

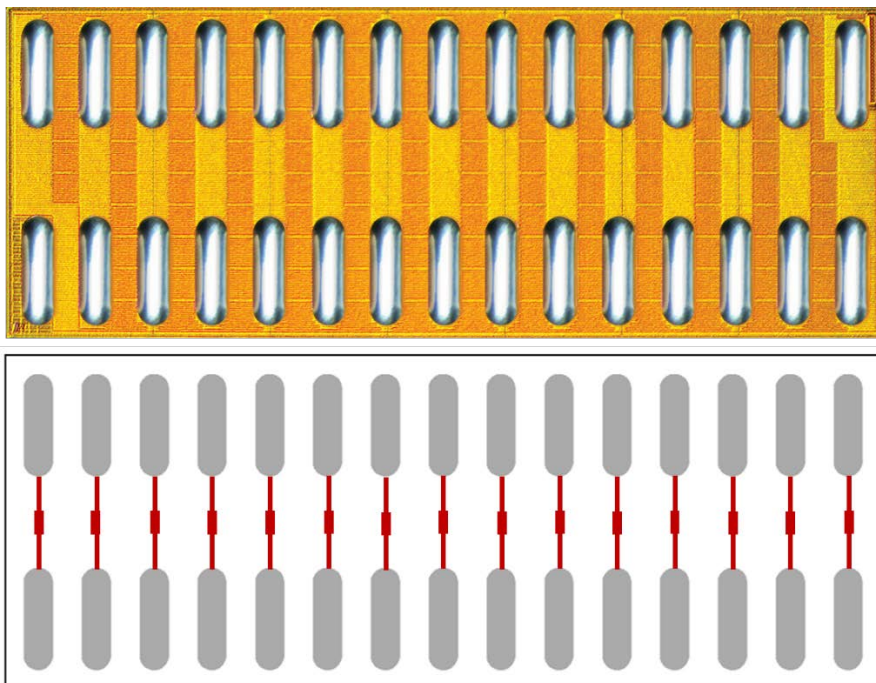
## EPCDESIGNTOOL\_XL-DC Mechanical Die for Daisy Chain Testing

EPCDESIGNTOOL\_XL-DC are sized equivalent to EPC family of devices [EPC2020](#), [EPC2021](#), [EPC2022](#), [EPC2023](#), [EPC2024](#) with die size 6.1 mm x 2.3 mm.

Daisy chain test devices are suitable for a wide variety of process-related testing, such as life cycle testing, drop testing, thermal testing, and optimizing the assembly process.

Daisy-chained packages are wired to provide a continuous path through the package for easy testing as shown in Figure 1 below.

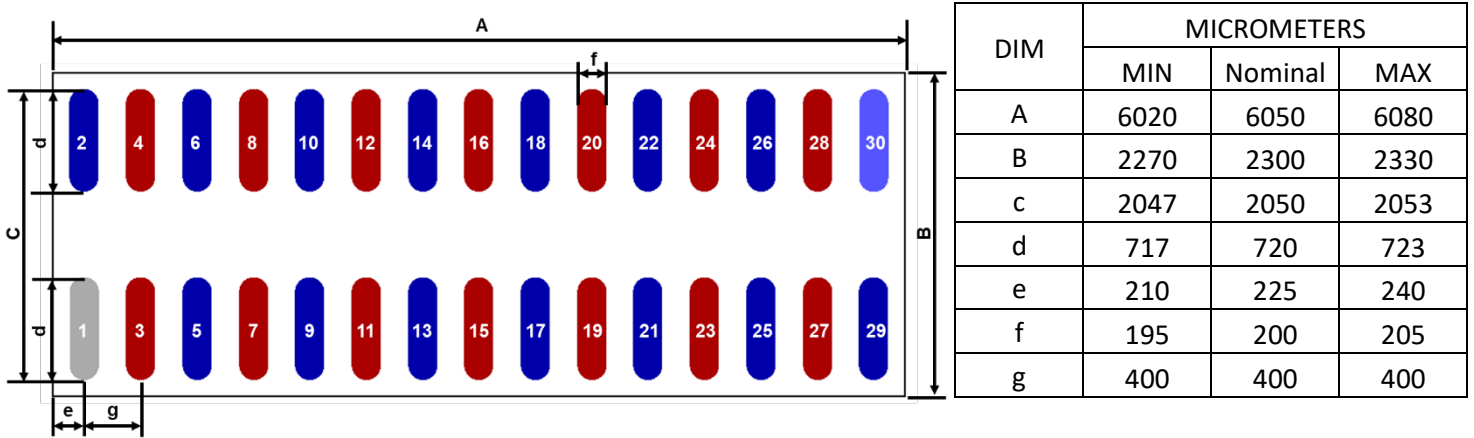
**Figure 1: Daisy Chain Connections for EPCDESIGNTOOL\_XL-DC**



# EPCDESIGNTOOL\_XL-DC

## Mechanical Die for Daisy Chain Testing

Figure 2: Die Outline (Solder Bar View)



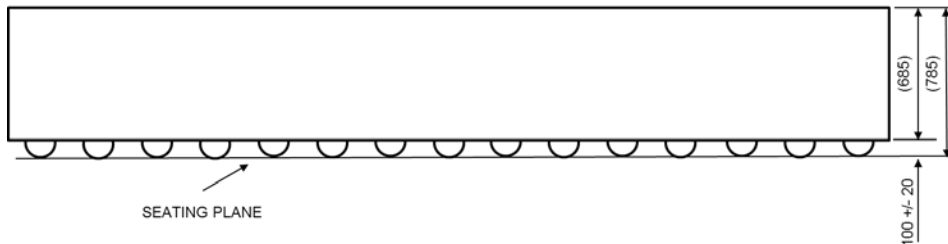
**Pads 1 is Gate;**

**Pads 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 29 are Source**

**Pads 3, 4, 7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27, 28 are Drain**

**Pad 30 is Substrate**

Figure 3: Side View

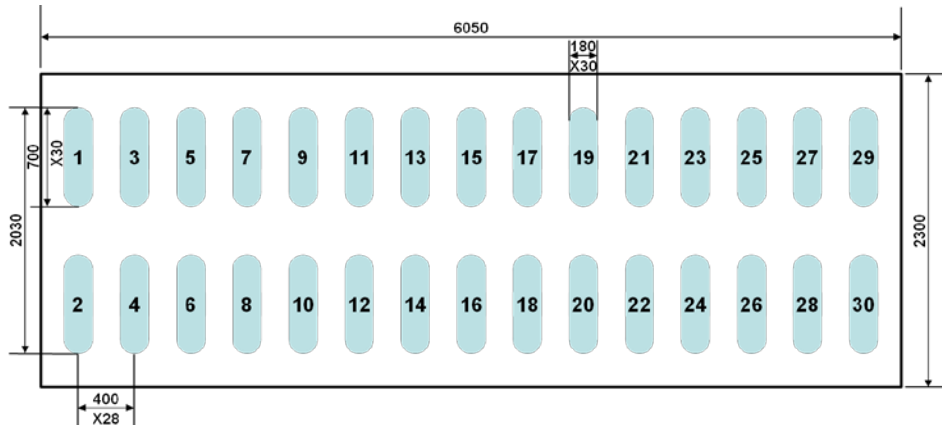


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## Mechanical Die for Daisy Chain Testing

**Figure 4: Recommended Land Pattern (units in  $\mu\text{m}$ )**

When a daisy-chained package is assembled on the PCB, a complete circuit is formed, which allows continuity testing. The circuit includes the solder balls, the metal pattern on the die, the bond wires, and the PCB traces.



Land pattern is solder mask defined  
Solder mask opening is  $180\ \mu\text{m}$   
It is recommended to have on-Cu  
trace PCB vias

**Pads 1 is Gate;**

**Pads 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 29 are Source**

**Pads 3, 4, 7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27, 28 are Drain**

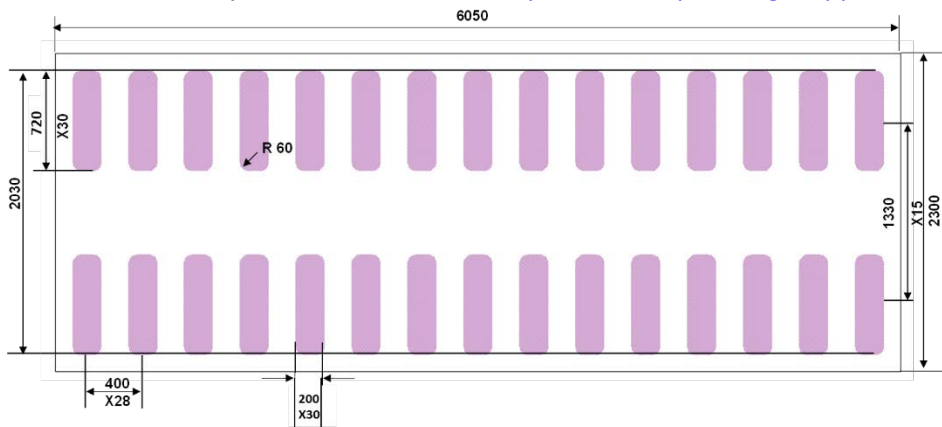
**Pad 30 is Substrate**

**Figure 5: Recommended Stencil Pattern (units in  $\mu\text{m}$ )**

Intended for use with SAC305 Type 3 solder.

Recommended stencil should be 4mil ( $100\ \mu\text{m}$ ) thick, must be laser cut, openings per drawing.

Additional assembly resources available at [epc-co.com/epc/DesignSupport/AssemblyBasics.aspx](http://epc-co.com/epc/DesignSupport/AssemblyBasics.aspx)



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