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(21) 10 - 2000 - 0053683 (65) 2001 - 0030357
 (22) 2000 09 09 (43) 2001 04 16

(30) 1999 - 266833 1999 09 21 (JP)

(73) 가 가
가 4 6

(72) 13

562 - 1

3 - 17 - 2 - 102

가 4 - 39 - 11

13

(74)

(54)

가

1

, , , , ,

1

2 1 2 - 2

3 1 3 - 3

4 1 4 - 4

5

6

7

8

9

10 가 .

11

12 ,

13 , 14 가 .

14 , 13 가 .

15

16 15 16 - 16

17 15 17 - 17

18 15 18 - 18

19 20 가 .

20 , 19 가 .

21
22 21 22 - 22
23
24 23 24 - 24
25 23 25 - 25
26 23 26 - 26
27
28 27 28 - 28
29 27 29 - 29
30 27 30 - 30
31
32 31 32 - 32
33 31 33 - 33
34 31 34 - 34
35 가 -
36
37
38 37 38 - 38

<

GL :

GI :

DL :

CL :

PX :

CT :

AS :

TFT :

PSV :

GTM :

DTM

CTM :

ITO:

()

가 가

角), 가 , (廣視野

(1)

(2)

가

가

SID 99 DIGEST: P202 P205

가

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가

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가

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{ 1 }

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1 () ,
2 , 3 - 3

3 , 4 - 4 4

, 1 2 - 2

, 1 가 (, X) , GL (, y) DL GL
 (Cr)

, ITO (Indium - tin - Oxide)

CT (trimming) CT CL
 , 1 (GL)
 CL
 CL

CL (Cr) CT
 DL CL
 GL CT ()

, CL GL ,

, CT, CL, GL SUB1
 SiN GI가

GI DL CL GL
 , TFT
 Cstg 가

GI GL (1) TFT 가 ,
 a - Si AS

AS SD1 SD2 가 , GL SD1 SD2
 MIS DL , , ,
 DL

, 1 y AS x DL , , DL 가
 AS TFT SD2

, DL SD1 , SD1 , , 3
 PX AS SD1 SD2 , n
 d0 .

2 d0 AS n , SD1 SD1
 , AS n

, AS TFT , , DL
 GL, CL

, TFT가 , SiN , SUB1 , TFT
 , PSV , PSV가 , . TFT
 , PX , PX , , 3 , , 1 , y
 X
 , PSV , TFT , , CL , TFT
 SD1 , , , Cstg가
 가 , Cstg , TFT , DL , 가 , 가 , PX
 , PX , y , FCT , ()가 , 가 , FCT가 ,
 FCT , ITO , , CT
 , 2 , FCT , FCT , CT , PX , SUB1
 PX , FCT , 가 , , ,
 , PX , CT , , , PX , FCT
 ,
 FCT , CT , , ,
 , FCT , CT , Ct가 , PX , Cstg , FCT
 , , FCT , FCT , PX
 , PX , ORI1 , FCT가 , ORI1 , PX
 FCT ,
 TFT , , TFT

2 , LC , , BM
 , BM , , 가
 OC , ORI2가 , OC가 ,
 <
 5 . SUB2 SUB1 AR
 SUB1 , , , 5 , ,
 , , , GL SUB2 Tg,
 L Td가 , D
 , SUB2 SUB1 SUB2 SL
 , SL SUB1, SUB2 LC SL
 .
 6 SUB1, SUB2 LC가 SL
 , SL (5) INJ가 , INJ
 <
 7 , 7(b) 7(a) B - B GTM , 7(a)
 , SUB1 ITO ITO1 GTM
 GT CT ,
 GTM ITO ITO1 ,
 , GTM GL GL
 , PSV GTM GL GI GTM GI PSV가 ,
 , GI PSV AR ,
 <
 8 8(b) 8(a) DL DTM , 8(a)
 , , SUB1 DTM ITO IT01
 , ITO IT01 CT ,
 .

, DTM GI DL GI
 , ITO SiN GI ITO DL
 가 .
 , 8 DTM Cr g
 1 , , g1 GI PSV PSV PX ITO ITO2
 , , DL g1
 , ITO g1 Cr A1 Al g1 Tj/AI/Ti
 3 ,
 <
 9 CTM 9(CTM ,
 a) 9(b) 9(a) OB - B ITO ITO1 CL
 , SUB1 CTM ,
 , ITO ITO1 CT
 , CTM CL CL
 , PSV AR GI GI CTM PSV 가
 < 가
 10 가
 10 가 GL V
 () 가
 가 GL TFT
 , H DL 가
 , CT CL
 ,
 가 ()

R, G, B

가

<

11 GL , VD , , , VG , VC CT

VC

()

<

12 5

12 , PNL V, , PCB2가

V
GTM

IC

, 가 ,
DGTM ,

IC

PCB2
FC FC V

H

H

SUB1
COG (Chjp On Glass)

<

13 14 TFT

(A) (F) , 13 14 , 13 14

(A)

SUB1 , ITO , ITO
DTM , CT ,

(B)

SUB1 Cr , Cr
GL , CL , g1

(C)

SUB1	CVD	SiN	GI	.
, GI	CVD	a - Si , n	a - Si	.
,	a - Si	,	TFT	
AS	.	.		

(D)

SUB1	,	Cr	,	SD1	S
Cr	,	DL,	TFT	.	.
D2	,	DL	.	.	.

(E)

SUB1	,	CVD	SiN	PSV	.
,	PSV	,	TFT		
SD2	g1		PSV		
GI					

(F)

SUB1	ITO	,	ITO	ITO2	,	TFT	.
SD2	PX,	FCT	,
DL	g1						.

[2]

<

15	16	15	16 - 16	.	.	.		
17	15	17 - 17	,	18	15	18 - 18	,	.
1	(1, 2, 3, 4)	,	,				.	.

1	,	CT가	GI	,	DL	.
---	---	-----	----	---	----	---

CT	GL
----	----

,	CT	DL	FGT	GL	.	
,	CT		.	.	.	
DL	FGT	1	CL	,	,	.
	CT					.

, DL CT
 , FGT , CT , CT
 DL , GL)
 , CT GL
 , DL CT DL
 CT GL GL
 , C CL
 가 , 1 DL CT
 , GL DL CT
 , CT DL , 1
 , PX FCT , GL , GI
 GL , GL 가
 (,),
 <
 19 20 , 13
 14
 1 CT 가 GI , CT PSV
 PX 가
 [3]
 21 22 22 , 15
 21 , 15 , 15
 DL DL CL

CT CL , CT CT () 가 .

CL DL CL CT ITO DL

, CL 2 DL

, CL 21 y PX

PX 가 CL CT ,

, DL ITO ITO1 , DL
ITO ITO1

ITO ITO1 CT ,

[4]

23 , 24 23 24 - 24
25 23 25 - 25 , 26 23 26 - 26

23 1 ,

23 , 1 GI PX FCT 가 GI CT
GI FCT PVS(O
RI1)

, LC PVS , LC

, 25 PSV TFT SD1 PX
,

[5]

27 , 28 - 28 , 29 - 29
, 30 - 30 , 28, 29, 30

27 1 ,

27 , 1 , PX , CT

, 28 GI | PSV1 , 1 PSV1
 ITO PX가 .
 PX TFT , 1 PSV1
 CT , PX 2 PSV2가 , 2 PSV2
 CT , FTC가 .
 CT , PX 27 y CT x
 CT , CT (ITO) , PX
 C , CT (ITO) CT FT
 CL , , , ,
 DL , CT FTC GL
 CT FTC
 가
 (FTC) SUB1 () CT 가
 , 28 SUB2 가 ,
 , , , , 가 가 ,
 , GL DL 1 PSV1 2 PSV2 2 PSV2
 가 ,
 [6]
 31 , 32 - 32 32
 31 5 , 27 30

5 , PX GI , CT PX
 1 PSV1 , PX CT 1 PSV
 , 2 PSV2 2 PSV2가 , 2 PSV2 ,
 , 2 PSV2 , CT
 5 가 , PX
 , FTC CT , CT가
 1 2 PSV2 GL DL , 1 PSV
 CT 1 PSV1 LC
 { }
 35 1, 2, 4, 5, 6 가
 , 15 XGA , GL 10 μm,
 DL 8 μm , TN TFT - LCD IPS TFT - LCD
 , | 60%, 2 70%, 4
 50%, 5 6 80%가
 , 5 6
 , 6 , 5 2 PSV2
 { 7 }
 36 , () ,
 ,
 36 1 , (P ,
 PX , , 5 40가) , (- 2)

, FTC PX ,

X , CT , CT P
 , FTC가 , ,

, , PX CT , PX
 CT , , ,

, , PX ,

, , PX 36 y , 36 x
 ,

, , PX , 28
 CT ,

[8]

37 , , 38 - 38 38

1 , , 1 2

1 , , FCT가 CL PX

, 38 , FCT CL GL
 UI ,

ITO , FCT 37 , UI
 CL ,

, , UI , FCT CL
 ,

, , 1 , CT

, 38 , TFT , CL
 FCT Ct FCT PX Cstg

, , PX CT , DL GL
 ,

, 가 ,

, PX CT () 가

,
PX

, DL GL

(57)

1.

1

2

가

2.

3.

1

4.

가

가

5.

6.

4

7.

1

1

2

1

1

2

3

2

1

1

3

가

8.

7

1

3

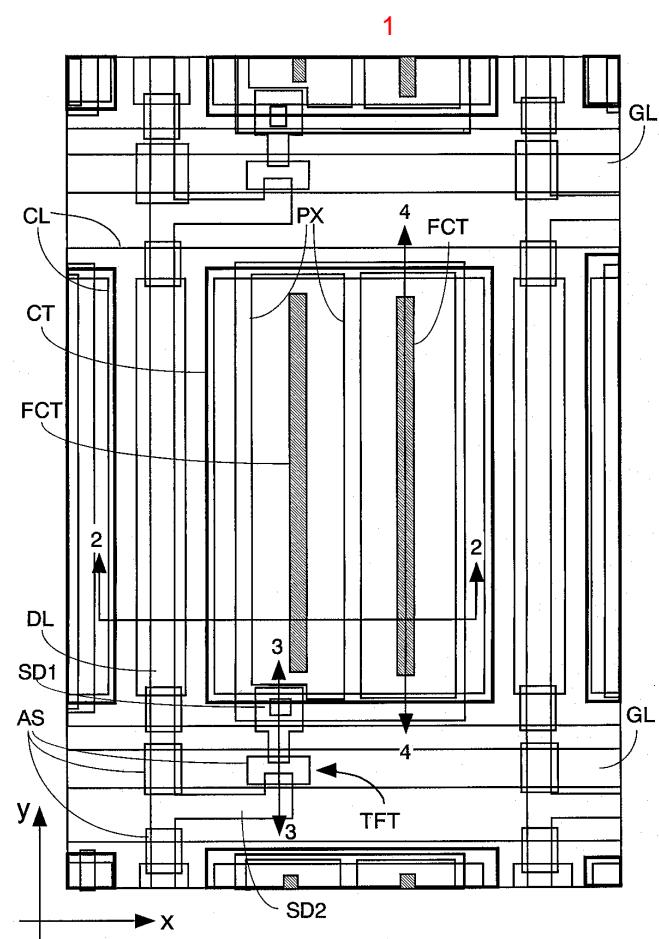
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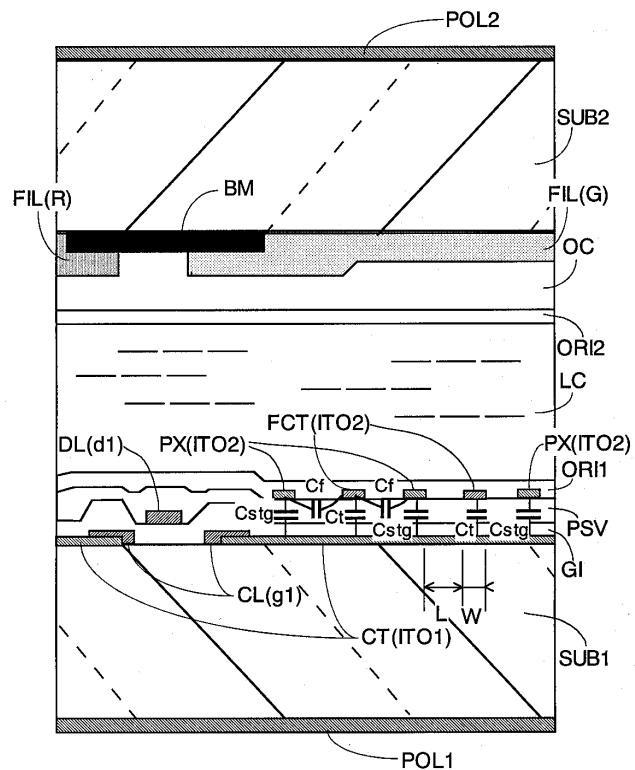
가

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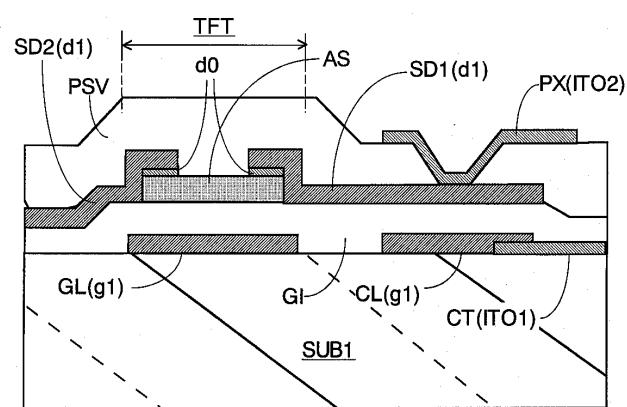
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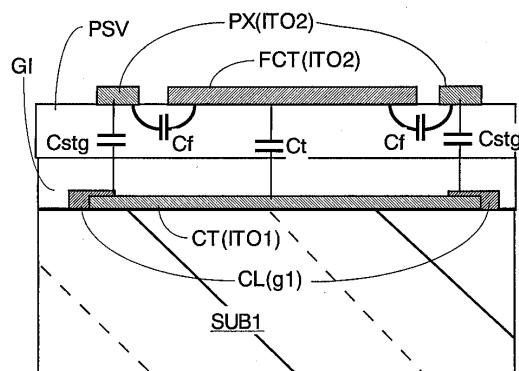
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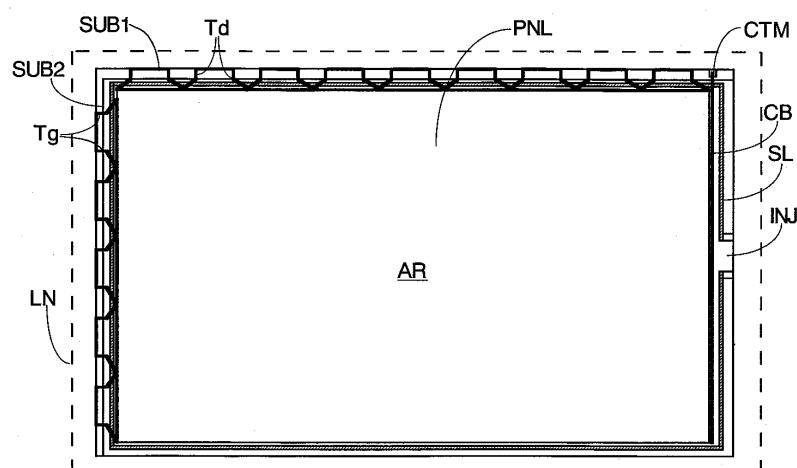
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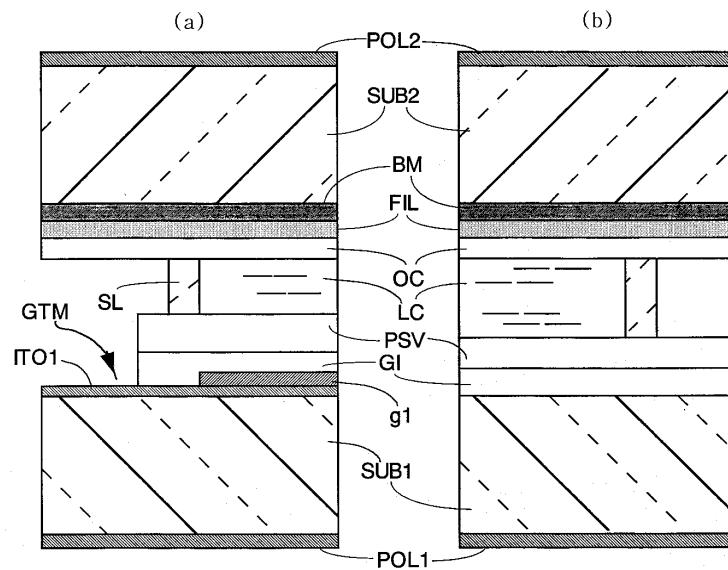
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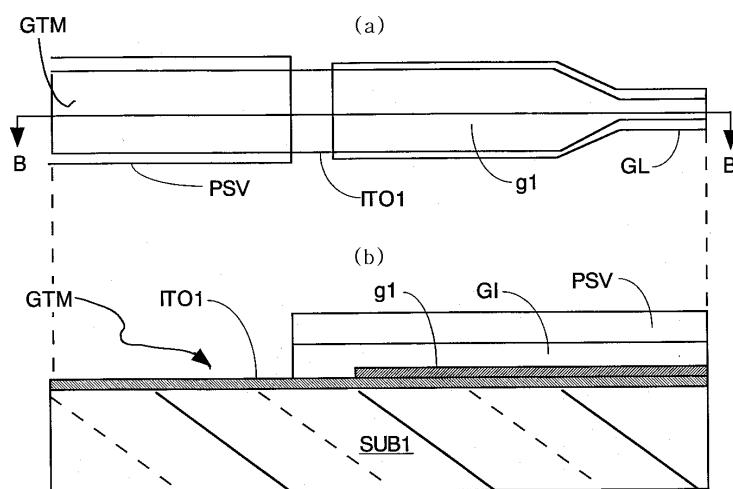
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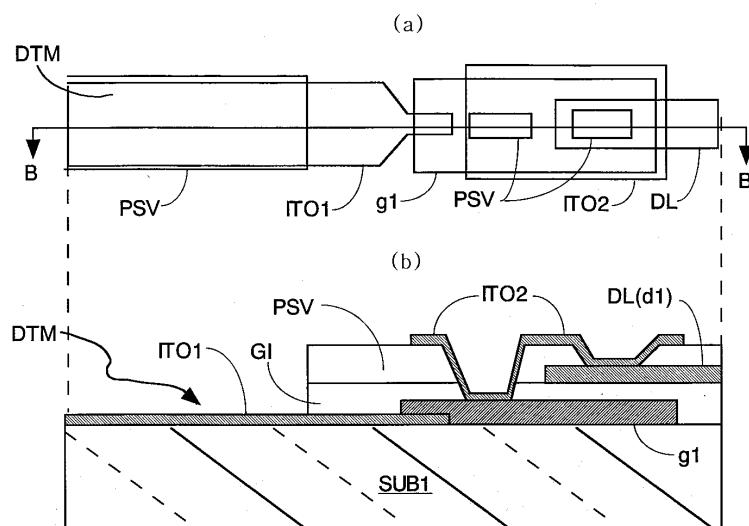
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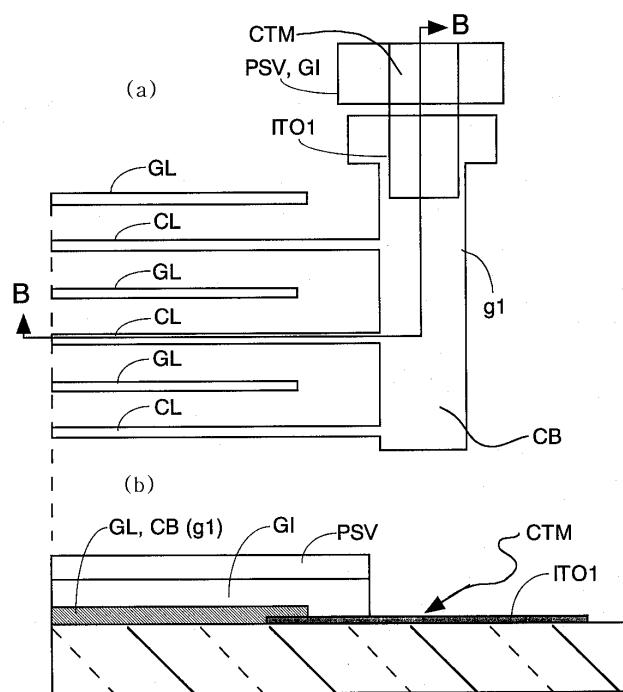
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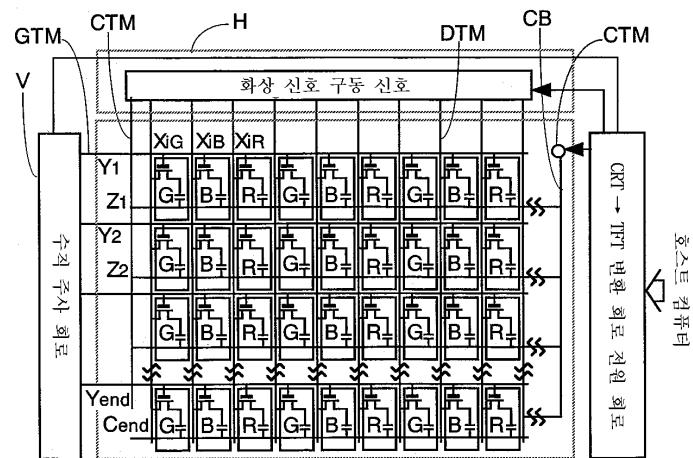
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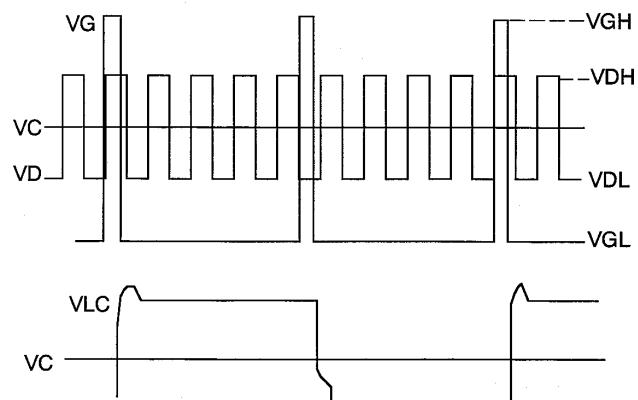
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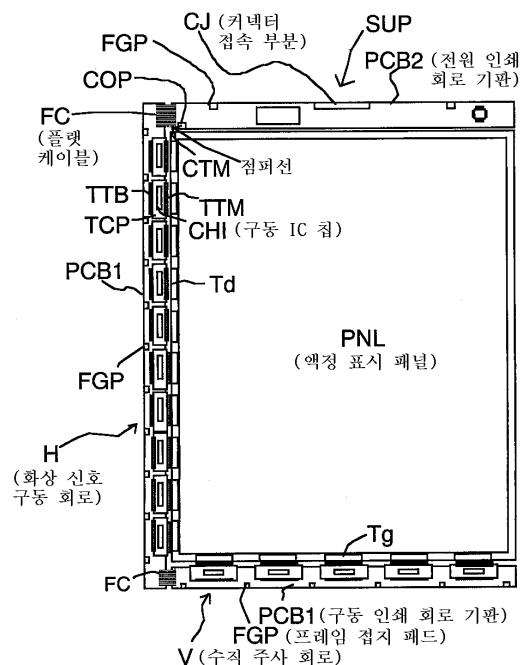


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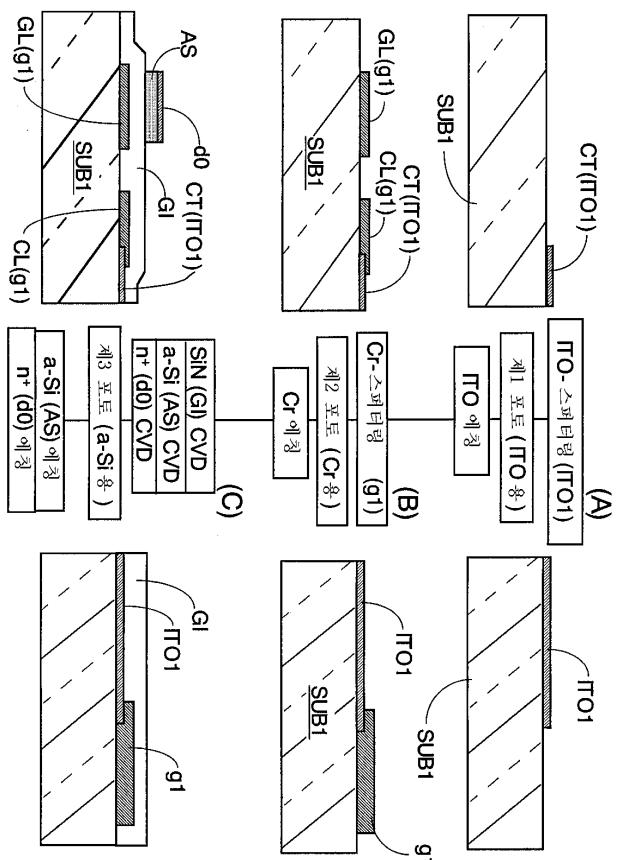


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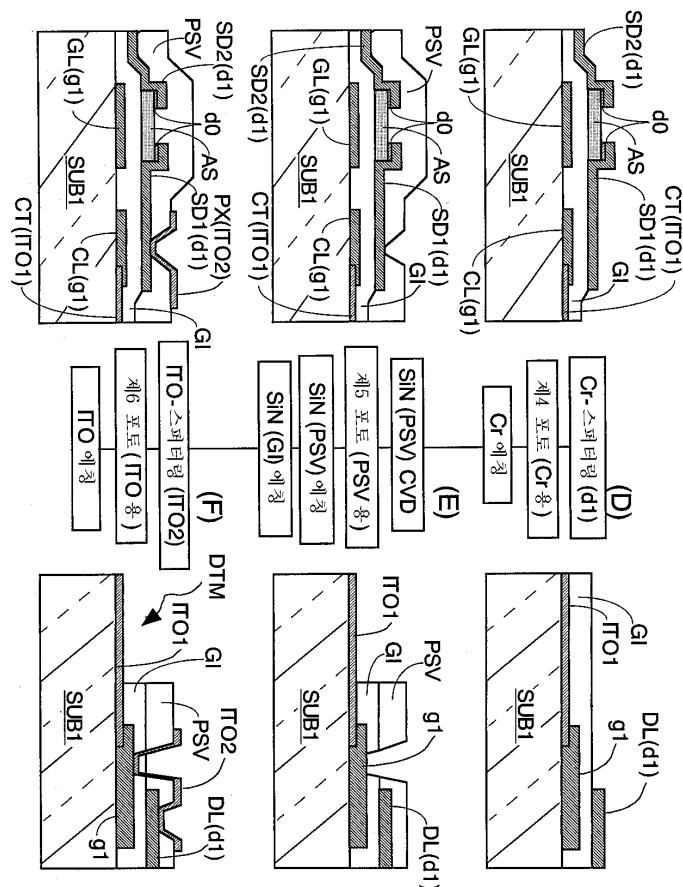




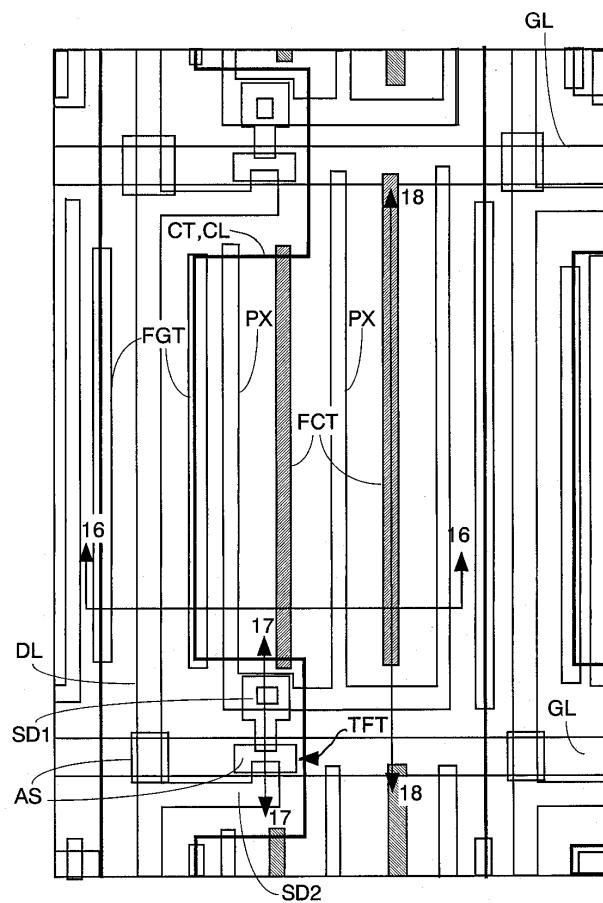
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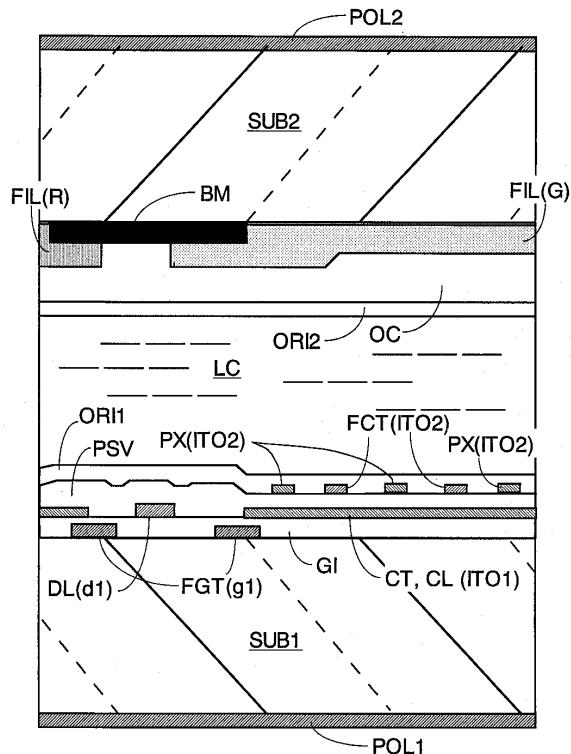
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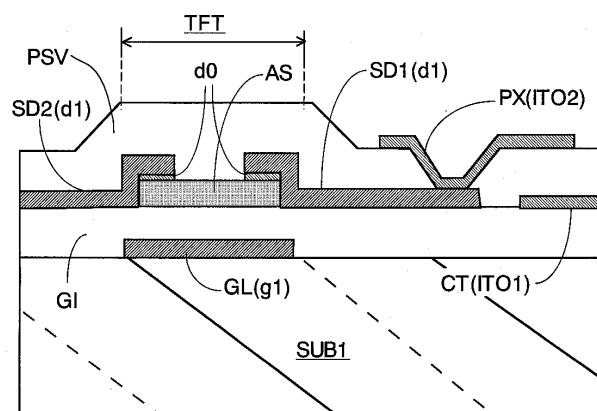
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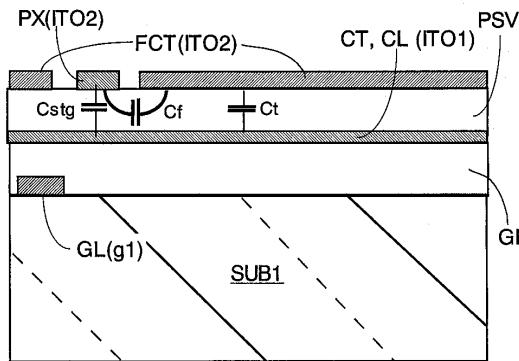
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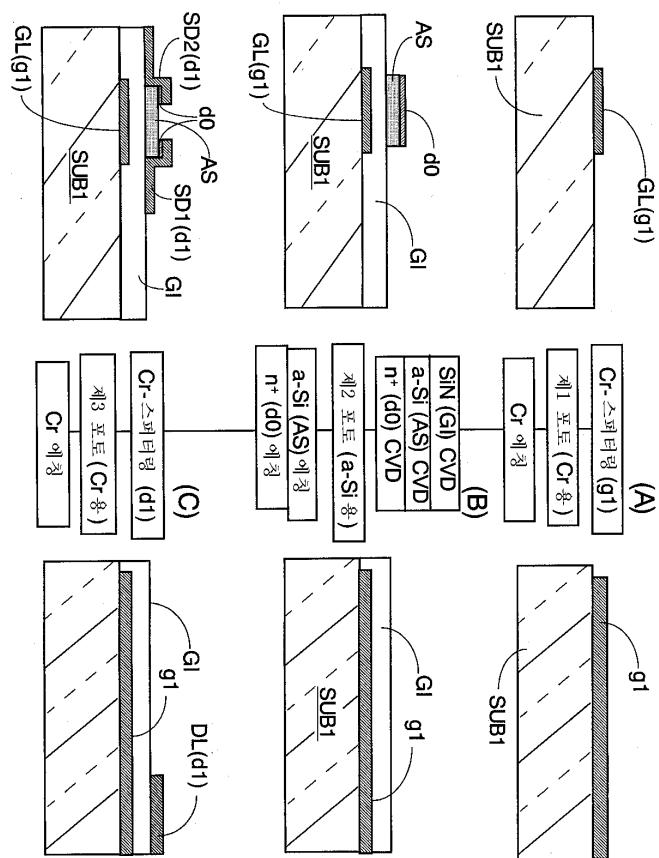
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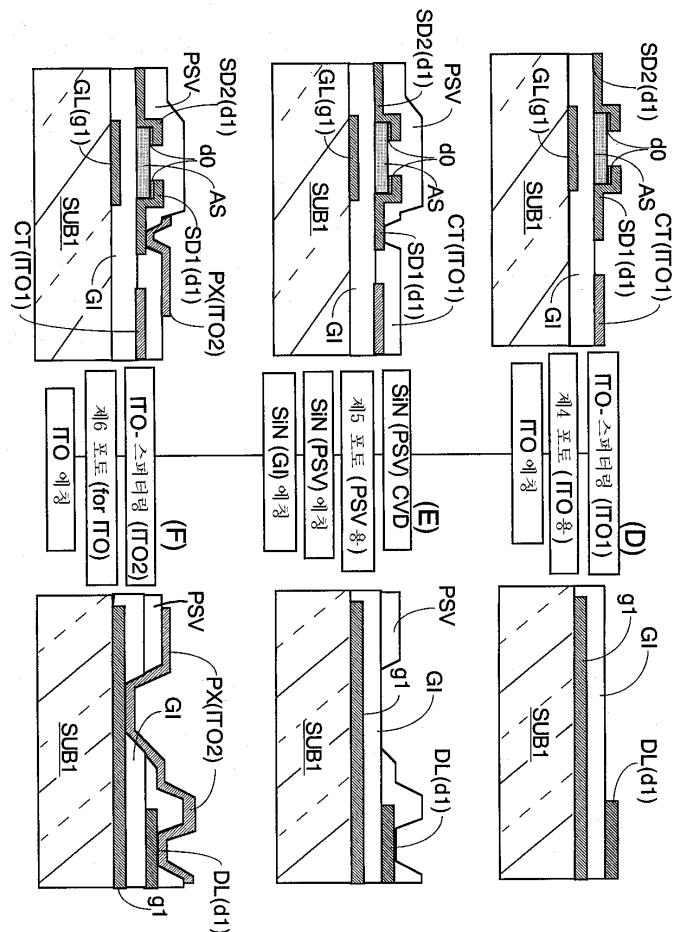
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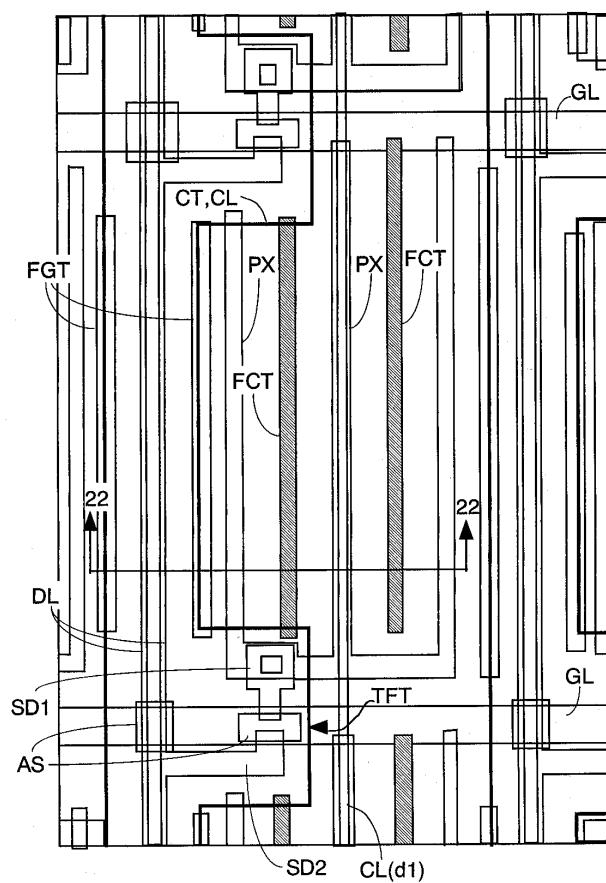
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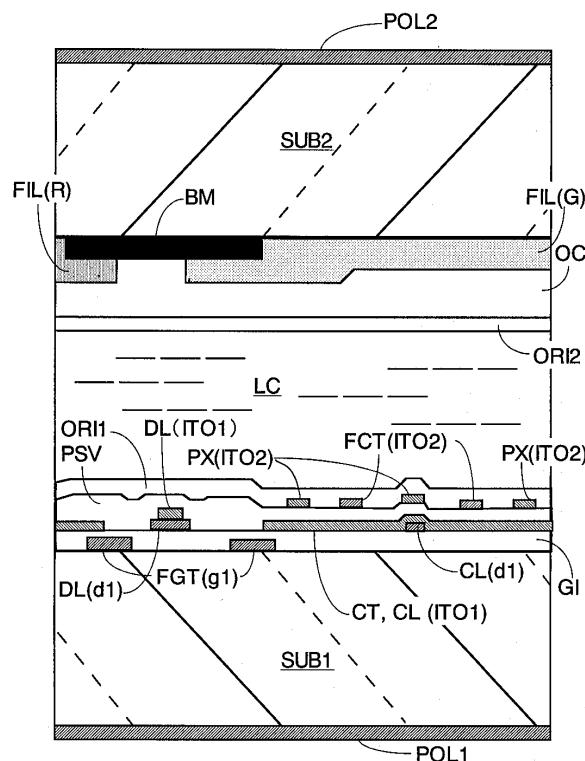
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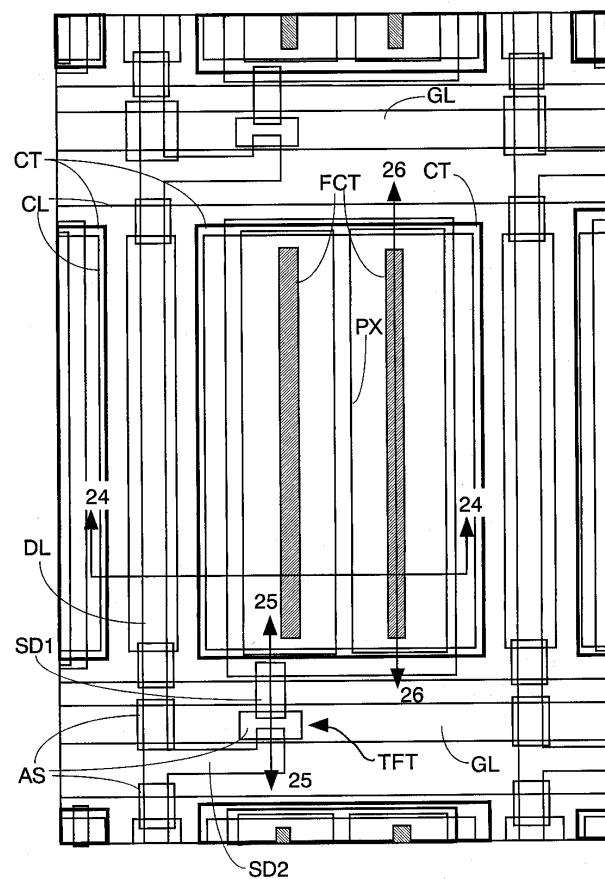
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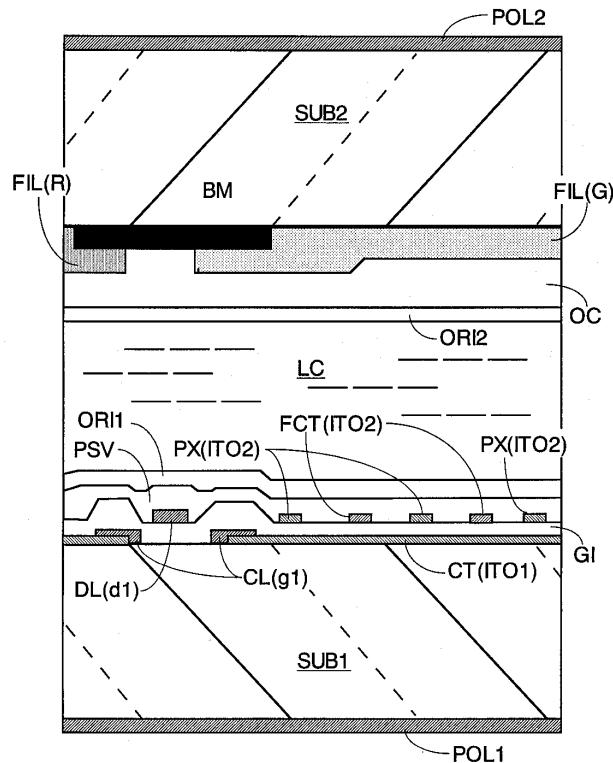
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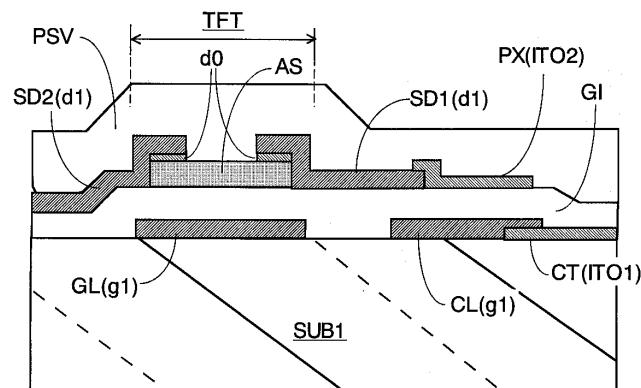
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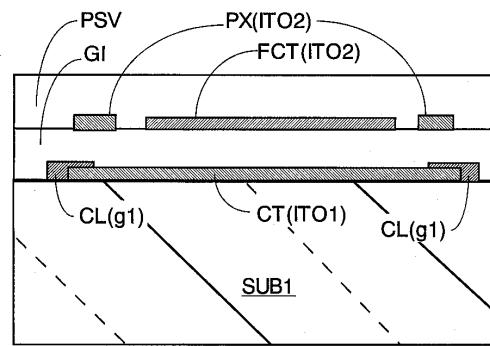
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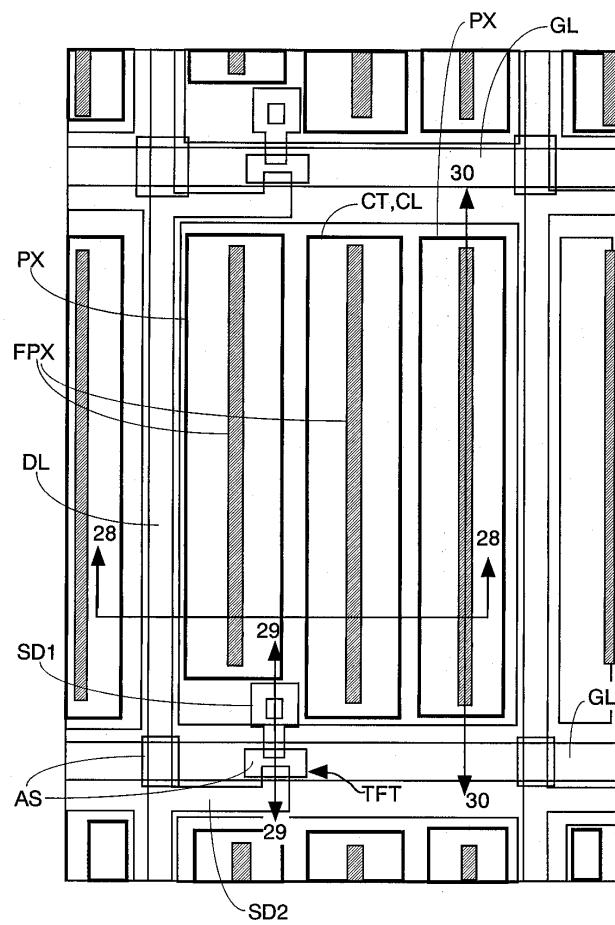
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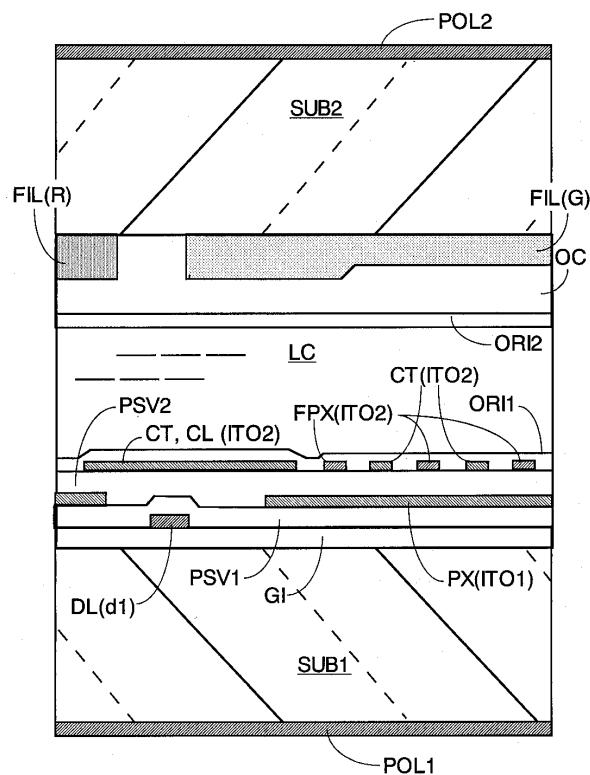
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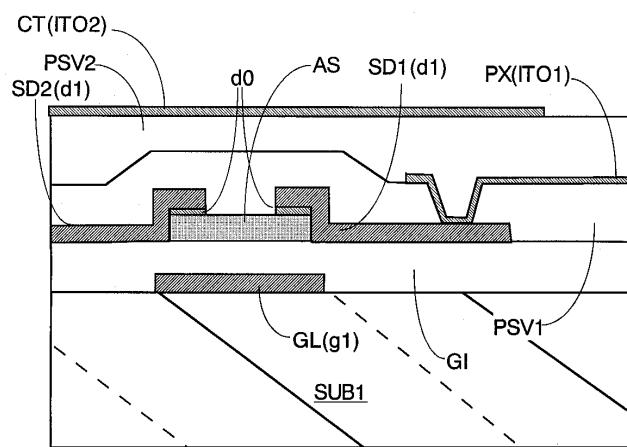
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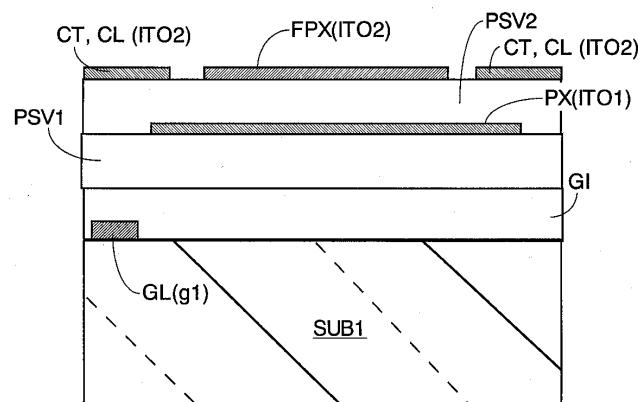
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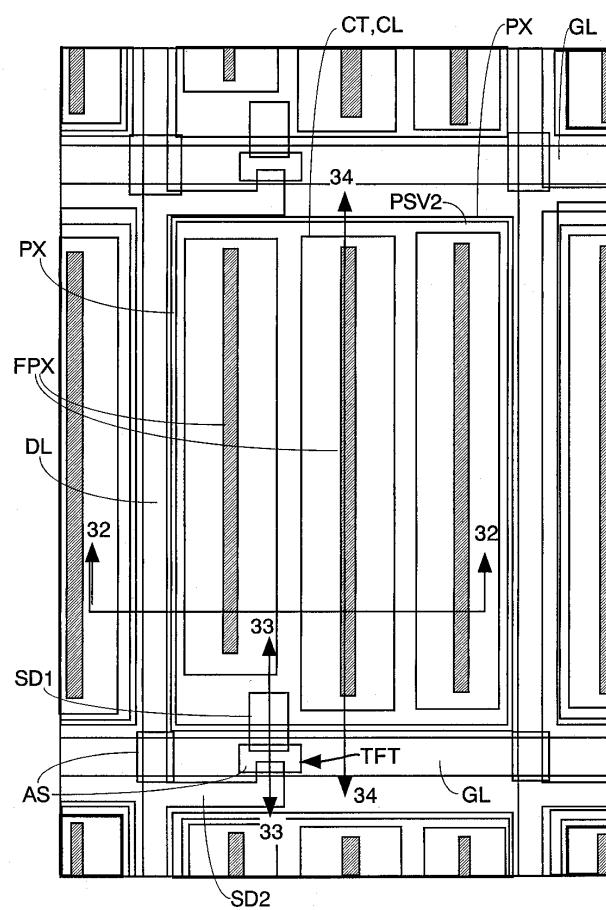
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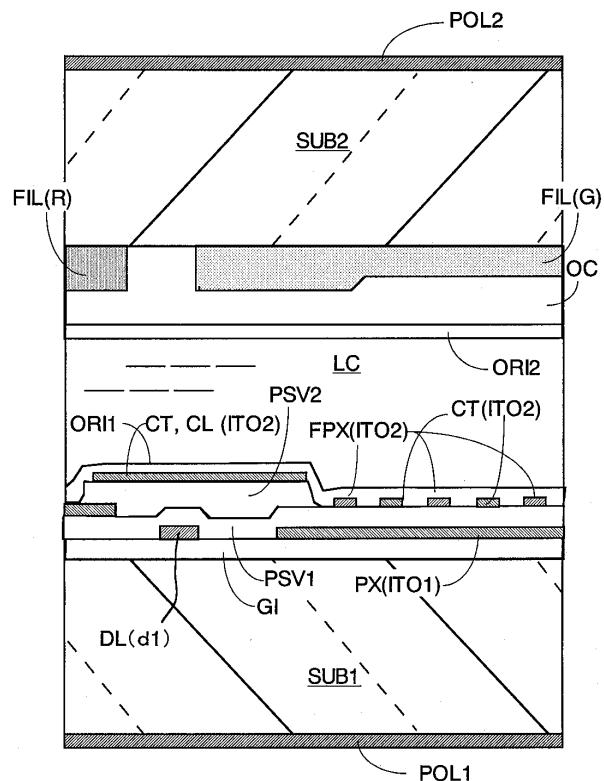
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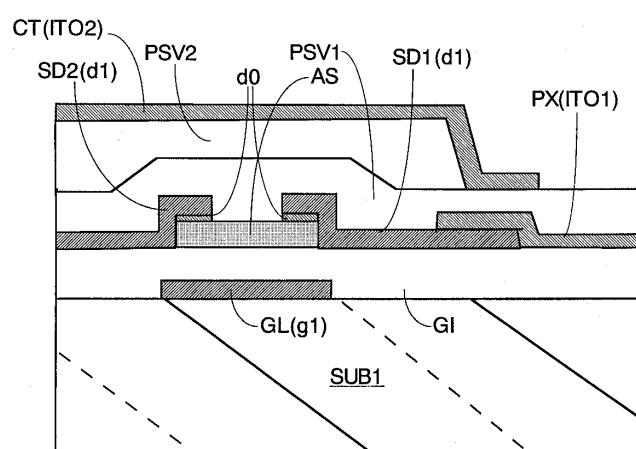
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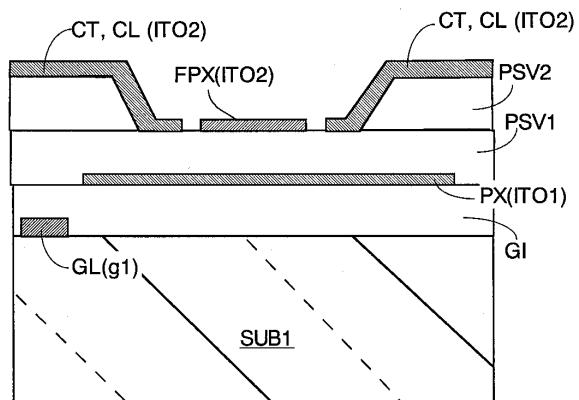
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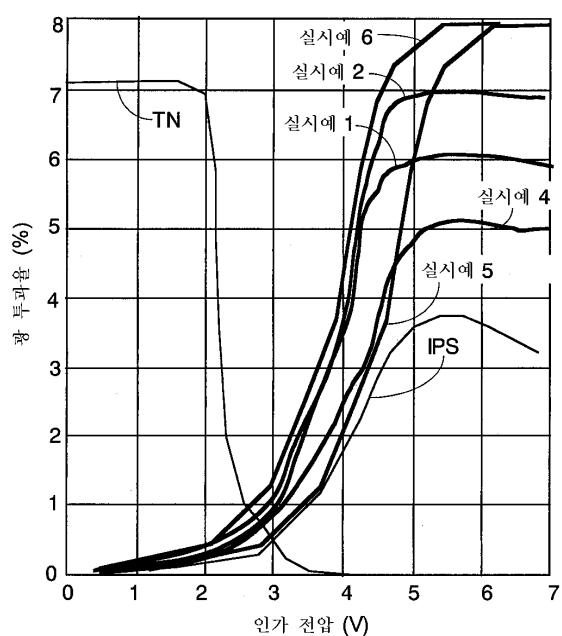
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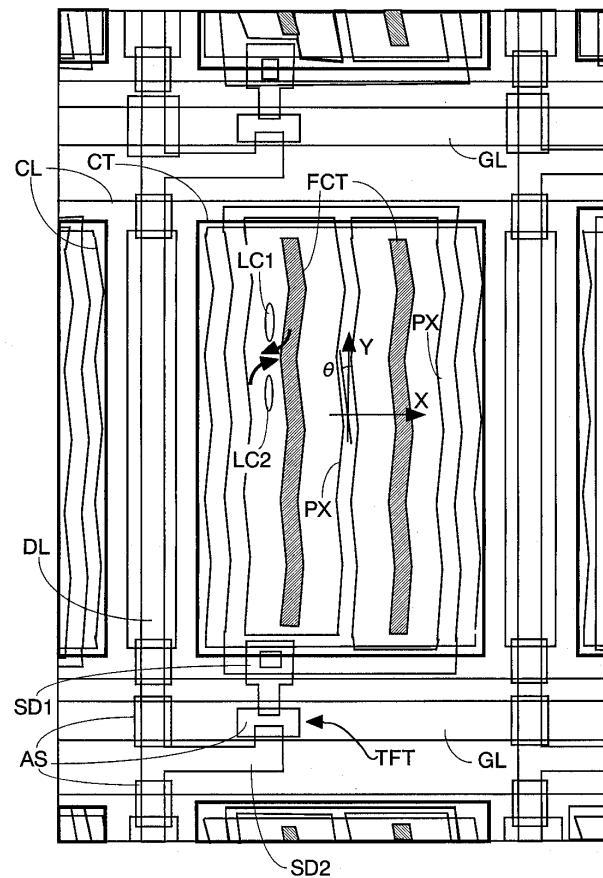
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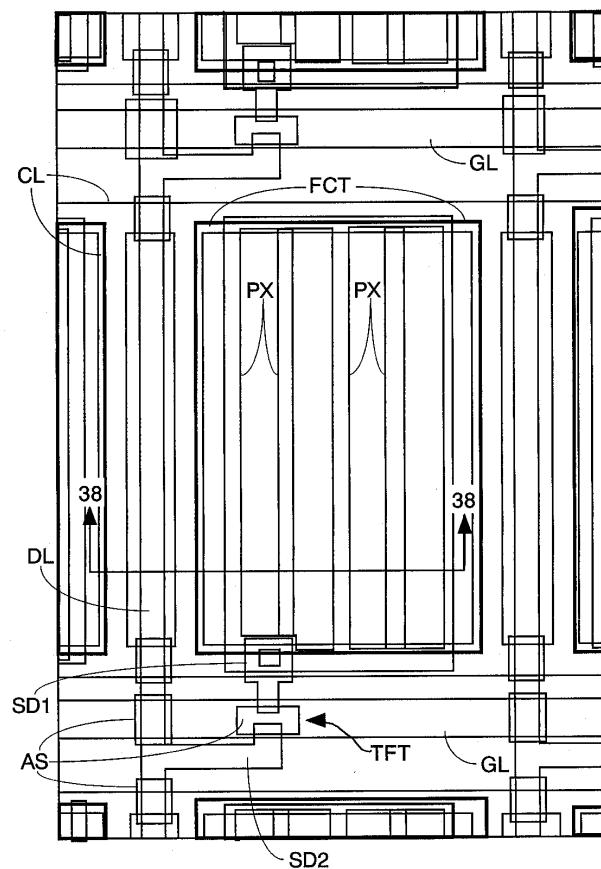
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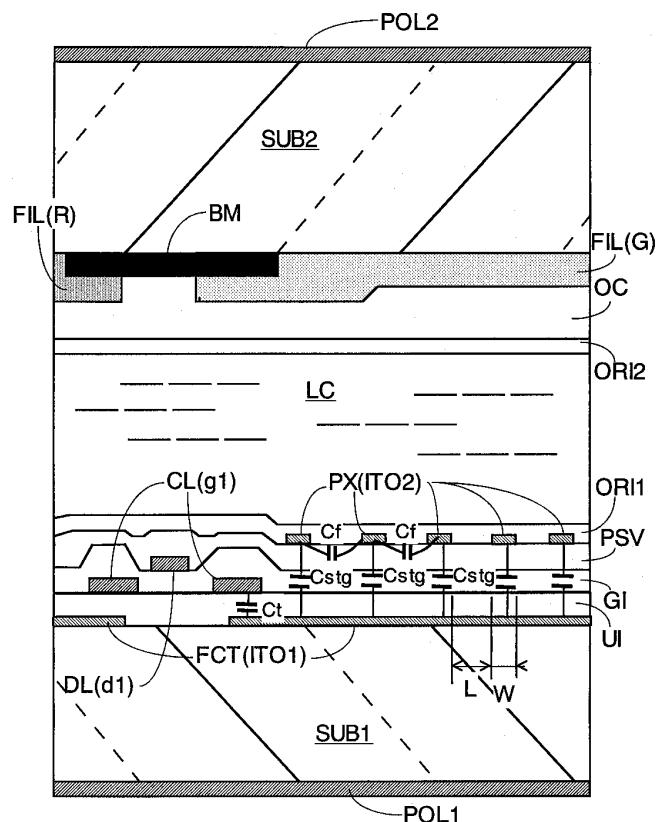
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专利名称(译)	液晶显示器		
公开(公告)号	KR100373667B1	公开(公告)日	2003-02-26
申请号	KR1020000053683	申请日	2000-09-09
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA		
申请(专利权)人(译)	株式会社日立制作所		
当前申请(专利权)人(译)	株式会社日立制作所		
[标]发明人	ONO KIKUO 오노기꾸오 YONEYA MAKOTO 요네야마꼬도 YAMAMOTO TSUNENORI 야마모토즈네노리 HIRAKATA JUNICHI 히라까따준이찌 NAKAYOSHI YOSHIAKI 나카요시요시아끼		
发明人	오노기꾸오 요네야마꼬도 야마모토즈네노리 히라까따준이찌 나카요시요시아끼		
IPC分类号	G02F1/1362 G02F1/1368 G02F1/1343 G09F9/30 G02F1/133 G02F1/136		
CPC分类号	G02F1/136213 G02F1/13439 G02F1/134363		
代理人(译)	CHANG, SOO KIL		
优先权	1999266833 1999-09-21 JP		
其他公开文献	KR1020010030357A		
外部链接	Espacenet		

摘要(译)

在设置在透明基板中的一个透明基板的液晶侧中的像素电极之间产生具有与透明基板平行的分量的电场，其中透明基板彼此相对设置，液晶介于其间，并且，像素电极和对电极中的一个形成为比另一个更靠近液晶，另一个电极由从与至少一个电极重叠的区域的周边向外延伸的透明电极形成。在液晶显示装置中，在像素电极和对电极之间形成与像素电极和对电极中的每一个电容耦合的导电层，以降低驱动电压并减小像素电极和对电极之间产生的负载电容。。 - 1 - 1 指数方面 像素电极，对电极，透明基板，导电层，液晶显示器

