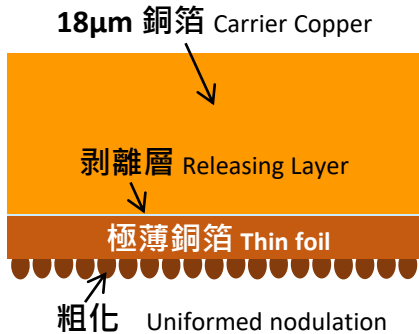


- 最適用於 MSAP L/S  $\leq 30/30\mu\text{m}$  微細線路製程。

Useable for very fine pitch pattern under L/S=30/30 $\mu\text{m}$  formation by MSAP.

## MicroThin™ Structure



## MicroThin™ Line up

Variations		Surface roughness $[\mu\text{m}]$	Target L/S by MSAP*	Thickness $[\mu\text{m}]$			
				1.5	2	3	5
Low Profile	MT18Ex	Rz 2.0	25/25 $\mu\text{m}$		●	●	●
Very Low Profile	MT18FL	Rz 1.3	15/15 $\mu\text{m}$	●	●	●	
Special Low Profile	MT18GN	Rz 0.9	10/10 $\mu\text{m}$	●	●	●	

\*MSAP: Modified Semi-Additive Process

## MicroThin™ Main Applications

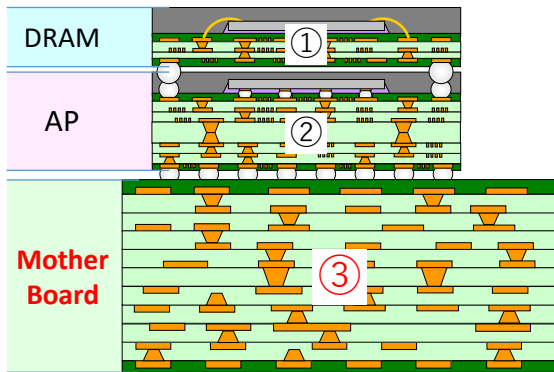
### IC Substrate

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

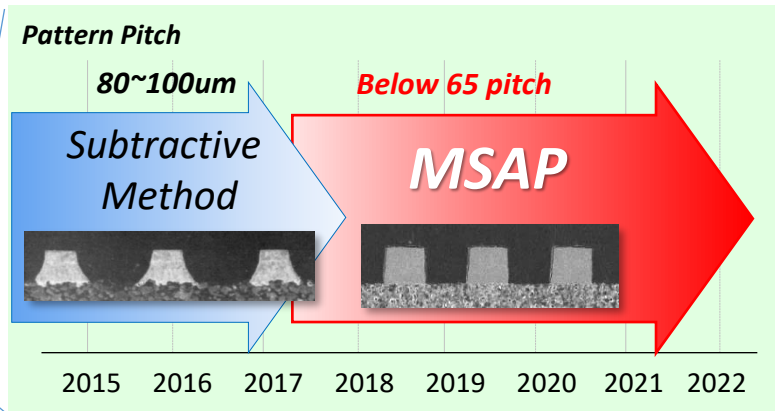
### Mother Board ③

- 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

