



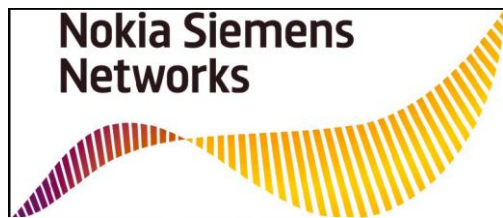
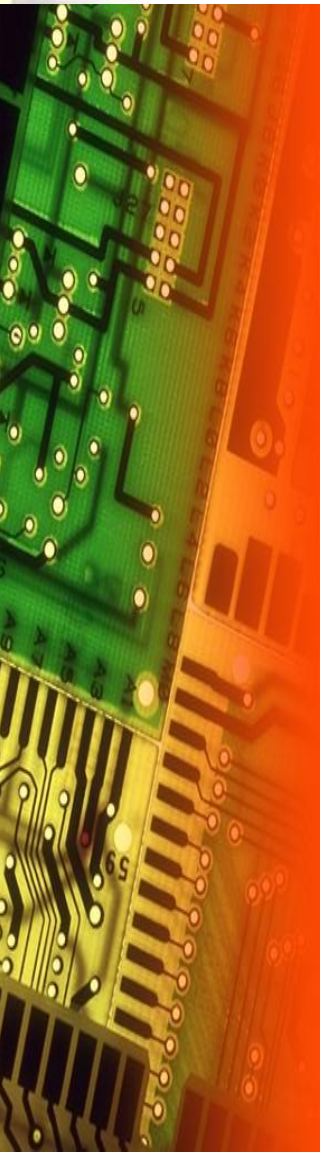
# Print Electronics

Your PCB partner RD51 22/11/2011





# Our factory and our customers



Essence Security International Ltd



# Products by sector



**Telecommunication**



**Automotive**



**Medical**



**Information Technologies**



**Security products**



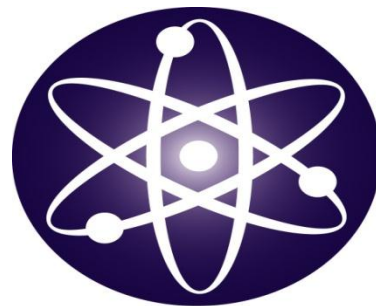
**Consumer products**



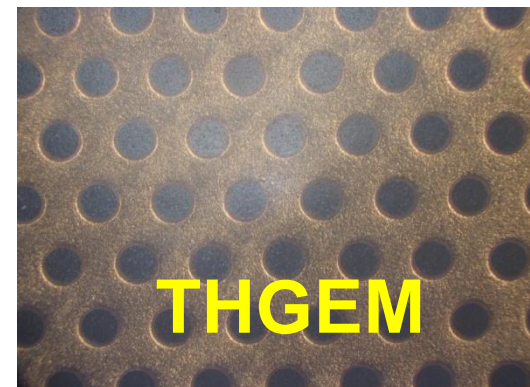
**Industrial Automation**



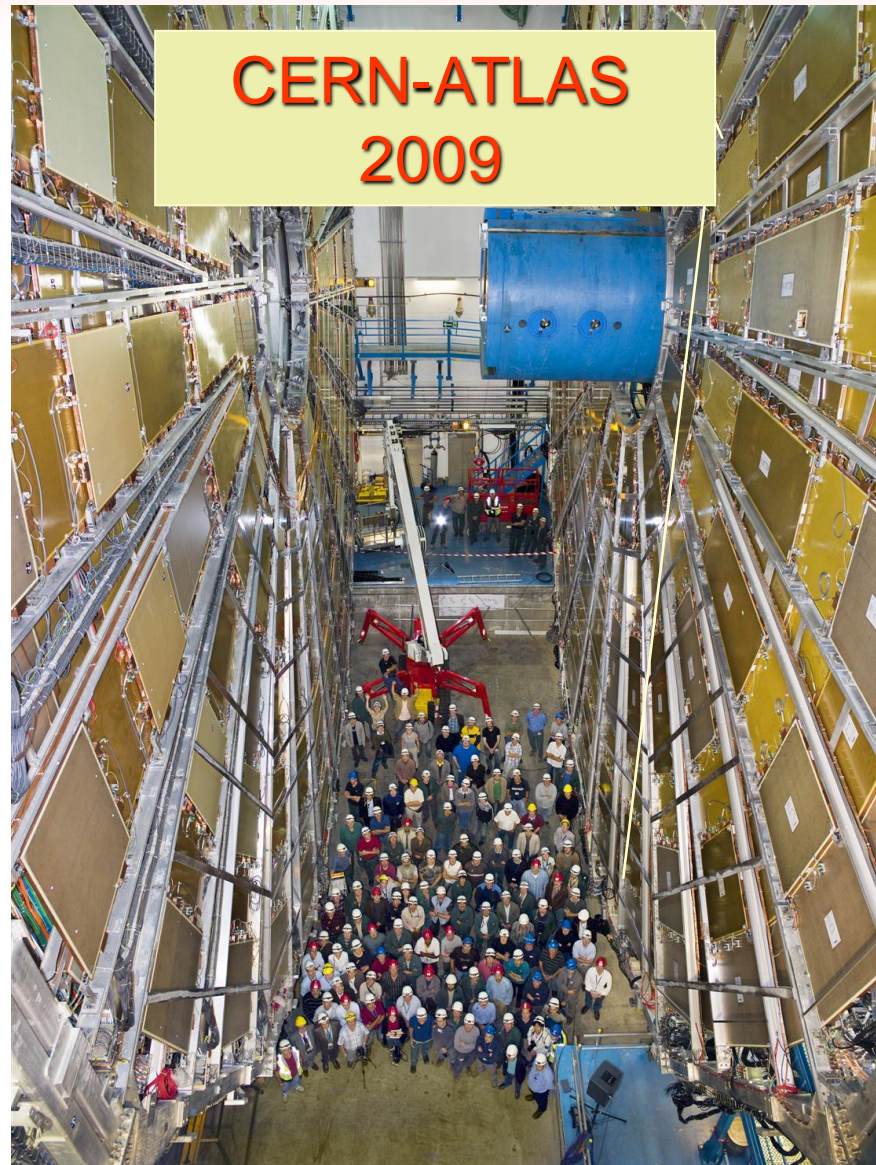
**Military equipments**



**Science**



# Products: Science



**Thin-Gap Wire Chambers (TGC) of Weizmann Inst.  
PCB-cathodes made by Print electronics**



# Company Profile

**Founded: 1982**

**Employees: approximately 100 people**

**Production area: 3000 sq. meters**

**Annual turnover: 20M\$, annual growth rate over 10%**

**Customers: communication, electronics, defense, science...**

## **Company policy:**

**Produce high Quality, high technology quick-turn PCBs at competitive prices.**

**High attention to Customer's demands**

**Commitment to continuous improvement and high-quality Customer's service.**



# National Standards

ISO 9001-2008



UL94-V0



IPC 600H,6011,6012.6013



ROHS-Compliant

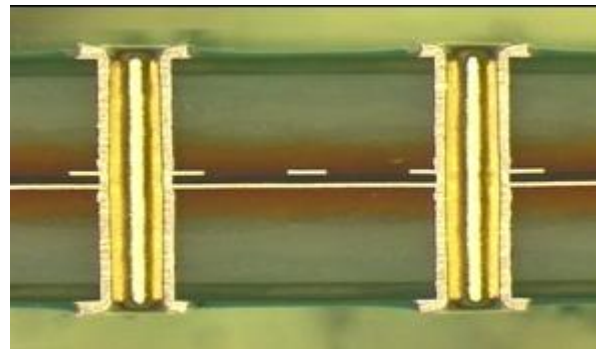
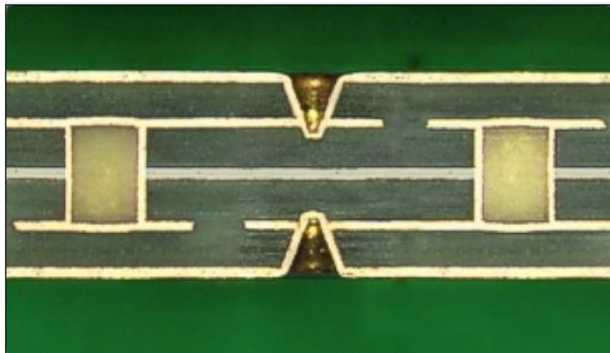


# Quality

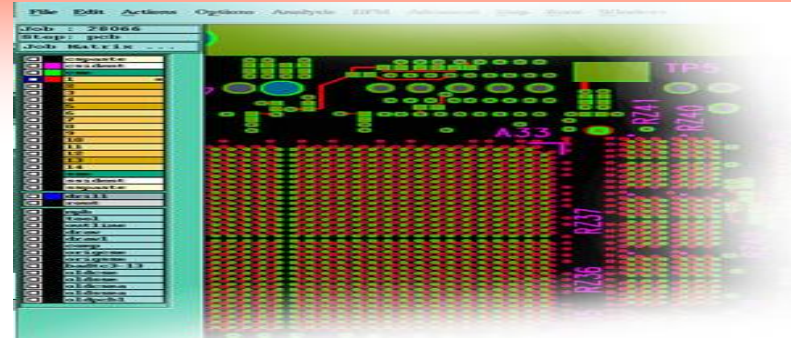
**Print Electronics quality system is based on and conforms to the Requirements of ISO 9001. Regular audits are performed by the standard Institute of Israel.**

**Customer can specify IPC-6012 for commercial boards.**

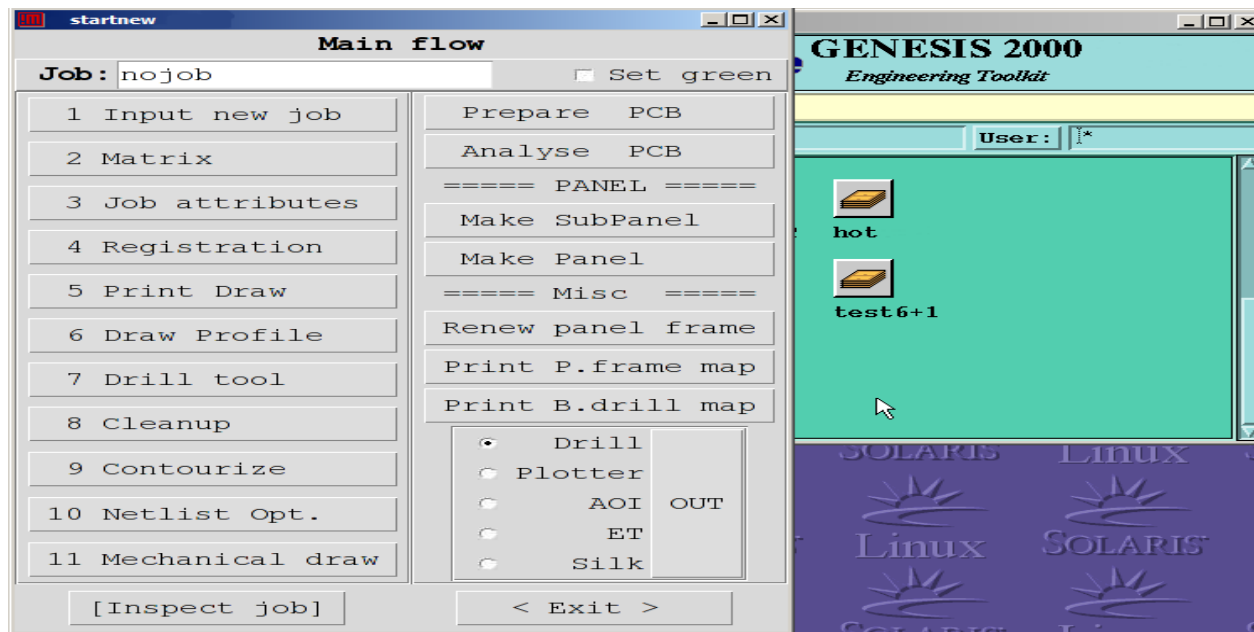
**As matter of Print Electronics company policy, customers are encouraged to consult with our quality assurance staff both at the design review stage and after production.**



# Engineering



**Print electronics** has computerized engineering system, enabling data processing, design-criteria evaluation and fabrication of manufacturing tools



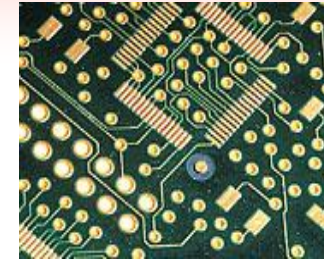
**Net list is checked against Gerber files using IPC-356.**



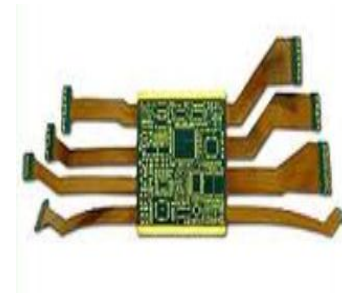
# Products

- ❖ **Standard rigid boards**

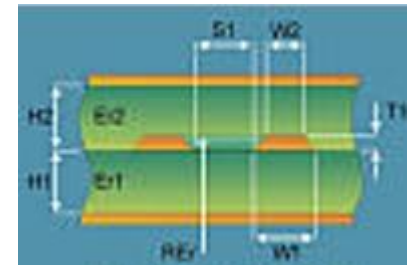
**Double-sided boards & Multilayer up to 20 layers.**



- ❖ **Flexible and rigid-flex boards.**



- ❖ **Controlled impedance circuits.**



- ❖ **Blind and buried via hole**

**HDI including Blind and buried VIAS**



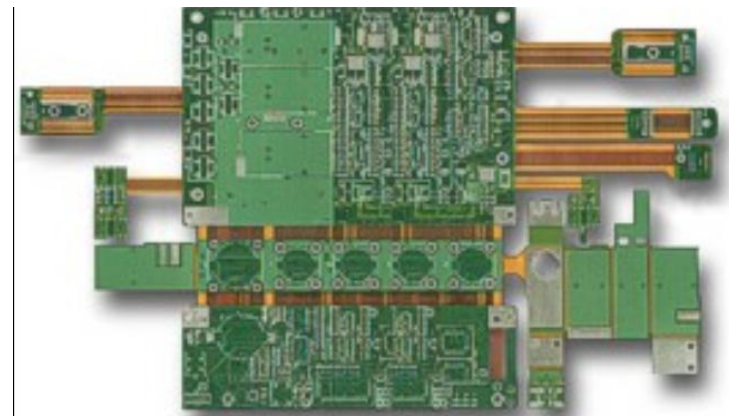
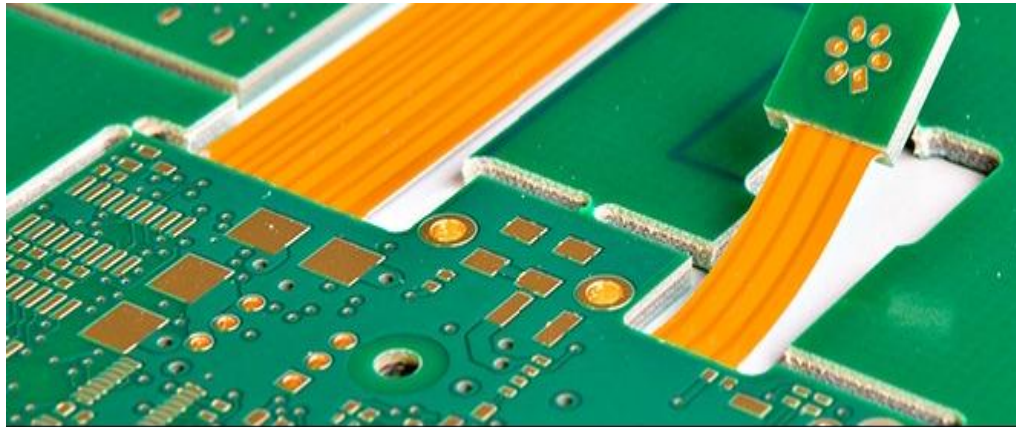
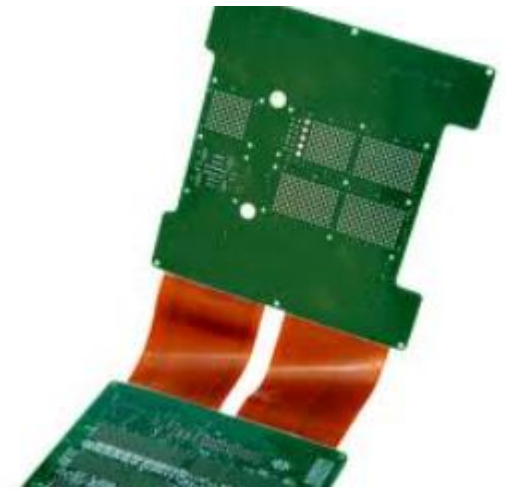
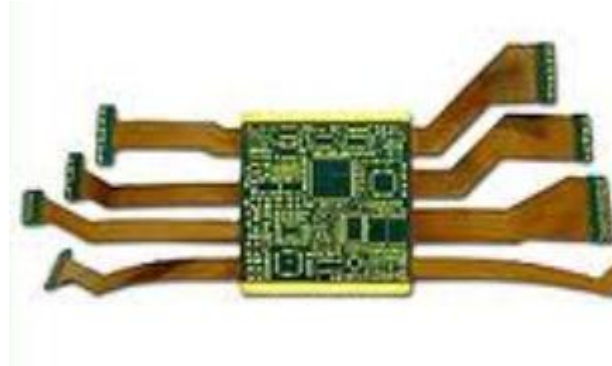
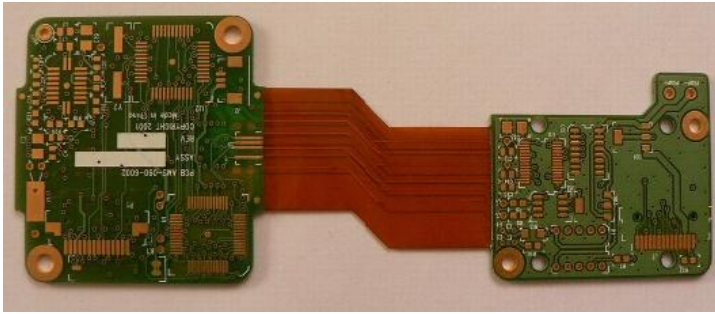
- ❖ **Heat sink- nickel plated copper or aluminum**

- ❖ **Other products**



# FLEX & RIGID-FLEX BOARD

Single and doubled-sided with and without stiffeners.  
Materials: Kapton/ Acrylic or modified epoxy.  
Finishes : as rigid boards.



# Materials

**GF(FR4)**

**GI (Polyimide)**

**Teflon**

**Rogers Family**

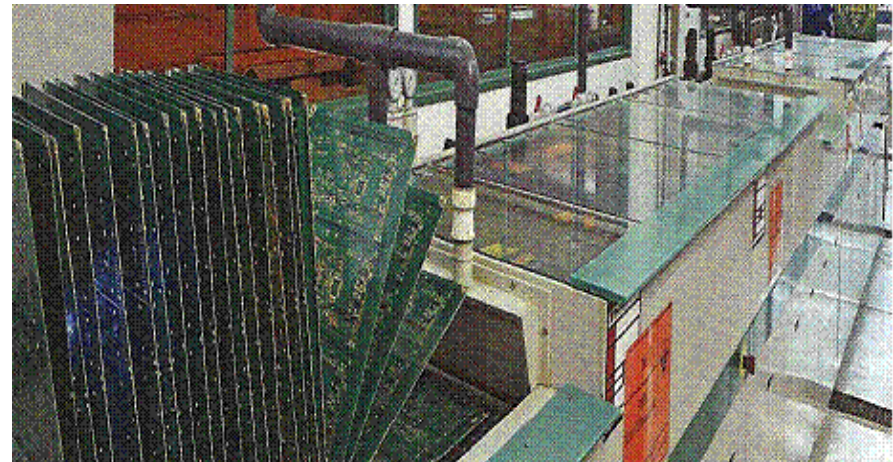
**Kapton**

**Other**



# Finishes

- Direct plating- through hole metallization
- Electroplated copper
- Hot air leveling
- Immersion gold (electroless)
- Immersion tin (electroless)
- Immersion Silver (electroless)
- OSP
- Electro plated nickel and gold
- SMOBC – solder mask over bare copper
- Via holed plugging
- Via holes- capping



## DESIGN FEATURE LIMITATIONS (STANDARD)

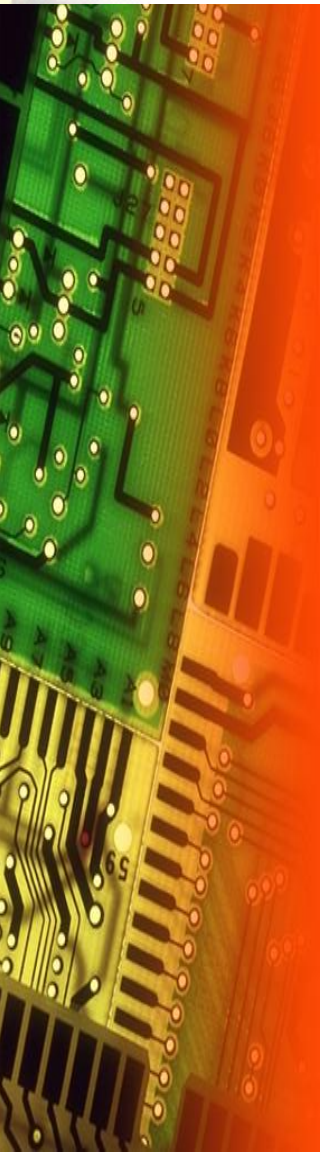
- **BOARD THICKNESS: 8~126 mil (0.2~6.0mm)**
- **Copper foil : 0.5oz, 1oz, 2oz, 3oz**
- **working panel size: 500X600mm(STD), 500x1000m.  
Ability to produce a larger pcb.**
- **Line width/space : 4/4 mil for internal and external layers.**
- **Minimum Drill size (Finish): 0.15 mm.**
- **Hole location tolerance ): 10  $\mu$ .**
- **Routing tolerance: +/- 0.2mm**
- **Final thickness tolerance: +/- 5%**
- **Aspect ratio (hole-to-thickness) up to 1:10**
- **silk screening of conductive and resistive inks, which are deposited**



# DESIGN FEATURE LIMITATIONS

## Non-Standard

It is the policy of Print Electronics to provide its customers the maximum possible technical support and to this end, we are prepared to discuss the manufacture of non- standard boards.

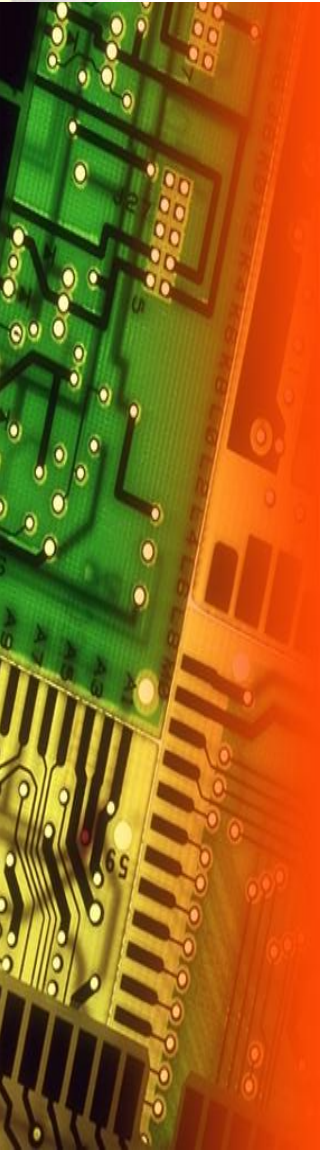


## ELECTRICAL TESTING

**Net list electrical testing is performed as standard test with no extra Charges.**

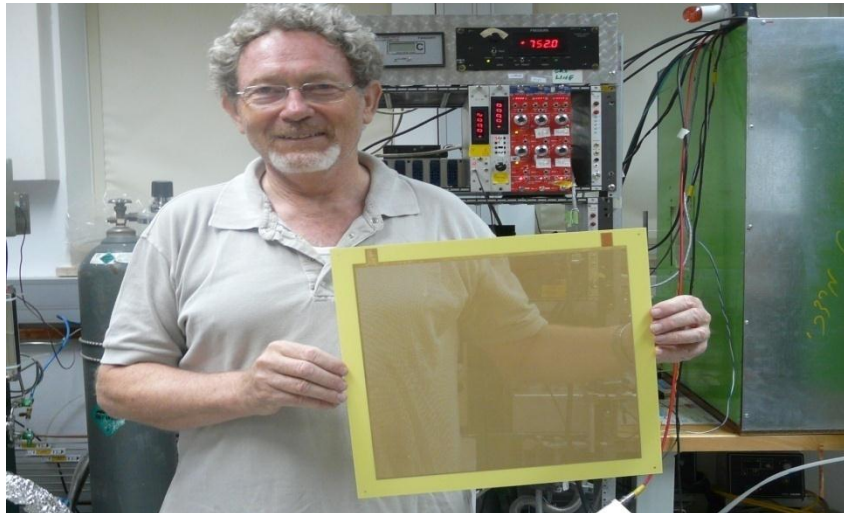
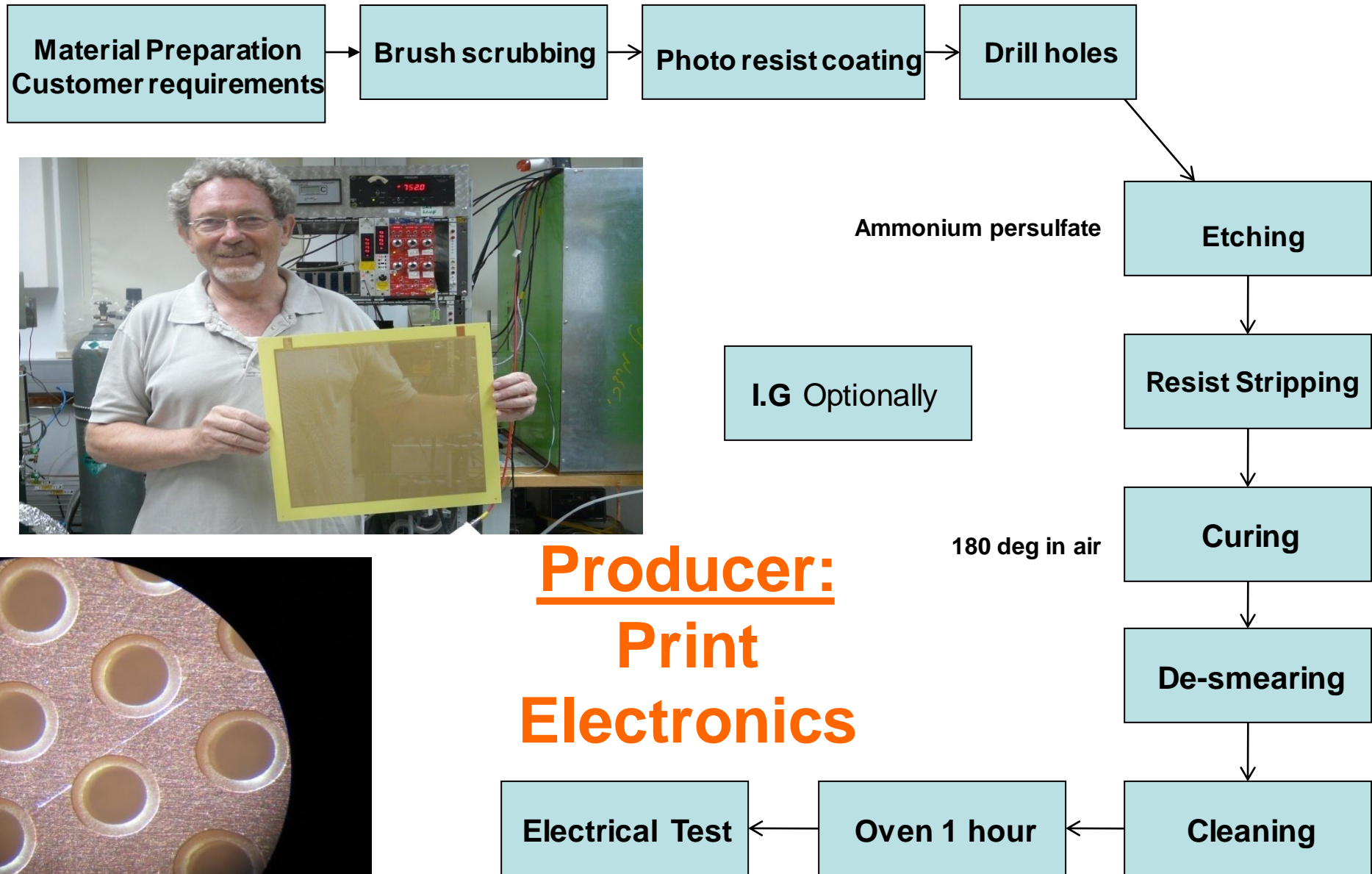
**The testing is performed using:**

- **Mania -" bed of nails" 15-250volts**
- **Emma- Test double sided flying probe tester- 3 Machines.**
- **Test voltage up to 250v.**

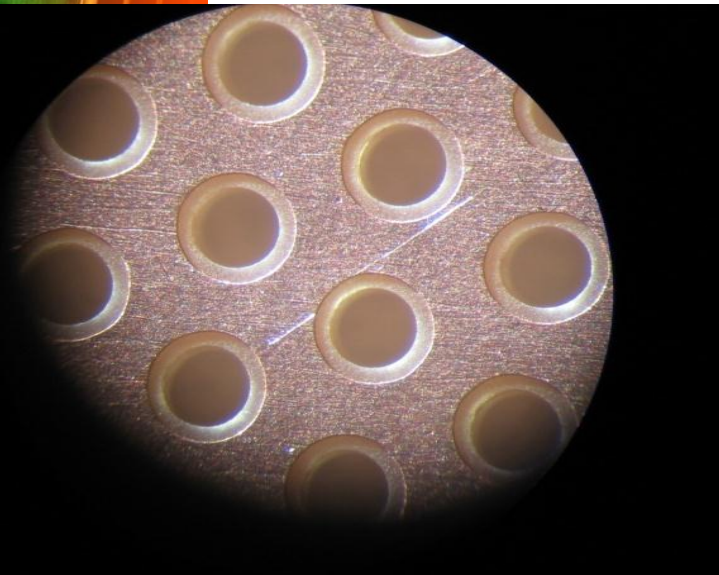


# 300x300mm THGEM!

## PCB Production Overview



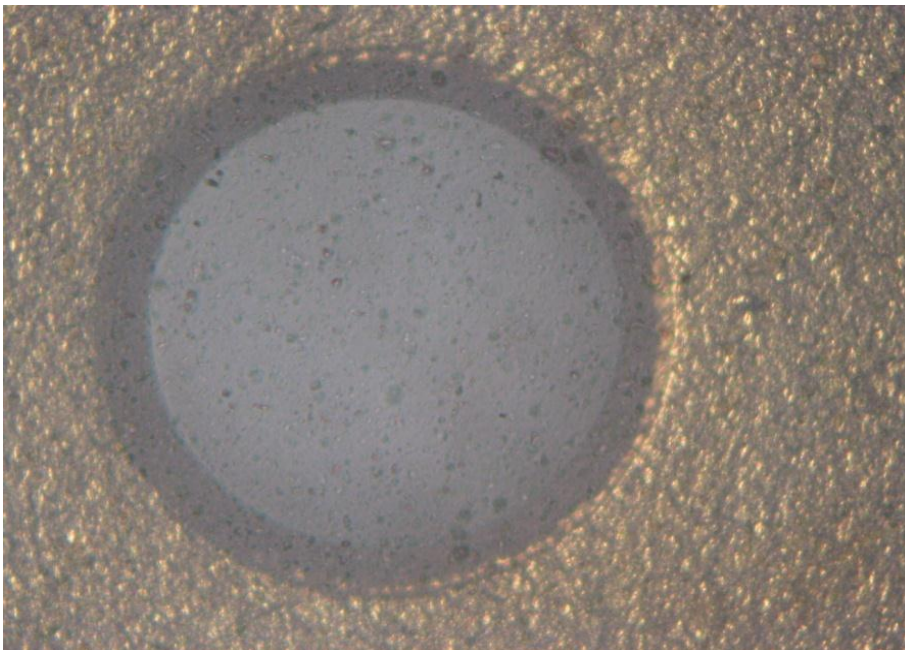
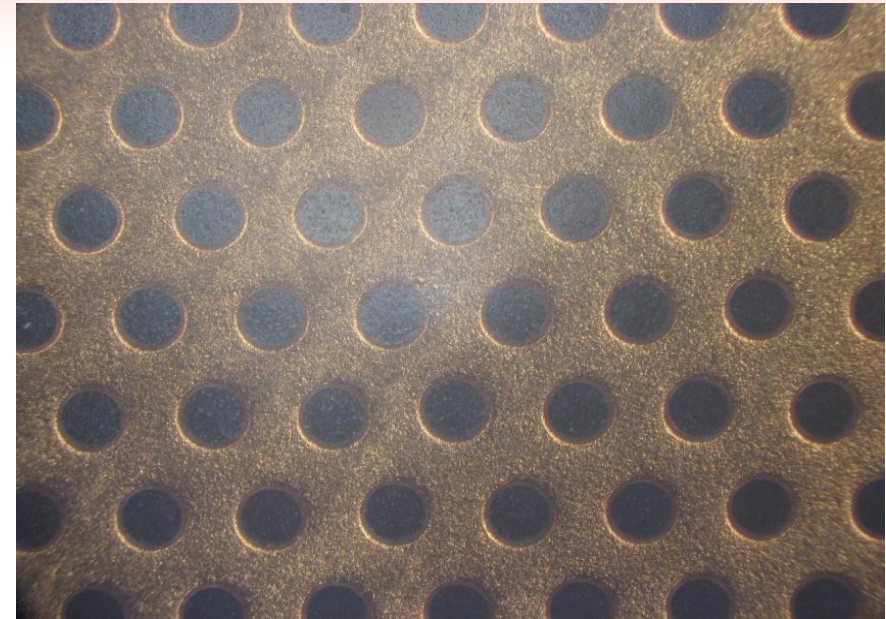
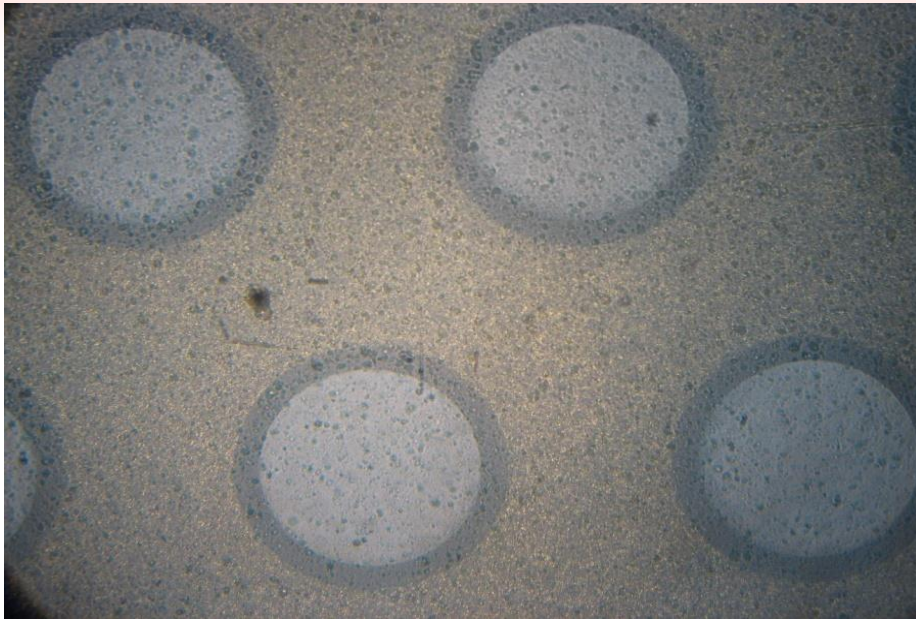
**Producer:  
Print  
Electronics**



**This process can be replaced by Customer requirements**



# 300x300 THGEM



## **THGEM geometry:**

Hole dia.: 0.5 mm

Pitch: 1 mm

Thickness: 0.4 mm

Rim: 0.05 mm

**Chemical etching/no mask**

**Ni/Au plating**

**Producer:**

**Print Electronics**

**[www.print-e.co.il](http://www.print-e.co.il)**



# Pictures of our machines and equipment

AOI



Hot air leveling 5224



Inspecta



Inspecta



# Pictures of our machines and equipment

CNC Drilling



Silk Printer



E-T

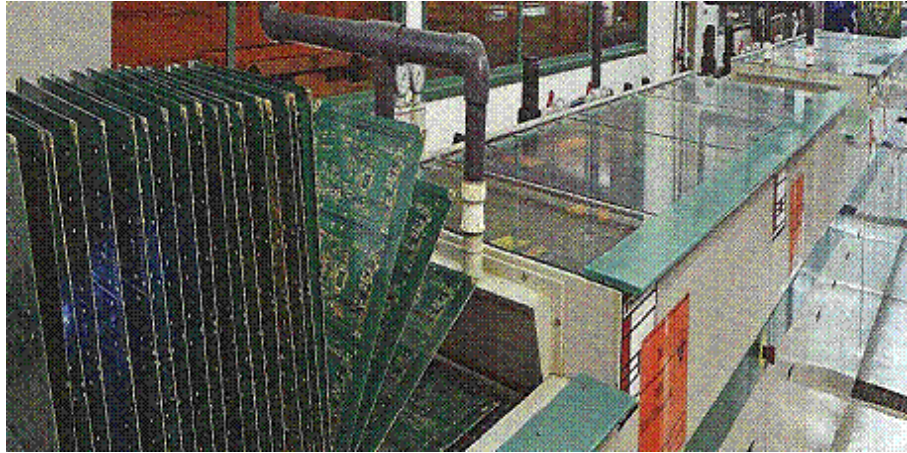


DI

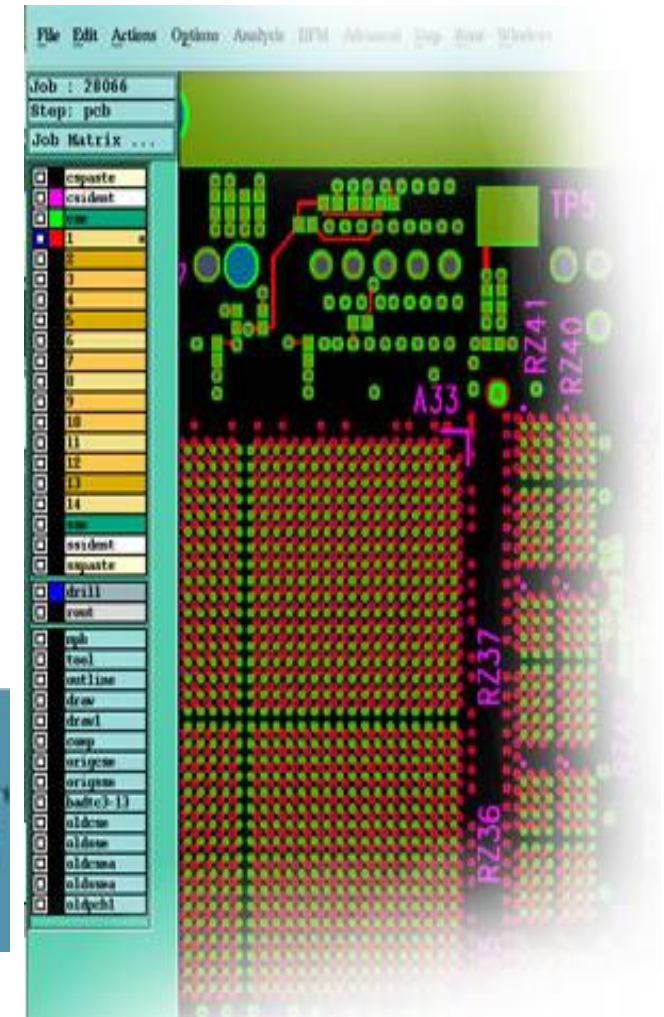
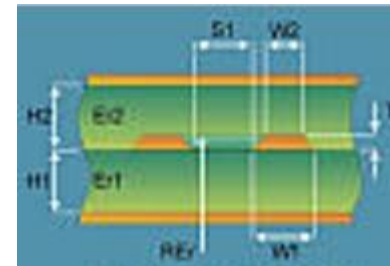


# Pictures of our machines and equipment

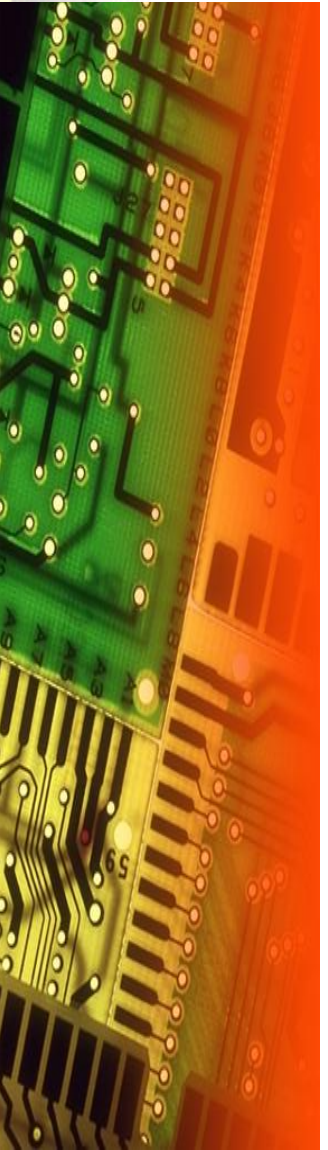
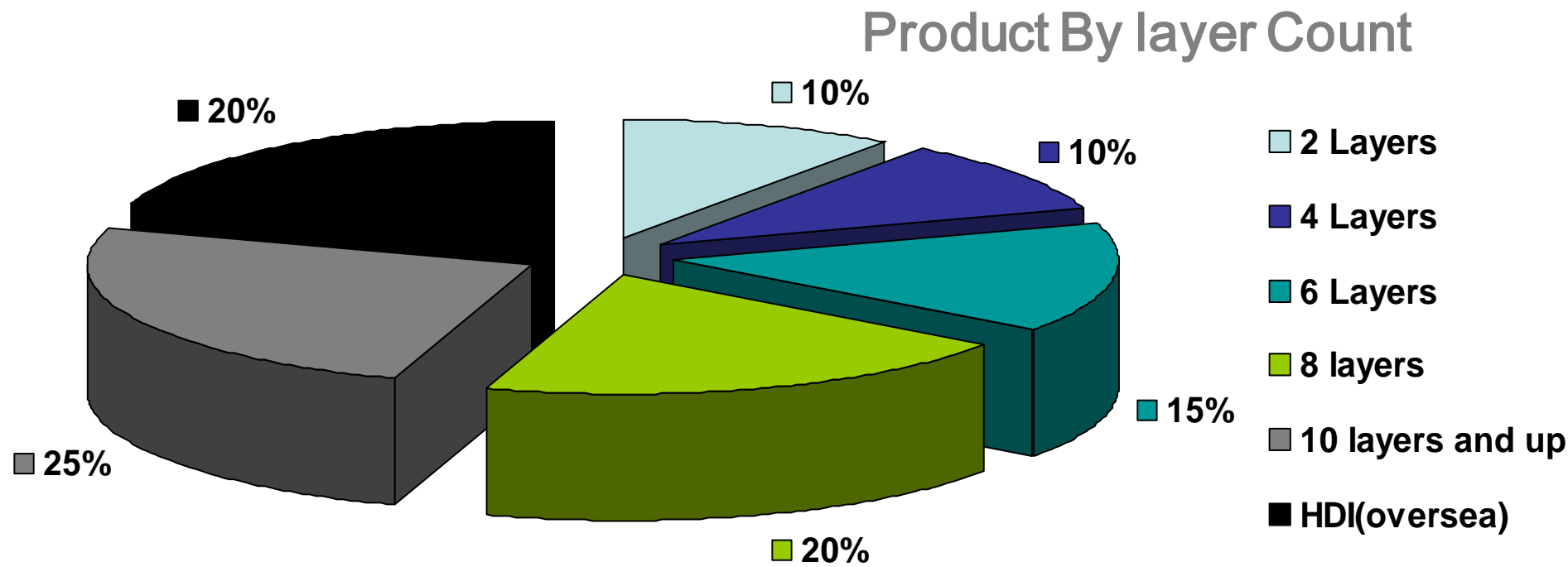
## Immersion Silver



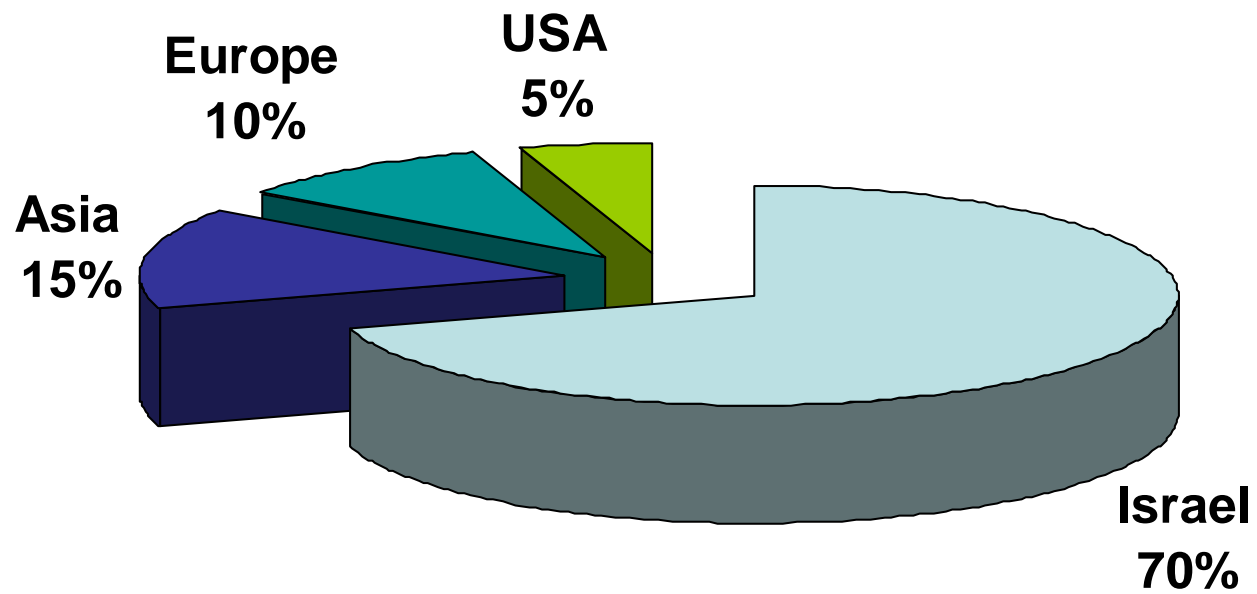
## Polar stuck up & Impedance



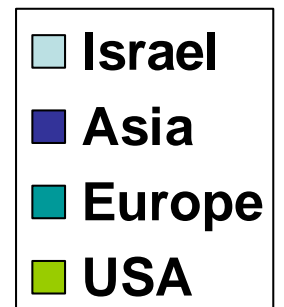
# Products by number of layers



# Sales by Region

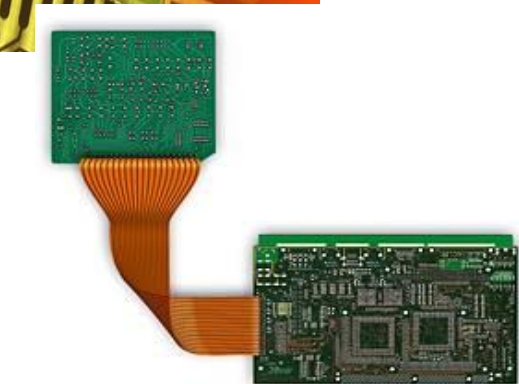
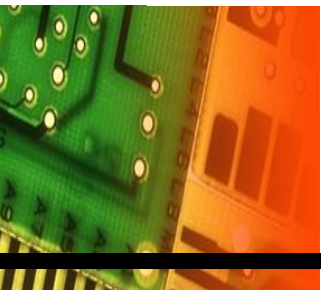


# Sales by Region





# Print Electronics



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Rishon Le-Zion 75650  
ISRAEL  
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Fax: 972-3-9612232  
[www.print-e.co.il](http://www.print-e.co.il)  
[info@print-e.co.il](mailto:info@print-e.co.il)

