

Enabling Connection Technology for Integrating Nanostructures, Circuits and Sensors

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The Averatek process involves the use of metal inks that can be patterned onto a substrate by screen printing, roll printing, laser and UV lithography to achieve features that can be less than 3 μ . The application of the inks results in atomic level deposition of palladium metal or alloy, unlike other conductive inks in the marketplace that deposit larger particles of metal with organic residue. These atomic layers have strong binding interaction with the surface of substrate materials including polyimides, plastics, ceramics and metals and use environmentally sound methods of application and manufacturing. Copper, gold, nickel and other metals can be directly plated upon the palladium monolayer. The Averatek technology enables miniaturization of medical products such as hearing aids, catheters, diagnostic sensors and invasive medical devices. The ability to apply conductive coatings to fibers and fabrics enables the integration of sensors directly into wearables. Other areas of use of the technology include fine line features on flexible substrates, on rigid substrates, via plating, 3 D substrate plating and metal passivation. The unique ability to coat thin conductive layers into tiny features enables new products and new markets and continues to fascinate designers in all industries.

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