

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
G09G 3/30

(11)
(43)

10-2004-0021753
2004 03 11

(21)
(22)

10-2002-0053076
2002 09 04

(71)

14-1102

(72)

14-1102

(74)

:

(54)

(electro-luminescent)
(thin film transistor; TFT)

가 n 가

(Passive Matrix methode)
(Active Matrix methode)

(TFT)

IR drop
EL

EL

2		
3	2	
4		N > M
5		
6		
7	1	
8	2	
9	1	
10	2	
11	3	
12		1
13		2
14		3
15		4

TFT cent; EL) , , 가 (thin film transistor; electro-luminescent; EL) .

N > M EL , .

1 .

1 , (ITO), , (Metal) 가 .

(EML : emitting layer), (ETL : Electron Transport Layer) (HTL : Hole Transport Layer)
(HIL : Hole Injecting Layer) (EIL : Electron Injecting Layer)

(passive matrix) (TF

T) (active matrix) .

(TFT)

2 , 3 2 .

2 , EL (organic light emitting diode; 'OLED') (Anode)가
EL (Cathode)가
가 EL 가 . (Scan[n])
EL (OLED)

(Pulse Width Modulation : , PWM)

가

가

(pre-charging)

4 EL TFT , $N > M$

4 , EL (organic light emitting diode; 'OLED') (Mb)가
(Mb) (Ma)
가 (C)가
(Mb) (Ma) n (Scan(se
lect[n])) (Data[m])

(Scan(select[n])) (Mb) (Ma)가 (Ma) 가
(V_{DATA})

가 (V_{DATA}) (Mb) EL (OLED) 가
가 (C) EL 가

IR-drop 가 TFT (V_{th})

IR-drop TFT 가
(EL)

가 n 가

(MOS) (TFT) .
 ,
 가
 1 ,
 2 ,
 3 .
 ,
 ,
 5 EL .
 5 EL EL (Panel)(10),
 (driver)(30), (scan driver)(20) .
 EL (10) (D1, D2, D3, ..., Dy),
 (S1, S2, S3, ..., Sz), (D1, D2, D3, ..., Dy)
 (11) .
 (30) (D1, D2, D3, ..., Dy) 가 ,
 (20) (S1, S2, S3. ..., Sz) 가 .
 6 EL .
 6 EL , EL (OLED), (SW)
 EL (OLED) 가 .
 (SW) (scan) 가 n (Scan[n]) 가
 6 .
 (SW)가 가 , 가 EL (OLED)
 , 6 EL (OLED) 4 Mb VDD (current source)
 (I_{OLED}) ,
 IR-drop
 가 , EL .
 가 .
 , EL .

[illegible]

EL

(57)

1.

가 n ;

가

2.

1

1 2 가 ,

3.

1

(MOS) , (TFT) 가

4.

가

가 1 ;

가 2 ;

가 ,

3

5.

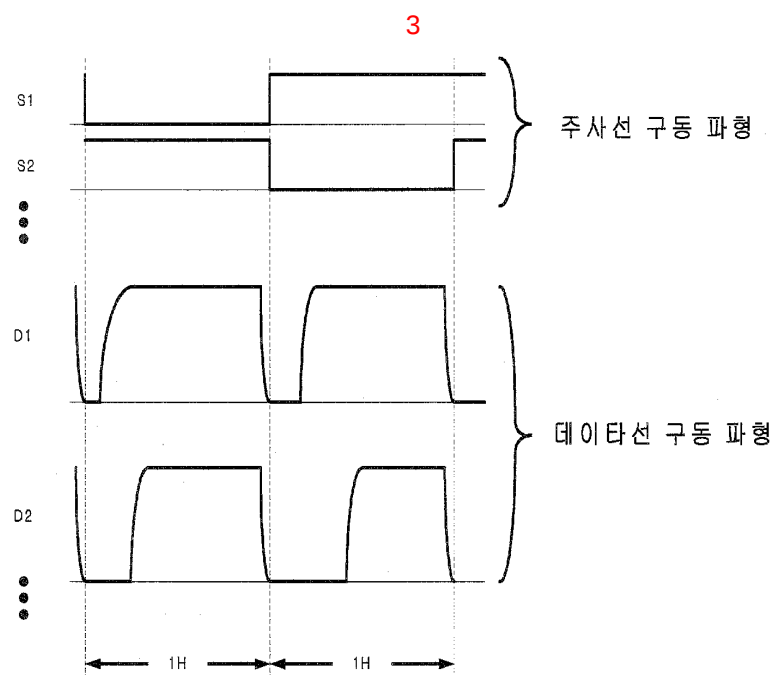
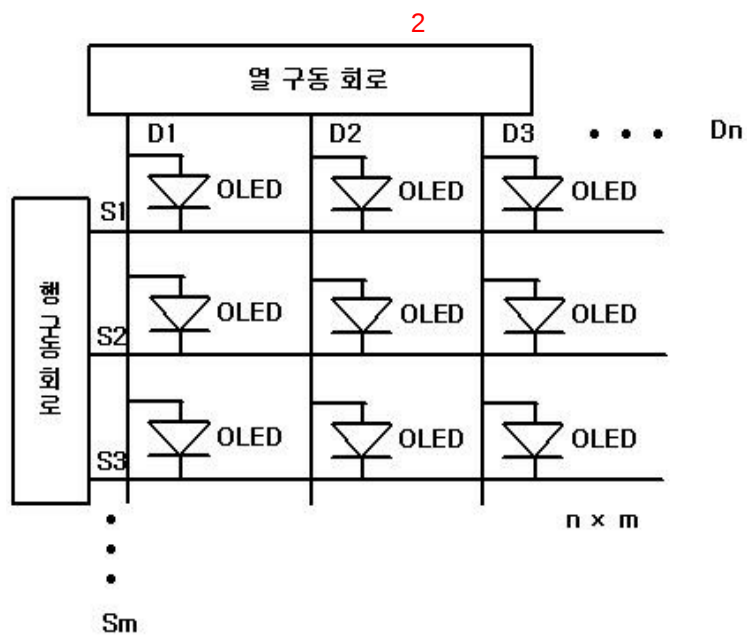
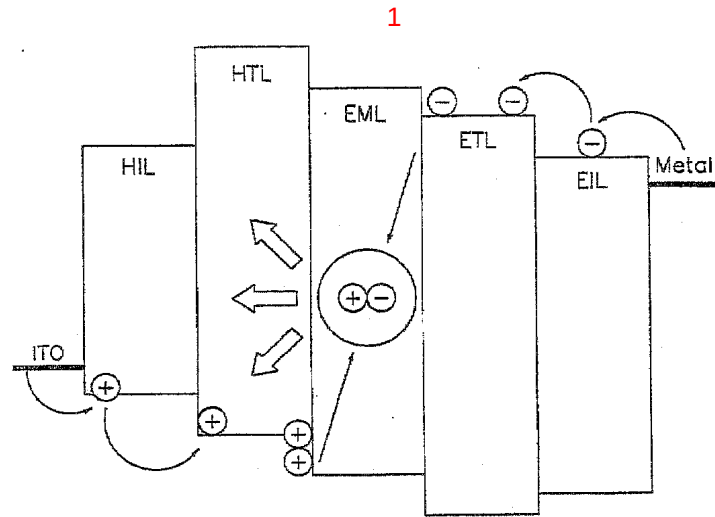
4

(Progressive Scanning)

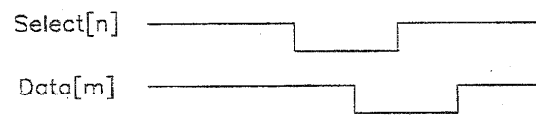
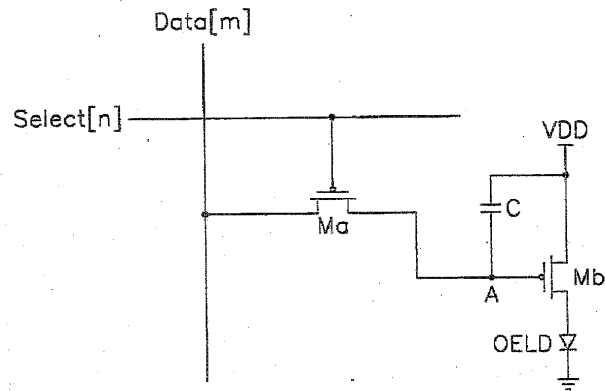
6.

- 4, (Interlace scanning method)
7. 4, (Dual line scanning method)
8. 4, (PWM)
9. 4, (PAM)
10. 4, (PWM) (PWM)
11. 4, (Pre-emphasis PWM)
12. 4,

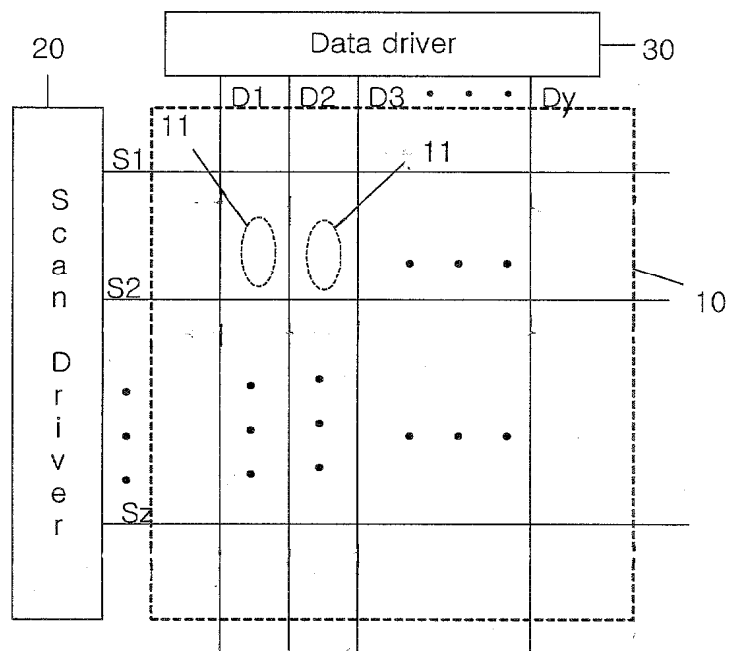
가



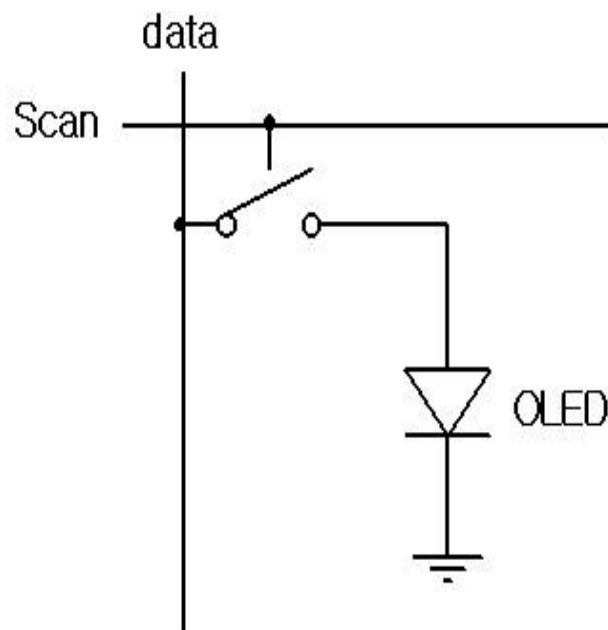
4



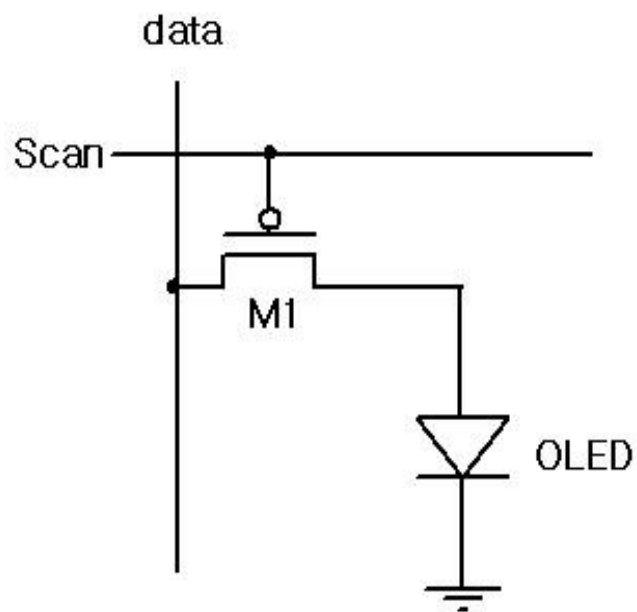
5



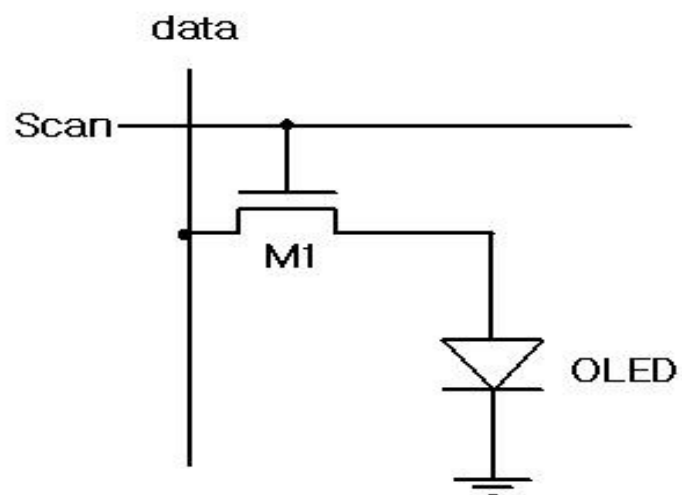
6



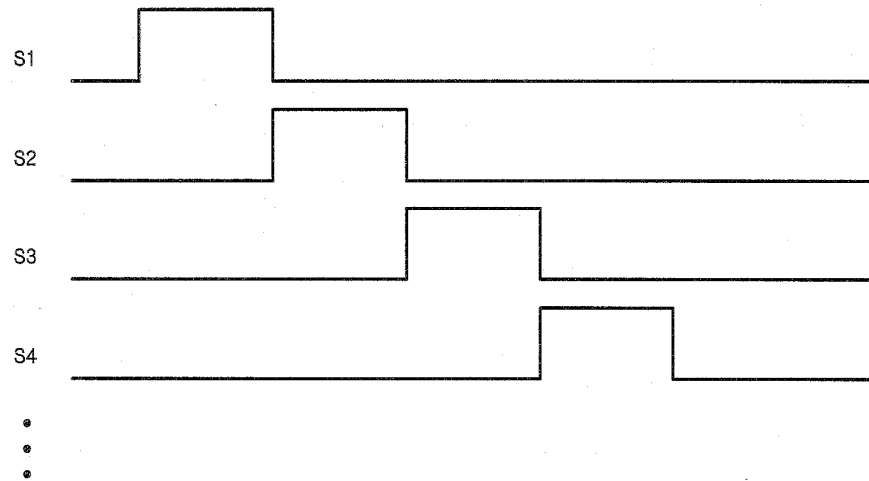
7



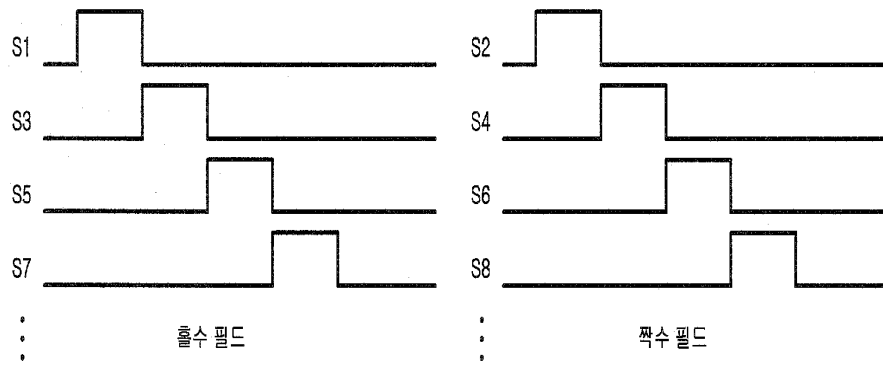
8



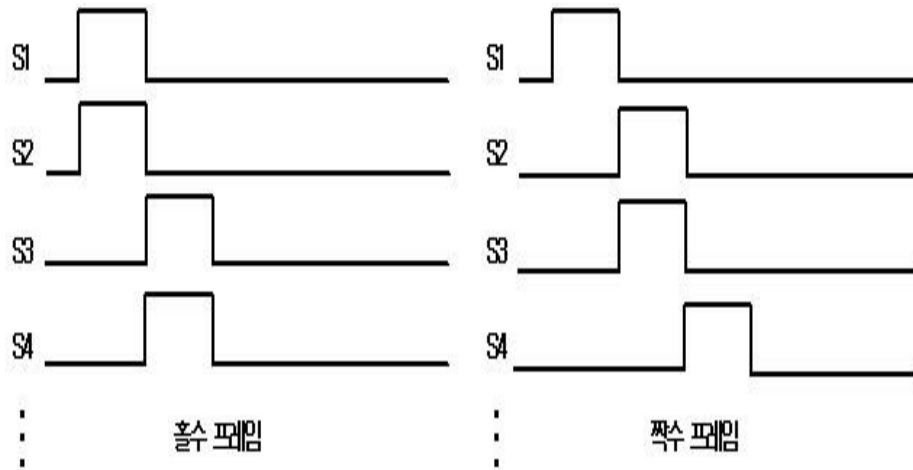
9



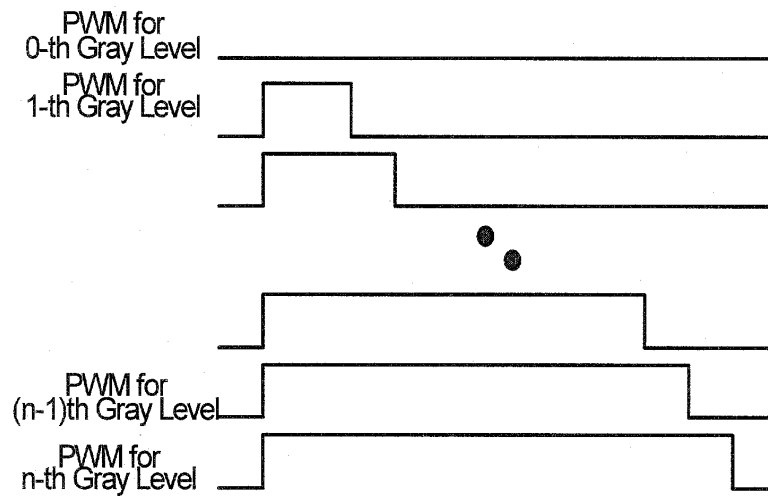
10



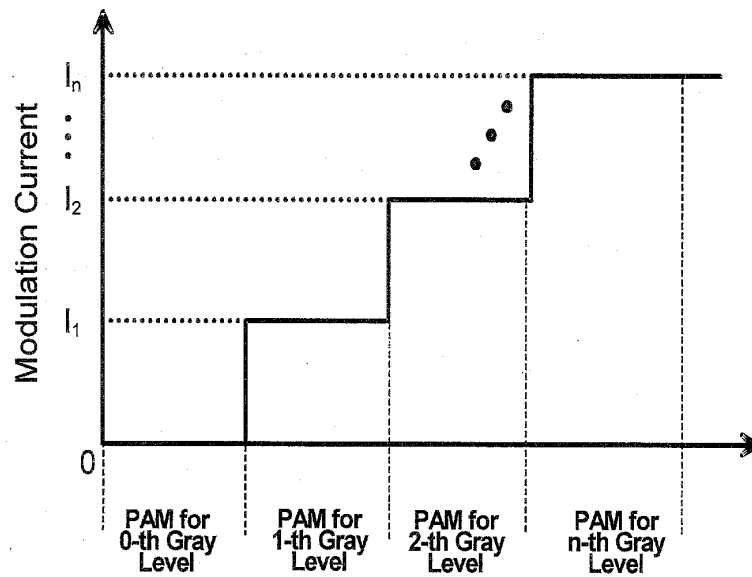
11



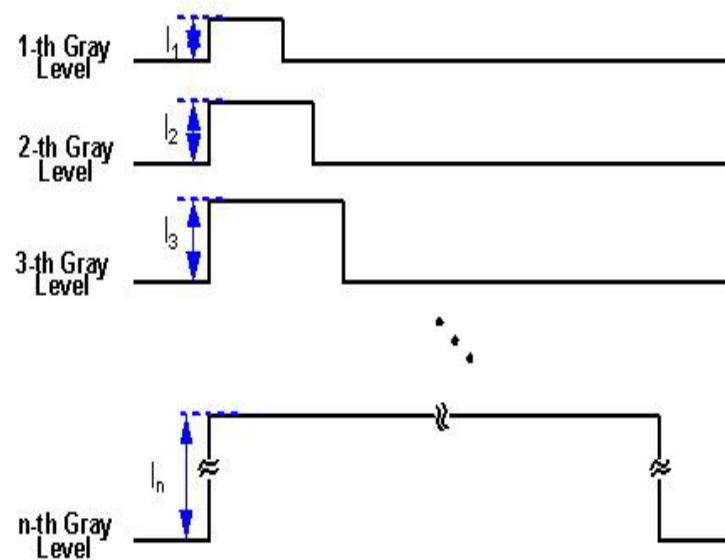
12

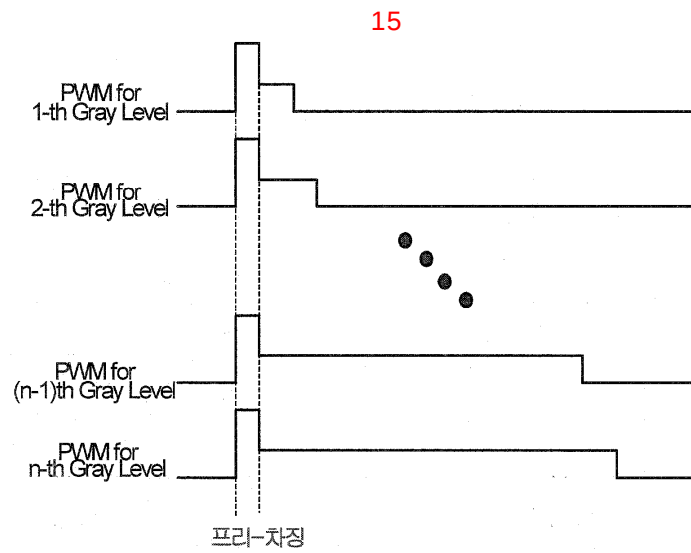


13



14





专利名称(译)	有机电致发光显示装置及其驱动方法		
公开(公告)号	KR1020040021753A	公开(公告)日	2004-03-11
申请号	KR1020020053076	申请日	2002-09-04
[标]申请(专利权)人(译)	KWON OH KYOUNG 权，呵呵 - 炅		
申请(专利权)人(译)	权，呵呵 - 炅		
当前申请(专利权)人(译)	权，呵呵 - 炅		
[标]发明人	KWON OH KYOUNG		
发明人	KWON, OH KYOUNG		
IPC分类号	G09G3/30		
外部链接	Espacenet		

摘要(译)

本发明涉及有机电致发光（电致发光）显示装置及其驱动方法。更具体地，它涉及有机电致发光显示装置及其驱动方法，其能够使用薄膜晶体管（薄膜晶体管：TFT）的高灰度，高清晰度，低耗散和大面积。本发明的有机电致发光显示装置连接到列驱动电路。并且关于有机电致发光显示装置，包括多个传送数据电流的数据线，表示根据列驱动电路，多条数据线和多条扫描线以及多个像素电路的操作的图像信号。由多条数据线和扫描线规定的多个像素形成，它由有机电致发光器件组成，辐射光对应于开关元件的数量，传递和数据电流响应于在扫描线处将像素电路施加到有机电致发光器件的第n扫描信号，从数据线施加的开关元件数据电流传送。无源矩阵方法（无源矩阵方法）减轻了数据线负载的涌流，放电物质和消耗功率问题。多条数据线和多条扫描线被配置为正交，它连接到现有技术的行驱动IC。在有源矩阵方法（Active Matrix方法）中，由于去除了由于薄膜晶体管（TFT）的阈值电压的偏差和迁移率和像素电源电压的低IR耗散而产生的误差，以及有机EL与现有的无源矩阵方法相比，可以实现大面积的显示装置。与有源矩阵方法相比，可以实现高灰度和高清晰度的有机EL显示装置。有机的电致发光。

