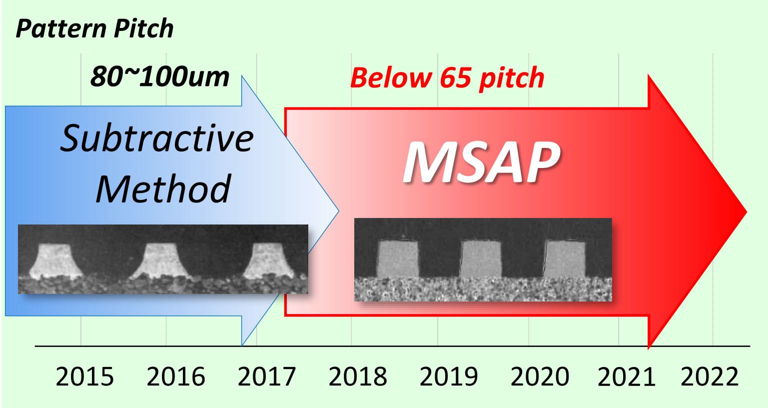
IC Substrate
  DRAM ①
  Application Processor ②
  RF module / AiP
Mother Board ③

- **MSAP 不僅是應用於IC封裝載板，亦已使用在HDI主板。**
  MSAP has been applied to Mother Board.

Cross-section of Smartphone



Change of patterning method on Mother Board



MSAP 製程應用於主板的原因
Reason for applying MSAP to Mother Board

- **主板可高密度化 & 小型化，擴大電池的容量**
  Miniaturization and densification of Mother Board to enlarge battery capacity
- **降低 BGA 球距， 改善 IC 封裝的功能**
  BGA ball pitch reduction with improving the function of IC package
- **提升高速訊號傳輸特性**
  Improvement of signal characteristics in high speed signal