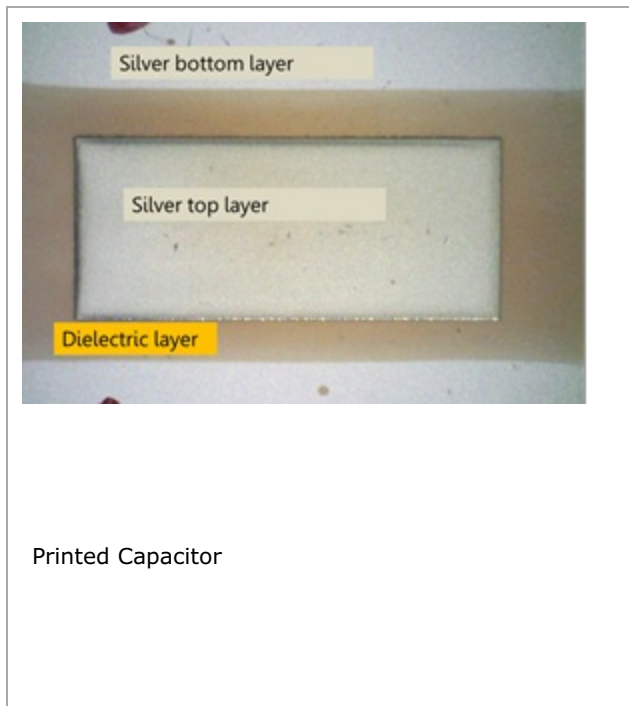
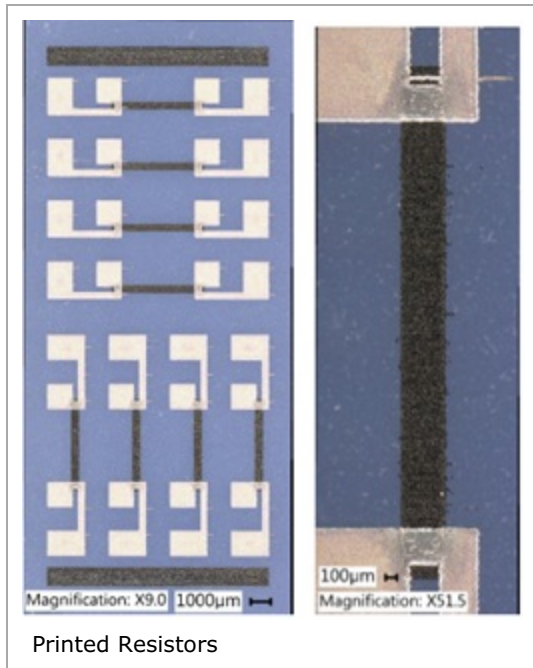


October 20, 2020



PV Nano Cell and Profactor Publish First Results of Printed Embedded Passive Components as Part of the eurostars™ inkjetPCB Program

MIGDAL HA'EMEK, Israel, Oct. 20, 2020 (GLOBE NEWSWIRE) -- PV Nano Cell, Ltd. (OTC: [PVNNE](#)) ("PV Nano Cell" or the "Company"), an innovative provider of inkjet-based conductive digital printing solutions and producer of conductive digital inks and PROFACTOR GmbH (Steyr, Austria) an applied production research company in the field of industrial assistive systems and additive micro/nano manufacturing, today published the first results of printed embedded passive components including silver and carbon-based resistors and capacitors. PV Nano Cell, Profactor and other partners are part of the EU inkjetPCB project (E! 113206, supported by the prestigious eurostars™ program in the Horizon2020 framework) which is focused on the fabrication of multilayer printed circuit boards with embedded printed passive components.



As previously published, the use of electronic devices is increasing and so does the demand for high performing, smaller-sized products. One way to enable such products is by

implementing embedded passive components such as resistors and capacitors. Instead of placing these components on the PCB (Printed Circuit Board), the components can be embedded within the PCB layers. Such an approach clears valuable real estate on the top or bottom side of the PCB allowing for more powerful CPUs or batteries to be incorporated in the electronic device. Existing PCB manufacturing technologies are complex and involve many production stages. Furthermore, such subtractive technologies where production material is removed during the production are very costly due to the high use of material and production waste. Digital printing however, is an additive technology where material is added only where required and therefore solves these problems and offers new advantages.

PV Nano Cell's Chief Executive Officer, Dr. Fernando de la Vega, commented, "PV Nano Cell is aiming to commercialize digital printing of embedded passive components very soon, using a technology based on our DemonJet printers and Sicrys™ inks. We will enable the industry to print embedded conductive traces, resistors, capacitors and coils allowing new electronic designs. Some of the development efforts are within the scope of InkjetPCB project. InkjetPCB is a European consortium funded by eurostars™ framework, technical-led by our partner Profactor, a world leader applied research institute focusing in additive manufacturing of electronics. The project is focusing on Inkjet-based fabrication of multilayer printed circuit boards with embedded printed passive elements as a commercially viable process. As an outcome of this collaborative innovation project, PV Nano Cell plans to deliver to its customers a "Complete Solution" for the digital additive manufacturing of enhanced PCBs including materials, equipment and process guidelines. These efforts are aligned and actually complement market trends including other efforts such as the ones published by Nano Dimension.

First results we are happy to share are of: printed silver and carbon-based resistors with ~10 Ω to 50 kΩ in resistance. In addition, we inkjet-printed one-layer dielectric capacitors showing dielectric constants between 12 and 21."

Photos accompanying this announcement are available at

[https://www.globenewswire.com/NewsRoom/AttachmentNg/f4736021-5a6e-485b-a83c-
ea7a7bd0f2b5](https://www.globenewswire.com/NewsRoom/AttachmentNg/f4736021-5a6e-485b-a83c-
ea7a7bd0f2b5)

[https://www.globenewswire.com/NewsRoom/AttachmentNg/06f16b81-d5e3-4f6e-93fd-
20d24c59b322](https://www.globenewswire.com/NewsRoom/AttachmentNg/06f16b81-d5e3-4f6e-93fd-
20d24c59b322)

Daniel Fechtig, head of Functional surfaces and nanostructures group at PROFACTOR commented, "Additive manufacturing, especially inkjet based 3D printing, could disrupt electronic manufacturing. A whole new range of functionalities could be given to any object. Additional efforts are needed to overcome material and process related barriers for manufacturability. Materials need to be process-able but also possess high performance. Processes need to be more flexible and easily scalable. New printing and curing processes developed at PROFACTOR showed that adoption of inkjet printing in PCB production is viable and effective."

PV Nano Cell, Ltd.

PV Nano Cell (PVN) offers the first-ever complete solution for mass-produced inkjet based, printed electronics. The proven solution includes PVN's proprietary Sicrys™, silver-based conductive inks, inkjet production printers and the complete printing process. The process includes ink properties' optimization, printer's parameters setup, printing modifications &

tailored printing instructions per application. In the heart of PVN's value proposition lies its unique and patented conductive silver and copper inks - Sicrys™. Those are the only inks made of Single Nano Crystals – which allows the inks to have the highest stability and throughput required to drive optimal mass-production results for wide range of applications. PVN's solutions are used all over the world in a range of digital printing applications including: automotive, photovoltaics, printed circuit boards, flexible printed circuits, antennas, sensors, heaters, touchscreens and other. For more information, please visit <http://www.pvnanocell.com/>.

Profactor

PROFACTOR is an applied research company with headquarters in Steyr and Vienna. The company conducts applied production research in the field of industrial assistive systems and additive micro/nano manufacturing. PROFACTOR acts as an interface between **science** and **business**. In more than **1,700 projects**, we have demonstrated what can be created with applied production research: **Innovation**. We enable you to be a step ahead and work to ensure Europe's continued industrial prosperity. More than 400 customers have trusted us so far – from small businesses to enterprises. Our team consists of 75 employees from 15 academic fields. They work across disciplines to find solutions for the manufacturing industry. We set standards in robotics, image processing, simulation, and functional surfaces and nanostructures. The Society to promote the modernization of production technologies in Austria (Vereinigung zur Förderung der Modernisierung der Produktionstechnologie in Österreich or VPTÖ for short) founded PROFACTOR in 1995. Since 2014, the [Upper Austrian Research \(UAR\)](#) has taken over 49 percent of the shares of PROFACTOR GMBH. Since June 2018, the [AIT Austrian Institute of Technology](#) has owned 51 percent of PROFACTOR GmbH. For more information, please visit <https://www.profactor.at/>.

inkjetPCB

Inkjet-based fabrication of multilayer printed circuit boards with embedded printed passive elements (E! 113206). Project duration: 11/2019 – 10/2021.

<https://www.pvnanocell.com/eurstartrade-inkjetpcb.html>

Forward-Looking Statements

This press release contains forward-looking statements. The words or phrases "would be," "will allow," "intends to," "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "project," or similar expressions are intended to identify "forward-looking statements." All information set forth in this news release, except historical and factual information, represents forward-looking statements. This includes all statements about the Company's plans, beliefs, estimates and expectations. These statements are based on current estimates and projections, which involve certain risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These risks and uncertainties include issues related to: rapidly changing technology and evolving standards in the industries in which the Company operates; the ability to obtain sufficient funding to continue operations, maintain adequate cash flow, profitably exploit new business, and sign new agreements. For a more detailed description of the risks and uncertainties affecting PV Nano Cell, reference is made to the Company's latest Annual Report on Form 20-F which is on file with the Securities and Exchange Commission (SEC) and the other risk factors discussed from time to time by the Company in reports filed with, or furnished to, the SEC. Except as otherwise required by law, the Company undertakes no obligation to publicly

release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

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