



## IP: 3D printing patent litigation now: The shape of things to come?

3D printing industry-leaders Stratasys and 3D Systems have each recently begun noteworthy patent infringement litigation actions that merit further review

BY BRYAN J. VOGEL

3D printing industry-leaders Stratasys and 3D Systems have each recently begun noteworthy patent infringement litigation actions. Brought against rivals who offer lower-priced consumer printers, these cases could end up playing an important role in just how quickly 3D printing can cross the chasm to consumer acceptance — and at what cost. Because the litigation also seems to signal a strategic shift by each of the innovator patent-holders, both actions merit further review.

### **3D Systems v. Formlabs**

3D Systems captured headlines in late 2012 when it brought a suit for patent infringement against Formlabs, a start-up 3D printer manufacturer, and Kickstarter, Formlabs' crowd-source funder. Formlabs was started by MIT graduates who worked at the MIT Media Lab. Its "Form 1" 3D printer is touted as the first consumer-model 3D printer to make use of stereolithography, and the more than \$2 million Kickstarter helped raised gave Formlabs the funds it needed to put the Form 1 into production.

3D Systems founder Chuck Hill is said to have coined the term "stereolithography" to describe the process and apparatus he patented for making solid objects by successively «printing» thin layers of an ultraviolet curable material. In the 2012 litigation — filed in home-base state South Carolina — 3D Systems alleged that the Form 1 directly infringed its '520 patent covering methods for "stereolithographically forming a three-dimensional object from a material capable of physical transformation upon exposure to synergistic stimulation." 3D Systems also accused Formlabs of indirect infringement of the '520 patent. Somewhat surprisingly, 3D Systems named Kickstarter as an additional defendant and alleged indirect infringement against it as well.

No answer was ever filed in the South Carolina action. Instead, the parties agreed

to a series of time extensions, fueling speculation regarding a possible settlement or acquisition of Formlabs by 3D Systems. That speculation seemed well-founded, given 3D Systems history of almost 40 acquisitions of 3D printing competitors, suppliers and innovators. A notice of voluntary dismissal filed on Nov. 8, 2013, in the South Carolina action made it look like an announcement of a settlement was imminent.

Rather than settling, however, 3D Systems filed a new action for patent infringement against Formlabs in the Southern District of New York. This new action drops Kickstarter as a named defendant and its claims of infringement based on the '520 patent — as well as changing the attorneys and law firm named as primary counsel. Now, instead of basing claims of infringement on a single patent, 3D Systems identifies eight different "patents-in-suit" that the Form 1 allegedly infringes. The new complaint claims direct infringement of patented methods and apparatus covered by the patents-in-suit and further alleges that Formlabs had the requisite knowledge necessary to support a claim for indirect infringement.

Formlabs has again filed an extension for the time to answer. The possibility of ongoing litigation raises several questions. Is 3D Systems unwilling to pay what Formlabs wants because the Form 1 competes with the Cube, 3D Systems' own consumer model? Does Formlabs have a credible basis for believing that 3D Systems aging portfolio of patents is vulnerable to validity challenges? The growing "maker" community of 3D printing enthusiasts all have their point of view — and the additional \$19 million Formlabs recently raised in venture capital may say something about the start-up's belief regarding its chances in this ongoing litigation.

### **Stratasys v. Afinia**

In late November 2013, Stratasys brought its own infringement action against the manufacturer of a consumer model 3D printer that directly competes with the offerings of Stratasys-owned MakerBot. Stratasys sued Microboards Technology, which does business as Afinia, claiming that Afinia's "H-Series 3D Printer" infringes several patents Stratasys holds directed to Fused Deposition Modeling (FDM). FDM is an additive manufacturing process that prints 3D objects from computer models by building up layers of one or more extruded materials onto a platform using a device that has come to be generally known as a 3D printer. Both Stratasys and Afinia are based in Minnesota, and Stratasys' action is venued in Minnesota district court.

Stratasys alleges that Afinia's H-Series printer is a rebranded and repackaged version of an UP! 3D printer, manufactured by Delta Micro Factory Corporation, a Chinese company. The H-Series low price (\$1399) has made it a popular choice with educators and universities. It also provides a level of functionality and ease of use that earned it selection in 2012 as "Best Overall" by 3D printing publication *Make Magazine*. Though Stratasys has not sued the Chinese OEM manufacturer, this litigation could be part of a strategy to combat the threat Stratasys faces from low-cost 3D printers manufactured in China and marketed through U.S. licensing agreements. Only time will tell whether Stratasys will be able to stop distribution of the printers or obtain a royalty from Afinia — and other manufacturers making use of Stratasys' proprietary technology.

### **Conclusion**

Part of the 3D printing patent litigation landscape will include efforts by early innovators to protect the value and investments made to obtain proprietary intellectual property. As consumer demand for affordable printers grows, the emerging

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market will lure entrants interested in participating in the potential for profits that market offers. But as the recent claims brought by Stratasys and 3D Systems illustrate, patent infringement litigation will remain a very real risk to these newcomers' chances for any real ongoing profitability or viability.

### About the Author

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