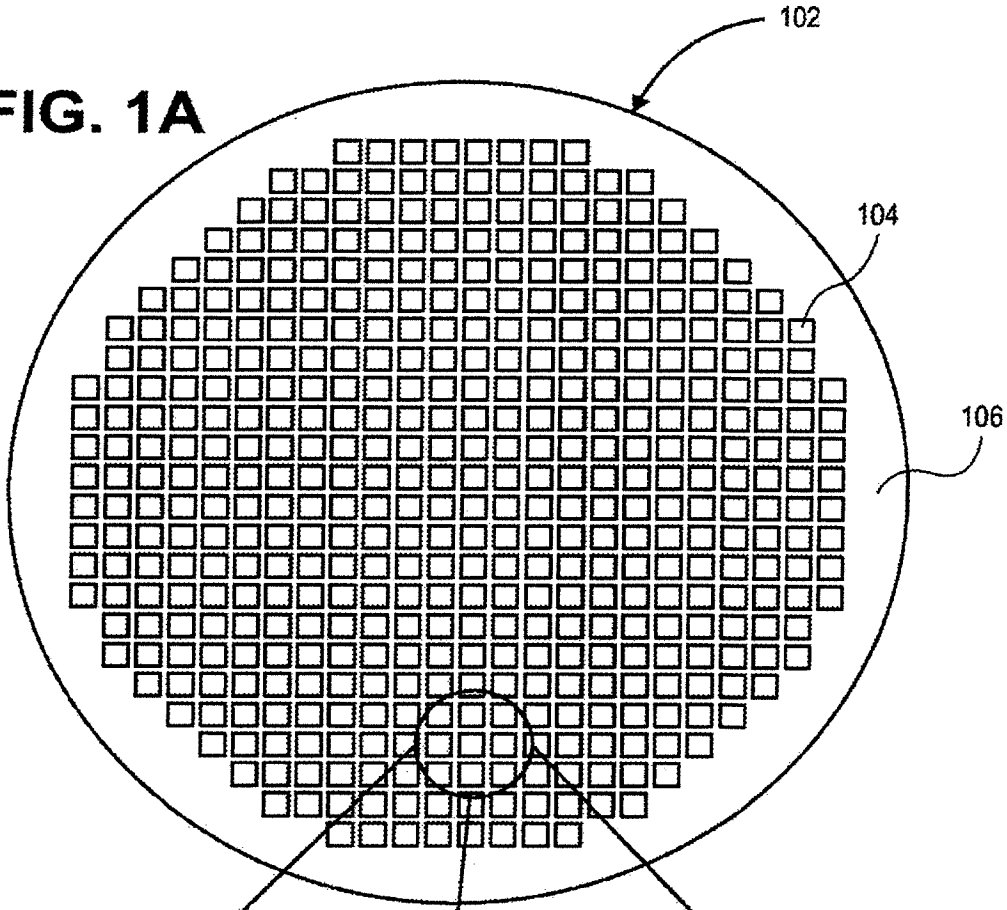
FIG. 1A



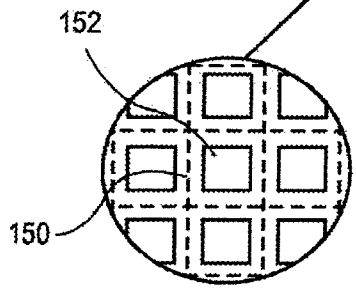


FIG. 1B

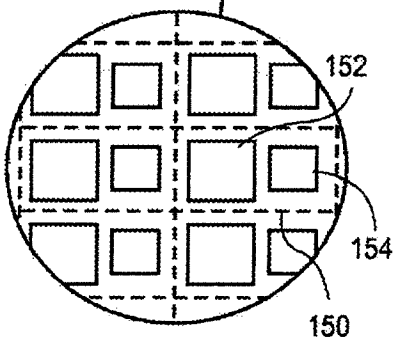


FIG. 1C

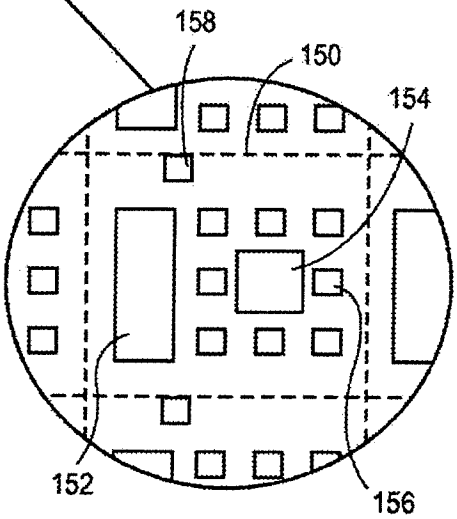


FIG. 1D

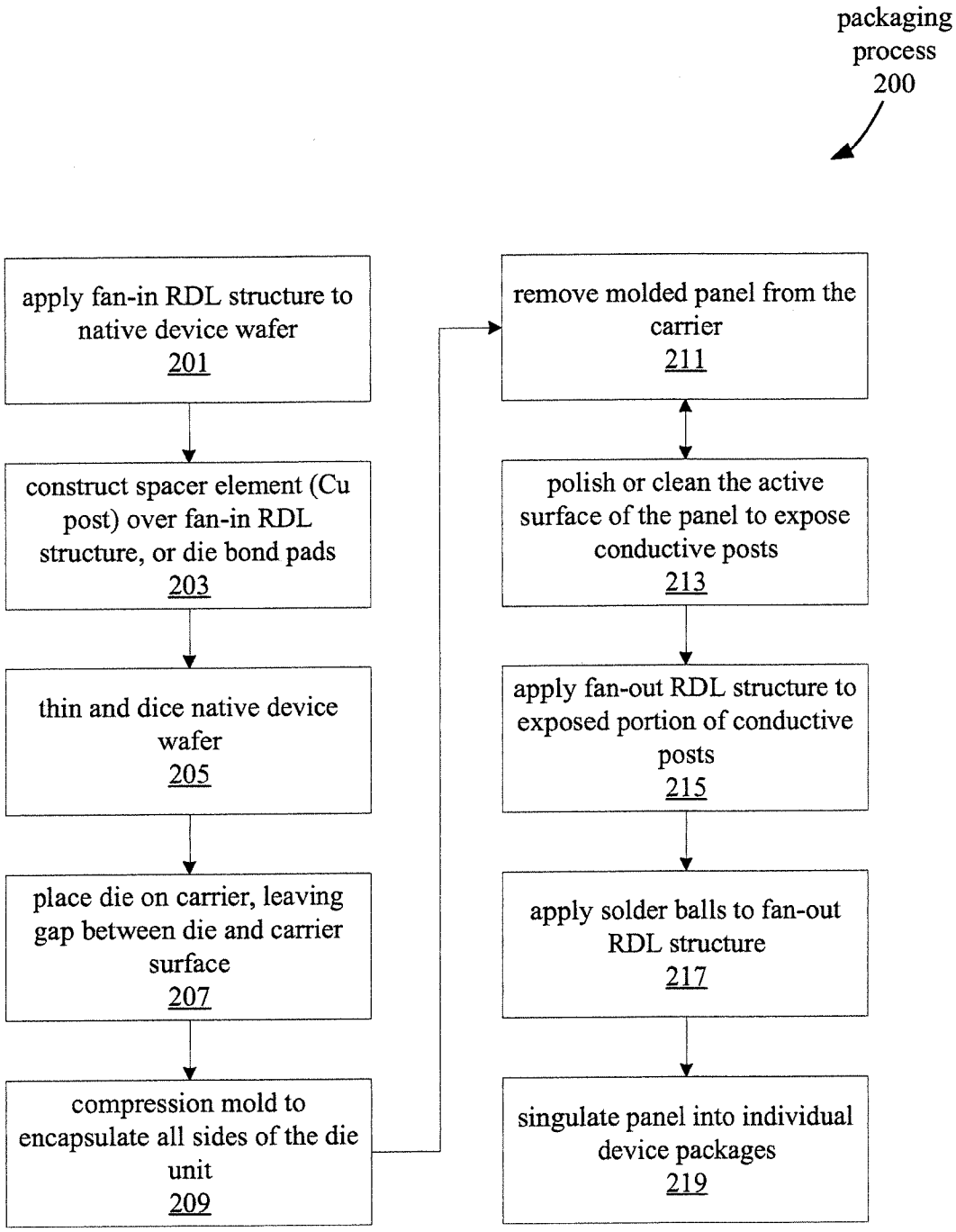

packaging process 200
apply fan-in RDL structure to native device wafer 201
construct spacer element (Cu post) over fan-in RDL structure, or die bond pads 203
thin and dice native device wafer 205
place die on carrier, leaving gap between die and carrier surface 207
compression mold to encapsulate all sides of the die unit 209
remove molded panel from the carrier 211
polish or clean the active surface of the panel to expose conductive posts 213
apply fan-out RDL structure to exposed portion of conductive posts 215
apply solder balls to fan-out RDL structure 217
singulate panel into individual device packages 219

FIGURE 2

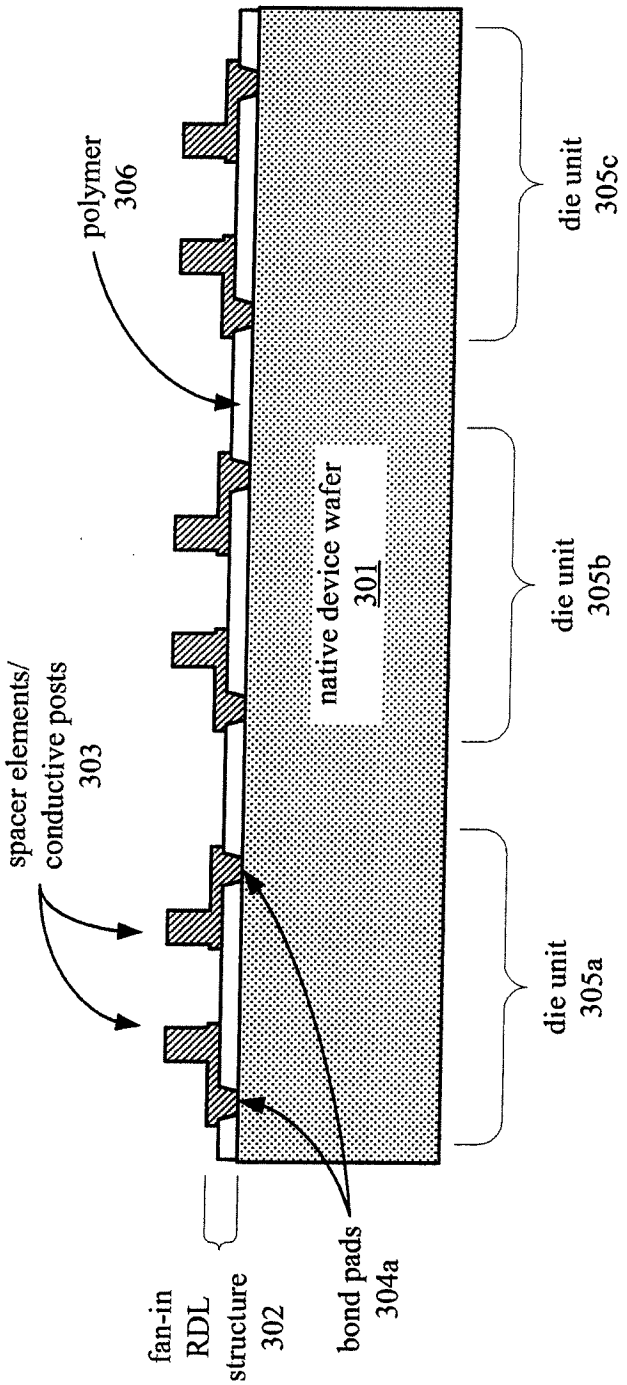

polymer
306
spacer elements/
conductive posts
303
native device wafer
301
die unit
305c
die unit
305b
die unit
305a
fan-in
RDL
structure
302
bond pads
304a

FIGURE 3

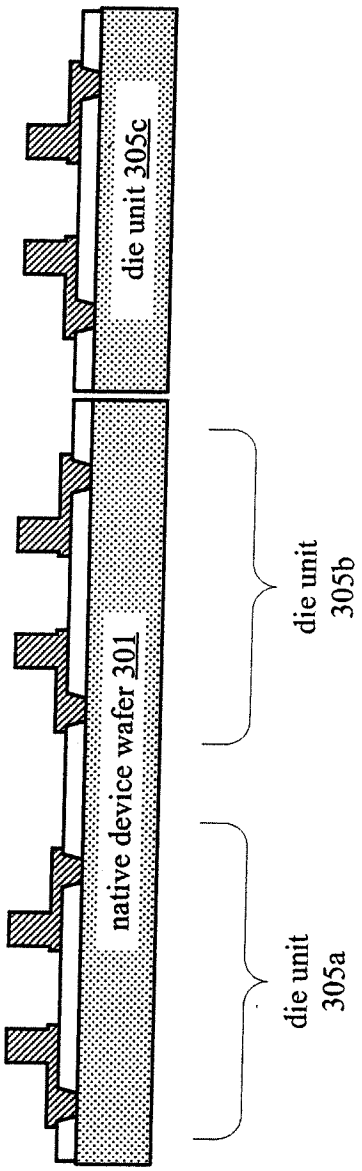

die unit 305c
native device wafer 301
die unit 305b
die unit 305a

FIGURE 4

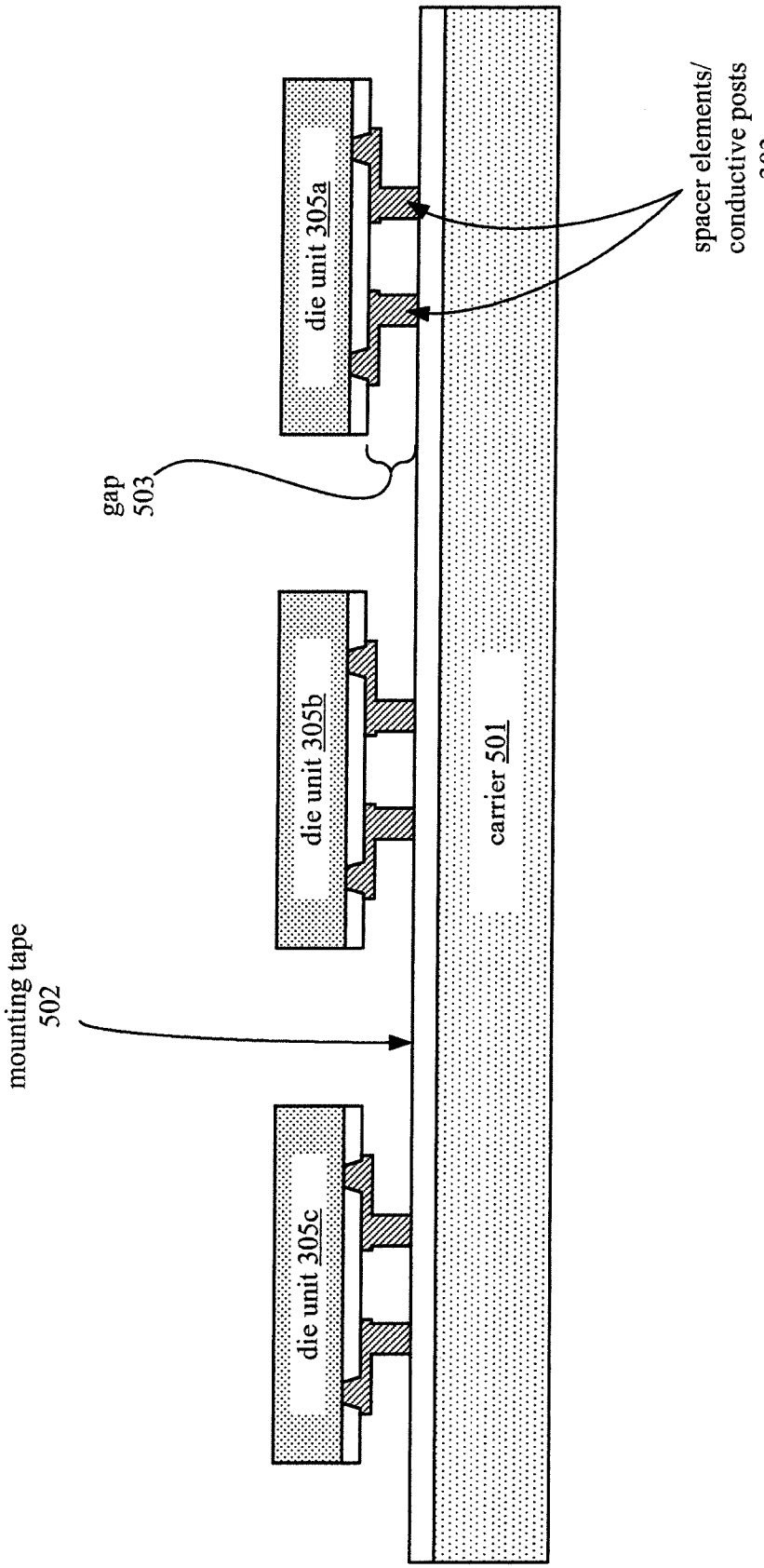

spacer elements/
conductive posts
303
die unit 305a
gap
503
die unit 305b
carrier 501
mounting tape
502
die unit 305c

FIGURE 5

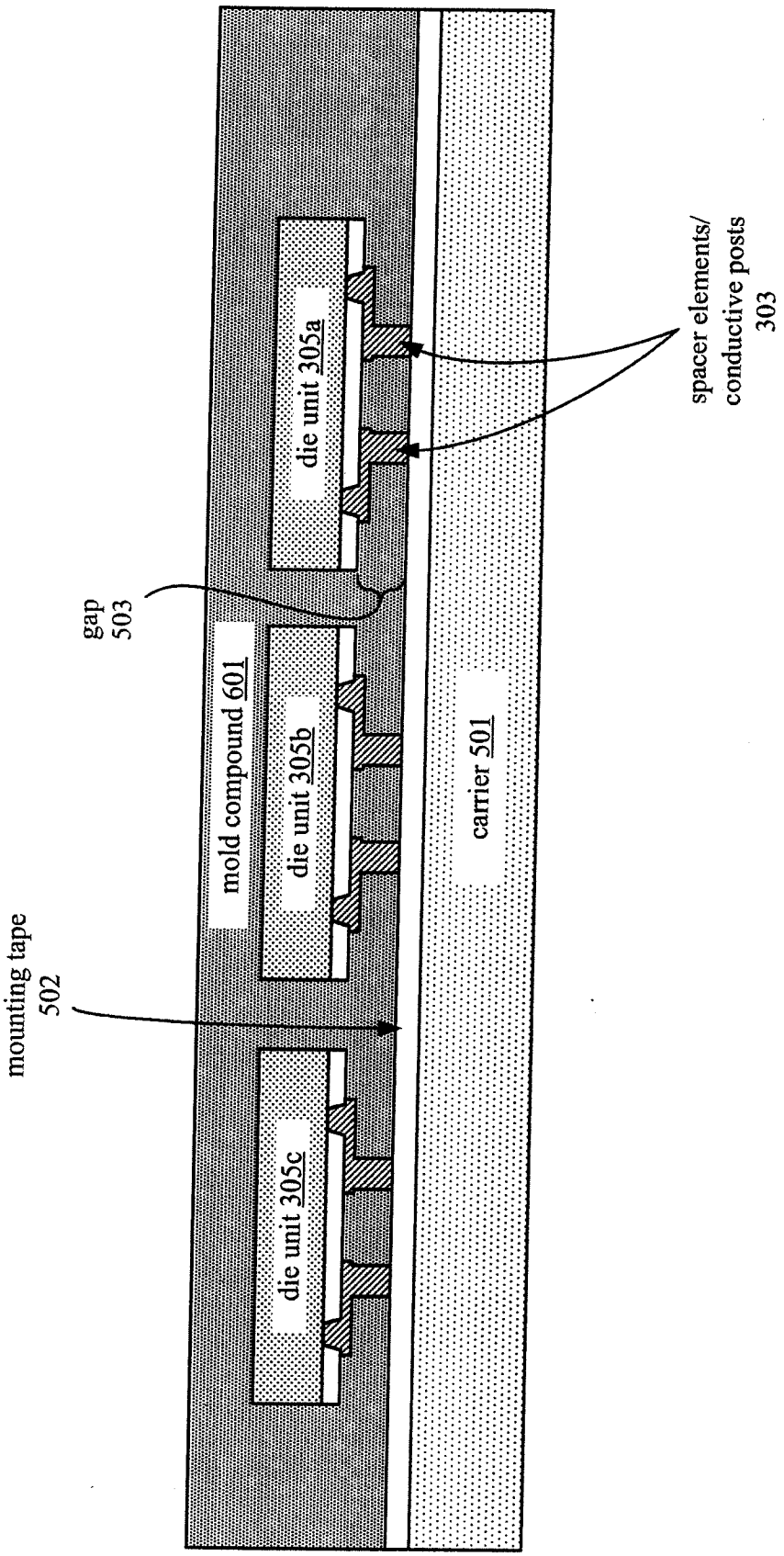

spacer elements/
conductive posts
303
gap
503
mold compound 601
die unit 305a
die unit 305b
die unit 305c
carrier 501
mounting tape
502

FIGURE 6

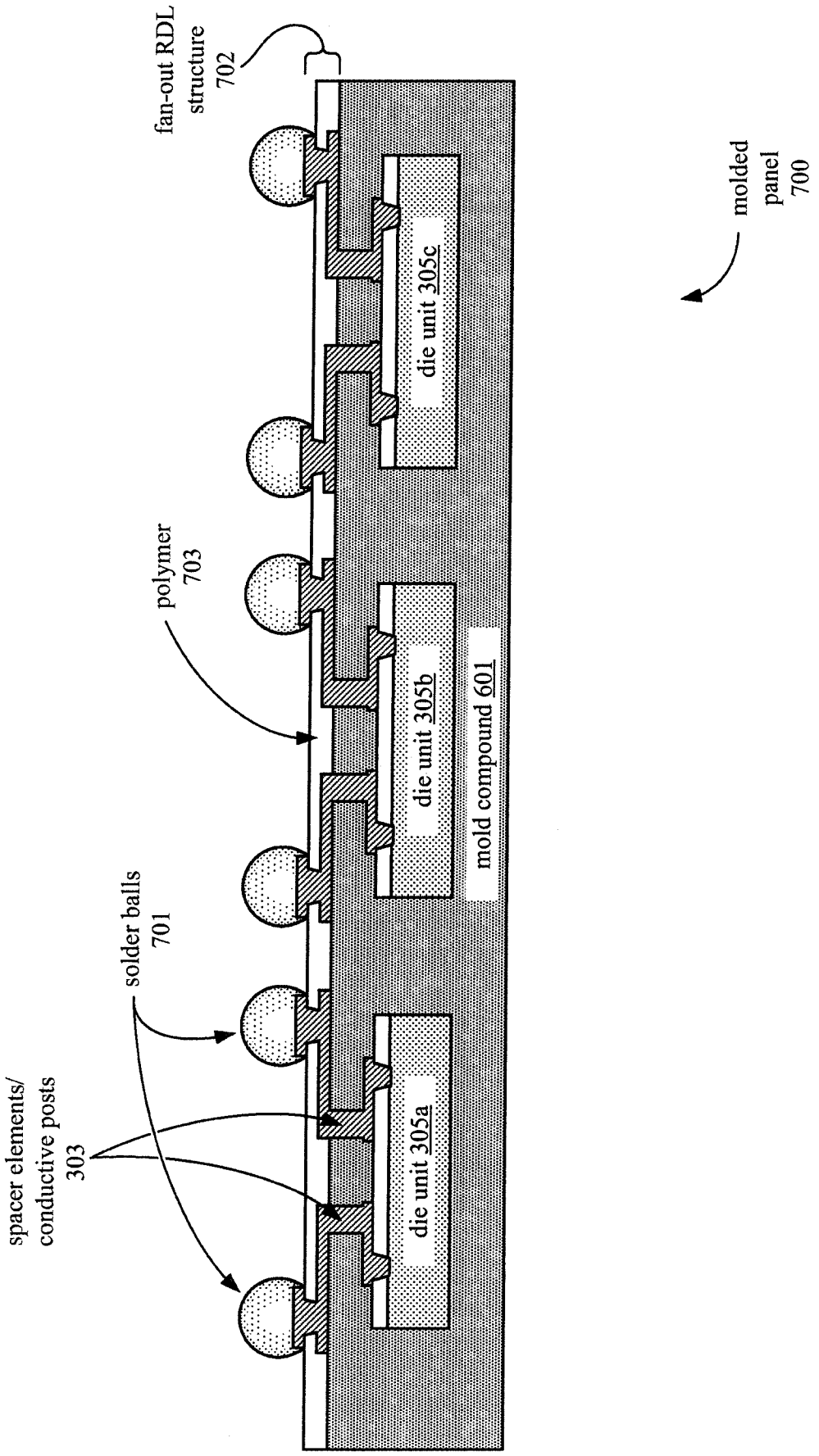

fan-out RDL structure 702
polymer 703
solder balls 701
spacer elements/ conductive posts 303
die unit 305a
die unit 305b
die unit 305c
mold compound 601
molded panel 700

FIGURE 7

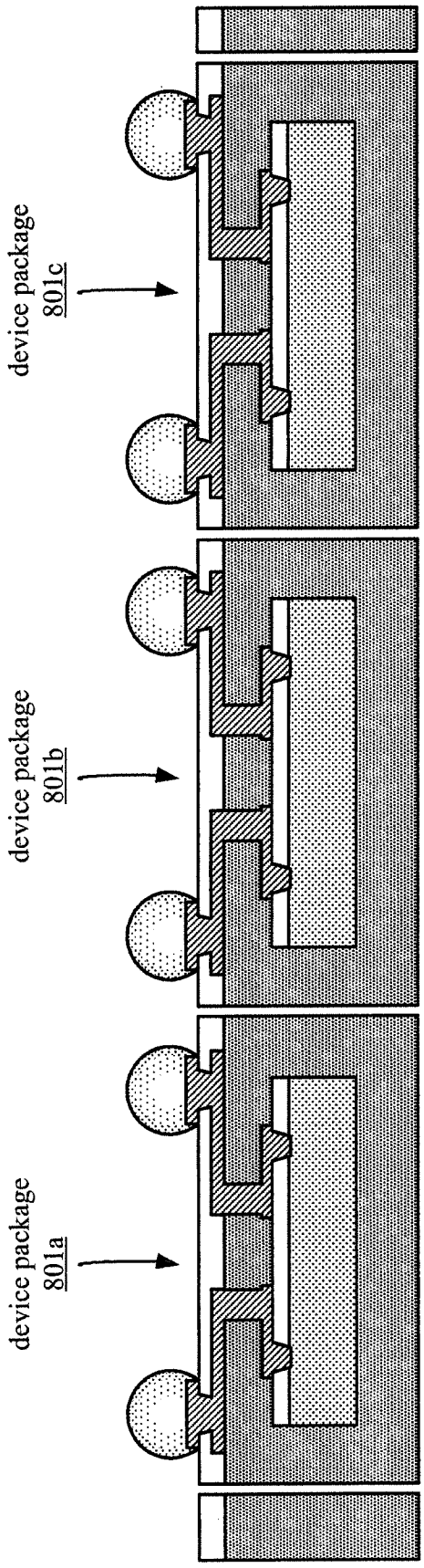

device package
801c
device package
801b
device package
801a
molded
panel
800

FIGURE 8

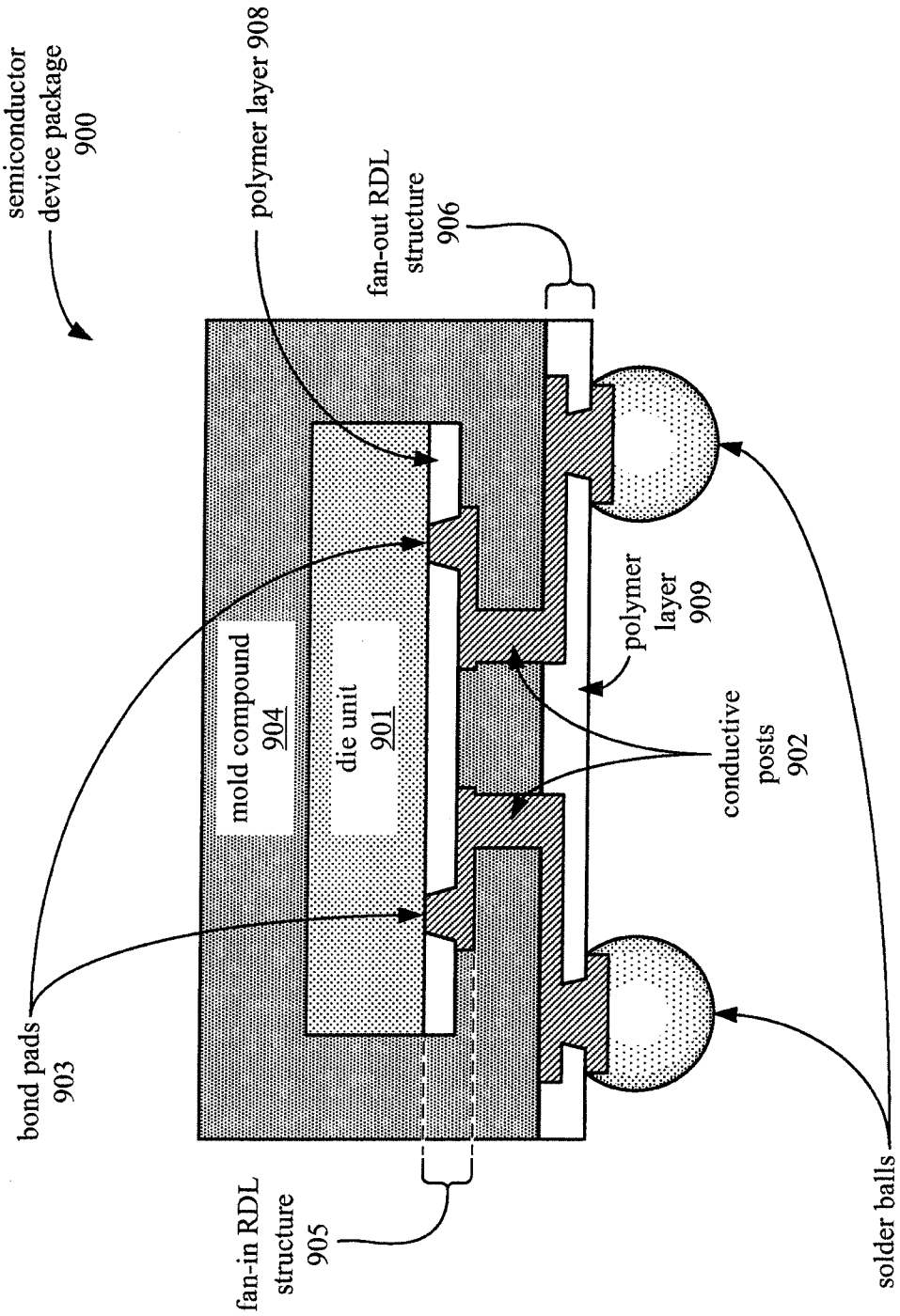

semiconductor device package 900
polymer layer 908
fan-out RDL structure 906
mold compound 904
die unit 901
polymer layer 909
conductive posts 902
bond pads 903
fan-in RDL structure 905
solder balls 907

FIGURE 9

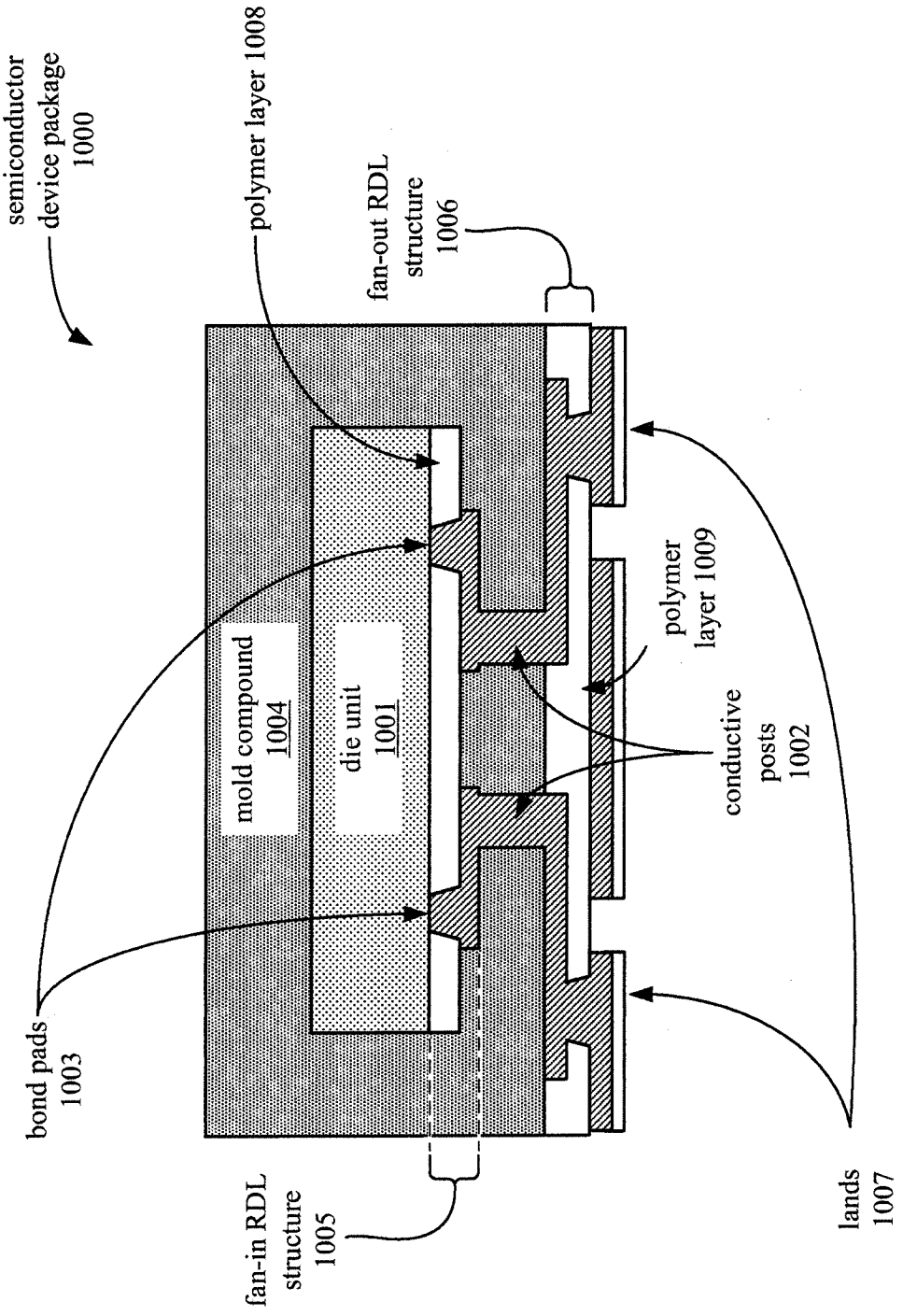

semiconductor device package 1000
polymer layer 1008
fan-out RDL structure 1006
mold compound 1004
die unit 1001
polymer layer 1009
conductive posts 1002
bond pads 1003
fan-in RDL structure 1005
lands 1007

FIGURE 10