STATS ChipPAC and Intersil qualify and ramp copper wire interconnect for high-end analog and mixed-signal devices

I-Micronews

Utilizing copper wire interconnect in semiconductor packages offers a number of advantages over gold wire. Copper wire is more electrically and thermally conductive, allowing it to readily replace gold wire without any decrease in electrical or thermal performance. Copper also possesses stronger mechanical properties and is capable of carrying higher currents than the same diameter gold wire, thereby allowing for longer wire lengths and increased manufacturability. These factors are important for enhanced device performance and yield.

"*High-performance analog and mixed-signal markets are extremely competitive and require continuous innovation and enhancement of products and services. Using copper wire interconnect capability allows Intersil to provide its customers with performance and manufacturability advantages. Our business is dependent upon reliable fabrication, packaging and testing of our products and we have worked closely with STATS ChipPAC to select and qualify copper wire interconnect for our package offerings. Copper may well be the new gold in semiconductor packaging*," said **Sagar Pushpala**, Senior Vice President of Worldwide Operations and Technology at Intersil.

Intersil and STATS ChipPAC completed a stringent qualification process with four major wafer foundries across multiple technology nodes. STATS ChipPAC established a Class 1000 cleanroom to ensure the integrity, yield and reliability of the copper material and a robust assembly and test process that has demonstrated best-in-class yields and reliability that is on par with gold wire bond interconnect.

"*There are clear performance and cost benefits with the use of copper wire interconnect. Customer demand is steadily ramping up, particularly as customers see the technology mature and the proven range of package types and applications enabled with copper wire interconnect expand. STATS ChipPAC has shipped over 100 million units with copper wire interconnect in a wide range of leaded and laminate packages. We continue to expand our copper wire program to include more advanced packaging such as advanced wafer fab nodes with delicate bond pad structures, fine bond pad pitch, stacked die, die-to-die bonding and ultra low loop height applications*," said **Wan Choong Hoe**, Executive Vice President and Chief Operating Officer, STATS ChipPAC.

About Intersil
Intersil Corporation is a leader in the design and manufacture of high-performance analog, mixed signal and power management semiconductors. Intersil's products address some of the fastest growing markets within the communications, computing, consumer and industrial industries. For more information about Intersil

or to find out how to become a member of our winning team, visit Intersil's web site and career page at www.intersil.com [1].

About STATS ChipPAC Ltd.
STATS ChipPAC Ltd. is a leading service provider of semiconductor packaging design, assembly, test and distribution solutions in diverse end market applications including communications, digital consumer and computing. With global headquarters in Singapore, STATS ChipPAC has design, research and development, manufacturing or customer support offices in 10 different countries. STATS ChipPAC is listed on the SGX-ST. Further information is available at www.statschippac.com [2]. Information contained in this website does not constitute a part of this release.

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