A-SAP™ Averatek Semi-Additive Process
Dramatic size and weight reduction over current state-of-the-art with 15micron (.6ml) trace and space

ULTRA HIGH-DENSITY
- **Improves Reliability:** reduced layer count, micro vias and lamination cycles.
- **Improved Signal Integrity:** aspect ratios greater than 1:1 for metal traces.

HIGH PERFORMANCE PCBS
- **Improved RF Performance:** over traditional subtractive-etch processes.

PACKAGE SUBSTRATES & INTERPOSERS
- **Reduced Costs:** especially for complex, high-performance boards.
- **Biocompatibility:** capability for utilization of gold as conductive metal.

A-SAP™ PCB
0.3mm pitch - 20x20 grid
3 routing layers - L/S 1mil/1mil

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REDUCTION IN:
- Overall Size
- Number of Layers
- Number of Lamination Cycles
CHEMISTRY FOR THE A-SAP™ PROCESS

LMI™ - Liquid Metal Ink

Thin, Uniform, and Dense Electroless Deposition

- **Ultra thin**: a few nanometers thick
- **Ultra dense**: fully packed atomic film
- **Conforms to any 3D surface at a nanometer scale**
- **Non-Aqueous**: enables low-cost manufacturing
- **Works for many different pure metals and alloys of those metals**: copper, gold, silver, palladium, platinum, etc.

PROCESS FLOW

Averatek
Manufacturing technology for next-generation electronics capabilities. The development of key chemistries and advanced manufacturing processes for: very high density printed circuit boards, semiconductor packaging, RF and millimeter-wave passive components, simplified assembly to aluminum.
Contact our leadership team today at tara@averatek.com
www.Averatek.com