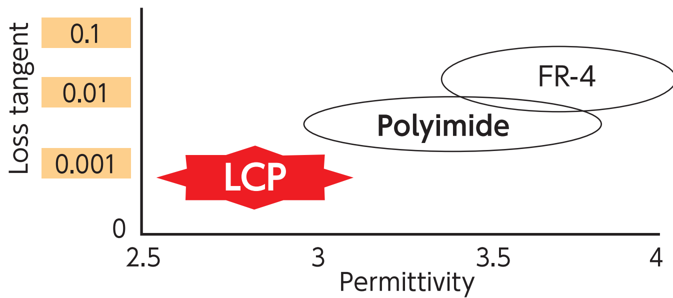
Electroless copper plating process for liquid crystal polymer (LCP)

TOP LECS PROCESS

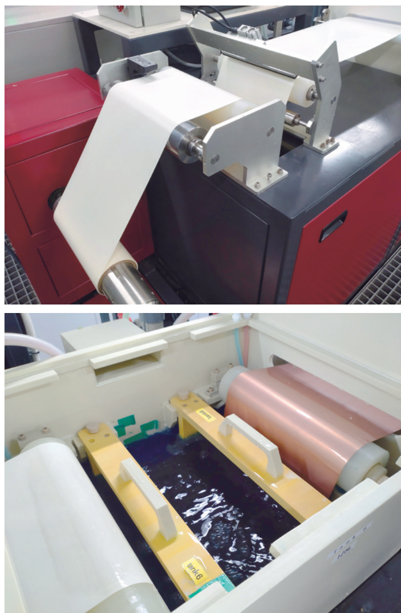
SAP, MSAP

Plating treatment for LCP toward 5G, Beyond 5G

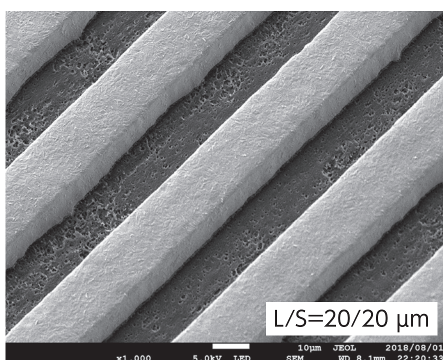


	Polyimide	LCP
Dielectric constant (1GHz)	3.8	2.9
Loss tangent (1GHz)	0.01	0.002

For electroless Cu by R to R plating

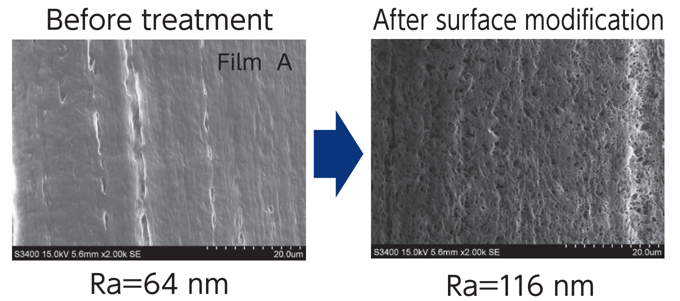


For fine pattering



Reduce Pd adsorption for fine pattern formation

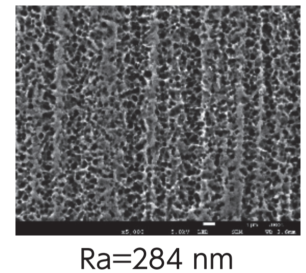
Realize ultra very low profile



Ra=64 nm　　Ra=116 nm

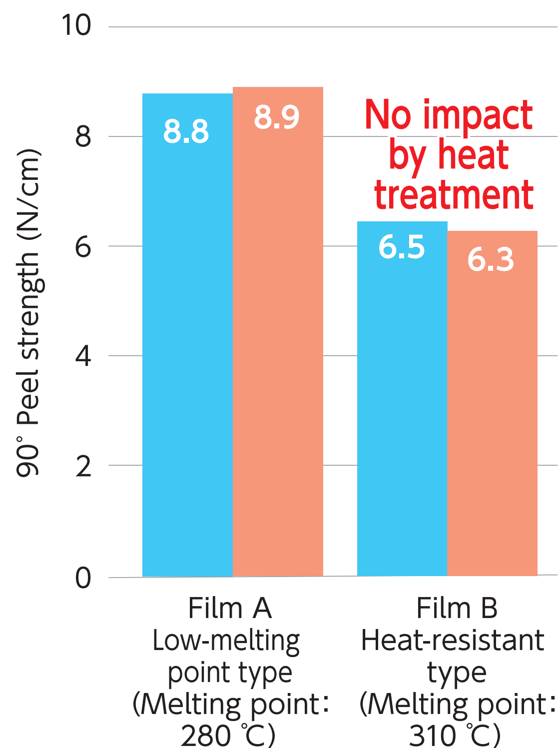
Lower profile than CCL

LCP-CCL substrate
After Cu etching



Ra=284 nm

Strong peel strength



Peel strength comparison (Cu thickness 18 µm)