

Dan's Six Pack

Talking with Altaflex's Phillip Jung

Dan: Phillip I've heard some great things about your company so I am very pleased that you agreed to this interview. First, please tell me a little bit about your company?

Phillip: Altaflex is a provider of quick-turn flex and rigid-flex circuit, touch panel, and printed electronics prototypes. Our goal is to supply prototypes similar in quality and construction to what can be fabricated by mass-production manufacturers in Asia.

By working closely with customers, potential design problems can be eliminated and DFM practices implemented to produce a high yielding, reliable product. It also helps reduce the ramp time to mass-production, as a larger amount of design work and material set qualification is already done at the prototype level and is applicable to the mass-production product.

Over the years, we have developed a portfolio of technologies and capabilities to offer as a tool-box of options from which we can choose the best combination to help our customers be successful.

Dan: So, you do a lot of innovative technologies. Can you describe briefly some of your specialties?

Phillip: We are constantly looking to push the envelope of capabilities that we offer.

For example, we are able to resolve copper conductors down to 7 μm wide. For printed electronics, silver traces can be defined as 5 μm on glass, and 50 μm wide sintered traces on paper.

Investments in the newest UV lasers with beam diameters down to 20 μm enable us to produce blind vias to support high-density via-in-pad designs, and provide tight trace-to-edge tolerances needed for high-density ZIF connectors. The lasers also enable us to perform controlled-depth skiving of materials and fabricate dual-access pads and unsupported leads.

Adhesive squeeze-out for overlay openings has been reduced to the range of 25 μm , which allows smaller pad sizes and higher component densities for the decreasing available real estate.

We offer constructions with polyimide materials in different colors to support applications with specific light reflecting, absorbing, or transmission requirements.

Dan: Fascinating. Is your market regional or national?

Phillip: Our location at the heart of Silicon Valley in Santa Clara, California allows us to provide fast turnaround time for our local customers for whom delivery time is critical down to the hour.

While the majority of our customers are located here in Silicon Valley and the San Francisco Bay Area, we support customers across the country and around the world in Europe and Asia.

Dan: I know you have been in this industry for many years so I would like to know how you see the market today vs. years ago.

Phillip: In our target markets, the trend has been and will continue to be towards miniaturization and specialized material properties.

The products we have supported over the years include disk drives, camera modules, MP3 players, cellphones, and fitness trackers. We are currently supporting development in autonomous vehicle navigation, hearing aids, and augmented reality and virtual reality hardware.

The growth of IoT and other embedded technologies will continue to push the limits of higher and higher densities and smaller packaging sizes. Many of these high density products require a solder mask that can achieve these high densities and provide extremely high flexibility for tight bend radius folding. We use Taiyo's solder mask and legend inks to successfully meet these requirements.

Dan: Let me ask you about Taiyo? How long have you guys been using Taiyo products? And why do you prefer them?

Phillip: We have been working with Taiyo products since the early days of Altaflex over 17 years ago. We recognized Taiyo as a leading supplier of PCB and Flex solder mask and ink technologies, and have continued to work with them ever since.

One of the strengths of Taiyo solder masks is that they allow lamination of stiffeners on top of the solder mask without any additional surface preparation, which preserves the integrity of the surface.

We are extremely satisfied with Taiyo's level of support. Their team is very responsive to address our needs, and has worked with us to identify products to solve some of the unique challenges that our customer designs pose, and has been willing to modify formulations to improve their performance.

Dan: Where do you see your company in five years?

Phillip: We will continue to support our customers' evolving requirements in the consumer electronics and medical industries, while always keeping an eye out for the "next big thing". We will continue to develop and invest in new technologies and capabilities to keep pace with (and ahead of) our customers' needs.

One of the keys to accomplishing this is to have partners such as Taiyo with whom we can work to provide a path to for our customers' continued success.

For more information about Altaflex go to www.Altaflex.com