PV Nano Cell Opportunity in Automotive & Solar markets

Executive Summary (Feb. 2021)

1. General

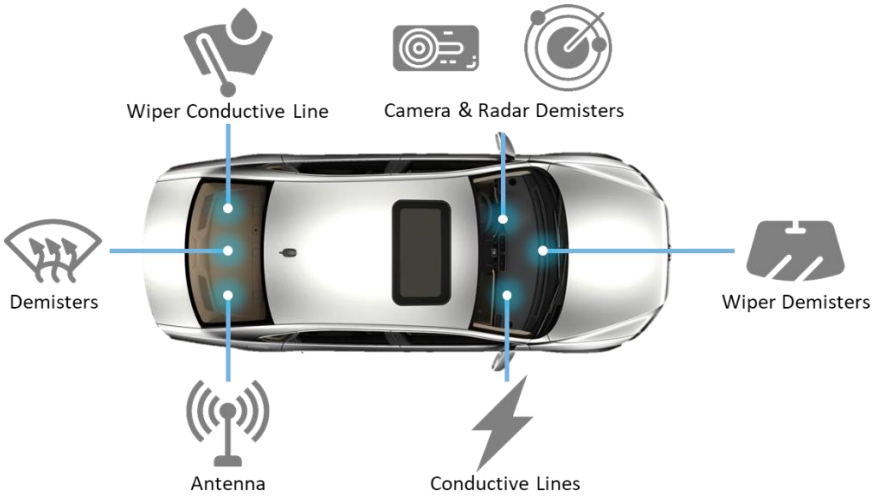
PV Nano Cell is generating commercial, mass-production sales and experiencing high traction primarily in two market applications; Automotive and Solar Energy. A third massive market application: Embedded Passive Components (printed resistors & capacitors) is in final stages of development and first qualification by world-leading customers.

2. Automotive

2.1. Wide-glass Applications

2.1.1. Market size: $2B, CAGR ~5.6%.

2.1.2. Primary applications



2.1.3. Customers and projects:

Customer	Customer Revenues	Status	Annual Potential of ink
Dip-Tech, a Ferro company	> $1B	Ordering	Growing to 1 ton, annually
Under NDA	>$600M	Ordering	50-100 kg (several tons in 2 years), annually
Under NDA	>$400M	Ordering	1 ton, annually

Rough ink price ~$2000/kg.

The above three customers are >75% of the market.

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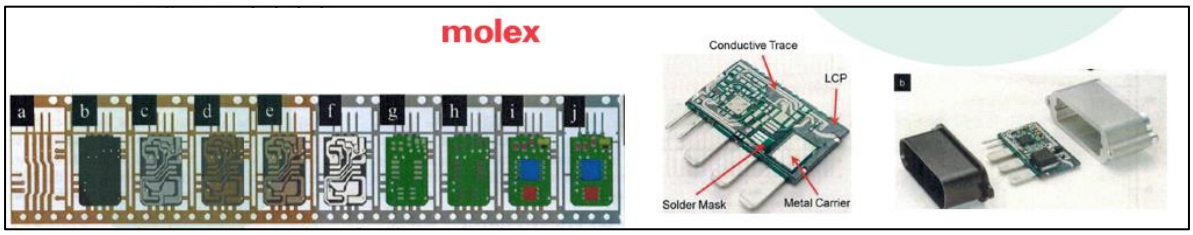
Address: 8 Hamasger St., P.O. Box 236, Migdal Ha'Emek, 2310102 Israel
Phone: + 972 4 654 6881 Fax: + 972 4 654 6880 Email: info@pvnanocell.com
www.pvnanocell.com

2.2. Connectors (for the automotive industry)

Molex, one of the leading manufacturers of connectors has developed a new technology for the production of smaller intelligent connectors (ASEP). One of the production steps can be done only with inkjet printing. PVN inks have been qualified and PVN printed samples for Molex which have been sent to their customers.

Primary automotive applications: Cameras, DC-to-DC converters, In-vehicle electronics, Lighting modules, Power control modules and Sensors.



2.3. Future Applications: Radar & LiDAR

Project TINKER: European Union funded project to develop Radar and LiDAR sensors based on conductive additive manufacturing technology. PV Nano Cell is a partner and sole conductive ink provider in the project.

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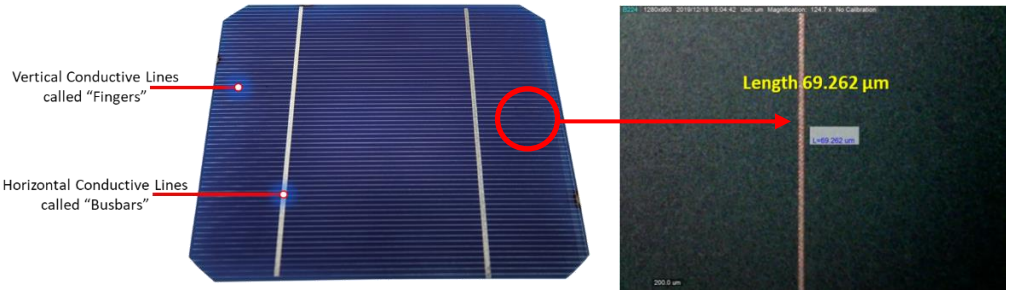
3. Solar Cells

- Market size: $11B, CAGR ~4.3%.
- Primary application: print the fingers and busbars to improve solar efficiency.
- Focusing on the Thin Film market (10% of the market and growing). PVN has landslide advantage in this market where cells are temperature sensitive.

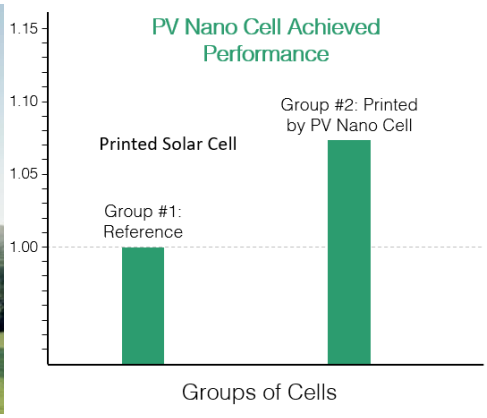


- Customers and projects:

Customer	Customer Revenues	Status	Annual Potential of ink
Under NDA	> $30B	Ordering	> 1 ton, annually
Hanergy	> $2B	Contacted	Tons, annually
Manz	>$260M	Contacted	Tons, annually

Customer (under NDA), latest update:

- PVN printed modules showing total increase in cell efficiency of 5%!
- Ink is qualified.
- First (of 15) mass production printers (each cost ~$3.5M) is now being installed (during integration stage).
- Expected to start mass-printing soon, 1 ton ink capacity per printer (roughly ink price ~$2,000/kg).



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