

AMOLED LTPS

(Flat Panel Display, FPD) TFT - LCD(Thin Film Transistor Liquid Crystal Display)

2003 150
(a - Si) TFT - LCD 1

2
가 LCD
가 , OLED
(Organic Light Emitting Diode; OLED)가

LCD , ,
backlight가
가
2010 9
1 5 OLED
가
PDA 2010 20% 695
OLED , car
navigation system(CNS) 30% 4,230
가OLED
LCD

가 OLED
LCD OLED
OLED
, 15V 가 ,
160
2mm
0.3mm
, 가 ,
가 ,
TFT - LCD
OLED LCD
passive matrix type active matrix
type(AMOLED) ,
passive matrix type
matrix ,
duty . active matrix type
TFT
가 가 .
passive matrix
가 가 ,
active matrix
passive matrix
가
100 가

OLED

TFT array

, AMOLED 가 가

stability

poly - Si a - Si

AMOLED가

poly - Si TFT poly - Si

gate

poly - Si TFT

poly - Si TFT

poly - Si TFT

(integration)

TFT

(μe), (V_{th})

. TFT 가OLED

, TFT

3 TFT μe V_{th}

AMOLED

, TFT

AMOLED 가

AM(active matrix)OLED PM(passive matrix)

OLED 가

가

OLED

, TV

TV

400~500 cd/m²

50,000

OLED 가

OLED ,

, OLED LCD

, 15V

, 10 μ s 170

가

OLED

가 LCD

PDP 가

100

가OLED

OLED 2 (

, MP3 , Portable Multimedia

Player,)

가

. OLED 10

, 20 40

가