```
1   ; file: my_rect_pcell.il
2
3   ; Minimal ROD-based rectangle with stretch handles + pin
4   ; Assumes tech layers "DIFF" and "MET1"; adapt to your PDK.
5   ; Load once to (re)define the PCell:
6   ; load("my_rect_pcell.il")
7
8   pcDefinePCell(
9    list(ddGetObj("MY_LIB") "rect_pcell" "layout")
10   ( (w float 2.0) ; width (X)
11   (h float 1.0) ; height (Y)
12   (pinName string "P") ; a single metal pin
13   )
14
15   let( (rect rodR met net tfId minMetalW minMetalExt pinR)
16
17   ;-- tech lookups (guard against nils in older PDKs)
18   tfId = techGetTechFile(pcCellView~>lib)
19   minMetalW = max(0.06 car(techGetSpacingRule(tfId "minWidth" "MET1")||list(0.06)))
20   minMetalExt = max(0.06 car(techGetSpacingRule(tfId "minExtension" "MET1")||list(0.06)))
21
22   ;-- main rectangle on DIFF
23   rect = rodCreateRect(
24   ?cvId pcCellView
25   ?layer "DIFF"
26   ?bBox list( 0:0 w:h )
27   ?name "body"
28   )
29
30   ;-- expose stretch handles bound to parameters
31   rodAssignHandleToParameter(
32   ?parameter "w"
33   ?rodObj rect
34   ?handleName list("centerRight" "centerLeft")
35   ?displayName "w" ?stretchDir "x" ?stretchType "relative" ?moveOrigin t
36   )
37   rodAssignHandleToParameter(
38   ?parameter "h"
39   ?rodObj rect
40   ?handleName list("upperCenter" "lowerCenter")
41   ?displayName "h" ?stretchDir "y" ?stretchType "relative" ?moveOrigin t
42   )
43
44   ;-- width stretch handle with 30nm snap grid
45   rodAssignHandleToParameter(
46       ?parameter "w"
47       ?rodObj rect
48       ?handleName list("centerRight" "centerLeft")
49       ?displayName "w"
50       ?stretchDir "x"
51       ?stretchType "relative"
```

```
    ?moveOrigin t
    ?snapSpacing 0.030 ; <--- Enforces 30nm increments
)

;-- height stretch handle with 30nm snap grid
rodAssignHandleToParameter(
    ?parameter "h"
    ?rodObj rect
    ?handleName list("upperCenter" "lowerCenter")
    ?displayName "h"
    ?stretchDir "y"
    ?stretchType "relative"
    ?moveOrigin t
    ?snapSpacing 0.030 ; <--- Enforces 30nm increments
)

 ;-- simple pin on MET1 centered at top edge (respect min widths)
 rodR = rodCreateRect(
 ?cvId pcCellView ?layer "MET1"
 ?bBox list( (w/2 - minMetalW/2) : (h - minMetalExt)
 (w/2 + minMetalW/2) : (h + minMetalExt) )
 ?name "pinMetal"
 )
 pinR = dbCreatePin(
 pcCellView pinName "MET1"
 list( rodR~>bBox ) "terminal"
 )

 ;-- label for the pin
 dbCreateLabel(pcCellView "MET1" list(w/2 : (h + minMetalExt))
 pinName "centerLeft" "stick" 0.12)

 t
 ) ; let
) ; pcDefinePCell
```