

Version: 1.0

TECHNICAL SPECIFICATION

MODEL NO: ED060XC3

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Please contact E Ink or its agent for further information.

Customer's Confirmation

Customer _____

Date _____

By _____

E Ink's Confirmation

Approved By

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Confirmed By

傅淑貞

Prepared By

李穎鎧

Revision History

Rev.	Issued Date	Revised Contents
0.1	May.03,2011	Preliminary
0.2	June.30 , 2011	<p>Modify</p> <p>Page 4 3.Mechanical Specifications Pixel Configuration : Rectangle → Square Outline Dimension 101.80(W)×138.40(H)×1.50(D)→101.80(W)×138.40(H)×1.60(D) Active Area 90.581 (H)×122.368 (V) →90.58(H)×122.37(V)</p> <p>Page 5 4. Mechanical Drawing of EPD module Delete Vcom Label Add FPC turn back drawing Modify FPC outline</p> <p>Page 9 6-2) Pin Description Modify Pin7&Pin8</p> <p>Page 13 7-4)Panel AC characteristics CLOCK & DATA TIMING OUT1~OUT400 →OUT1~OUT1024</p> <p>Add</p> <p>Page 8 5-2) Flash Format Page 12 Note 7-1 The maximum power consumption Page 22 12. Reliability test Page 25 15. Block Diagram</p>
0.3	Aug 08,2011	<p>Modify</p> <p>Page 5 4. Mechanical Drawing of EPD module Modify Touch FPC Location</p> <p>Page 9 6-2) Pin Description Pin7&Pin8→NC</p> <p>Page17 9. Discharge time Sequence Modify Note 8-2</p> <p>Page 23 13.Bar Code definition Modify Year code Z: 2025 →Z: 2024 Add MFG Code : L&V</p> <p>Add</p> <p>Page 9 6. Touch Panel Characteristics</p> <p>Page 15 7-3) Panel DC Characteristics Add I_{COM} & P_{STBY} & I_{COM} inrush current</p> <p>Page 28 14. Border definition</p> <p>Page 30 16.Packing</p> <p>Delete</p> <p>Page 9 6-1)Connector type Delete Panasonic connector</p> <p>Page 18 7-5)Power Consumption</p>
0.4	Sep 13 , 2011	<p>Modify</p> <p>Page 5 4. Mechanical Drawing of EPD module Modify Double side tape attach area</p> <p>Page 6 5. Input/Output Terminals Modify Pin Assignment</p> <p>Page 7 Note 5-1 Modify Flash Memory Pin</p> <p>Page 8 6-2) Pin Description</p> <p>Page 28 15.Block Diagram Power Supply add V_{DD2}</p>

Rev.	Issued Date	Revised Contents
0.5	Oct 12,2011	<u>Modify</u> Page 5 4. Mechanical Drawing of EPD module Modify Active area to edge distance Page 15 7-3) Panel DC characteristics Vcom Min. from -2.5V change to -4.0V Page 26 12. Reliability test Modify Criteria Page 27 13.Bar Code definition Add ED060XC3P1 model code Page 30 16.Packing
0.6	Dec 12,2011	<u>Modify</u> Page 6 4.Mechanical Drawing of EPD Module Modify FPC outline Page 9 6.Touch Panel Characteristics Modify 6-2) Pin Description Modify Touch Panel Characteristics Page 14 7-3)Panel AC characteristics Page 19 10. Optical characteristics Modify Luminance meter:PR650 Page 23 12. Reliability test Delete Item.13 Altitude test Storage Page 24 13. Bar Code definition Add model code : E62 & E63 & E6H Page 27 16. Packing Modify FPC outline Page 28 19.Timing
0.7	Jan 03,2012	<u>Modify</u> Page 5 3. Mechanical Specifications Modify module weight : TBD → 50±5 g Page 6 4.Mechanical Drawing of EPD Module Modify outline Page 7 5. Input/Output Terminals Modify Pin 11 chop select → chip select Page 12 7-2) Panel DC characteristics Modify Vcom Max.= -0.3V → -1.5V Min. = -4.0V → -3.5V Page 16 8. Power on Sequence Modify Power Down sequence
0.8	Feb 03,2012	<u>Modify</u> Page 6 4.Mechanical Drawing of EPD Module Modify outline Page 14 7-3)Panel AC characteristics Modify signal naming Modify Timing drawing Add Timing Table <u>Delete</u> Page 28 19.Timing

Rev.	Issued Date	Revised Contents
0.9	Mar 16,2012	<p>Modify</p> <p>Page 5 3. Mechanical Specifications Modify outline dimension thickness : 1.60(D) (Panel+Touch)→1.58(D) (Panel+Touch)</p> <p>Page 7 4.Mechanical Drawing of EPD Module Modify outline</p> <p>Page 10 6-3) DC Characteristics Modify V_{DD} Min. : 3.0V → 1.71V</p> <p>Page 13 7-2)Panel DC characteristics Modify power consumption</p> <p>Page 15 7-3)Panel AC characteristics Modify signal naming Modify Timing drawing</p> <p>Page 19 8.Power on Sequence Modify $T_{sd}=100\mu s \rightarrow 30\mu s$ Modify Power down drawing & table</p> <p>Page 31 17. Configuration table Modify Configuration table</p> <p>Add</p> <p>Page 17 7-4) Controller Timing for WJ-4BIT Waveform</p>
1.0	April 10, 2012	<p>Modify</p> <p>Page 7 4.Mechanical Drawing of EPD Module Modify outline</p> <p>Page 22 10.Optical Characteristics Modify 10-1) Specifications $R : 35/40/- ; CR : 10/12/-$</p> <p>Page 26 12. Reliability test Add Remark</p>

TECHNICAL SPECIFICATION

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1. General Description

ED060XC3 is a reflective electrophoretic E Ink® technology display module based on active matrix TFT substrate featuring capacitive touch panel. It has 6" active area with 758 x 1024 pixels, the display is capable to display images at 2-16 gray levels (1-4 bits) depending on the display controller and the associated waveform file it used.

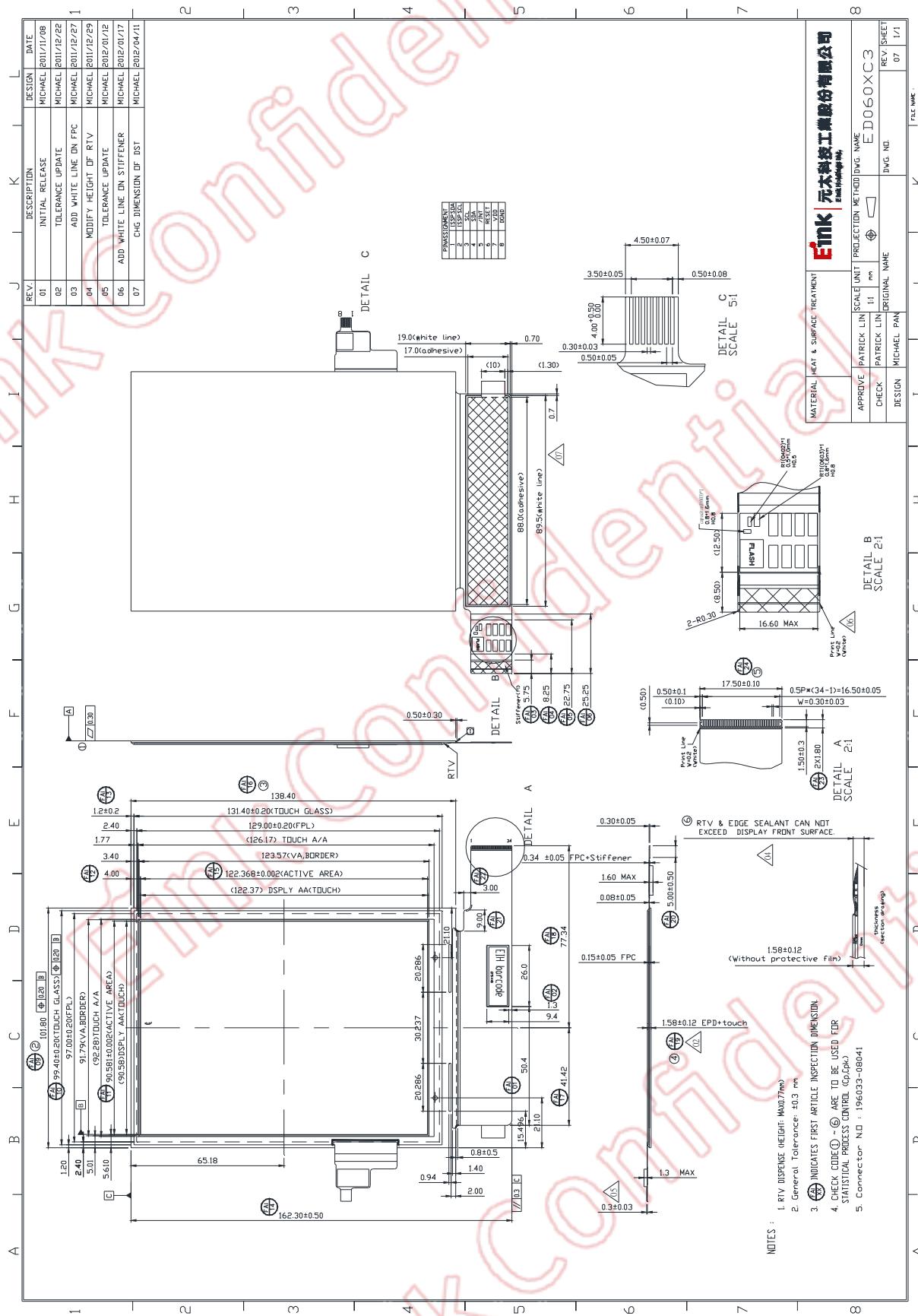
2. Features

- High contrast reflective/electrophoretic technology
- 758 x 1024 dots resolution
- Capacitive touch
- High reflectance
- Ultra wide viewing angle
- Ultra low power consumption
- Pure reflective mode
- Bi-stable
- Commercial temperature range
- Landscape, portrait mode
- Module with capacitive touch panel

3. Mechanical Specifications

Parameter	Specifications	Unit	Remark
Screen Size	6.0 (3:4 diagonal)	Inch	
Display Resolution	758 (H)×1024(V)	Pixel	
Active Area	90.58 (H)×122.37 (V)	mm	
Pixel Pitch	0.1195 (H)×0.1195 (V)	mm	
Pixel Configuration	Square		
Outline Dimension	101.80(W)×138.40(H)×1.58(D) (EPD+Touch)	mm	
Module Weight	50±5	g	
Number of Gray	16 Gray Level (monochrome)		
Display operating mode	Reflective mode		

4. Mechanical Drawing of Display Module



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5. Input/Output Interface

5-1) Connector type: FH34S-34S-0.5SH(50)-Hirose

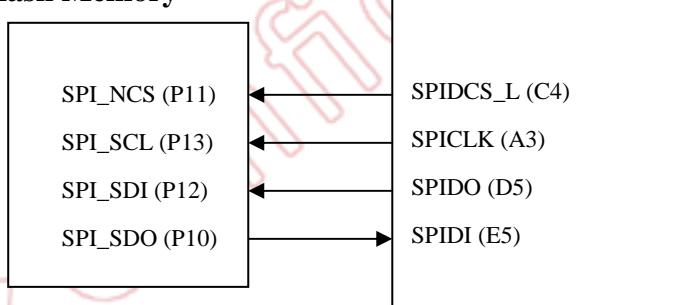
Pin Assignment

Pin #	Signal	Description	Remark
1	VGG	Positive power supply gate driver	
2	VPOS	Positive power supply source driver	
3	VSS	Ground	
4	BORDER	Border connection	
5	VDD2	SPI power supply (1.8V)	
6	SPV	Start pulse gate driver	
7	CKV	Clock gate driver	
8	MODE 1	Output mode selection gate driver	
9	VSS	Ground	
10	SPI_SDO	Serial Data Output for Flash memory	Note5-1
11	SPI_NCS	Chip Select for Flash memory	Note5-1
12	SPI_SDI	Serial Data Input for Flash memory	Note5-1
13	SPI_SCL	Serial Data Clock for Flash memory	Note5-1
14	VCOM	Common connection	
15	D7	Data signal source driver	
16	D6	Data signal source driver	
17	D5	Data signal source driver	
18	D4	Data signal source driver	
19	D3	Data signal source driver	
20	D2	Data signal source driver	
21	D1	Data signal source driver	
22	D0	Data signal source driver	
23	XSTL	Start pulse source driver	
24	XOE	Output enable source driver	
25	XLE	Latch enable source driver	
26	VSS	Ground	
27	XCL	Clock source driver	
28	VSS	Ground	
29	VDD	Digital power supply drivers (3.3V)	
30	AGND	Thermistor Analog Ground	Note 5-2
31	TS	Thermistor Sense Pin	Note 5-2
32	VSS	Ground	
33	VEE	Negative power supply gate driver	
34	VNEG	Negative power supply source driver	

Note 5-1

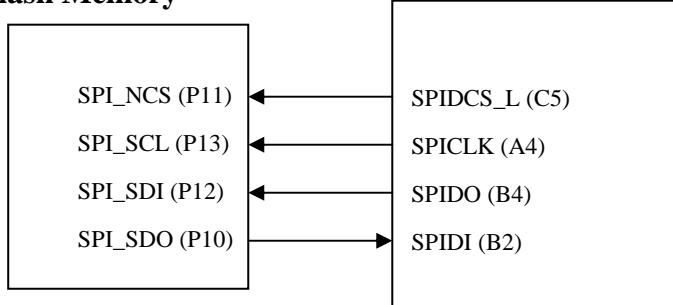
S1D13521 SPI Interface

Flash Memory

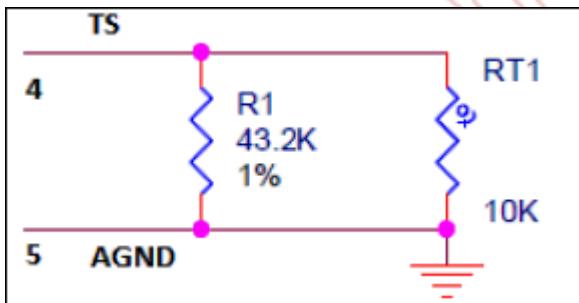


S1D13522 SPI Interface

Flash Memory



Note 5-2



TS
4
R1
43.2K
1%
5 AGND
RT1
10K

RT1: MURATA NCP18XH103F03RB (RESISTOR,THERMAL,10K,100mW,1%,0603)
R1: RESISTOR,43.2K,1/16W,1%.0402

5-2) Flash Format

(1) 0x00000 ~ 0x00885 : instruction code
(2) 0x00886 ~ 0xFFFF : E Ink waveform
(3) 0x30000 ~ 0x3000F : Product part number
(4) 0x30010 ~ 0x3001F : Vcom voltage
(5) 0x30020 ~ 0x3003F : Waveform version
(6) 0x30040 ~ 0x3004F : FPL version
(7) 0x30050 ~ 0x3007F : Barcode

6. Touch Panel Characteristics

6-1) Connector type : 8 Pin Pitch=0.5mm (P-TWO 196033-08041)

6-2) Pin Description

Pin	Symbol	Description
1	ISSP SDA	Program Pin Data
2	ISSP SCL	Program Pin Clock
3	SCL	I ² C clock line.
4	SDA	I ² C data line.
5	/INT	Attention line(Typically active low, optional)
6	RESET	Reset Input. A low on this pin for resets the device.
7	VDD	Power supply.
8	DGND	Ground

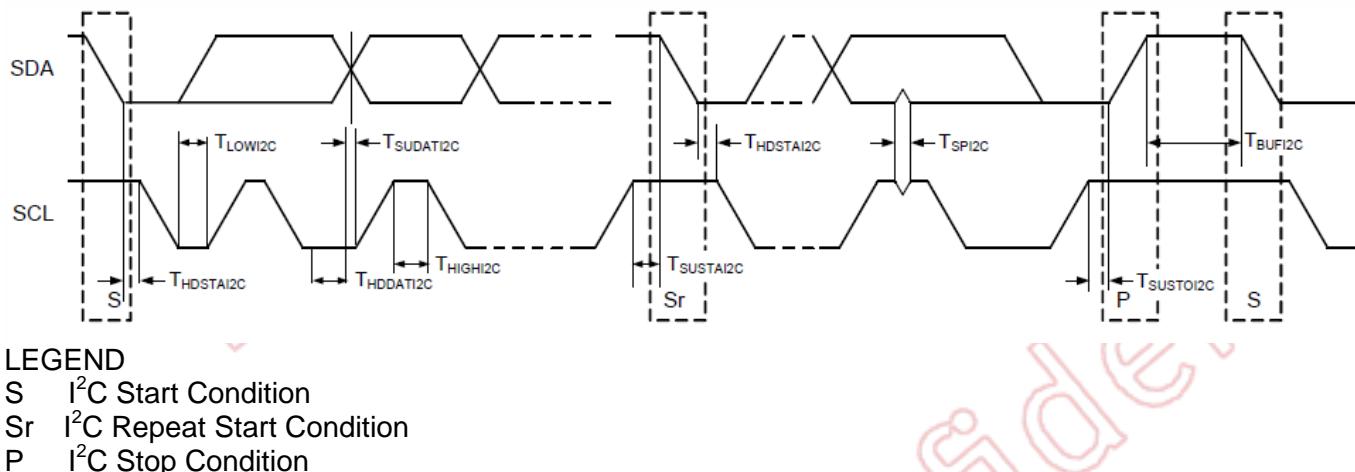
6-3) DC Characteristics

Item	Symbol	Min	Typ	Max	Unit
Touch Panel Power supply	V _{DD}	1.71	3.3	3.6	V

6-4) Touch Panel I²C Specifications

Symbol	Description	Conditions	Min.	Max.	Unit
F_{SCLI2C}	SCL clock frequency	-	0	400	KHz
$T_{HDSTA12C}$	Hold time (repeated) Start condition. After this period, the first clock pulse is generated.	-	0.60	-	us
T_{LOWI2C}	LOW period of SCL clock	-	1.3	-	ns
$T_{HIGHI2C}$	HIGH period of SCL clock	-	0.6	-	ns
$T_{SUSTAI2C}$	Setup time for repeated Start condition		0.6	-	us
$T_{HDDATI2C}$	Data hold time		0	-	us
$T_{SUDATI2C}$	Data setup time		100	-	ns
$T_{SUSTO12C}$	Setup time for STOP condition		0.6	-	us
T_{BUFI2C}	Bus free time between a Stop and Start condition		1.3	-	us
T_{SPI12C}	Pulse width of spikes that are suppressed by input filter	I ² C Specification 3.0 maximum is 50 ns	0	50	ns
C_{BUS}	Capacitance load for SDA or SCL		-	200 [Note6-1]	pF

Figure 6-3. Timing Diagram for Fast/Standard Mode of the I²C Bus



Note6-1 : This does not fully meet the I²C max capacitive load targets of 400 pF.

7. Display Module Electrical Characteristics

7-1) Absolute Maximum Ratings:

Parameter	Symbol	Rating	Unit	Remark
Logic Supply Voltage	VDD	-0.3 to +7	V	--
Digital voltage supply 2 range	VDD2	-0.6 to +4	V	Note 1
Positive Supply Voltage	V _{POS}	-0.3 to +18	V	--
Negative Supply Voltage	V _{NEG}	+0.3 to -18	V	--
Max .Drive Voltage Range	V _{POS} - V _{NEG}	36	V	--
Supply Voltage	VGG	-0.3 to +45	V	--
Supply Voltage	VEE	-25.0 to +0.3	V	--
Supply Range	VGG-VEE	-0.3 to +45	V	--
Operating Temp. Range	TOTR	0 to +50	°C	--
Storage Temperature	TSTG	-25 to +70	°C	--

Note 1: SPI Flash IC Power Supply

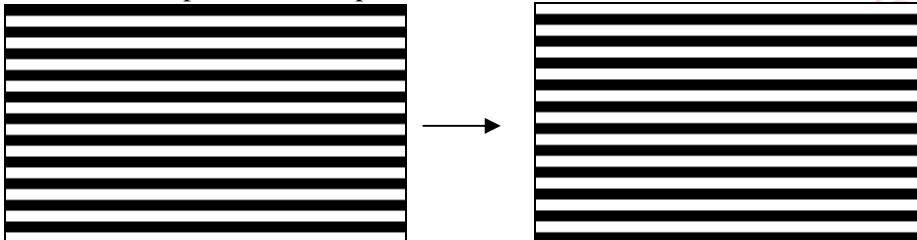
7-2) Display Module DC characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Signal ground	V _{SS}		-	0	-	V
Logic Voltage supply	V _{DD}		3.0	3.3	3.6	V
	I _{VDD}	V _{DD} =3.3V	-	1.5	4.0	mA
Logic Voltage supply2 (Active)	V _{DD2}		1.65	1.8	1.95	V
	I _{VDD2}	V _{DD2} =1.8V		0.1	0.2	mA
Logic Voltage supply2 (Standby)	V _{DD2}		1.65	1.8	1.95	V
	I _{VDD2}	V _{DD2} =1.8V		25	50	μA
Gate Negative supply	V _{EE}		-21	-20	-19	V
	I _{EE}	V _{EE} =-20V	-	1.3	8.0	mA
Gate Positive supply	V _{GG}		21	22	23	V
	I _{GG}	V _{GG} =22V	-	1.4	3.5	mA
Source Negative supply	V _{NEG}		-15.4	-15	-14.6	V
	I _{NEG}	V _{NEG} =-15V	-	10.4	40	mA
Source Positive supply	V _{POS}		14.6	15	15.4	V
	I _{POS}	V _{POS} =15V	-	10.3	42	mA
Border supply	V _{Border}	V _{POS} =15V	14.6	15	15.4	V
		V _{NEG} =-15V	-15.4	-15	-14.6	V
Asymmetry source	V _{Asym}	V _{POS} +V _{NEG}	-800	0	800	mV
Common voltage	V _{COM}		-3.5	Adjusted	-1.5	V
	I _{COM}		-	0.3	-	mA
Panel Power	P		-	380	1500	mW
Standby power panel	P _{STBY}		-	-	0.4	mW
Operating temperature			0	-	50	°C
Storage temperature			-25	-	70	°C

- The maximum power consumption is measured using 85Hz waveform with following pattern transition: from pattern of repeated 1 consecutive black scan lines followed by 1 consecutive white scan line to that of repeated 1 consecutive white scan lines followed by 1 consecutive black scan lines. (Note 7-1)
- The Typical power consumption is measured using 85Hz waveform with following pattern transition: from horizontal 4 gray scale pattern to vertical 4 gray scale pattern. (Note 7-2)
- The standby power is the consumed power when the panel controller is in standby mode.
- The listed electrical/optical characteristics are only guaranteed under the controller & waveform provided by E Ink.
- Vcom is recommended to be set in the range of assigned value $\pm 0.1V$.
- The maximum I_{COM} inrush current is about 600 mA

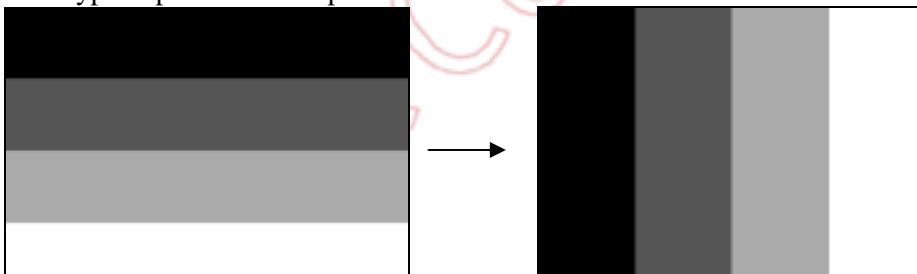
Note 7-1

The maximum power consumption



Note 7-2

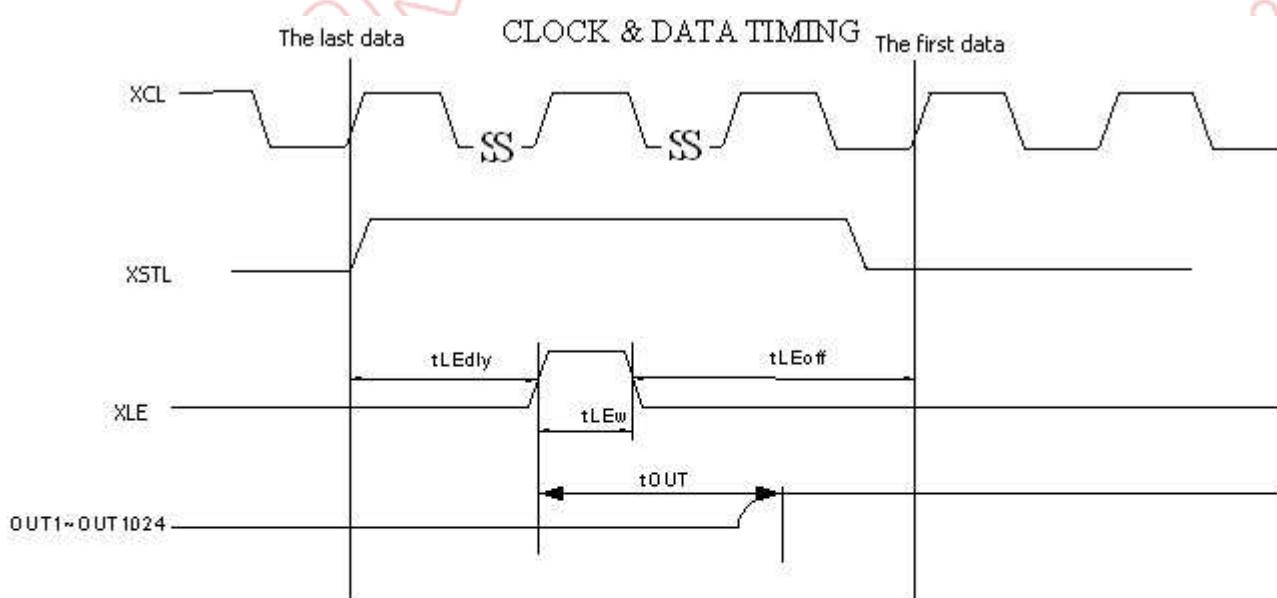
The Typical power consumption



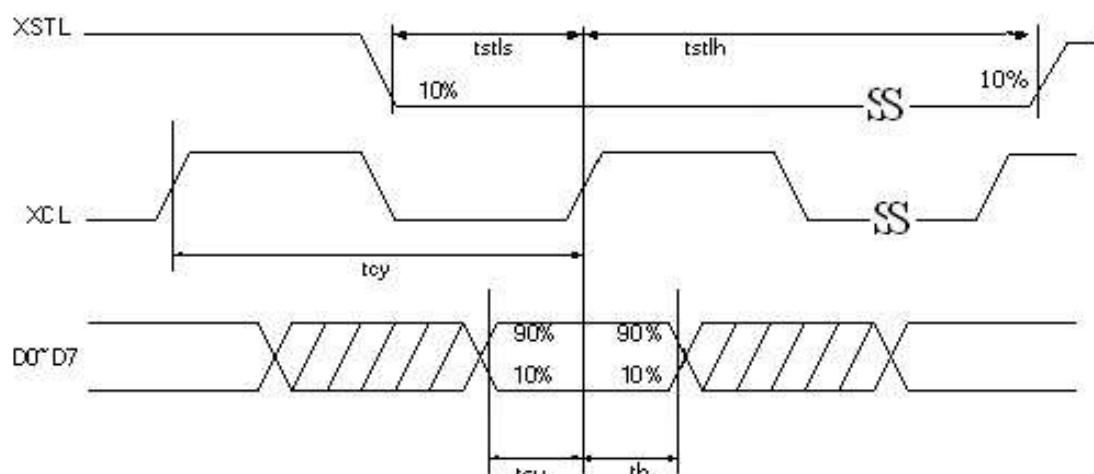
7-3) Display Module AC characteristics

VDD=3.0V to 3.6V, unless otherwise specified.

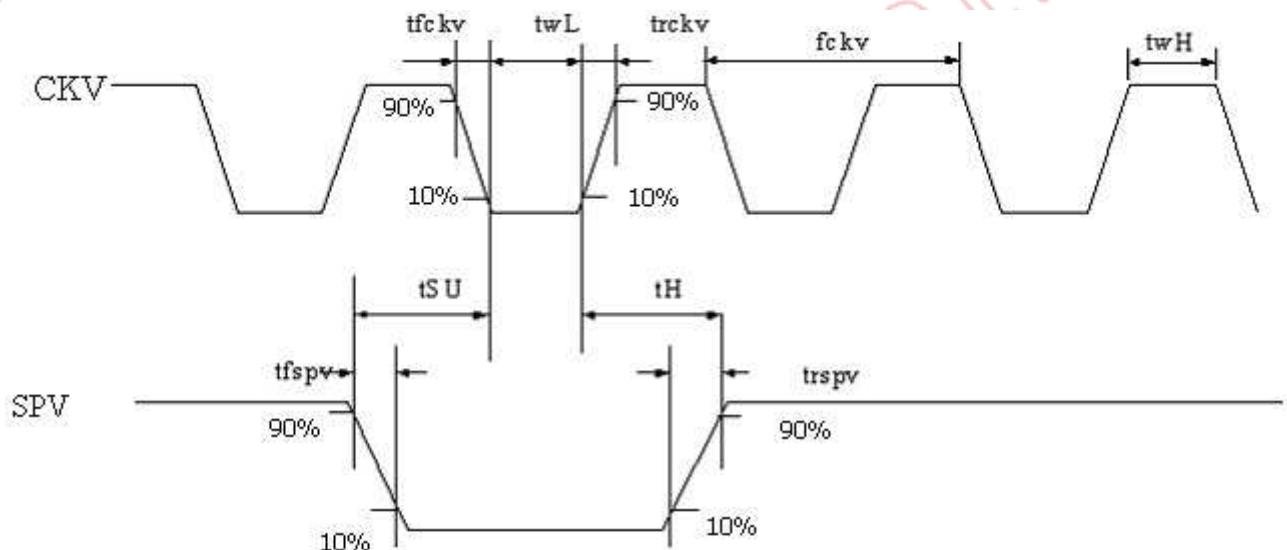
Parameter	Symbol	Min.	Typ.	Max.	Unit
Clock frequency	fckv	-	-	200	kHz
Minimum "L" clock pulse width	twL	0.5	-	-	us
Minimum "H" clock pulse width	twH	0.5	-	-	us
Clock rise time	trckv	-	-	100	ns
Clock fall time	tfckv	-	-	100	ns
SPV setup time	tSU	100	-	twH-100	ns
SPV hold time	tH	100	-	twH-100	ns
Pulse rise time	trspv	-	-	100	ns
Pulse fall time	tfspv	-	-	100	ns
Clock XCL cycle time	tcy	25	-	-	ns
D0 .. D7 setup time	tsu	12	-	-	ns
D0 .. D7 hold time	th	12	-	-	ns
XSTL setup time	tstls	12	-	-	ns
XSTL hold time	tstlh	12	-	-	ns
XLE on delay time	tLEdly	40	-	-	ns
XLE high-level pulse width (When VCC=3.0V to 3.6V)	tLEw	150	-	-	ns
XLE off delay time	tLEoff	200	-	-	ns
Output setting time to +/- 30mV(C _{load} =200pF)	tout	-	-	12	us



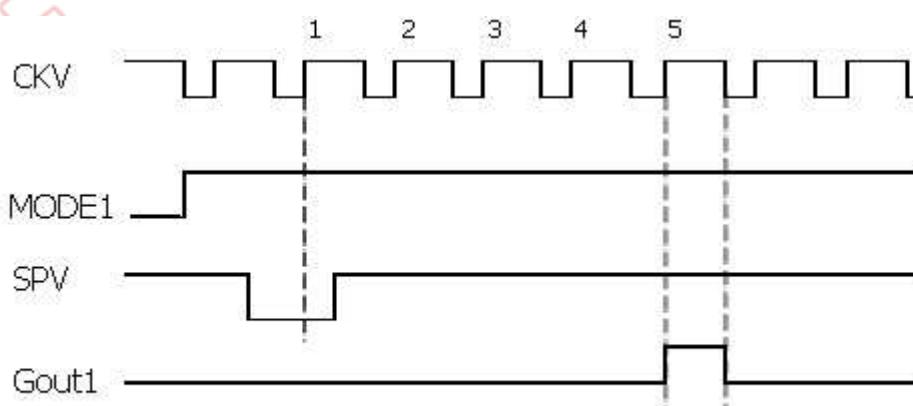
OUTPUT LATCH CONTROL SIGNALS



CKV & SPV TIMING



GATE OUTPUT TIMING



7-4) Controller Timing for WJ-4BIT Waveform

This timing mode is depicted on Figure 1 and Figure 2 and it refers to timing of Source Driver Output Enable (SDOE) and Gate Driver Clock (GDCK). Note, that in this mode LGON follows GDCK timing.

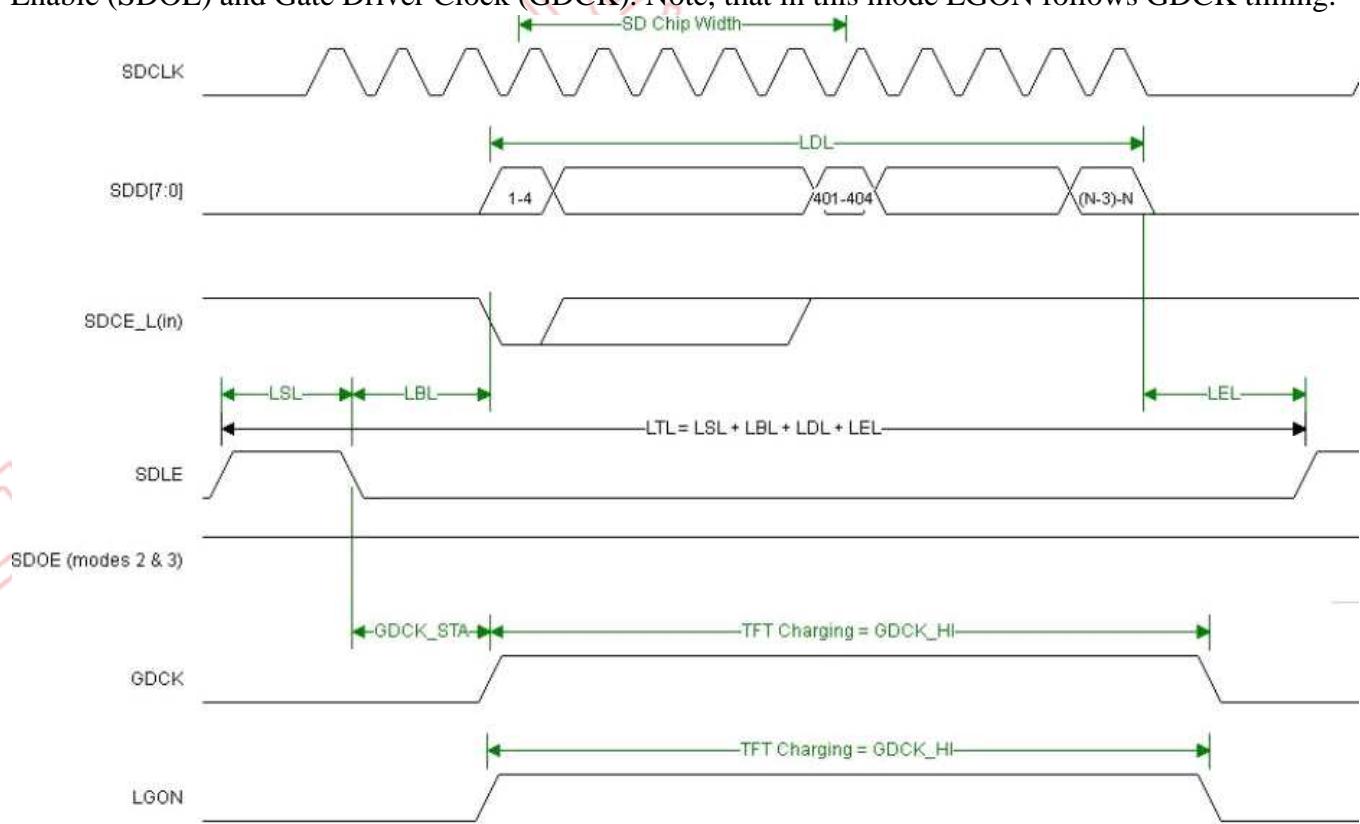


Figure 1 Line Timing in Mode 3

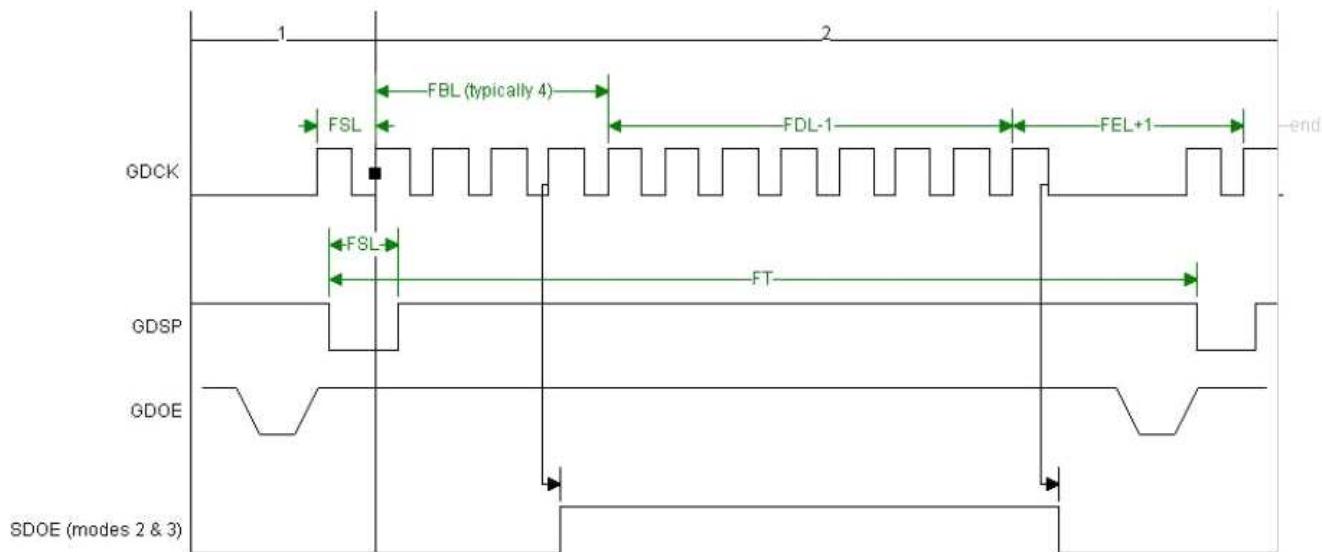


Figure 2 Frame Timing in Mode 3

Table Timing Parameters Table

Mode	3	Resolution 1024x758				
SDCK [MHz]	20					
Pixels Per SDCK	4					
Line Parameters[SDCK]	LSL	LBL	LDL	LEL	GDCK STA	LGONL
	6	6	256	38	4	262
Line Parameters[us]	-	-	-	-	-	-
	0.3	0.3	12.8	1.9	0.2	13.10
Frame Parameters [lines]	FSL	FBL	FDL	FEL	-	FR [Hz]
	2	4	758	5	-	84.99
Frame Parameters [us]					-	-
	30.60	61.20	11597.4	76.50	-	-

Note 1: For parameters definition, see Section 6. Active Matrix Electronic Paper Display Timings

Note 2: For Isis Controller GDCK_STA and LGONL are not settable parameters; GDCK_STA = LBL,
LGONL = LDL+0.5

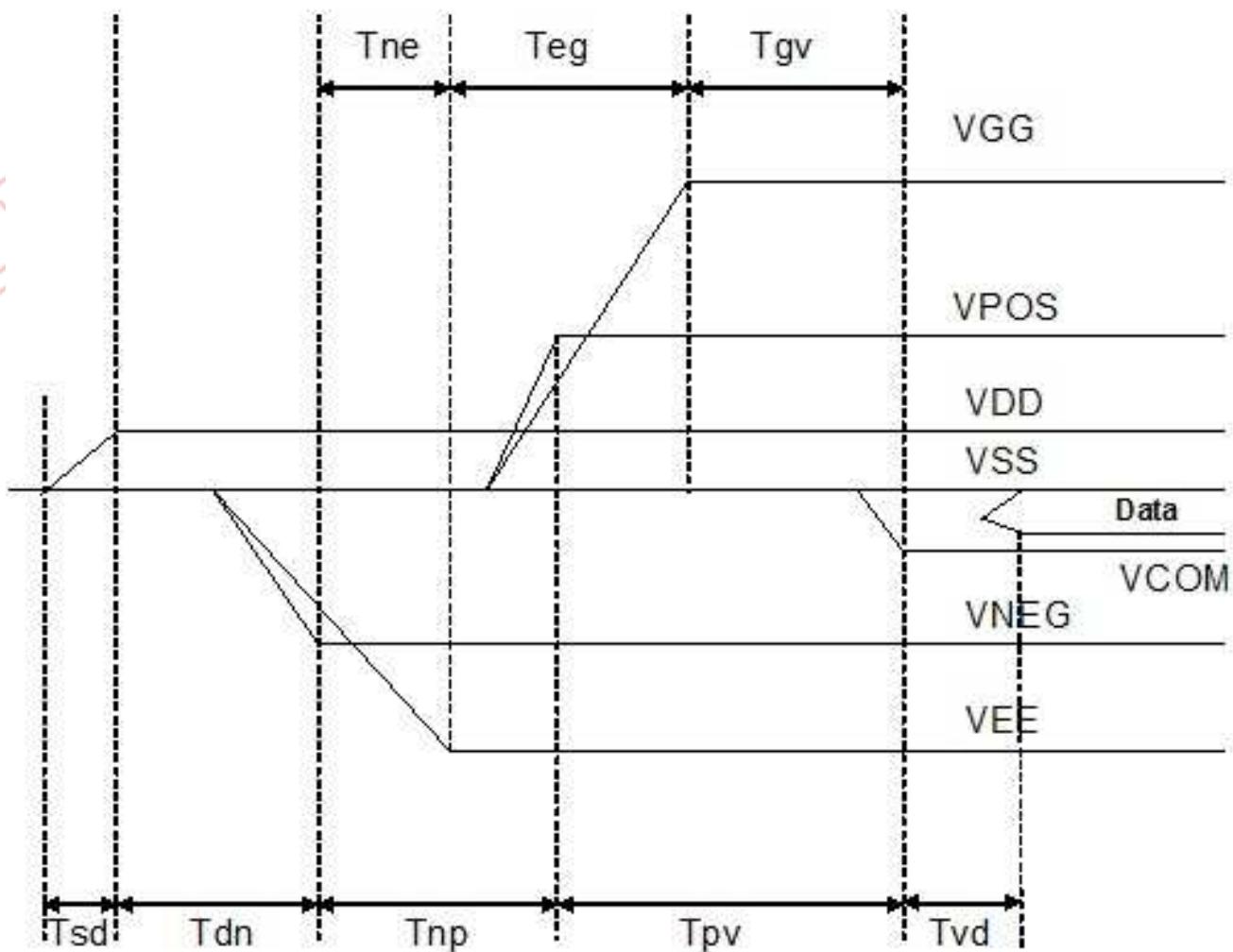
Note 3: For Freescale SoC GDOE Low pulse represent FSL and GDSP pulses with the first period of FBL

8. Power Sequence

Power Rails must be sequenced in the following order :

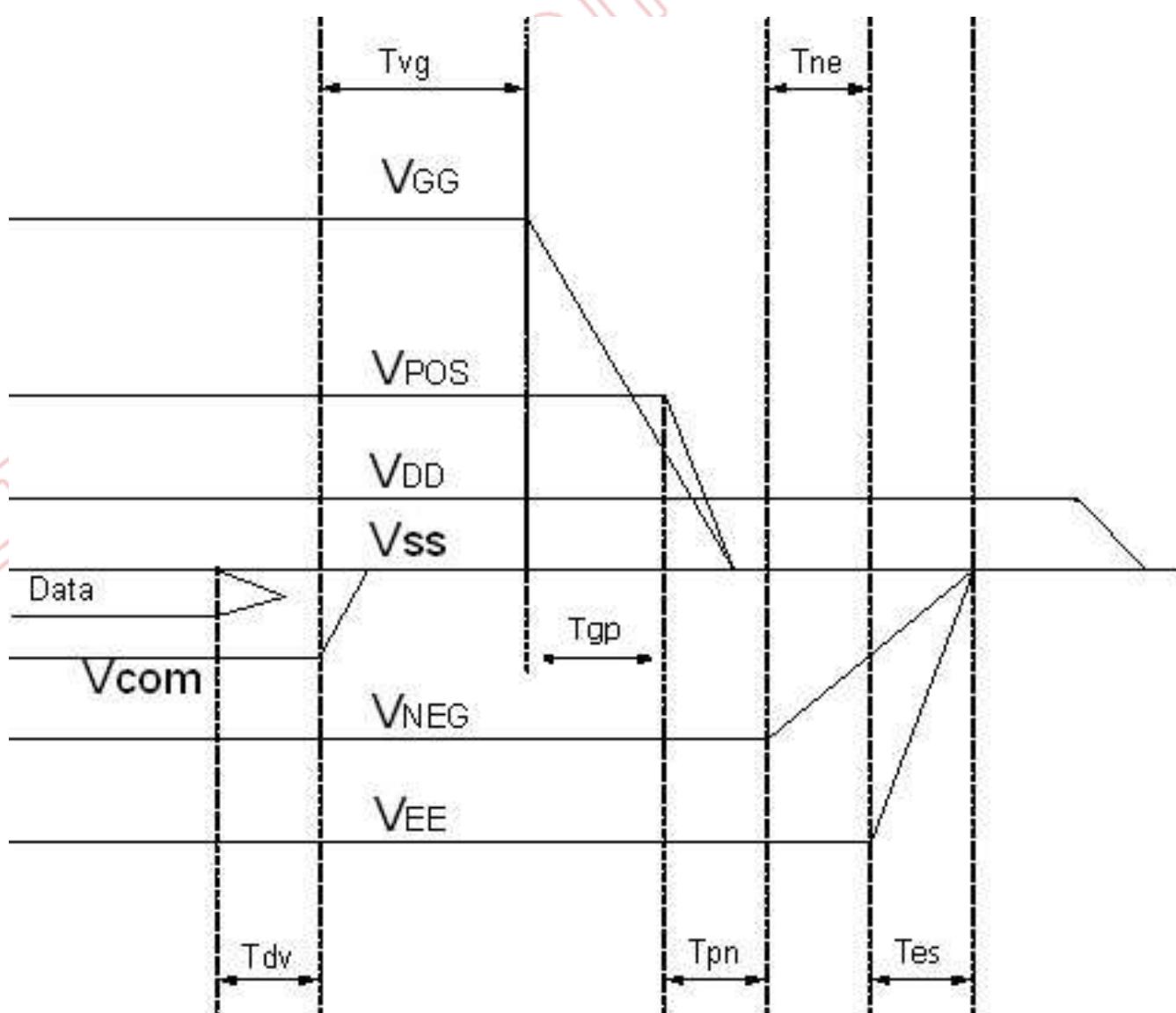
1. VSS → VDD → VNEG → VPOS (Source driver) → VCOM
2. VSS → VDD → VEE → VGG (Gate driver)

POWER ON



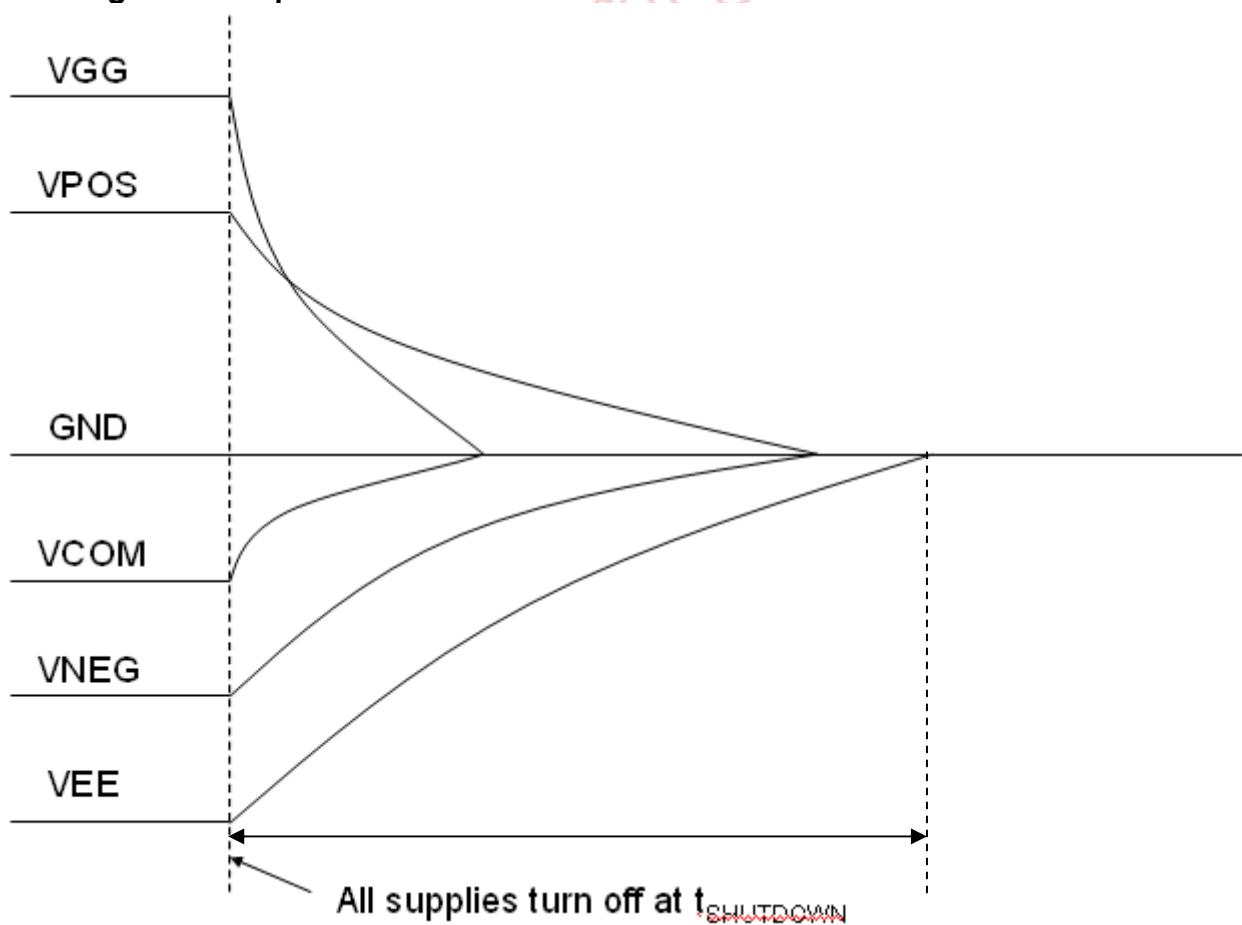
	Min	Max
Tsd	30us	-
Tdn	100us	-
Tnp	1000us	-
Tpv	100us	-
Tvd	100us	-
Tne	0us	-
Teg	1000us	-
Tgv	100us	-

POWER DOWN



	Min	Max
T _{dv}	$100 \mu s$	-
T _{vg}	$0 \mu s$	-
T _{gp}	$0 \mu s$	-
T _{pn}	$0 \mu s$	-
T _{ne}	$0 \mu s$	-
T _{es}	$0 \mu s$	-

9. Discharge time Sequence



Note9-1 : Supply voltages decay through pulldown resistors.

Note9-2 : VEE must remain negative of Vcom during decay period.

9-1) Refresh Rate

The module ED060XC3 is applied at a maximum screen refresh rate of 85Hz.

	Min	Max
Refresh Rate	-	85Hz

10. Optical characteristics

10-1) Specifications

Measurements are made by PR650 SpectraScan Colorimeter with that the illumination is at an angle 45° from the perpendicular at the center of sample surface, and the detector is perpendicular unless otherwise specified.

Note : This optical specification is only valid with the integrated touch panel has greater or equal 89% transparency.

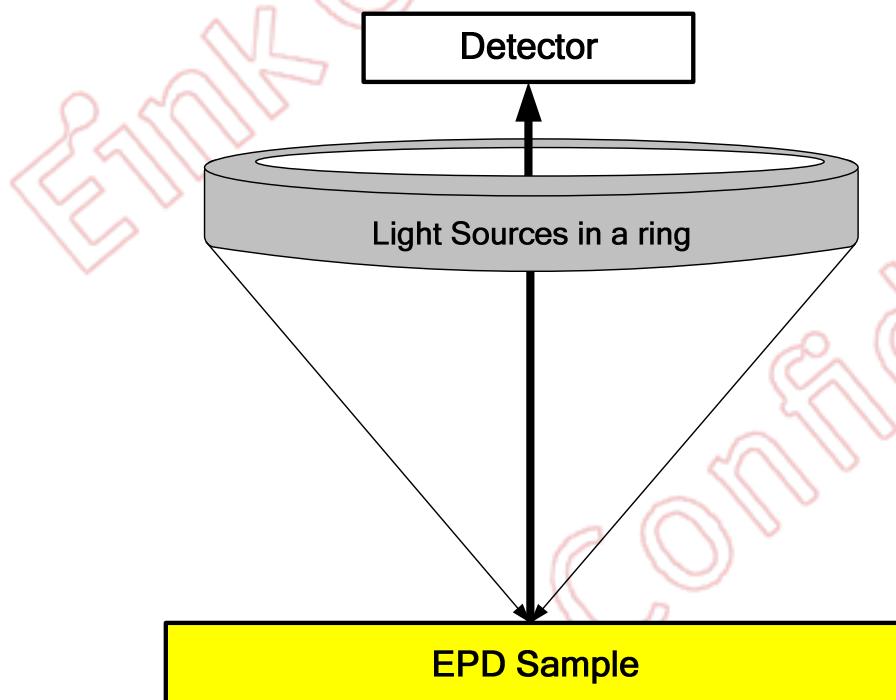
T = 25°C

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit	Note
R	Reflectance	White	35	40	-	%	Note 10-1
Gn	N _{th} Grey Level	-	DS+(WS-DS) x(n-1)/(m-1)	DS+(WS-DS) xn/(m-1)	DS+(WS-DS) x(n+1)/(m-1)	L*	-
CR	Contrast Ratio	-	10	12	-		-

WS: White state , DS: Dark state, Gray state from Dark to White :DS、G1、G2...、Gn...、Gm-2、WS
m:4、8、16 when 2、3、4 bits mode

10-2) Definition of contrast ratio

The contrast ratio (CR) is the ratio between the reflectance in a full white area (R_I) and the reflectance in a dark area (R_d): CR = R_I / R_d



10-3) Reflection Ratio

The reflection ratio is expressed as:

$$R = \text{Reflectance Factor}_{\text{white board}} \times \left(L_{\text{center}} / L_{\text{white board}} \right)$$

L_{center} is the luminance measured at center in a white area ($R=G=B=1$). $L_{\text{white board}}$ is the luminance of a standard white board.

11. HANDLING, SAFETY AND ENVIRONMENTAL REQUIREMENTS

WARNING

The display glass may break when it is dropped or bumped on a hard surface. Handle with care. Should the display break, do not touch the electrophoretic material. In case of contact with electrophoretic material, wash with water and soap.

CAUTION

The display module should not be exposed to harmful gases, such as acid and alkali gases, which corrode electronic components.

Disassembling the display module can cause permanent damage and invalidate the warranty agreements.

IPA solvent can only be applied on active area and the back of a glass. For the rest part, it is not allowed.

Mounting Precautions

(1) It's recommended that you consider the mounting structure so that uneven force (ex. Twisted stress) is not applied to the module.

(2) It's recommended that you attach a transparent protective plate to the surface in order to protect the EPD. Transparent protective plate should have sufficient strength in order to resist external force.

(3) You should adopt radiation structure to satisfy the temperature specification.

(4) Acetic acid type and chlorine type materials for the cover case are not desirable because the former generates corrosive gas of attacking the PS at high temperature and the latter causes circuit break by electro-chemical reaction.

(5) Do not touch, push or rub the exposed PS with glass, tweezers or anything harder than HB pencil lead. And please do not rub with dust clothes with chemical treatment. Do not touch the surface of PS for bare hand or greasy cloth. (Some cosmetics deteriorate the PS)

(6) When the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks with petroleum benzene. Normal-hexane is recommended for cleaning the adhesives used to attach the PS. Do not use acetone, toluene and alcohol because they cause chemical damage to the PS.

(7) Wipe off saliva or water drops as soon as possible. Their long time contact with PS causes deformations and color fading.

Data sheet status	
Product specification	This data sheet contains final product specifications.
Limiting values	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

12. Reliability test

- Refer to E Ink Document : #LAB126-001
- Remark : With protective film to do reliability test.

13.Bar Code definition

ED060XC3(A58) Bar Code definition:
 E5D 00 6 01 1 I 7 4 00361 A T
 1 2 3 4 2 5 6 2 7 2 8

: EPD model code:

EPD model code	TFT manufacturer	Part Number
E5D	E Ink	ED060XC3
E6D	E Ink	ED060XC3P1
E62	CMI	ED060XC3C1
E63	CPT	ED060XC3T1
E6H	Hydis L2	ED060XC3H1

: Internal control codes:

: FPL reversion code

V220:6 V220E:8

: FPL batch code:

01~99	001~099	G0~G9	160~169	Q0~Q9	230~239	X0~X9	300~309
A0~A9	100~109	H0~H9	170~179	R0~R9	240~249	Y0~Y9	310~319
B0~B9	110~119	J0~J9	180~189	S0~S9	250~259	Z0~Z9	320~329
C0~C9	120~129	K0~K9	190~199	T0~T9	260~269		
D0~D9	130~139	L0~L9	200~209	U0~U9	270~279		
E0~E9	140~149	M0~M9	210~219	V0~V9	280~289		
F0~F9	150~159	N0~N9	220~229	W0~W9	290~299		

: Year:

F: 2005 / G: 2006 / H: 2007 / I: 2008 / ... / Z: 2024

: Month:

1:Jan. 2:Feb. ... 9:Sep. A:Oct. B:Nov. C:Dec.

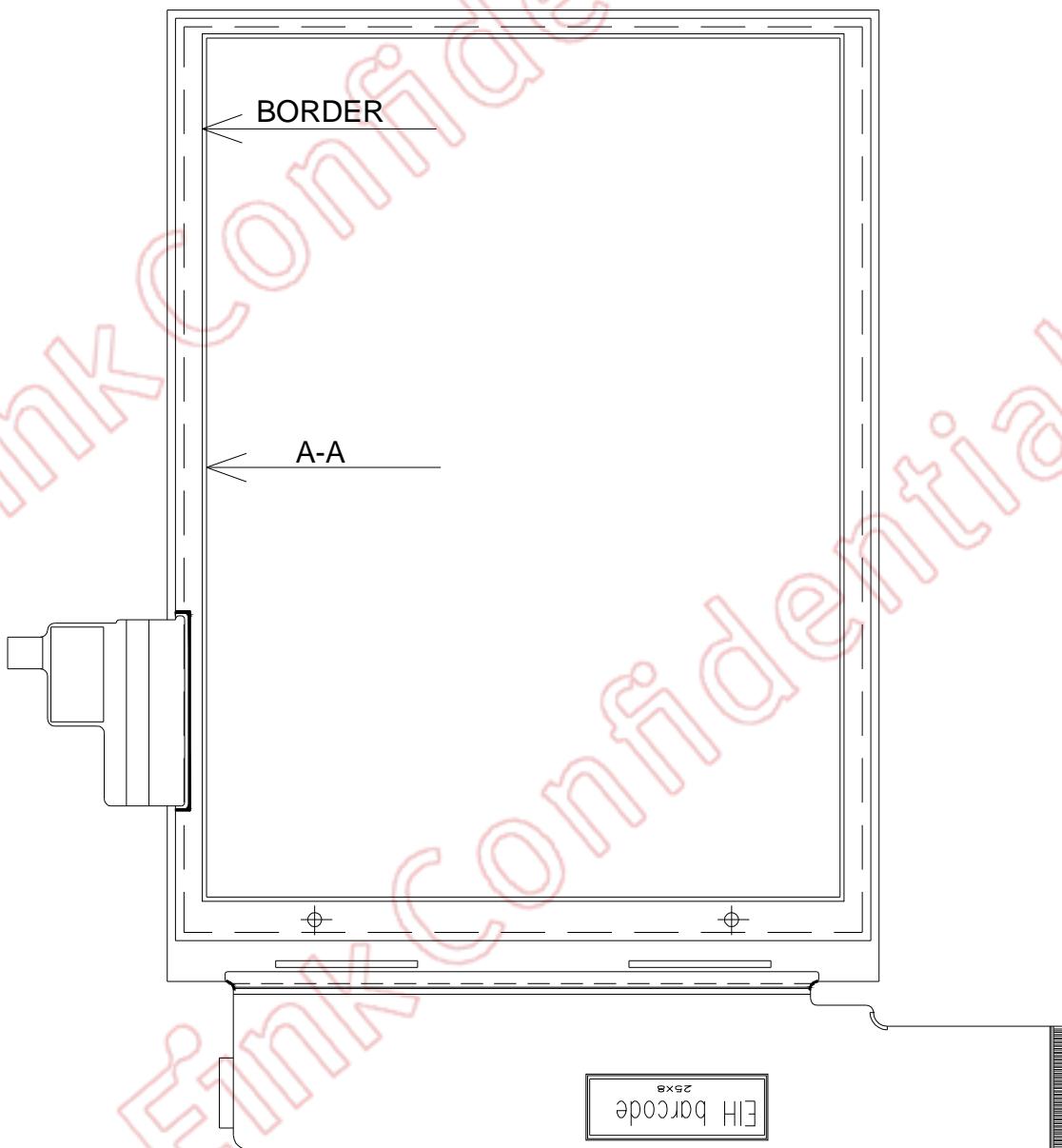
: Serial number

00000-99999

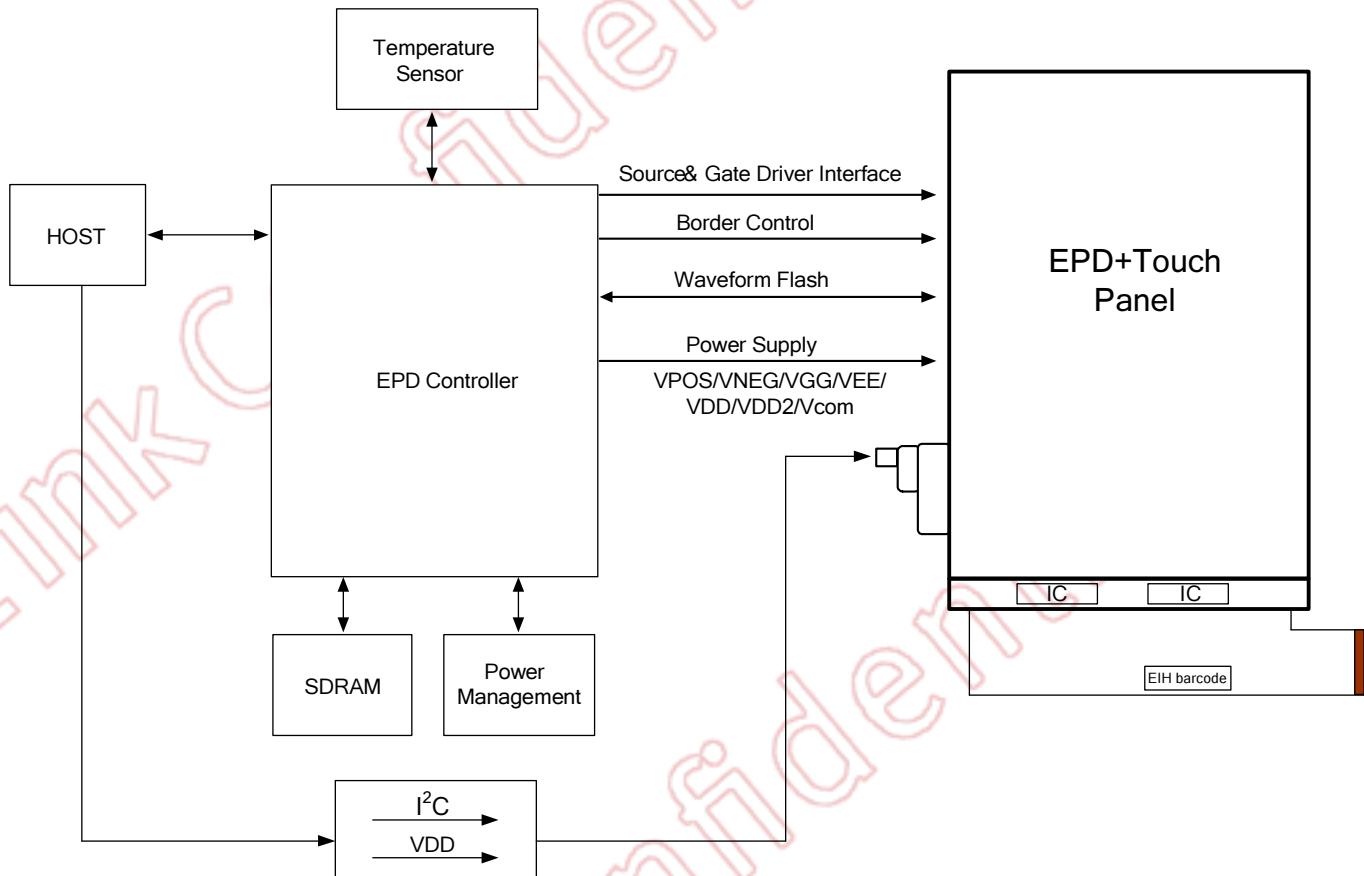
: MFG code:

Module Manufacturer Code	Translation
T	TOC FAB3
Y	TOC FAB2
K	TOC FAB1
P	EIH
S	MOS
V	Microview
G	TYT FAB5
L	TYT FAB4

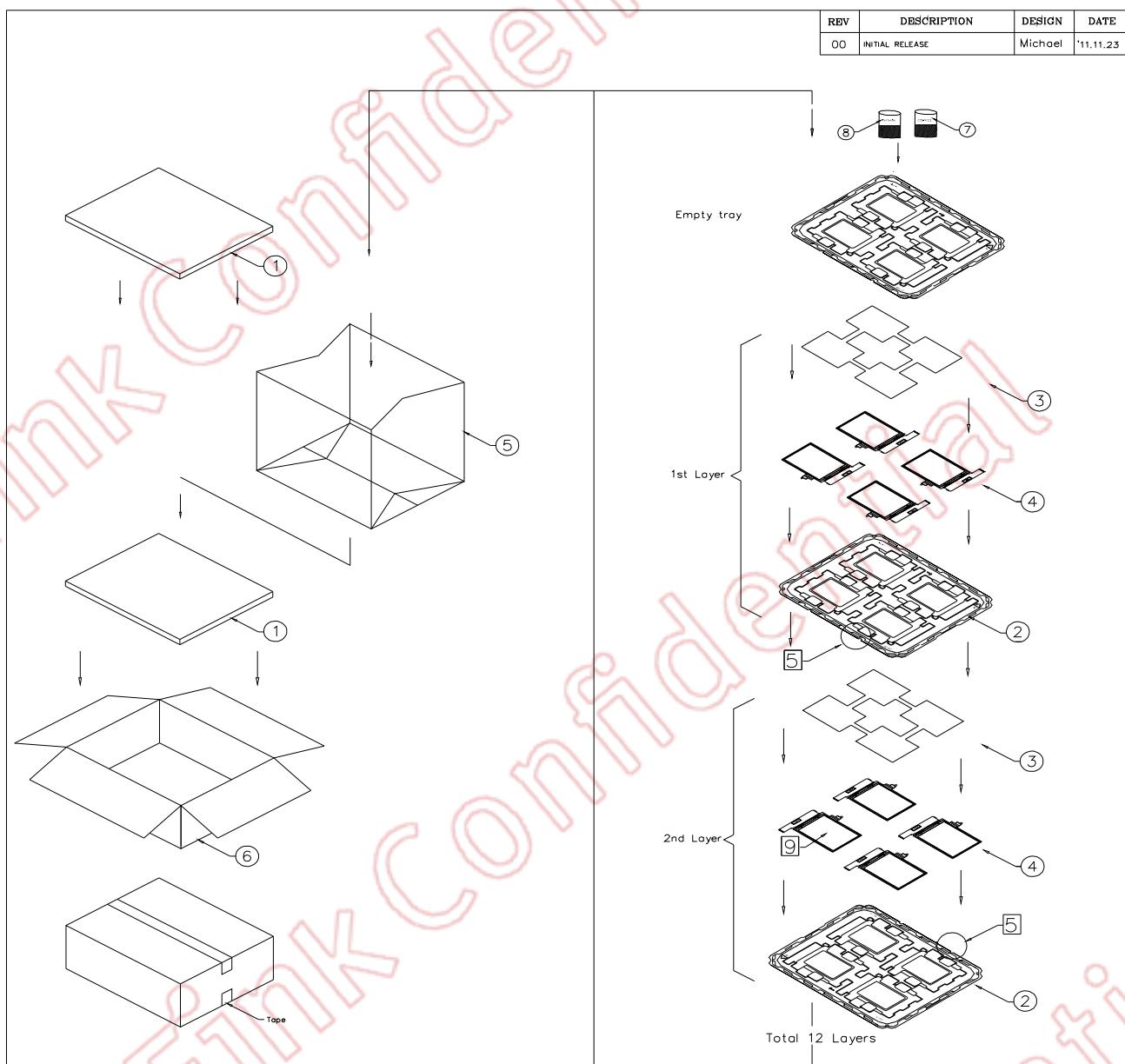
14. Border definition



15. Block Diagram



16.Packing



NOTE:

1. One layer include: 1 piece of cushion sheet, 4 pcs module & 1 piece of tray.
2. Q'TY: 48 pcs panel/carton.
3. Dimension: 455*375*190mm
4. Weight: 5.2 KG
5. Make sure tray stacked with 180° rotation. We can check this by lateral side view.

ITEM	DESCRIPTION	QTY	REMARK
9	EASY TAPE	48	For Remove Protect Sheet
8	30g加厚復合紙保護貼膜73*95mm	2	
7	防護袋(保護容積25L)	3	
6	CARTON INTERNAL	1	
5	指口袋450*380*700mm	1	抗靜電
4	ED060XC3	48	
3	EPE CUSHION SHEET	12	抗靜電
2	TRAY	13	抗靜電
1	EPE FOAM	2	

MTL.SPEC.		UNSPECIFIED TOL'S ±5.0mm			REMARK		Eink 元太科技工業股份有限公司 E Ink Holdings Inc.		
		ANGLE							
		ROUGHNESS							
APPROVE	Patrick Lin	'11.08.08			SCALE	UNIT	SHEET	DWG.TITLE	
CHECK	Patrick Lin	'11.08.08			1:1	mm	1 OF 1	ED060XC3 PACKING Dim	
DESIGN	Michael Pan	'11.08.08			MTL.NO.		DWG.NO.		REV. A 01 SIZE

17. Configuration table

Product Number	EPD Model	TFT	FPL Version	FPL Batch	Module Manufacturer	Remark
ED060XC3C1	E62	CMI	6	≥013	K,T,Y,S	available for MP and engineering samples
ED060XC3C1	E62	CMI	6	≥013	P	available for engineering samples
ED060XC3P1	E6D	E Ink	6	≥001	K,T,Y,S	available for MP and engineering samples
ED060XC3P1	E6D	E Ink	6	≥001	P	available for engineering samples
ED060XC3T1	E63	CPT	6	≥013	K,T,Y,S	available for MP and engineering samples
ED060XC3T1	E63	CPT	6	≥013	P	available for engineering samples
ED060XC3H1	E6H	Hydis	6	≥001	K,T,Y,S	available for MP and engineering samples
ED060XC3H1	E6H	Hydis	6	≥001	P	available for engineering samples

Material approved for MP

TP	TPK、Cando
TP Driver	Cypress
EPD Driver	Fitipower、Novatek
FPC	Mektec、Ichia

18. WF update time

T limits (°C) (inclusive)		Update Times (ms)									
		INIT		DU		GC16/GL16		GC16/ GL16 fast		A2	
Low	High	Typical	Typical	Max	Typical	Max	Typical	Max	Typical	Max	Typical
0	2	2000	580	640	1400	1600	1400	1600	270	300	
3	5	2000	500	560	1000	1200	1000	1200	240	260	
6	11	2000	450	500	900	1100	900	1100	220	250	
12	14	2000	380	440	800	1000	800	1000	180	200	
15	17	2000	330	420	740	850	550	610	150	170	
18	20	2000	300	350	700	790	510	570	120	130	
21	23	2000	275	325	650	720	480	540	120	130	
24	29	2000	250	290	600	690	450	500	120	130	
30	32	2000	250	290	700	850	520	580	120	130	
33	37	2000	250	290	800	900	680	750	120	130	
38	50	2000	250	290	800	900	800	900	120	130	