## **mSAP** Modified Semi-Additive Process

**mSAP** is a cost effective process for fine line substrates which allows for a high degree of automation, high yields and lean manufacturing. MacDermid Alpha Electronics Solutions has a portfolio which encompasses every process step.

**Copper Reduction** CircuEtch 100 Pattern Plate Via Fill MacuSpec<sup>™</sup> VF-TH

LDD Pretreatment MultiBond<sup>™</sup> 500 Dry Film Stripper UltraStrip LDI

Post LDD Conversion CoreClean

**Primary Metallization** Systek<sup>™</sup> Desmear Shadow<sup>®</sup> LE, Eclipse<sup>™</sup> LE M-Copper<sup>®</sup> Series

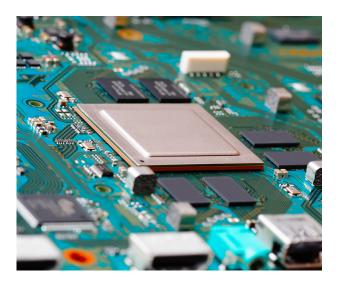
Dry Film Adhesion MultiPrep 200

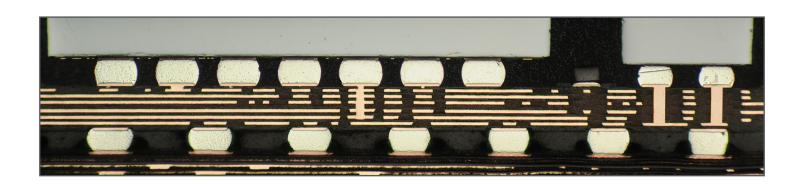
**Dry Film Developer** Developer 45 Plus Differential Etch CircuEtch 300

Innerlayer Adhesion M-Speed HF

**Solder Mask Adhesion** MultiPrep 200

**Final Finish** ENTEK<sup>®</sup> PLUS HT Affinity<sup>™</sup> ENIG/ENEPIG









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## CIRCUITRY SOLUTIONS