



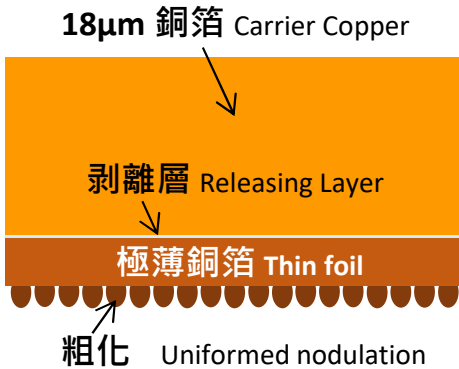
三井金屬

MicroThin™ Series

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

- 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	MT18Ex	Rz 2.0	25/25μm		●	●	●
Very Low Profile	MT18FL	Rz 1.3	15/15μm	●	●	●	
Special Low Profile	MT18GN	Rz 0.9	10/10μm	●	●	●	

*MSAP: Modified Semi-Additive Process

MicroThin™ Main Applications

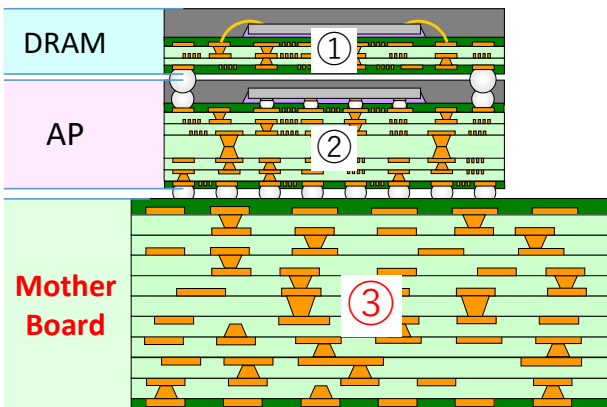
IC Substrate

- DRAM ①
- Application Processor ②
- RF module / AiP

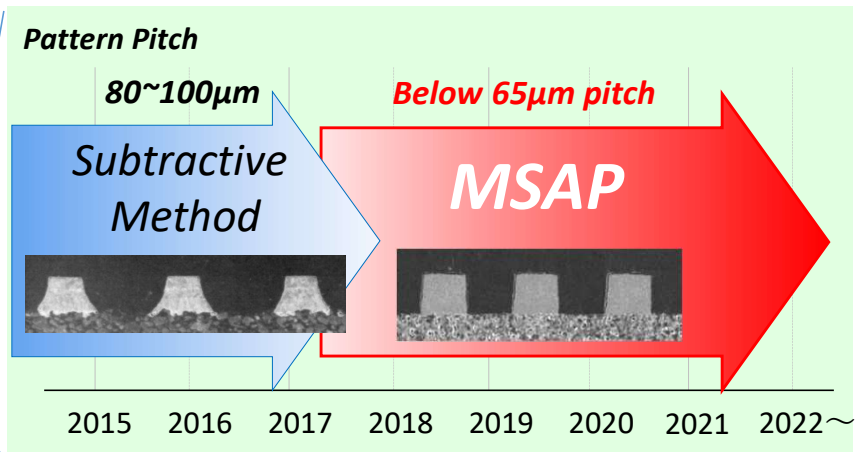
Mother Board ③

- 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

