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(73) 416

(72) 902 306

(74)
:

(54)

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

2

4

1
2 1
3 (OUT1)
4
5 4

(Thin Film Transistor: TFT)

(Liquid Crystal Device: LCD)

가 ((row))
 ((column))
 가 가

1
 INP1 (()) (100) ()
 (100) (INP1) (110) 가 (110)
 (voltage follower)가 (100) 가 (INP1) 가
 가 (110) (120) (OUT1) (120)
 P1 (INP1) (OUT1) (INP1) () (IN
 (120) (SW1) (120) (120)
 SWB1) ()
 2 1
 (INP1) (SW1) (SW1)가
 (H-Z) (120) (INP1) (OUT1)
 (OUT1) (high-impedance)
 3 (OUT1) (C1, C2, C3) (R1, R2, R3)
 (300) 가 (R1, R2, R3) 가 (R1, R2, R3)
 (300) (INP1) (C1, C2, C3) (R1, R2, R3)
 (C1, C2, C3) (C1, C2, C3) 가 가
 (Slew Rate) 가 (120)가

(slew rate)

1 n , 1 n , 1 n
 1 n 1 n 1 n
 1 n 1 n 1 n

가
 1 n
 1 n
 1 2 , 1 n 가 . 1
 , 2 .
 가 1 , 1 2 1 1 2
 가 2
 1 1 1 1 1 1
 1 1 1 1 n 가
 1 가 , 가 1 , 가 1
 1 가 (follower) 가 1
 2 2 2 2 2 2
 2 2 2 1 n 가
 2 가 , 2 가 , 가 2
 (follower) 가 가 가 1
 n , 1 n 1 n
 1 n , 1 n 1 n
 1 n 1 n 1 n
 , 1 2 1 n
 가 1 가 2 가 , 2 가 ,
 , 가
 4
 5 4
 4 5 , 1 (400) 1 n (S
 WS1, SWS2 ~ SWSn) (410, 411, 412, 413, 414), 1 n (SW1, SW2 ~ SWn), 1 n (S
 (420)
 1 n (410, 411, 412, 413, 414) 1 n (INP1, INP2 ~ I
 NPn) 1 n (INPS1, INPS2 ~ INPSn) 1 n (S
 W1, SW2 ~ SWn) 1 n (INPS1, INPS2 ~ INPSn) 1 n
 (OUT1, OUT2 ~ OUTn)
 1 n (SWS1, SWS2 ~ SWSn) 1 n (SW1, SW2 ~ SWn)가
 (SHARE1, SHARE2) 1 n (OUT1, OUT2 ~ O
 UTn) (SWS1, SWS2 ~ SWSn)
 1 n (SW1, SW2 ~ SWn)

(SHARE1, SHARE2)
 (OUT1, OUT3 ~ OUTn-1) (SHARE1, SHARE2) 1 n (SHARE1)
 (OUT2, OUT4 ~ OUTn) (SHARE1, SHARE2) 2 (SHARE2)

(420) 1 2 (EXV1, EXV2) (SHARE1, SHARE2)
 (PCV1, PCV2) 가
 (420) 1 (EXV1) 1 (PCV1)
 1 (SHARE1) 가 1 (510) 2 (EXV2) 2
 (PCV2) 2 (SHARE2) 가 2 (530)
 1 (510) 1 (EVX1) 1 (EXVS1) 1
 (520) 1 (EXVS1) 1 (PCV1) 1
 (ESW1) 1 n (SW1, SW2 ~ SW
 (SW1, SW3 ~ SWn-1)가 (520)
 (follower) 가 1 (EXV1) 가 1
 n (INP1, INP2, ~ INPn) (INP1, INP3, ~ INPn-1)

1 (510) 1 (ESW1) 1 (SHARE1) 1 (가
 N1) 1 (EXIN1) 가 , 1 (EXIN1) , 가
 1 (EXIN1) 1 (ESW1)가 가
 2 (520) 2 (EXV2) 2 (EXVS2) 2
 (540) 2 (EXVS2) 2 (PCV2) 2
 (ESW2) 2 (520) (follower) 가

2 (ESW2) 1 n (SW1, SW2 ~ SWn) (SW2, SW
 4 ~ SWn)가
 2 (530) 2 (ESW2) 2 (SHARE2) 2 (가
 N2) 2 (EXIN2) 가 , 2 (EXIN2) , 가
 (EXV2) 2 (EXIN2) 2 (ESW2)가 가 2
 (INP2, INP4, ~ INPn) 1 n (INP1, INP2, ~ INPn)

2 1 n
 (410, 411, 412, 413, 414), 1 n (SW1, SW2 ~ SWn) 1 n
 (SWS1, SWS2 ~ SWSn)
 1 n (410, 411, 412, 413, 414) 1 n (INP1, INP2 ~ I
 NPn) 1 n (INPS1, INPS2 ~ INPSn) 1 n (S
 W1, SW2 ~ SWn) 1 n (INPS1, INPS2 ~ INPSn) 1 n
 (OUT1, OUT2 ~ OUTn) (SWS1, SWS2 ~ SWSn)
 (SHARE1, SHARE2) 1 n (OUT1, OUT2 ~ OUTn)

(SHARE1, SHARE2) 1 2 (SHARE1, SHARE2)
 (OUT1, OUT2 ~ OUTn) (OUT1, OUT3 ~ OUTn-1)
 1 n (SHARE1) , (OUT2, OUT4 ~ OUTn) 2 (SHARE2)

1 (SHARE1) 1 (EXV1) 가 , 1 (EXV1)
 , 가 2 (SHARE2) 2 (EXV2) 가
 , 2 (EXV2) 가
 4 5 , 1
 (400)

12, 413, 414) 384 , 402 , 420 , 480 , 520 , 4 (410, 411, 4
 가

가
 (410, 411, 412, 413, 414) n , (SW1, SW2 ~ SWn) n
 (SW1, SW2 ~ SWn)가 (410, 411, 412, 413, 414)
 (INPS1, INPS2 ~ INPSn) (OUT1, OUT2 ~ OUTn) 1 (SW1)
 1 (S1) 1 (INP1) 1
 (SB1)

1) , 1 (S1) , 1 (S1) 1 (SW1) 1 (SW1) (INP
 1 (INPS1) 1 (OUT1) 1 (SW1)
 1 (SW1) 2 n (SW2, SW3 ~ SWn)
 1 n (SWS1, SWS2 ~ SWSn) (SHARE1, SHARE2) (OUT1, O
 UT2 ~ OUTn) 1 n (SWS1, SWS2 ~ SWSn) 1 n (SW1, SW2 ~ SWn)가
 SW2 ~ SWn)가 (INP1, INP2 ~ INPn) (OUT1, OUT2 ~ OUTn) (SHARE1, SHARE2) (OUT1, OUT2 ~ OUTn)
 (SWS1, SWS2 ~ SWSn)가 (SHARE1, SHARE2) (OUT1, OUT2 ~ OUTn)
) 1 n (SWS1, SWS2 ~ SWSn) (SS1, SS2 ~ SSn)
 (SSB1, SSB2 ~ SSBn)
 (INP1, INP2 ~ INPn)
 (INP1, INP3 ~ INPn-1) (INP2, INP4 ~ INPn) 가
 (INP1, INP3 ~ INPn-1)
 (INP2, INP4 ~ INPn) (INP1, INP3 ~ INPn-1)
 (OUT1, OUT3 ~ OUTn-1) (SHARE1, SHARE2)
 (SW1, SW3 ~ SWn)가 1 (SHARE1)
 () 가
 (SW1, SW3 ~ SWn) (INP1, INP3 ~ INPn-1) () 가 ,
 () 가
 가 , (INP2, INP4 ~ INPn) (OUT2, OUT4 ~ OUTn)
 2 (SHARE2) () 가 (SW2, SW4 ~ SWn)가 (INP
 2, INP4 ~ INPn) () 가 , () 가 가 (INP
 () 가
 (OUT1, OUT3 ~ OUTn-1) 1 (SH
 ARE1) (OUT2, OUT4 ~ OUTn) 2 (SHARE2) 2
 (SHARE1, SHARE2)
 (SHARE1, SHARE2) (420)
 (420) 1 (EXV1) 1 (PCV1) 1 (SHARE1)
 가 1 (SHARE2) 가 (510) 2 (EXV2) 2 (PCV2)
 2 (SHARE2) 가 (530) 가 1 (EVX1) 2 (E
 XV2) 1 (SHARE1) 2 (SHARE2) 1 (SHARE1) 1
 (EXV1) 2 (EXV2) 1 (SHARE1)
 (EXV1) 1 (EXV1) 2 (SHARE2) 2 (EXV2)
 1 (EXV1) (INP1, INP3 ~ INPn-1) 1 (EXV1)
 (INP1, INP3 ~ INPn-1) (INP1, INP3 ~ INPn-1)
 3 ~ INPn-1) 1 (EXV1) (INP1, INP3 ~ INPn-1)
 () (INP1, INP3 ~
 INPn-1) , 1 (EXV1)
 가
 가 2 (EXV2) (INP2, INP4 ~ INPn)
 (INP2, INP4 ~ INPn) 2 (EXV2)
 (INP2, INP4 ~ INPn)
 ~ INPn) 2 (EXV2) (INP2, INP4 ~ INPn)
 () (INP2, INP4 ~ INPn)
 , 2 (EXV2)
 가
 1 (520) 2 (540) (follower) 가
 1 2 (EXVS1, EXVS2) 1 2 (ESW1, ESW2) 1
 2 (SHARE1, SHARE2) 1 2 (ESW1, ESW2) 1

n (SW1, SW2 ~ SWn) 1 n (SWS1, SWS2 ~ SWSn) (ES1, ES2) (ESB1, ESB2) (ESW1, ESW2) (ESW1) 1 n (SW1, SW2 ~ SWn) (SW1, SW3 ~ SWn-1)가 (ESW2) 1 n (SW1, SW2 ~ SWn) (ESB1, ESB2) (SW2, SW4 ~ SWn)가 (S1, S2, ~ ,Sn) 가 (INP1, INP2 ~ INPn) (ESW1, ESW2) 1 n (SW1, SW2 ~ SWn) (EXV2) 1 2 (SHARE1, SHARE2) 가 1 2 (EXV1) 2 (SHARE1, SH SHARE2) (510) 1 (ESW1) 1 (SHARE1) 1 (EXIN1) 가 1 (EXIN1) 1 (EXIN1) 가 (520) 1 (ESW1) 1 (EXIN1) 가 (EXIN1) 가 (520) 1 (ESW1) 1 (EXV1) (floating) 1 (EXIN1) 1 (EXV1) 가 2 (530) 2 (ESW2) 2 (SHARE2) 2 (N2) 2 (EXIN2) 가 2 (EXIN2) 2 (EXIN2) 가 2 (540) 2 (ESW2) 2 (EXV2) 2 (ESW2) 가 2 (540) 2 (ESW2) 2 (EXV2) (N2) (floating) 2 (EXIN) 2 (EXV2) 1 (EXV1) 2 (EXV2) (SHARE1, SHARE2) 가 1 n (INP1, INP2 ~ INPn) 가 1 n (SWS1, SWS2 ~ SWSn) 1 2 (SW1, SW2 ~ SWn)가 (ESW1, ESW2) 1 n (N1) 2 (N2) (Floating) (INP1, INP2 ~ INPn) 1 n (OUT1, OUT2 ~ OUT n) () 가 (INP1, INP2 ~ INPn) 1 n (SW1, SW2 ~ SWn)가 (Floating) 1 2 (ESW1, ESW2)가 (EXV1) 2 (EXV2) 1 2 (SHARE1, SHARE2) 가 (EXV1) 3 (300) 1 n (OUT1, OUT2 ~ OUTn) 2 ~ OUTn) 가 (SHARE1, SHARE2) 1 n (OUT1, OUT n) 1 n (SW1, SW2 ~ SWn)가 1 n (INP1, INP2 ~ INP n) (INP1, INP2 ~ INPn) 0 V (EXIN1) 2 (EXIN2) (SHARE1, SHARE2) 1 n (SW1, SW2 ~ SWn)가 2 (ESW2) 1 (EXIN1) 2 (EXIN2) 1 (N1) 2 (N2) 가 (SHARE1, SHARE2) 1 (EXIN1) (EXIN2) (SHARE1, SHARE2) () 가 (SHARE 1, SHARE2) 2 (EXIN1) 2 (EXIN2) (SHARE 4 (420)가 (400) 가

1 가 가

9.

5 (follower) 1 가 ,

10.

5 가 1 , 1 n

11.

1 2 , 2 2 , 2 ; 2
2 2

12.

11 1 , n 2 , 가

13.

11 2 , 2 2 , 2 2 가 ,
2 , 가

14.

13 2 , 2 가 , 가

15.

11 (follower) 2 가 ,

16.

11 가 2 , 1 n

17.

18.

1 n 1 n 1 n
; n 1 n 1
n ; 1 n 1 n

19.

18 1 2 , ,

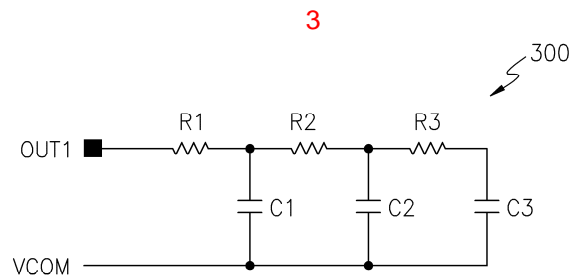
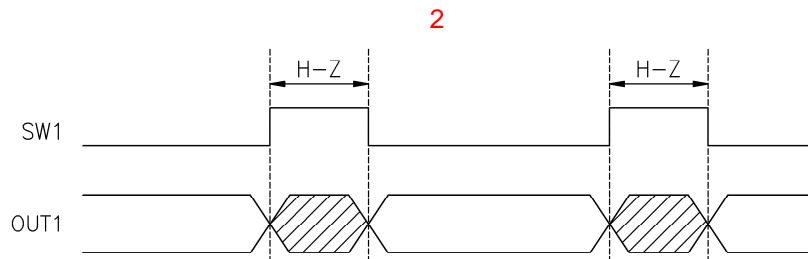
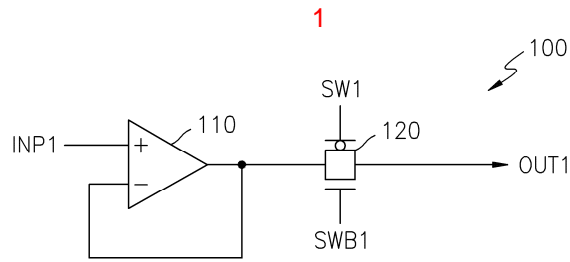
20.

19 1 , n 1 ,
2

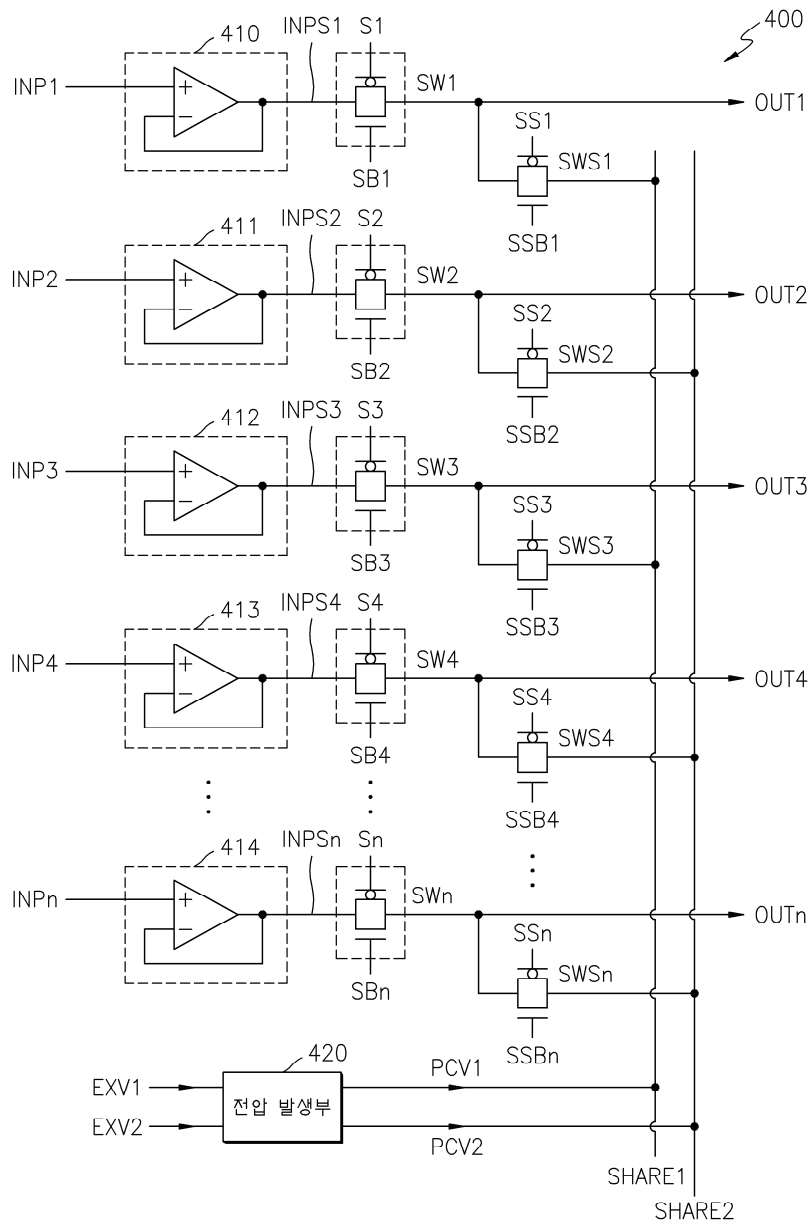
21.

19 , 1 ,

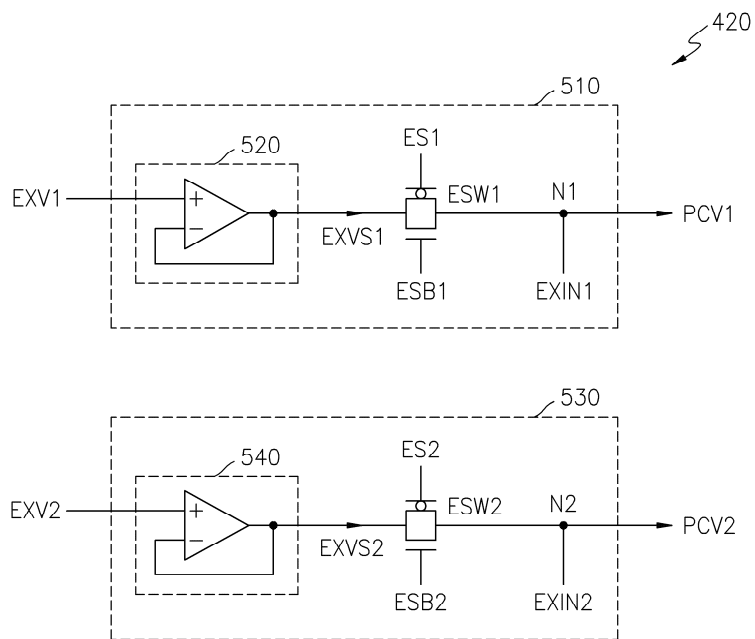
- 1 가
- 22. 1 가
- 23. 2 가
- 24. 2 가
- 25. 1 n , 1 n



4



5



专利名称(译)	薄膜晶体管型液晶显示装置的源极驱动器的输出电路		
公开(公告)号	KR100438784B1	公开(公告)日	2004-07-05
申请号	KR1020020005420	申请日	2002-01-30
[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	KIM KIJOON		
发明人	KIM,KIJOON		
IPC分类号	G09G3/20 G02F1/133 G09G3/36		
CPC分类号	G09G2330/023 G09G3/3688 G09G2310/0248		
代理人(译)	LEE , YOUNG PIL		
其他公开文献	KR1020030065699A		
外部链接	Espacenet		

摘要(译)

公开了一种薄膜晶体管液晶显示装置的源极驱动器的输出电路。根据本发明第一实施例的薄膜晶体管型液晶显示器的源极驱动器输出电路包括第一至第n电压发生装置，第一至第n开关部件，第一至第n子开关部件，并形成一步骤。第一至第n电压产生装置接收相应的第一至第n输入电压以产生第一至第n子输入电压。第一至第n子开关单元产生或切断第一至第n子输入电压作为对应的第一至第n输出电压。第一至第n子开关部分将预定的共享线连接或断开到第一至第n输出电压。电压发生器接收预定的第一和第二电压，并将预定的预充电电压施加到共享线路。根据本发明的薄膜晶体管型液晶显示器的源极驱动器的输出电路通过第一和第二电压或第一和第二外部电压改善了从源极驱动器输入到面板的信号转换速率， $Lt; RTI ID = 0.0 >$ 电流。 4

