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2005 01 20

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10-2004-0006546
2004 01 24

(73) 416

(72) 202 1202

5 523 905

(74)
:

(54)

가

5

1

(block diagram) .

가

2

3

, 4 3 IV-IV'

5

(block diagram) .

가

6

5

(block diagram) .

7 5
 8 9
 10
 11 5
 12
 13 12 XIII-XIII'
 14 (block diagram)
 * *
 100: , 102: ,
 104: , 106: UV ,
 108: , 110: ,
 120: , 122: ,
 124: , 126: ,
 128: , 130: ,
 132: (peeling unit), 134: ,
 136: , 138: ,
 150: , 152: ,
 125: (peeling bar), 30: ,
 40:

tape mounter) (In-line system) (Dicing
 (dicing)

(Ring frame)
 (Dicing blade) (dicing proce
 ss) 가 가

MCP(Multi Chip Package), DDP(Double Die Package), TSOP(very-very Thin profile Small Out-line Package) USOP(Ultra thin Small Out-line Package)

200μm 가 100μm (warpage) (hand
 ling)
 1 가
 (block diagram)
 1 (10) (top side)
 (lamination tape)가 (loading)
 (12) (top side) UV UV (16) , (14) , 가
 (20) (18) , (Ring Frame)
 가

(unloading, 22) UV , UV 가 .

2 ,

(30) 가 PE(poly Ethylene) (base film, 32) UV ,

(34) (Acrylic Polymer) (34) ,

36) , PET(PolyEthylene Terephthalate) (liner film, (3

2) (30)가 (ring frame) , (36)

(30) (die bonding) 가 100 μ m , (epoxy)

가 (substrate) (Chip paddle) (die tilt defect)

(chip paddle) ,

(pre-cut dicing tape) ,

(die bonding)

3 4 3 IV-IV' ,

3 4 , 3 A (48) (4 B) (40)

PE(Poly Ethylene) (42) (A)

(B) 42A , 42B (42) (e

xpending film, 44) (adhesive film, 46)

(44) (42A) (46) ,

(46) (48) PET(Polyethylene Terephthalate) (44)

(42B) (44B) , (B)가 ,

1 , 3 4 ,

가

가 (handling) 가 (warpage)

(wafer backside grinder) ,

가 (Dicing)

(dicing tape mounter) ,

(unloading portion) (pre-cut dicing tape) (general dicing tape)

(topside) (lamination tape)가

on) UV UV 가

(UV light irradiation porti

가 20 ~ 200 μ m

film winding reel) , (mounting table) , (liner film) (tape loader) , (liner
 (press roller portion) , (peeling unit) , (mount frame transfer portion) , (tape cutter portion)
) , (detach
 (liner film) (tape loader) , (liner film winding reel) ,
 가
 tion) , (press roller por (peeling unit) ,
 (tape cutter portion) , (unloading portion)
 가 가 가 가 가
 가 가 가 가 가 (warpage)
 가 가 가 가 가 가
 (dicing tape)가 (lamination tape) , (back grinding process) (sawing process)
 , UV UV UV UV UV UV
 가 (2) , (3 4) , (pre-cut)
 (die bonding)

5 가 (block diagram)

5 (100) (102) (loading) (102) (wafer backside grinder, 104) UV UV (106) (104) 가 (dicing tape mounter, 120) UV (106) (108) 가 (110) 가 20 ~ 200 μ m (120)

6 5 (block diagram) 6 (122) (120) (124) (mounting table) (126) (128) (122) (press roller portion, 130) (peeling unit, 132) (5 108) 128) (mount frame transfer portion, 134) (tape cutter portion, 136) (122)

7 5 7 8 9 (152) (150) (128) (150) (122) (30) (12) 2)가 (30) (peeling bar, 125) (pinch roller, 138) (36) (124) (30) (128) (30)가 (1) 30)가 (128) (36) (152) (150) (30) (30)가 (136)가 (30) (152) (150) (38) (135)가 (152) (peeling unit, 132) (winding reel)

10 (152) (150) (34) 10 (30)가 (150) (152) (sawing) (die bonding) (150)

11 5 (152) (150)가 (128) (loading) (150) (122) (40) (40, 3 4)가 (122) (122)

(40) (pinch roller, 138) (peeling bar, 125) (4 B)

130) (152) (124) (150) (4 B) (40)

(152) (130)가 (150) (132) (150) (136)가 (B)

(124) (42b) 가 (48) (40) (4 B) 가 (44b)

12 (150)가 (152) (42a) (46) (42a) (44a) (46) (die bon

12 13 XIII-XIII' (150)가 (152) (46) (epoxy) (paddle) (polyimide)

(150) ding) (42a) (46) (epoxy) (paddle) (polyimide)

가 , 가 ,

14 (block diagram)

14 (200) (202) , (204) ,

(liner film) (206) , 가

(208) , (210) (202)

(212) , (210) (214)

(216) , (218)

(200) (208) 가 가 ,

가 가

가

(handling) 가

가

가가

가

(handling)

(57)

1. ; (wafer backside grinder);
가 (Dicing)
(dicing tape mounter);
가 (unloading portion)
,
, (pre-cut dicing tape)
(general dicing tape)
2. (topside)
(lamination tape)가
3. UV 가 UV
(UV light irradiation portion)
4. 가 20 ~ 200 μ m
5. (tape loader);
(liner film winding reel);
(liner film)
(mounting table) ;
(press roller portion);
(peeling unit);
(mount frame transfer portion);
(tape cutter portion)
- 6.
- 7.
- 8.
- 9.

5 ,

10.

1 ,

(detach)

11.

(liner film winding reel);

(liner film)

(tape loader);

; 가

(press roller portion);

(peeling unit);

(tape cutter portion);

(unload

ing portion)

12.

11 ,

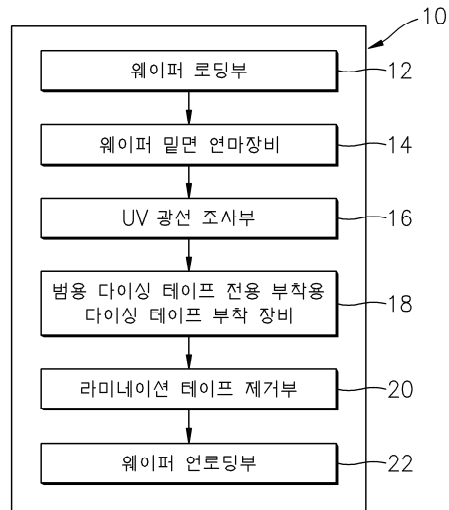
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11 ,

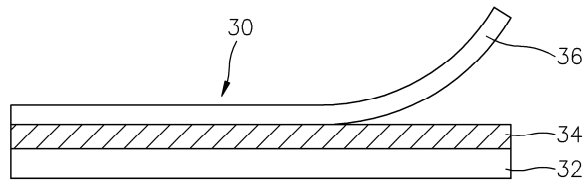
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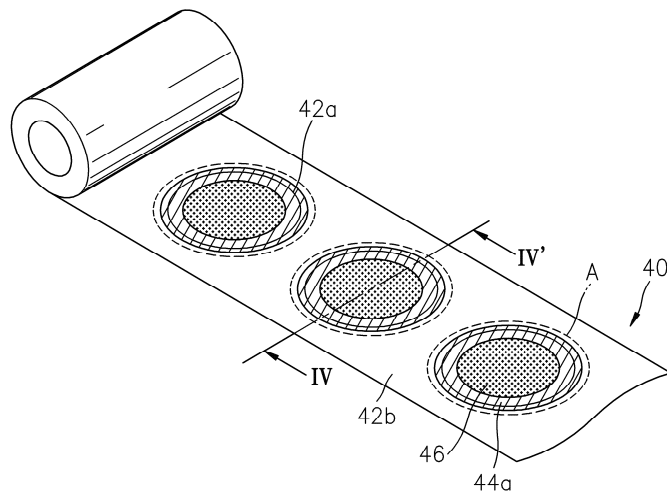
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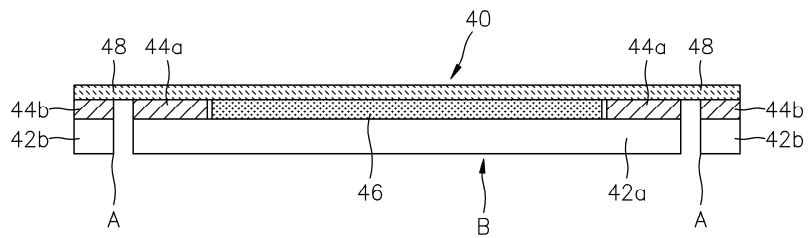
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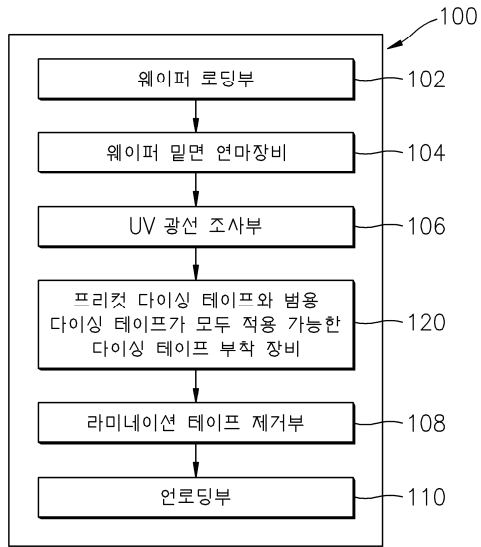
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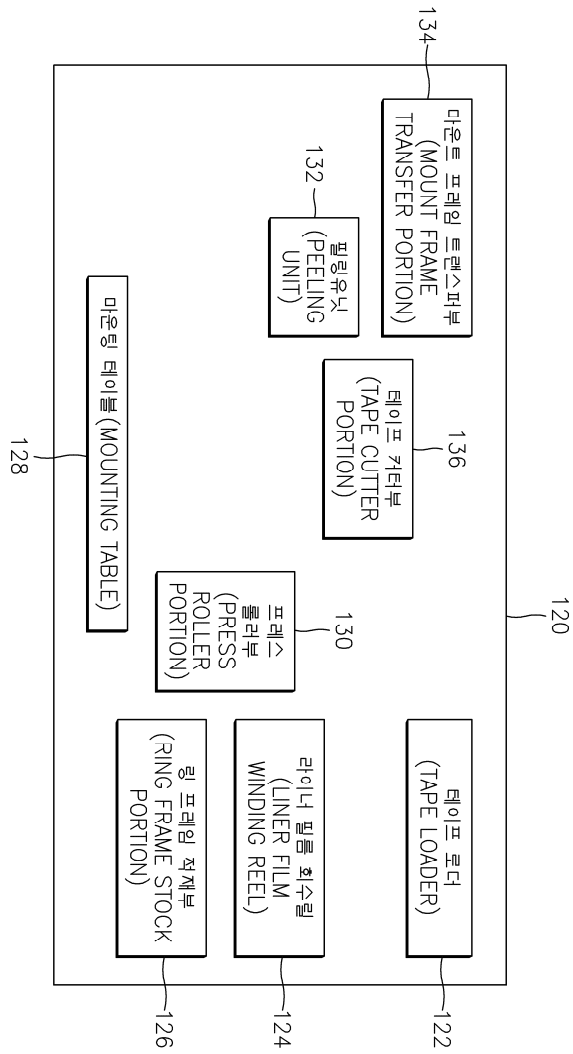
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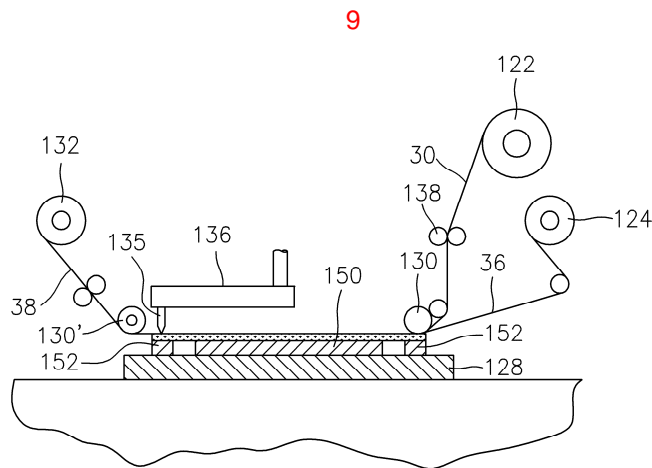
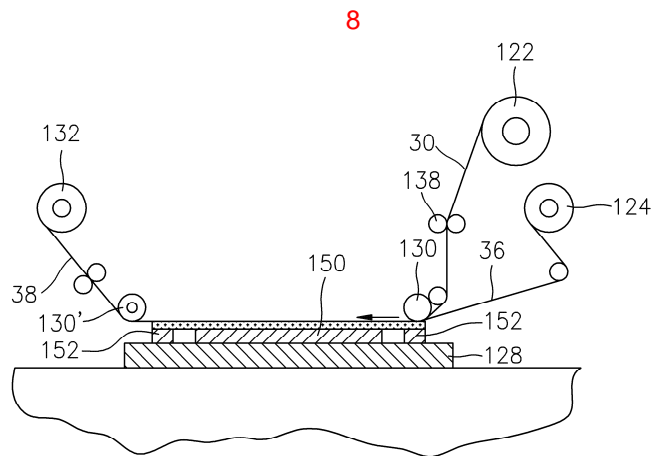
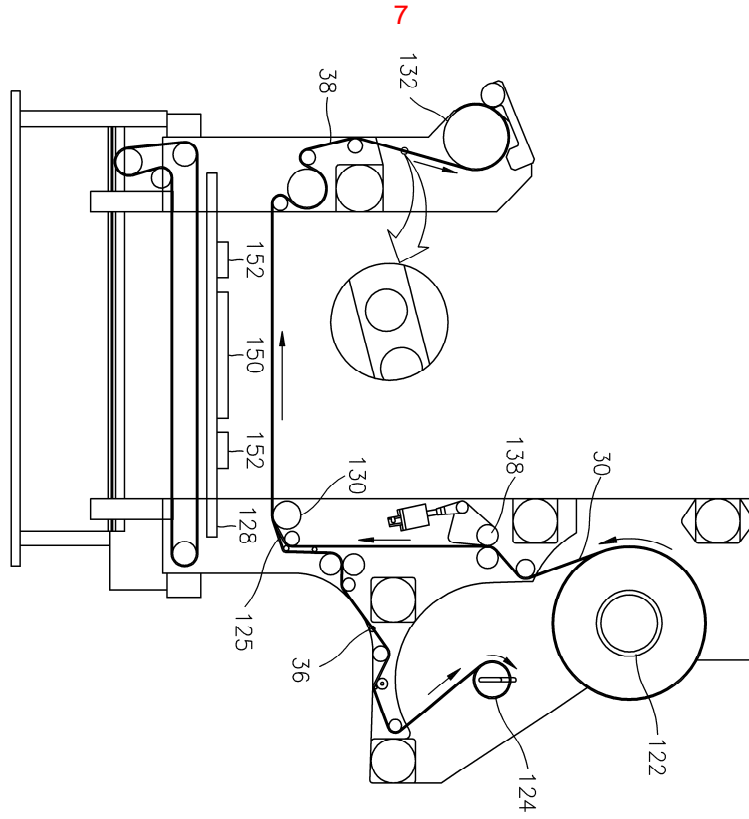


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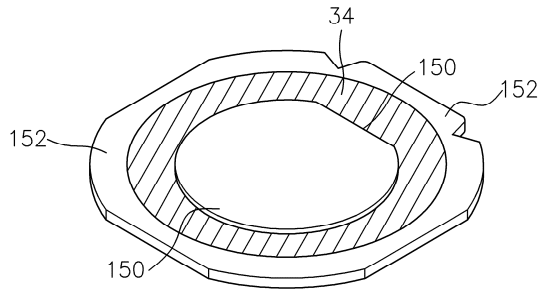


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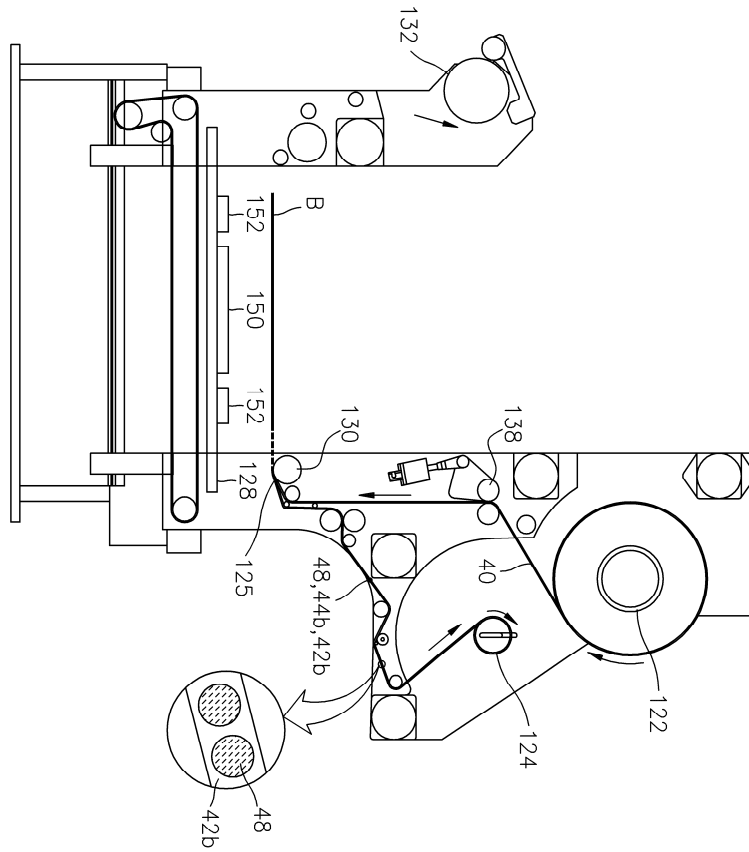




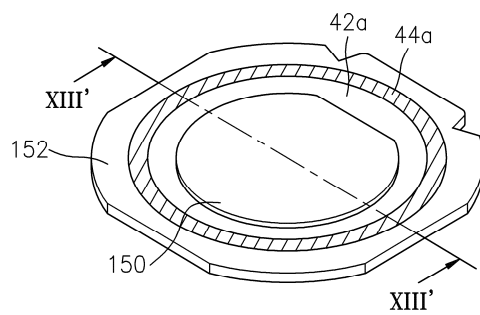
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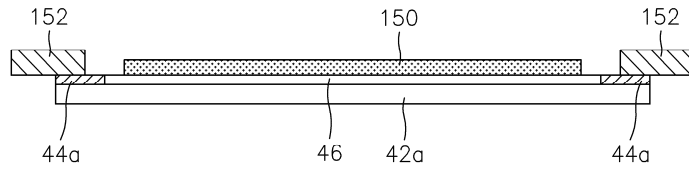
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12



13



14

