This Company Helps Build 67% of Every iPad and Has No Relationship With Apple

Apple CEO Tim Cook has been traveling through China in an apparent attempt to better acquaint himself with the company's suppliers. But there's one company much closer to home that no one from Apple visits, but has touched every iPad, iPhone and Mac that comes out of Apple's partners' factories.

That company is Applied Materials, and it's in the business of building tools, not gadgets. Those tools are used by the likes of Intel, Samsung and IBM to help build the chips and displays on most tablets and smartphones, including Apple's. The company estimates that 60% of the chips and displays in every smartphone and tablet are built using its tools.

"For the iPad, 67% of the bill of materials comes from our tools," Applied Materials' Matt Ceniceros explains. "So you're the end user. You bought the tablet from Apple. Apple bought it from a web of manufacturers and gets Foxconn to assemble it. Foxconn would buy the chips from our customer. And our customer buys the tools from us."

Applied began as semiconductor equipment company 45 years ago, then branched into displays in the last decade. They also make tools for constructing solar panels. Processors are its bread and butter, though, and the company is currently working on the next big wave of chip technology: 3D, or stacking chips, one above the other, on a microscopic scale.

To help push chip tech forward, the company has several PhDs who "break science" on a regular basis, Ceniceros says. For example, he points out Applied Materials did a lot of the heavy lifting in Tri-Gate chip technology, which Intel unveiled last year.

"We figured out Tri-Gate," he says. "We enable the industry. We figure out exactly how to go to the next technology node to make the fastest, smallest chip. Intel will say to us, 'We need a chip that can do 22 nanometers, and we need it produced

45,000 times a day, 365 days a year — can you give me a tool that can do that in my [factory]?'"

Ceniceros doesn't mind that Tim Cook or anyone from Apple has never given his company a call. Even though Applied Materials has a hand in every iPad made, they have strong relationships with the companies who craft the individual components of the tablet, and that's plenty to keep them occupied.

"They're our customers' customer," he says. "As I understand how they source materials, they put out requirements to a number of vendors, and whoever has the better technology is selected by them. Those companies come into our R&D center in Santa Clara to figure out the next-generation chip architecture."

What do you think about the significant, but largely unnoticed role Applied Materials plays in crafting today's consumer technology?

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Posted by Janine E. Mooney, Editor

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