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(71) 가 가
1 1 1

(72) 1 9 2 가 가

1 9 2 가 가

(74)

:

(54)

, - TFT , TFT
 , TFT
 n, 1 τ , TFT
 C_{LC} n · τ / C_{LC} .

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1 1 ,
2 1 TFT C-DAC ,
3 2 C-DAC .

1 --- TFT , 2 --- ,
 3 --- , 4 --- - (C-DAC),
 5 --- , 6 --- ,
 7 --- , 8 --- ,
 9 --- , 20 --- ,
 C_{LC} --- , R_{BM} --- (7) ,
 τ_{LC} --- , $V_{ref0} \sim V_{ref6}$ --- ,
 $SWa0 \sim SWa6$ --- , $SWb0 \sim SWb6$ --- ,
 $C0 \sim C6$ --- , $Vc0 \sim Vc2$ --- .

가 TFT(Thin Film Transister) - 가

가 TFT ,

가 , 가 가 .
 (, C-DAC(Condenser-Digital Analog Converter))

C-DAC , $n(n$,) 가 ON C-DAC $n \cdot \tau$.

가 , TFT , TFT 1 . TFT
 C_{LC} , R_{BM} , $\tau_{LC} \leq n \cdot \tau$, $\tau_{LC} R_{BM} \times C_{LC}$, 가 .
 $\tau_{LC} \leq n \cdot \tau$, C-DAC C-DAC 가 , n

S, k , $C_{LC} = k \cdot S \cdot L$ 가 , (C_{LC}) , L, $(C_{LC}$
) . (τ_{LC}) 가 , $\tau_{LC} \leq n \cdot \tau$,

가 가 , C-DAC 가 TFT , .

TFT , TFT , TFT
 $n, 1$, τ , TFT C_{LC}
 $n \cdot \tau / C_{LC}$.

()

1 TFT (1) , (2) (9) , (3)

TFT (1) , (4; , C-DAC (2) (3))가 . TFT (1) (3) (5, 6)
 (7) (8)

C_{LC} , (7) R_{BM} , TFT (1) (2) 1
 τ_{LC} , 가

$\tau_{LC} = R_{BM} \times C_{LC}$ (1)

2 , C-DAC(4) 가 Vref0 , 6
 가 Vref1~Vref6 (Vref0) (SWa0) (C0)
 (Vref1) (SWa1) (C1) (SWb1) (C0)
 Vref2~Vref6 Vref1 가 , SWa2~SWa6 C2~C6
 (C2~C6) (SWb2~SWb6) (C0) (C0) (20) (20)

3 , Vc0, Vc1, Vc2... C0, C1, C2...

(Vc0) , (SWa0)가 ON , (Vref0) 가 「1」 ,
 (C0)가

(Vc1) , (SWa1)가 ON , (Vref1) 가 「0」 ,
 (C1)가 L0 (SWb1)가 ON (C0) 가 (C1) , (SWa1)가 OFF
 (C1)

(Vc2) , (SWa2)가 ON , (Vref2) 가 「1」 ,
 (C2)가 (C2) 가 (C0) , (SWa2)가 OFF (SWb2)가 ON
 (C0)

6 , (C0) , 「1」 「0」 가 , SWa0 SWa1 ON ,

(C0~C6) , (SWa0~SWa6)가 ON 5~50
 μsec , (τ) C-DAC(4) , 6
 30~300 μsec (6 τ) .

, C-DAC , 가 .

$$\tau_{LC} > n \cdot \tau \quad (2)$$

, , n, τ .

, (1) (2)가 .

$$R_{BM} \times C_{LC} > n \cdot \tau$$

$$R_{BM} > n \cdot \tau / C_{LC} \quad (3)$$

, (7) $(R_{BM}) > n \cdot \tau / C_{LC} \quad (7)$,
가 , (BM) .

, 6 C-DAC , 10.4
'(XGA)' 2'(QCIF) 2
 $C_{LC} (10') = 100\text{nF}$, $C_{LC} (2') = 4\text{nF}$, C-DAC TFT
 $\tau = 50 \times 10^{-5} \text{ sec}$,
(R_{BM})가 $1\text{M}\Omega/\text{cm}^2$ ($\text{M}\Omega/\text{SQ}$) ,

10.4'(XGA) ;

$$n \cdot \tau / C_{LC} (10') = 6 \tau / (100 \times 10^{-9})$$

$$= 3 \times 10^3 \Omega/\text{cm}^2$$

$$R_{BM} \geq n \cdot \tau / C_{LC} (10') \quad (4)$$

2'(QCIF) ;

$$n \cdot \tau / C_{LC} (2') = 6 \tau / (4 \times 10^{-9})$$

$$= 7.5 \times 10^4 \Omega/\text{cm}^2$$

$$R_{BM} \geq n \cdot \tau / C_{LC} (2') \quad (5)$$

, 10.4'(XGA) 2'(QCIF) , (3) , 6

가 $1\text{M}\Omega/\text{cm}^2$, 6 C-DAC TFT
2'(QCIF) , 6 가

, , , (R_{BM})가 $n \cdot \tau / C_{LC}$ (7) (2)
(τ_{LC})가 n C-DAC ($n \cdot \tau$)
, C-DAC , 가 , n

(7) , 가 .

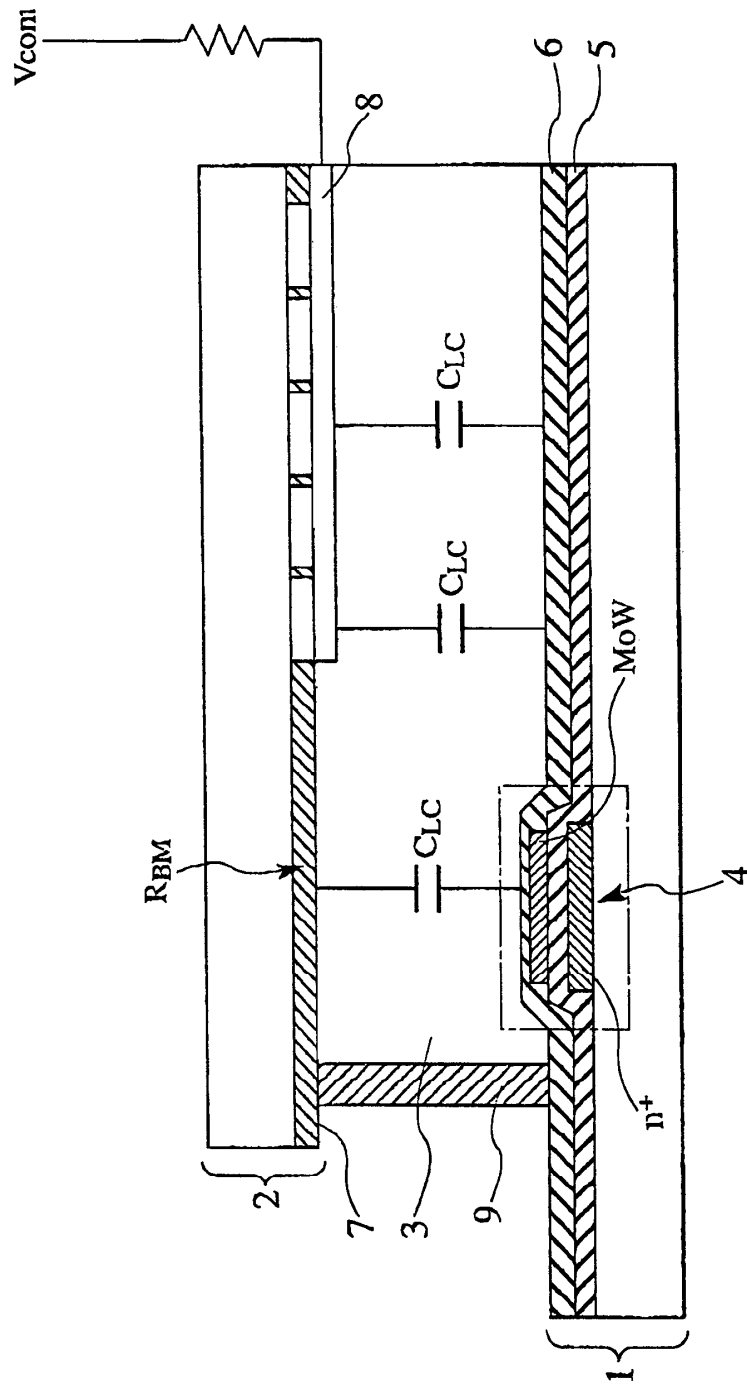
가 가 , C-DAC 가 TFT ,

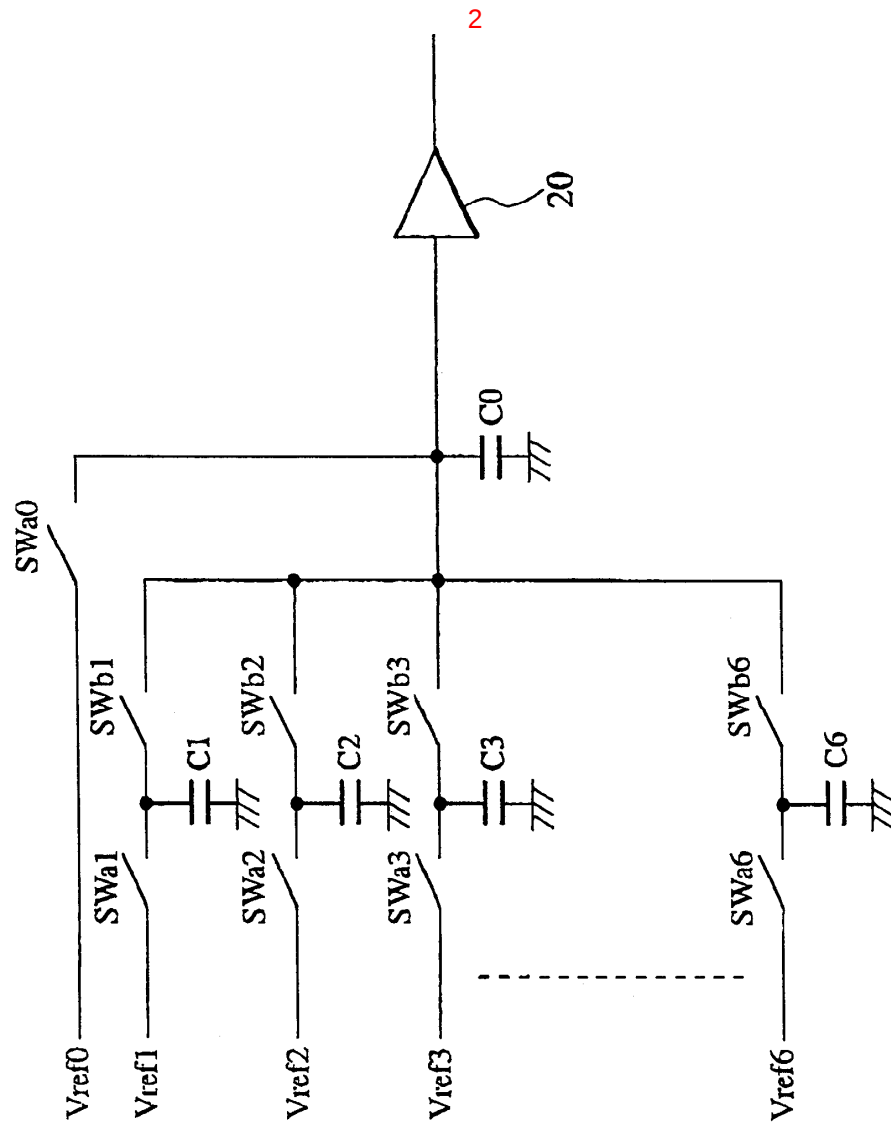
1. - TFT ,
TFT ,
TFT ,
τ , TFT , - C_{LC} n, 1
n · τ /C_{LC} .

1 2. , .

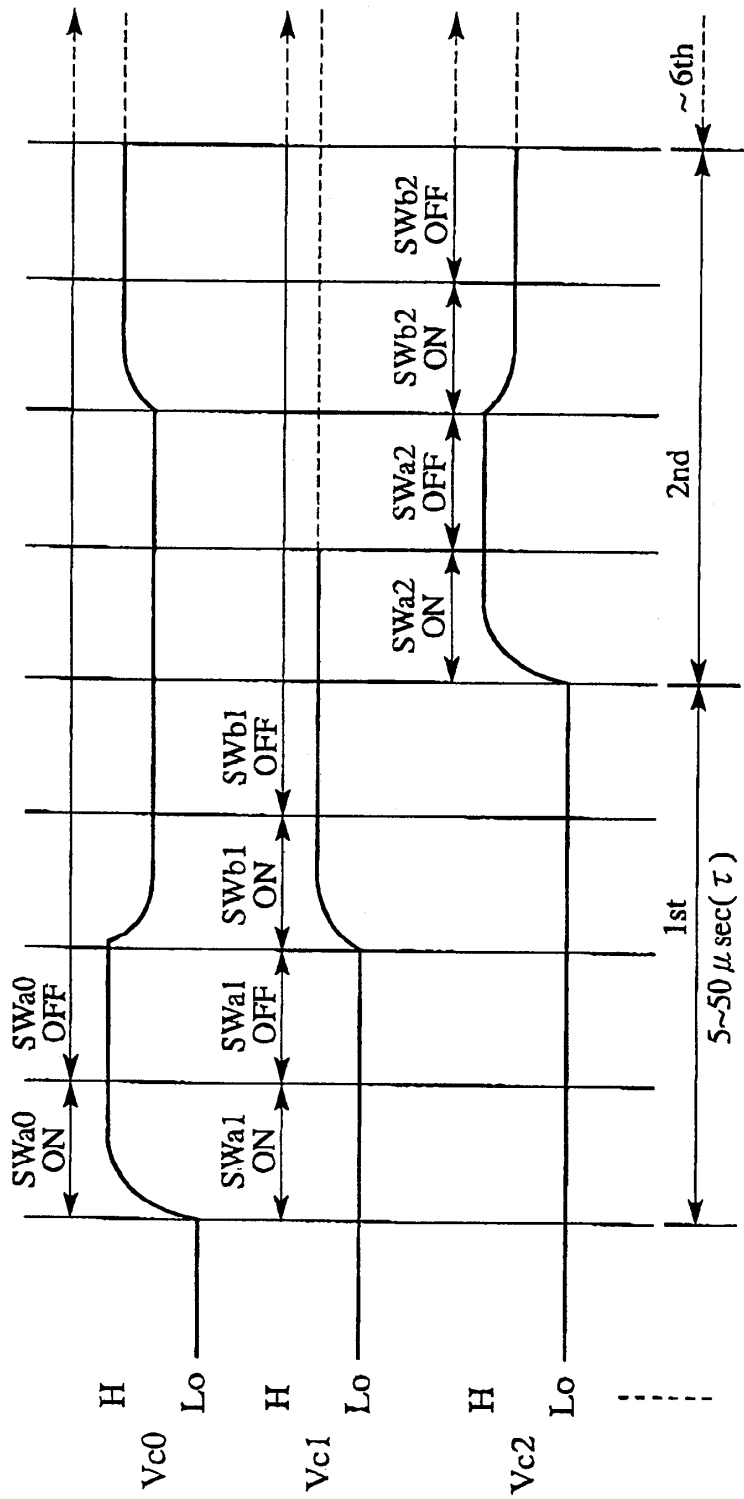
1 3. 2 , 1MΩ/cm² .

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专利名称(译)	液晶显示器		
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摘要(译)

在具有带电容器型数模转换器的多晶硅TFT基板的液晶显示装置中，与多晶硅TFT基板相对配置的对置基板，以及保持在该多晶硅TFT基板与对置基板之间的液晶，N是数模转换器的位数， τ 是每位电容器的工作稳定时间，当多晶硅TFT基板和相对基板之间的电容为 C_{LC} 时，它大于 $n \cdot \tau / C_{LC}$ 。具有该电阻值的遮光膜形成在对置基板的与液晶接触的表面。图1

