

(19)
(12)

(KR)
(A)

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G02F 1/1333

(11)
(43)

10-2004-0017139
2004 02 26

(21)

10-2002-0049273

(22)

2002 08 20

(71)

416

(72)

14-93

155-801

23

101-703

1 101-1004

3 616-126/3

2

302-604

(74)

:

(54)

가
 , 1 , 1 , 1 , 1
 , 2 , 2 , 1
 , 가 , 1
 .

2

, , LCD, , , ,

1		.
2		.
3a		, 3b
3a	A	.
4a		, 4b
5a	5e	.
6a	6c	5d
<		>
100 :		210 :
230 :	250 :	
260 : 1	320 :	
340 : 2		

(Liquid Crystal Display)

(Electric Field) 가 ,

1 .

1 , (10) , (

20) (30) .

, .

가 (20) ()가 (21) , (21) (25)

()가 (23) ,

, (20) () (20) 2

1 (26) (21) 가 ,

(27) (23) 가 .

(30) (20) 2 (27) 1 (31) , 1 (31) 1 2

2 (34) , 1 2 (31, 34) 1 2

(32, 35) .

1 (32) 1 2 (32, 35) (33)가

.

(30) 1 (31) (30)

, 2 (34) (poly carbonate)

.

(10) 2 (27) (30) 1 (31) ,

(20) (23) , (20) (23) (30) 1 (31)

(20) (23) (30)

가 , 가 .

,

가 ,

,

1 ; 1 ;

1 ; 1

, 1 2 ;

2 .

,

(a) 1 ; (b) 1 ,

; (c) 1 2 ,

3 1 ;

(d) (b) 2 , (d) 1

2 .

1

가

2

2

(200) (200) (300) (100)
()

(250) (210) (200) 가 (210) (210)
()가 (230) (210) (230)

(220) (210) (250) 가 (250)
(240) R,G,B (230) (220) (240)
(Indium Tin Oxide; ITO) (Indium Zinc Oxide; IZO)

1 (260) (200) ()

(300) (200) (230) 1 (310) 1 (210)
(320) , 1 (310) (330)

(360) (330) (350) 2 (350) 1 (310) (350) 2 (340) 2
(350) (360)

(360) (330) (330) 2 (360) 가 (370) (20
(370) 0) (230) 1 (310) 1 (310) 2 (360)

3a 3a A , 3b

3a 3b (330) (100)
가

(310) 2 (100) 가 가 1
(360) (330) (360) 2 (360) 1 (310)
(310) 2 (360)
가

, 1 (310) (330) 2 (360) 1 (310) (310)
 , 가 (320) 2 (360) 1 (310)
 , 가 (200) (330) (320)
 , (200) ((330)) (320) (320) 가
 , (320) 1 (310) 2 (360) 가 (H)
 , 2 10 μ m (H) 1 (310) 2 (350) (H)
 , (320) 1 (310) (3)
 20) 10 80 μ m , 1 (310)
 (320) 10 μ m , 80 μ m 가 ,
 4a , 4b
 n a) 4a , 1 (L1) (B) θ 가 ((B) 1 (L1) 가 θ 가 2 (L2) (B) 3 (L3) (B)
 (B) 3 (L3) C 가 4 (L4) (B) (n_b)
 C 5 (L5) , C (n_c) (B) (n_b)
 (B) C 4 (L4) 6 (L6)
 4a
 (B) (B) C , 180
 , 4a 2 (L2) 가 , 4 (L4) 180
 6 (L6)
 1 (L1) 가 2 (L2) 가 6 (L6) 가 가
 가 가 (B) d 1

$$2nd = m\lambda \quad (m = 0, 1, 2, \dots)$$

, n (B) (n_b) , λ
 1 (B) (B) / C
 가 550nm d , 550nm
 50nm

4b (390) , 2 (300) 2 (340) (380)

3a 가

2 (340) (380) 2 (340) (380)

5a 5e

5a (210) , 가 ()가 (210) (220)

ITO IZO

(210) (220) 1 (260)

5a (260) , 1 (260) (220) (210) , 1 (260) 1

가 5b (230) (240) (230) (240) (220) 가

ITO IZO

5c (230) 5a (250) (210) , 5b (200)

5d (230) (240) 5c (200) ITO IZO (200) 1 (310) , 1 (310) 가 (320) 1 (310) (320) (rand

5e (330)

(350) (350) 2 (340) (350)

(poly carbonate)

2 (350) 2 (340) ITO IZO

(360)

(330) 5d (200)

(360) 가 () (310) 2 5d (360)

(310) 2 (360)

2 (100)

6a 6c 5d

6a (230) , 1 (310) (400) 1 (310)

$$\begin{array}{ccccccc} 6b & & & (510) & & & (520) \\ (500) & , & & (230) & . & (500) & , & (500) & UV \end{array}$$

1	(310)	(400)	(negative)	(photoresist)	, UV
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, UV

6c

(320)

(320) (baking) . 가 , 가
(320) .

1

가

1

가

(57)

1.

1 ;

1 2 ;

1 2

2.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 84

3.

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4.

3 ,

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5.

(a) 1 ;

(b) 1 ;

(c) 1 2 , 3 2 , ;

(d) (b) 2 (c) 1

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6.

5 , (b) ,

(b-1) 1 ;

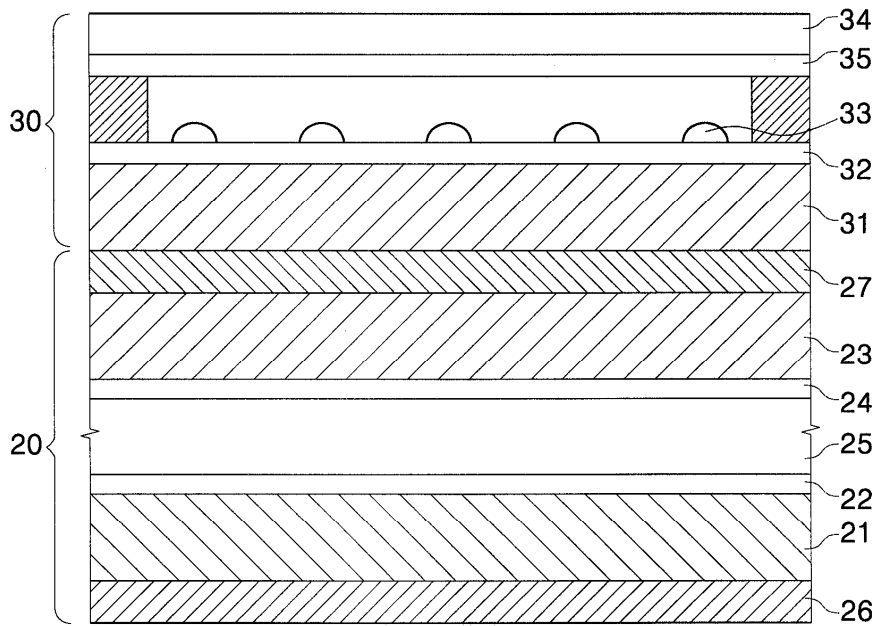
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(b-3) ;

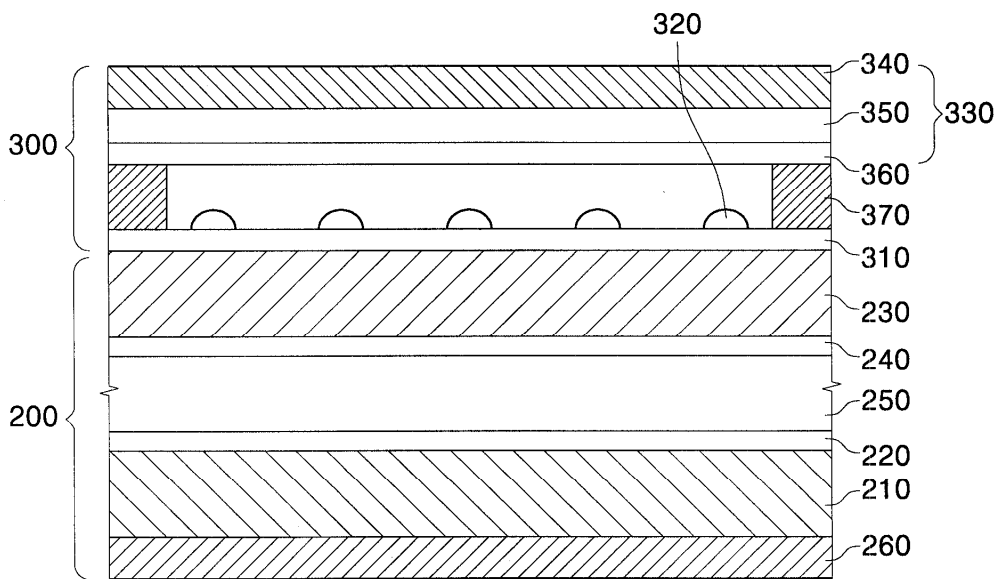
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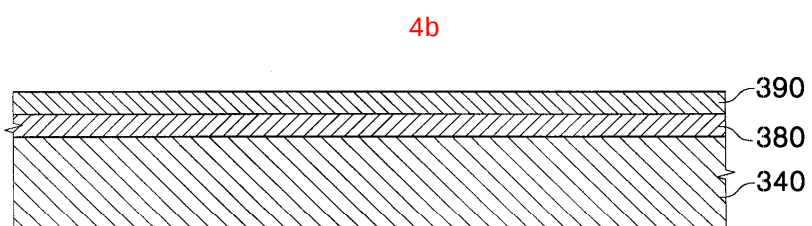
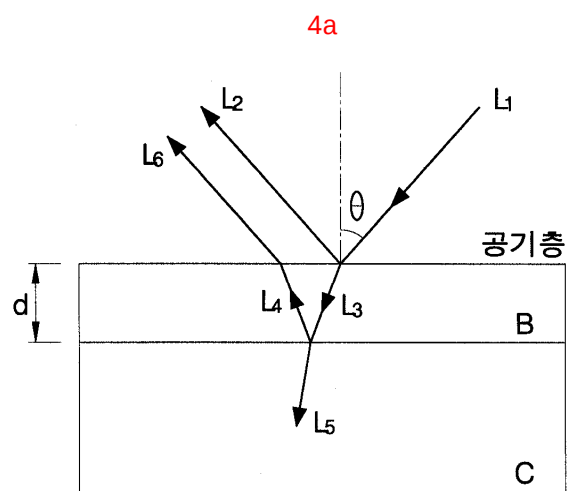
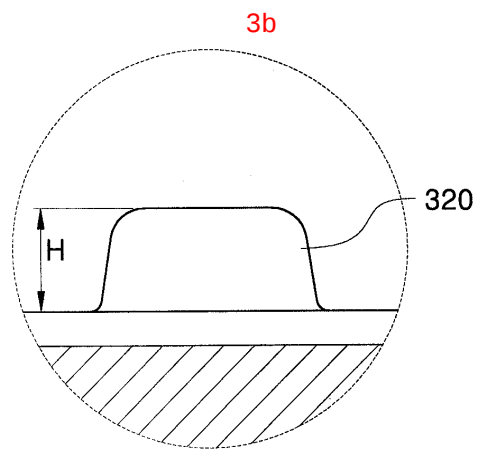
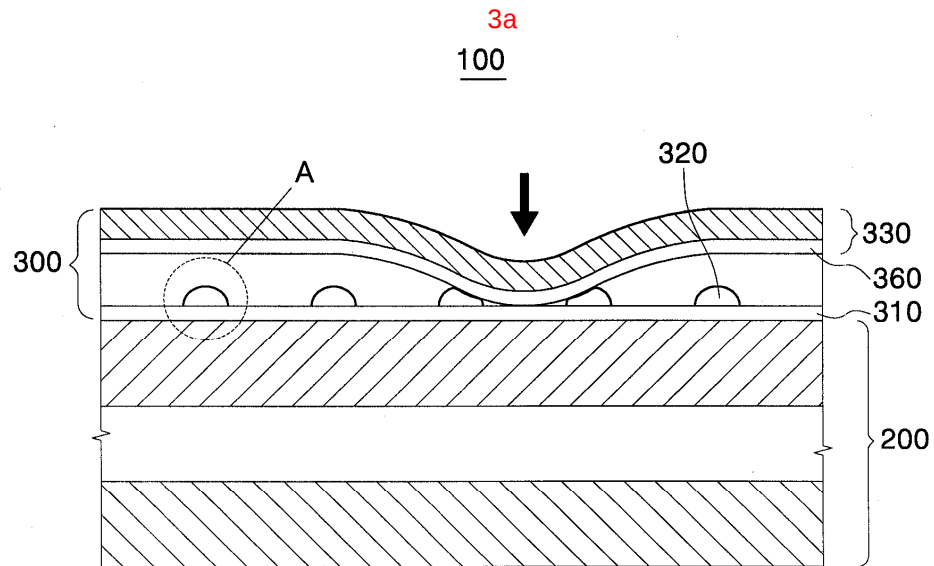
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1
10

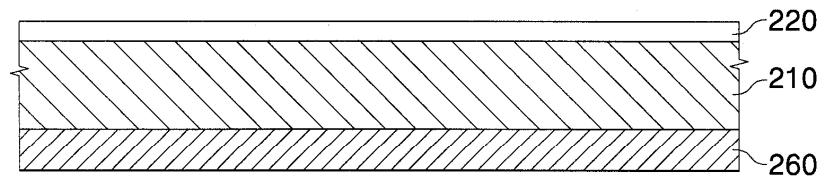


2
100

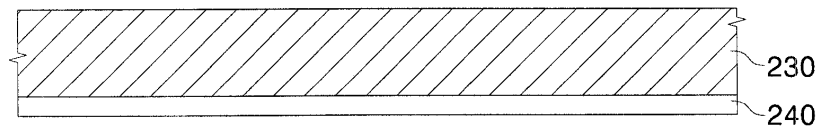




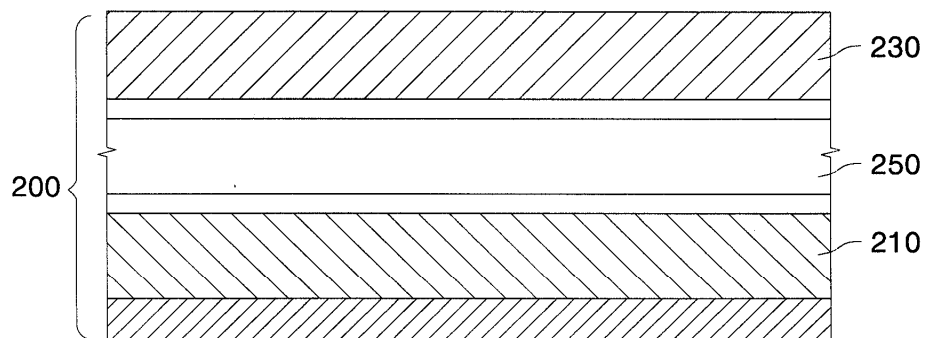
5a



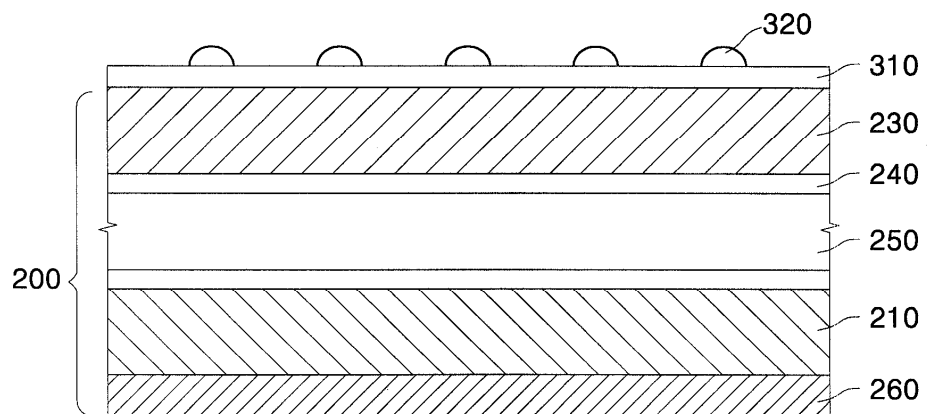
5b



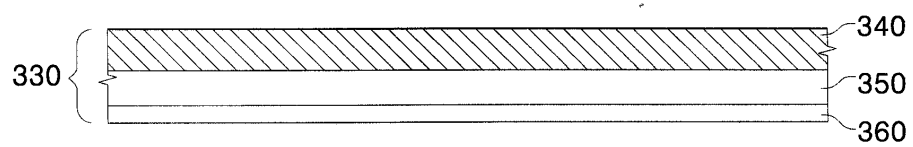
5c



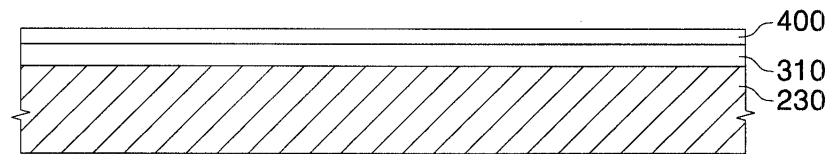
5d



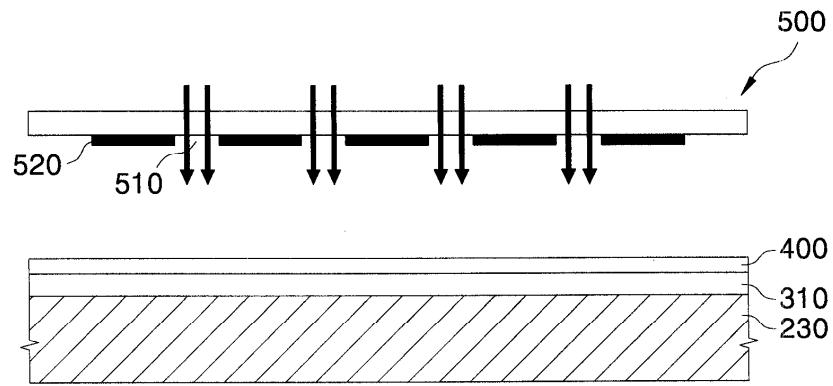
5e



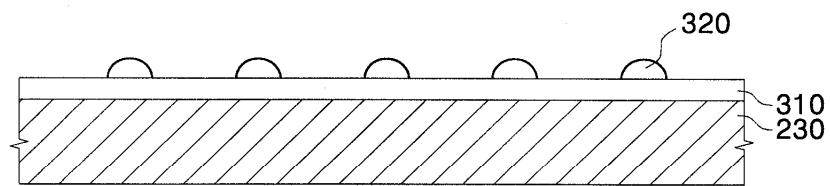
6a



6b



6c



专利名称(译)	触摸面板集成型图像显示装置及其制造方法		
公开(公告)号	KR1020040017139A	公开(公告)日	2004-02-26
申请号	KR1020020049273	申请日	2002-08-20
[标]申请(专利权)人(译)	三星电子株式会社		
申请(专利权)人(译)	三星电子有限公司		
当前申请(专利权)人(译)	三星电子有限公司		
[标]发明人	CHO JONGWHAN 조종환 UH KEEHAN 어기한 PARK SANGWOO 박상우 PARK SANGJIN 박상진 LIM JAEIK 임재익 CHOI BANGSIL 최방실		
发明人	조종환 어기한 박상우 박상진 임재익 최방실		
IPC分类号	G02F1/1333		
CPC分类号	G02F1/13338 G02F1/1339 G02F1/1343 G03F1/46 G06F3/041		
代理人(译)	PARK , YOUNG WOO		
外部链接	Espacenet		

摘要(译)

本发明公开了一种组合触摸面板和图像显示装置的触摸面板的图像显示装置及其制造方法。组合图像显示装置的触摸面板包括图像显示装置，提供预定图像和第一透明电极，第一透明电极一体形成在图像显示装置的上部，形成在第一透明电极和第一透明电极上的点间隔物电极间隙是间隔的，第一透明电极面对的光学膜间隙是预定的间隔，而偏光板则配置在第二透明电极的第二透明电极形成于其上的一侧的相对侧。它面对的光学薄膜，形成光学薄膜。因此，触摸面板的第一透明电极包括在图像显示装置的上板上，并且可以减小产品的整体厚度并且可以降低成本。触摸，图像，LCD，液晶，偏振片，点，间隔物。

