



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	1 of 53

Specification For 3.5"EPD

Model NO.: E035A26-A0

Product VER: A0

Customer Approval

Customer	
Approval By	
Date Of Approval	

It will be agreed by the receiver, if not sign back the Specification within 15days.

Prepared By	Checked By	Approval By



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	2 of 53

Version	Content	Date	Producer
A0	New release	2023/4/11	ZXY



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	3 of 53

CONTENTS

1.General Description.....	4
2.Features	4
3.Application	4
4.Mechanical Specifications.....	4
5.Mechanical Drawing of EPD module	5
6.Input/output Terminals.....	6
7.MCU Interface	7
8.Command Table	9
9.Function Description	35
10.Reference Circuit.....	39
11.Absolute Maximum Rating.....	41
12.DC Characteristics	41
13.Serial Peripheral Interface Timing.....	42
14.Power Consumption	43
15.Optical Characteristics.....	43
16.Handling Safety And Environmental Requirements.....	46
17.Reliability Test	48
18 Block Diagram	49
19.Part A/Part B specification	49
20.Point and line standard	50
21.Barcode	52
22.Packing	53



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	4 of 53

1. General Description

E035A26-A0 is an Active Matrix Electrophoretic Display (AMEPD), with interface and a reference system design. The 3.5" active area contains 184*384pixels, and has 2-bit B/W/R/Y full display capabilities. An integrated circuit contains gate buffer, source buffer, interface, timing control logic, oscillator, DC-DC, SRAM, LUT, VCOM and border are supplied with each panel.

2. Features

- 184*384 pixels display
- High contrast High reflectance
- Ultra wide viewing angle
- Ultra low power consumption
- Pure reflective mode
- Bi-stable display
- Commercial temperature range
- Landscape, portrait modes
- Hard-coat antiglare display surface
- Ultra Low current deep sleep mode
- On chip display RAM
- Low voltage detect for supply voltage
- High voltage ready detect for driving voltage
- Internal temperature sensor
- Waveform stored in On-chip OTP
- Serial peripheral interface available
- On-chip oscillator
- On-chip booster and regulator control for generating VCOM, Gate and Source driving voltage
- I2C signal master interface to read external temperature sensor/ built-in temperature sensor

3. Application

Electronic Shelf Label System

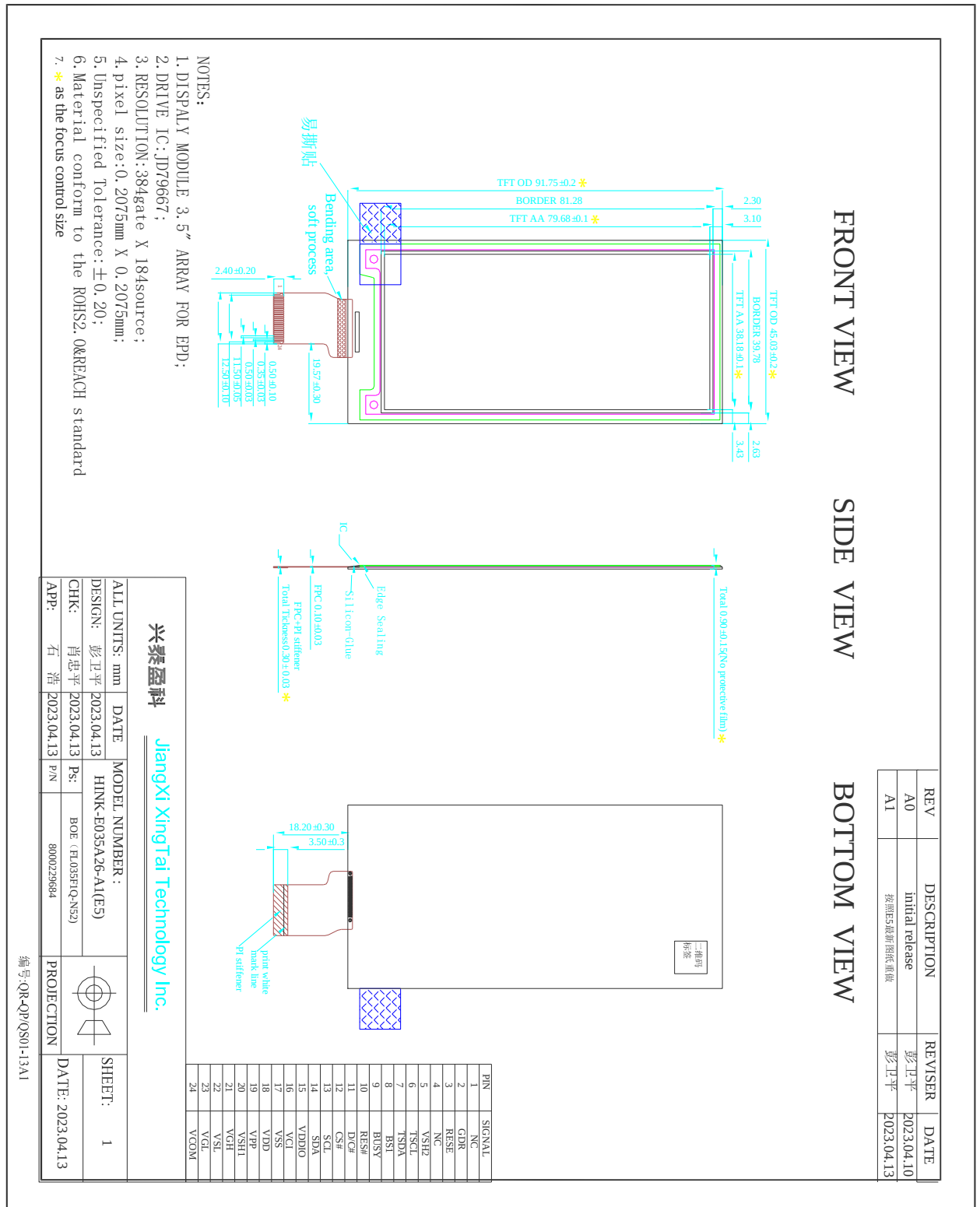
4. Mechanical Specifications

Parameter	Specifications	Unit	Remark
Screen Size	3.5	Inch	
Display Resolution	184(H)×384(V)	Pixel	Dpi:122
Active Area	38.18(H)×79.68(V)	mm	
Pixel Pitch	0.2075×0.2075	mm	
Pixel Configuration	Rectangle		
Outline Dimension	45.03(H)×91.75(V) ×0.9(D)	mm	Without masking film
Weight	5.2±0.2	g	



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	5 of 53

5. Mechanical Drawing of EPD module





File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	6 of 53

6. Input/output Terminals

Pin #	Single	Description	Remark
1	NC	No connection and do not connect with other NC pins	Keep Open
2	GDR	N-Channel MOSFET Gate Drive Control	
3	RESE	Current Sense Input for the Control Loop	
4	NC	No connection and do not connect with other NC pins	Keep Open
5	VSH2	Positive Source driving voltage	
6	TSCL	I ² C Interface to digital temperature sensor Clock pin	
7	TSDA	I ² C Interface to digital temperature sensor Data pin.	
8	BS1	Bus selection pin	Note 6-5
9	BUSY	Busy state output pin	Note 6-4
10	RES #	Reset signal input.	Note 6-3
11	D/C #	Data /Command control pin	Note 6-2
12	CS #	The chip select input connecting to the MCU.	Note 6-1
13	SCL	Serial clock pin for interface.	
14	SDA	Serial data pin for interface.	
15	VDDIO	Power input pin for the Interface.	
16	VCI	Power Supply pin for the chip	
17	VSS	Ground (Digital)	
18	VDD	Core logic power pin	
19	VPP	Power Supply for OTP Programming	
20	VSH1	Positive Source driving voltage	
21	VGH	Power Supply pin for Positive Gate driving voltage and VSH	
22	VSL	Negative Source driving voltage	
23	VGL	Power Supply pin for Negative Gate driving voltage, VCOM and VSL	
24	VCOM	VCOM driving voltage	

Note 6-1: This pin (CS#) is the chip select input connecting to the MCU. The chip is enabled for MCU communication: only when CS# is pulled LOW.

Note 6-2: This pin (D/C#) is Data/Command control pin connecting to the MCU.

When the pin is pulled HIGH, the data will be interpreted as data. When the pin is pulled LOW, the data will be interpreted as command.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	7 of 53

Note 6-3: This pin (RES#) is reset signal input. The Reset is active low.

Note 6-4: This pin (BUSY) is Busy state output pin. When Busy is High ,the operation of chip should not be interrupted and any commands should not be issued to the module. The driver IC will put Busy pin High when the driver IC is working such as:

- Outputting display waveform;
- Communicating with digital temperature sensor

Note 6-5: This pin (BS1) is for 3-line SPI or 4-line SPI selection. When it is “Low”, 4-line SPI is selected. When it is “High”, 3-line SPI (9 bits SPI) is selected.

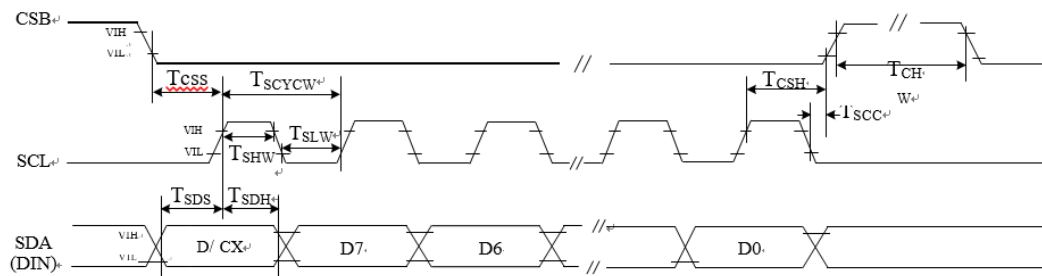
7. MCU Interface

E035A26-A0 use the 3-wire/4-wire serial port as communication interface for all the function and command setting.

JD79667 3-wire/4-wire engine act as a “slave mode” for all the time, and will not issue any command to the 3-wire/4-wire bus itself.

Under read mode, 3-wire/4-wire engine will return the data during “Data phase”. The returned data should be latched at the rising edge of SCL by external controller. Data in the “Hi-Z phase” will be ignored by 3-wire/4-wire engine during write operation, and should be ignored during read operation also. During read operation, external controller should float SDA pin under “Hi-Z phase” and “Data phase”

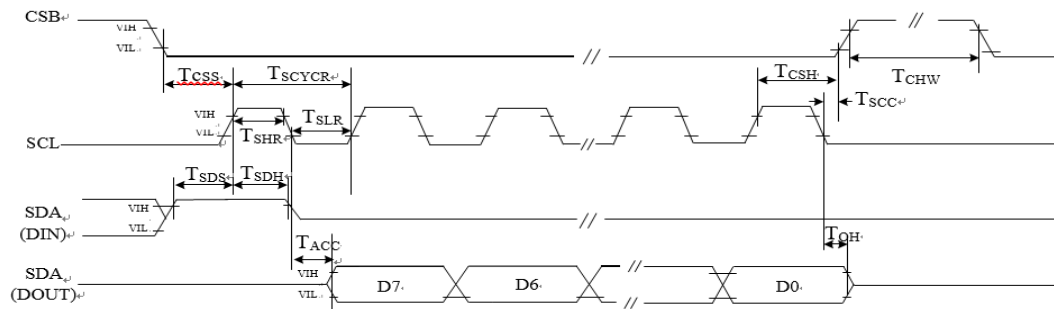
7.1 “3-Wire” Serial Port Interface



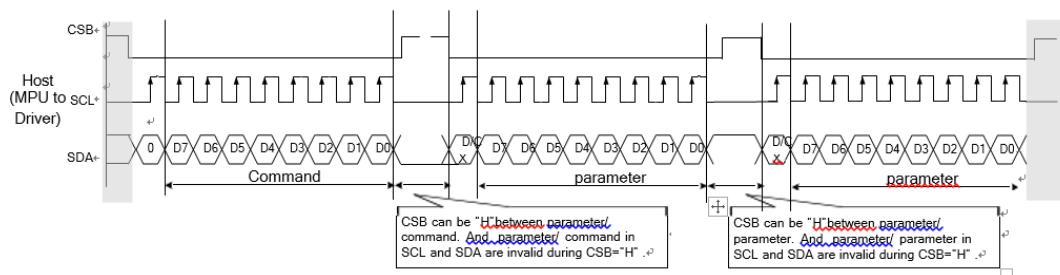
3 pin serial interface characteristics (write mode)



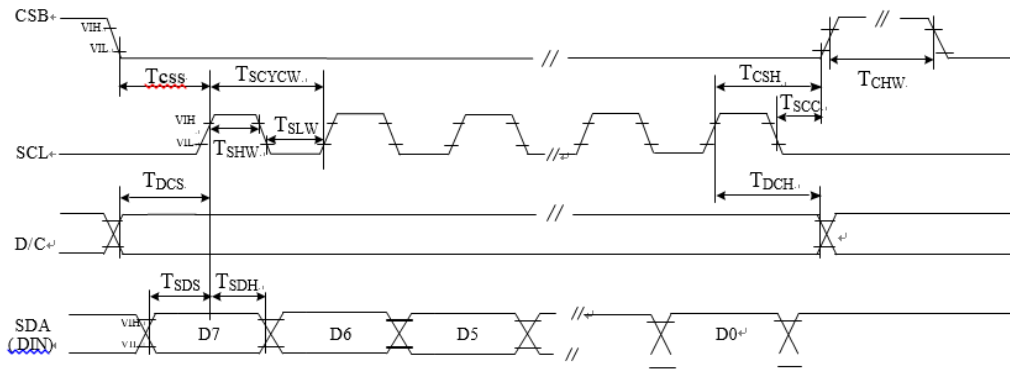
File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	8 of 53



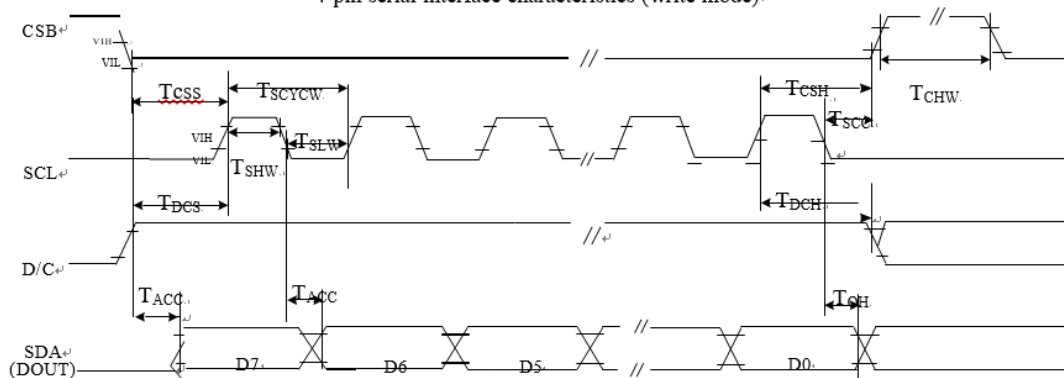
3 pin serial interface characteristics (read mode)



7.2 “4-Wire” Serial Port Interface



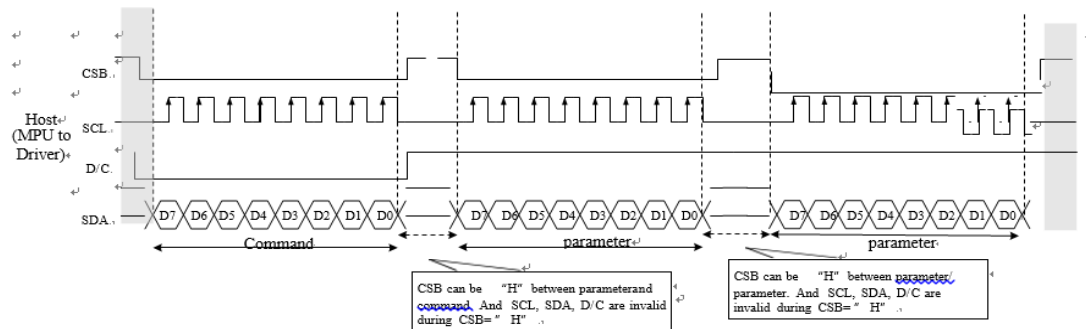
4 pin serial interface characteristics (write mode)



4 pin serial interface characteristics (read mode)



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	9 of 53



8. Command Table

8.1 Register Table

Following table list all the SPI control registers and bit name definition for JD79667AA.

Refer to the next section for detail register function description.

Address	command						Bit						
		R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code	
R00H	Panel setting (PSR)	W	0	0	0	0	0	0	0	0	0	00H	
		W	1	RES[1]	RES[0]	PST_MODE	-	UD	SHL	SHD_N	RST_N	0Fh	
		W	1	LUT_EN	-	FOPT	VCMZ	TS_AUTO	TIEG	NORG	VC_LUTZ	09h	
R01H	Power setting (PWR)	W	0	0	0	0	0	0	0	0	1	01H	
		W	1	-	-	-	-	V_MODE	VSC_EN	VDS_EN	VDG_EN	07h	
		W	1	-	-	-	-	-	-	VGPN [1]	VGPN [0]	00h	
		W	1	-	VSPL_0[6]	VSPL_0[5]	VSPL_0[4]	VSPL_0[3]	VSPL_0[2]	VSPL_0[1]	VSPL_0[0]	00h	
		W	1	-	VSP_1[6]	VSP_1 [5]	VSP_1 [4]	VSP_1 [3]	VSP_1 [2]	VSP_1 [1]	VSP_1 [0]	00h	
		W	1	-	VSN_1[6]	VSN_1[5]	VSN_1[4]	VSN_1[3]	VSN_1[2]	VSN_1[1]	VSN_1[0]	00h	
		W	1	-	VSPL_1[6]	VSPL_1[5]	VSPL_1[4]	VSPL_1[3]	VSPL_1[2]	VSPL_1[1]	VSPL_1[0]	00h	
		W	1	-	-	-	-	-	-	-	-	-	00h
R02H	Power OFF(POF)	W	0	0	0	0	0	0	0	1	0	02H	
		W	1	-	-	-	-	-	-	-	EDSE	00h	
R03H	Power off Sequence Setting(PFS)	W	0	0	0	0	0	0	0	1	1	03H	
		W	1	-			T_VDPG_OFF[1:0]		-		T_VDS_OFF[1:0]		00h
		W	1	VGP_LEN[3:0]					VGP_EXT[3:0]				54
		W	1	XON_DLY					XON_LEN				44
R04H	Power ON (PON)	W	0	0	0	0	0	0	1	0	0	04H	
R06H	Booster Soft Start	W	0	0	0	0	0	0	1	1	0	06H	
		W	1	-	-	-	-	PHB_SFT[1:0]		PHA_SFT[1:0]		00h	
		W	1	-	-	PHA_ON[5:0]							02h
		W	1	-	-	PHA_OFF[5:0]							07h
		W	1	-	-	PHB_ON[5:0]							02h
		W	1	-	-	PHB_OFF[5:0]							02h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	10 of 53

	(BTST)	W	1	-	-	PHB_OFF[5:0]						07h
		W	1	-	-	PHC_ON[5:0]						02h
		W	1	-	-	PHC_OFF[5:0]						07h
R07H	Deep Sleep(DSLP)	W	0	0	0	0	0	0	1	1	1	07H
		W	1	1	0	1	0	0	1	0	1	A5h
R10H	Data Start transmission (DTM)	W	0	0	0	0	1	0	0	0	0	10H
		W	1	#	#	#	#	#	#	#	#	00H
R11H	Data Stop (DSP)	W	0	0	0	0	1	0	0	0	1	11H
		R	1	Data_flag	-	-	-	-	-	-	-	--
R12H	Display Refresh (DRF)	W	0	0	0	0	1	0	0	1	0	12H
		W	1	-	-	-	-	-	-	-	AC/DC	00H
R17H	Auto sequence (AUTO)	W	0	0	0	0	1	0	1	1	1	17H
		W	1	Code[7]	Code[6]	Code[5]	Code[4]	Code[3]	Code[2]	Code[1]	Code[0]	A5h
R30H	PLL control (PLL)	W	0	0	0	1	1	0	0	0	0	30H
		W	1	-	-	-	-	Dyna	FR[2:0]			02h
R40H	Temperature Sensor Command (TSC)	W	0	0	1	0	0	0	0	0	0	40H
		R	1	D10/TS[7]	D9/TS[7]	D8/TS[6]	D7/TS[5]	D6/TS[4]	D5/TS[3]	D4/TS[2]	D3/TS[1]	--
		R	1	D2/ TS[9]	D1/TS[8]	D0	-	-	-	-	-	--
R41H	Temperature Sensor Calibration (TSE)	W	0	0	1	0	0	0	0	0	1	41H
		W	1	TSE	-	-	TO[4]	TO[3]	TO[2]	TO[1]	TO[0]	00h
R42H	Temperature Sensor Write (TSW)	W	0	0	1	0	0	0	0	1	0	42H
		W	1	WATTR[7]	WATTR[6]	WATTR[5]	WATTR[4]	WATTR[3]	WATTR[2]	WATTR[1]	WATTR[0]	00h
		W	1	WMSB[7]	WMSB[6]	WMSB[5]	WMSB[4]	WMSB[3]	WMSB[2]	WMSB[1]	WMSB[0]	00h
R43H	Temperature Sensor Read (TSR)	W	1	WLSB[7]	WLSB[6]	WLSB[5]	WLSB[4]	WLSB[3]	WLSB[2]	WLSB[1]	WLSB[0]	00h
		W	0	0	1	0	0	0	0	1	1	43H
		R	1	RMSB[7]	RMSB[6]	RMSB[5]	RMSB[4]	RMSB[3]	RMSB[2]	RMSB[1]	RMSB[0]	--
		R	1	RLSB[7]	RLSB[6]	RLSB[5]	RLSB[4]	RLSB[3]	RLSB[2]	RLSB[1]	RLSB[0]	--
R50H	VCOM and DATA interval setting (CDI)	W	0	0	1	0	1	0	0	0	0	50H
		W	1	VBD[2]	VBD[1]	VBD[0]	DDX	CDI[3]	CDI[2]	CDI[1]	CDI[0]	97h
R51H	Lower Power Detection (LPD)	W	0	0	1	0	1	0	0	0	1	51H
		R	1	-	-	-	-	-	-	-	LPD	--
R61H	Resolution setting(TRES)	W	0	0	1	1	0	0	0	0	1	61H
		W	1	-	-	-	-	-	-	HRES(9)	HRES(8)	00h
		W	1	HRES[7]	HRES[6]	HRES[5]	HRES[4]	HRES[3]	HRES[2]	0	0	00h
		W	1	-	-	-	-	-	-	VRES(8)	VRES(0)	00h
		W	1	VRES[7]	VRES[6]	VRES[5]	VRES[4]	VRES[3]	VRES[2]	VRES(1)	VRES(0)	00h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	11 of 53

R65H	Gate/Source Start Setting(GSST)	W	0	0	1	1	0	0	1	0	1	65H
		W	1	-	-	-	-	-	-	S_start(9)	S_start(8)	00h
		W	1	S_start(7)	S_start(6)	S_start(5)	S_start(4)	S_start(3)	S_start(2)	0	0	00h
		W	1	-	-	-	-	-	-	G_start(9)	G_start(8)	00h
		W	1	G_start(7)	G_start(6)	G_start(5)	G_start(4)	G_start(3)	G_start(2)	G_start(1)	G_start(0)	00h
R70H	REVISION (REV)	W	0	0	1	1	1	0	0	0	0	70H
		R	1	0	0	0	0	0	0	1	1	03h
		R	1	0	0	0	0	0	0	1	0	02h
		R	1	0	0	0	0	0	0	0	1	01h
R71H	Status register(FLG)	W	0	0	1	1	1	0	0	0	1	71H
		R	1	AMV_Busy	PTL_flag	I ² C_ER	I ² C_BUSYN	-	PON	POF	BUSY_N	--
		R	1	-	-	-	-	-	LV_ST	BT_OK	ED_Bus	--
R80H	Auto Measure Vcom (AMV)	W	0	1	0	0	0	0	0	0	0	80H
		W	1	P[1]	P[0]	AMVT[1]	AMVT[0]	XON	AMVS	AMV	AMVE	00h
R83H	Partial Window (PTLW)	W	0	1	0	0	0	0	0	1	1	83H
		W	1	-	-	-	-	-	-	HRST(9)	HRST(8)	00h
		W	1	HRST(7)	HRST(6)	HRST(5)	HRST(4)	HRST(3)	HRST(2)	0	0	00h
		W	1	-	-	-	-	-	-	HRED(9)	HRED(8)	00h
		W	1	HRED(7)	HRED(6)	HRED(5)	HRED(4)	HRED(3)	HRED(2)	0	0	00h
		W	1	-	-	-	-	-	-	VRST(9)	VRST(8)	00h
		W	1	VRST(7)	VRST(6)	VRST(5)	VRST(4)	VRST(3)	VRST(2)	VRST(1)	VRST(0)	00h
		W	1	-	-	-	-	-	-	VRST(9)	VRST(8)	00h
		W	1	VRST(7)	VRST(6)	VRST(5)	VRST(4)	VRST(3)	VRST(2)	VRST(1)	VRST(0)	00h
		W	1	-	-	-	-	-	-	-	PMOD	00h
		W	0	1	0	0	1	1	1	1	0	9EH
R9EH	REVISION2 (REV2)	R	1	0	0	0	0	0	0	0	1	01h
		W	0	1	1	1	0	0	0	1	1	E3H
RE3H	Power saving(PWS)	W	1	VCOM_W	VCOM_W	VCOM_W	VCOM_W	SD_W[3]	SD_W[2]	SD_W[2]	SD_W[0]	00h
RE4H	LVD voltage Select(LVSEL)	W	0	1	1	1	0	0	1	0	0	E4H
		W	1	-	-	-	-	-	-	LVD_SEL	LVD_SEL	03h

8.2 Register Description

R/W: 0: Write Cycle 1:Read Cycle

D/CX:0: Command/1:Data

D7~D0:-:Don't Care



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	12 of 53

8.2.1 R00H (PSR): Panel setting Register

R00H	Bit										
Inst/ Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PSR	W	0	0	0	0	0	0	0	0	0	00H
1 st Parameter	W	1	RES[1]	RES[0]	PST_MODE	-	UD	SHL	SHD_N	RST_N	0Fh
2 nd Parameter	W	1	LUT_EN	-	FOPT	VCMZ	TS_AUTO	TIEG	NORG	VC_LUTZ	09h

NOTE: “-” Don’t care, can be set to VDD or GND level

Description	-The command defines as :		
	1 st parameter		
	Bit	Name	Description
	0	RST_N	RST_N function 1: no effect. (default) 0: Booster OFF, Register data are set to their default values, and Source/Boder/Vcom: floating
	1	SHD_N	SHD_N function 0 : Booster OFF, register data are kept, and Source/Boder/Vcom are kept 0V or floating 1 : Booster on. (default)
	2	SHL	SHL function 0: Shift left: First data=Sn→Sn- 1 → ... → S2→ Last data=S1 1: Shift right: First data=S1→S2 → ... →Sn- 1→ Last data=Sn. (default)
	3	UD	UD function 0: Scan down: First line=Gn→Gn- 1 → ... →G2→ Last line=G1. 1: Scan up; First line=G1→G2 → ... →Gn- 1→ Last line=Gn. (default)
	5	PST_MODE	Power switch operation mode 0:Power switching time in the period of frame scanning.(default) 1:Power switching time in the external period before frame scanning.
7-6	RES[1,0]	Resolution setting 00: Display resolution is 176x296 (default) 01: Display resolution is 128x296 10: Display resolution is 128x250 11: Display resolution is 112x204	
	2 nd parameter		
	Bit	Name	Description
	0	VC_LUTZ	VCOM status function 0 : No effect 1 : After refreshing display,the output of VCOM is set to floating automatically (default)



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	13 of 53

	1	NORG	VCOM status function 0 : No effect (default) 1 : After refreshing display, VCOM is tied to GND before power off
	2	TIEG	VGN power off status function 0 : No effect (default) 1 : Power off, VGN will be tied to GND
	3	TS_AUTO	Temperature sensing will be activated automatically one time 0 : Before enabling booster, Temperature Sensor will be activated automatically one time. 1 : When RST_N low to high, Temperature Sensor will be activated automatically one time. (default)
	4	VCMZ	VCOM status function 0 : No effect (default) 1 : VCOM is always floating
	5	FOPT	FOPT function 0: Scan 1 frame after waveform finished (default) 1: No scan after waveform finished and switch the source channel output to Hiz.
	7	LUT_EN	LUT selection setting 0 : Using LUT from MTP (default) 1 : Using LUT from register
	Priority of VCOM setting: VCMZ > NORG > FOPT > VC_LUTZ FOPT setting is part of refreshing display. FOPT: Power off floating. Notes: - Non-select gate line keep at VGN for DSP/DRF and AMV - Dummy source line follow LUTC for DSP/DRF - When SHD_N become low, DCDC will turn off. Register and SRAM data will keep until VDD turn off. SD output and VCOM will base on previous condition . It may have two condition: 0V or floating. - When RST_N become low, driver will reset. All register will reset to default value. All of the driver's functions will disable. Source/Gate/Border/VCOM will be released to floating		
Restriction			

8.2.2 R01H (PWR): Power setting Register

R01H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	14 of 53

PWR	W	0	0	0	0	0	0	0	0	1	01h
1 st Parameter	W	1	-	-	-	-	V_MODE	VSC_EN	VDS_EN	VDG_EN	07h
2 nd Parameter	W	1	-	-	-	-	-	-	VGPN [1]	VGPN [0]	00h
3 rd Parameter	W	1	-	VSPL_0 [6:0]							00h
4 th Parameter	W	1	-	VSP_1 [6:0]							00h
5 th Parameter	W	1	-	VSN_1 [6:0]							00h
6 th Parameter	W	1	-	VSPL_1 [6:0]							00h

NOTE: “-” Don’t care, can be set to VDD or GND level

Description

- The command defines as :

1st Parameter:

Bit	Name	Description
0	VDG_EN	Gate power selection. 0 : External gate power from VGP/VGN pins. 1 : Internal DCDC function for generate VGP/VGN. (default)
1	VDS_EN	Source power selection. 0 : External source power from VSP/VSN pins. 1 : Internal regulator function for generate VSP/VSN (default)
2	VSC_EN	Source LV power selection. 0 : External source power from VSPL pins. 1 : Internal regulator function for generate VSPL (default)
3	V_MODE	Source Power switching mode. 0: Mode0(default) 1: Mode1

2nd Parameter:

Bit	Name	Description
1-0	VGPN	VGPN Voltage Level. 00: VGP=20 v, VGN=-20v (default)



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	15 of 53

	Notes: 1. VSP_0/VSN_0 voltage output is ±15 V fixed value. 2. When switching Mode0 or Mode1,the voltage output is: Mode0: VSP_0(+15) / VSN_0 (- 15) / VSPL_0 (+3~+15) Mode1: VSP_ 1(+3 ~ +15) / VSN_1(-3 ~ - 15) / VSPL_1(+3 ~ +15) <table><tr><th></th><th>Mode0</th><th>Mode1</th></tr><tr><td>VSP</td><td>VSP_0(+15)</td><td>VSP_ 1(+3~+15)</td></tr><tr><td>VSN</td><td>VSN_0(- 15)</td><td>VSN_ 1(-3~- 15)</td></tr><tr><td>VSPL</td><td>VSPL_0(+3~+15)</td><td>VSPL_ 1(+3~+15)</td></tr></table>		Mode0	Mode1	VSP	VSP_0(+15)	VSP_ 1(+3~+15)	VSN	VSN_0(- 15)	VSN_ 1(-3~- 15)	VSPL	VSPL_0(+3~+15)	VSPL_ 1(+3~+15)
	Mode0	Mode1											
VSP	VSP_0(+15)	VSP_ 1(+3~+15)											
VSN	VSN_0(- 15)	VSN_ 1(-3~- 15)											
VSPL	VSPL_0(+3~+15)	VSPL_ 1(+3~+15)											
Restriction													

8.2.3R02H (POF): Power OFF Command

R02H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
POF	W	0	0	0	0	0	0	0	1	0	02H
1 st Parameter	W	0	-	-	-	-	-	-	-	EDSE	00

NOTE: “-” Don’t care, can be set to VDD or GND level

Description	-The command defines as :										
	● After power off command, driver will power off base on power off sequence. ● After power off command, BUSY_N signal will drop from high to low. When finish the power off sequence, BUSY_N singal will rise from low to high . ● Power off command will turn off charge pump, T-con, source driver, gate driver, VCOM, temperature sensor, but register and SRAM data will keep until VDD off. ● SD output and VCOM will base on previous condition. It may have two conditions: 0v or floating.										
	1 st parameter										
	<table><tr><th>Bit</th><th>Name</th><th>Description</th></tr><tr><td>0</td><td>EDSE</td><td>EPD Discharge Trigger 0 : Disable EPD discharge (default) 1 : Enable EPD discharge</td></tr><tr><td colspan="3"></td></tr></table>	Bit	Name	Description	0	EDSE	EPD Discharge Trigger 0 : Disable EPD discharge (default) 1 : Enable EPD discharge				
Bit	Name	Description									
0	EDSE	EPD Discharge Trigger 0 : Disable EPD discharge (default) 1 : Enable EPD discharge									
Restriction	This command only active when BUSY_N = “1” .										



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	16 of 53

8.2.4 R03H (PFS): Power off Sequence Setting Register

R03H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PFS	W	0	0	0	0	0	0	0	1	1	03H
1 st Parameter	W	1	-		T_VDPG_OFF [1:0]		-		T_VDS_OFF [1:0]		00h
2 nd Parameter	W	1	VGP_LEN[3:0]				VGP_EXT[3:0]				54h
3 rd Parameter	W	1	XON_DLY[3:0]				XON_LEN[3:0]				44h

NOTE: “-” Don’t care, can be set to VDD or GND level

Description	-The command defines as :		
	1 st Parameter:		
	Bit	Name	Description
	1-0	T_VDS_OFF	Power off sequence of VSP /VSN 00: 20 ms (default) 01: 40 ms 10: 60 ms 11: 80 ms
	5-4	T_VDPG_OFF	Power off sequence of VGP and VGN 00: 20 ms (default) 01: 40 ms 10: 60 ms 11: 80 ms
	2 nd Parameter		
	Bit	Name	Description
	1-0	VGP_EXT	VGP extension time 0000: 0 ms 0001: 500 ms 0010: 1000 ms 0011: 1500 ms 0100: 2000 ms (default) 0101: 2500 ms 0110: 3000 ms 0111: 3500 ms 1000: 4000 ms 1001: 4500 ms 1010: 5000 ms 1011: 5500 ms 1100: 6000 ms



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	17 of 53

			1101: 6500 ms
	7-4	VGP_LEN	When power off, the length of time VGP stay 10V 0000: 0 ms 0001: 500 ms 0010: 1000 ms 0011: 1500 ms 0100: 2000 ms 0101: 2500 ms (default) 0110: 3000 ms 0111: 3500 ms 1000: 4000 ms 1001: 4500 ms 1010: 5000 ms 1011: 5500 ms

8.2.5 R04H (PON): Power ON Command

R04H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PON	W	0	0	0	0	0	0	1	0	0	04H

NOTE: “-” Don’t care, can be set to VDD or GND level

Description	-The command defines as : - After power on command, driver will power on base on power on sequence. - After power on command, BUSY_N signal will drop from high to low. When finishing the power on sequence(base on PWR command), BUSY_N signal will rise from low to high.
Restriction	This command only active when BUSY_N = “1” .

8.2.6 R06H (BTST): Booster Soft Start Command

R06H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	18 of 53

BTST	W	0	0	0	0	0	0	1	1	0	06H
1 st Parameter	W	1	-	-	-	-	PHB_SFT [1:0]		PHA_SFT [1:0]		00h
2 nd Parameter	W	1	-	-	PHA_ON [5:0]						02h
3 rd Parameter	W	1	-	-	PHA_OFF [5:0]						07h
4 th Parameter	W	1	-	-	PHB_ON [5:0]						02h
5 th Parameter	W	1	-	-	PHB_OFF [5:0]						07h
6 th Parameter	W	1	-	-	PHC_ON [5:0]						02h
7 th Parameter	W	1	-	-	PHC_OFF [5:0]						07h

Description	-The command define as follows: 1st Parameter:							
	Bit	Name	Description					
	1-0	PHA_SFT	Soft start period of phase A: 00: 10mS (default) 01: 20mS 10: 30mS 11: 40mS					
	3-2	PHB_SFT	Soft start period of phase B: 00: 10mS (default) 01: 20mS 10: 30mS 11: 40mS					
		Bit[5:0]	Description	Bit[5:0]	Description	Bit[5:0]		Description
		000000	strength1	010110	strength23	101100		strength45
		000001	strength2	010111	strength24	101101		strength46
		000010	strength3	011000	strength25	101110		strength47
		000011	strength4	011001	strength26	101111		strength48
		000100	strength5	011010	strength27	110000		strength49
		000101	strength6	011011	strength28	110001		strength50
	000110	strength7	011100	strength29	110010	strength51		



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	19 of 53

Driving strength of PHA_ON & PHB_ON & PHC_ON	000111	strength8	011101	strength30	110011	strength52	
	001000	strength9	011110	strength31	110100	strength53	
	001001	strength10	011111	strength32	110101	strength54	
	001010	strength11	100000	strength33	110110	strength55	
	001011	strength12	100001	strength34	110111	strength56	
	001100	strength13	100010	strength35	111000	strength57	
	001101	strength14	100011	strength36	111001	strength58	
	001110	strength15	100100	strength37	111010	strength59	
	001111	strength16	100101	strength38	111011	strength60	
	010000	strength17	100110	strength39	111100	strength61	
	010001	strength18	100111	strength40	111101	strength62	
	010010	strength19	101000	strength41	111110	strength63	
	010011	strength20	101001	strength42	111111	strength64	
	010100	strength21	101010	strength43			
	010101	strength22	101011	strength44			
Description		Bit[5:0]	Description	Bit[5:0]	Description	Bit[5:0]	Description
	Minimum OFF time setting of PHA_OFF & PHB_OFF & PHC_OFF	000000	Period1	010110	Period23	101100	Period45
		000001	Period2	010111	Period24	101101	Period46
		000010	Period3	011000	Period25	101110	Period47
		000011	Period4	011001	Period26	101111	Period48
		000100	Period5	011010	Period27	110000	Period49
		000101	Period6	011011	Period28	110001	Period50
		000110	Period7	011100	Period29	110010	Period51
		000111	Period8	011101	Period30	110011	Period52
		001000	Period9	011110	Period31	110100	Period53
		001001	Period10	011111	Period32	110101	Period54
		001010	Period11	100000	Period33	110110	Period55
		001011	Period12	100001	Period34	110111	Period56
		001100	Period13	100010	Period35	111000	Period57
		001101	Period14	100011	Period36	111001	Period58
		001110	Period15	100100	Period37	111010	Period59
		001111	Period16	100101	Period38	111011	Period60



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	20 of 53

	010000	Period17	100110	Period39	111100	Period61
	010001	Period18	100111	Period40	111101	Period62
	010010	Period19	101000	Period41	111110	Period63
	010011	Period20	101001	Period42	111111	Period64
	010100	Period21	101010	Period43		
	010101	Period22	101011	Period44		
Restriction						

8.2.7 R07H (DSLP): Deep Sleep Command

R07H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
DSLP	W	0	0	0	0	0	0	1	1	1	07H
1 st Parameter	W	1	1	0	1	0	0	1	0	1	A5h

NOTE: “-” Don’t care, can be set to VDD or GND level

Description	The command define as follows: After this command is transmitted, the chip would enter the deep-sleep mode to save power. The deep sleep mode would return to standby by hardware reset. The only one parameter is a check code, the command would be excited if check code = 0xA5.
Restriction	This command only active when BUSY_N = “1” .

8.2.8 R10H (DTM): Data Start transmission Register

R10H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
DTM	W	0	0	0	0	1	0	0	0	0	10H
2 bit mode	W	1									
1 st Parameter	W	1	Pixel1		Pixel2		Pixel3		Pixel4		00h
:	W	1	:	:	:	:	:	:	:	:	00h
M th Parameter	W	1	Pixel(n-3)		Pixel(n-2)		Pixel(n-1)		Pixel(n)		00h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	21 of 53

Description	The command define as follows: The register is indicates that user start to transmit data, then write to SRAM. While data transmission complete, user must send command 12H. Then chip will start to send data/VCOM for panel. Pixel [1~n][1:0]: 2-bit/pixel					
	Image Data	DDX=1(default)		DDX=0		
	Pixel[1:0]	Gray level select	IP output LUT select	Gray level select	IP output LUT select	
	00b	Gray0	ogray00	Gray3	ogray03	
	01b	Gray1	ogray01	Gray2	ogray02	
	10b	Gray2	ogray02	Gray1	ogray01	
	11b	Gray3	ogray03	Gray0	ogray00	
	Data mapping example: When DDX=1,Pixel[1:0]=01 ->Gray level select=Gray1,follow LUT data output from IP output port"ogray01". When DDX=0,Pixel[1:0]=11 ->Gray level select=Gray0,follow LUT data output from IP output port"ogray00"					
	Restriction					

8.3.5 R11H (DSP): Data Stop Command

R11H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
DSP	W	0	0	0	0	1	0	0	0	1	11H
1 st Parameter	R	1	Data_flag	-	-	-	-	-	-	-	-
Description	-The command defines as :										
	■ While finished the data transmitting, user must send this command to driver and read Data_flag information.										
	1st Parameter:										
	Bit	Name		Description							
	7	Data_flag		0: Driver didn't receive all the data. 1: Driver has already received all of the one frame data.							
	After “Data Start” (10h) or “Data Stop” (11h) commands and when data_flag=1, BUSY_N signal will become “0” and the refreshing of panel starts.										
Restriction	This command only actives when BUSY_N = “1” .										



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	22 of 53

8.2.10 R12H (DRF): Display Refresh Command

R12H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
DRF	W	0	0	0	0	1	0	0	1	0	12H
1 st Parameter	W	1	-	-	-	-	-	Gate_seq	-	AC/DC VCOM	00h
Description	-The command defines as : While users send this command, driver will refresh display (data/VCOM) base on SRAM data and LUT. AC/DC VCOM: 0: AC VCOM, VCOM will follow LUTC when updating image. (default) 1: DC VCOM, VCOM will always be VCOMDC when updating image After display refresh command, BUSY_N signal will become “0”										
Restriction	This command only actives when BUSY_N = “1”										

8.2.11 R17H (AUTO): Auto Sequence

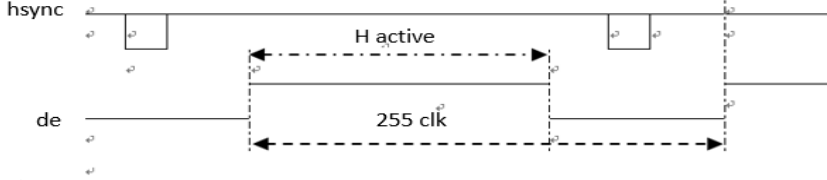
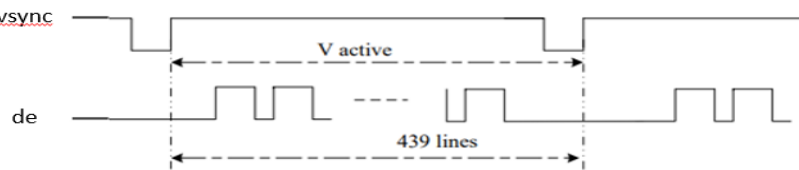
R17H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
Auto Sequence	W	0	0	0	0	1	0	1	1	1	17H
1 st Parameter	W	1	Code[7]	Code[6]	Code[5]	Code[4]	Code[3]	Code[2]	Code[1]	Code[0]	A5h
Description	The command can enable the internal sequence to execute several commands continuously. The successive execution can minimize idle time to avoid unnecessary power consumption and reduce the complexity of host's control procedure. The sequence contains several operations, including PON, DRF, POF, DSLP. AUTO (0x17) + Code(0xA5) = (PON→ DRF→ POF) AUTO (0x17) + Code(0xA7) = (PON→ DRF→ POF→ DSLP)										
Restriction	This command only actives when BUSY_N = “1”										

8.2.12 R30H (PLL): PLL Control Register

R30H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PLL	W	0	0	0	1	1	0	0	0	0	30H
1 st Parameter	W	1	-	-	-	-	Dyna	FR[2]	FR[1]	FR[0]	02h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	23 of 53

Description	-The command defines as: The command controls the PLL clock frequency. The PLL structure must support the following frame rates: <table border="1"> <thead> <tr> <th>bit3</th><th>Dynamic frame rate</th></tr> </thead> <tbody> <tr> <td>0</td><td>Disable(default)</td></tr> <tr> <td>1</td><td>Enable</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>FR[2:0]</th><th>Frame rate</th></tr> </thead> <tbody> <tr> <td>000</td><td>12.5 Hz</td></tr> <tr> <td>001</td><td>25 Hz</td></tr> <tr> <td>010</td><td>50 Hz(default)</td></tr> <tr> <td>011</td><td>65 Hz</td></tr> <tr> <td>100</td><td>75 Hz</td></tr> <tr> <td>101</td><td>85 Hz</td></tr> <tr> <td>110</td><td>100 Hz</td></tr> <tr> <td>111</td><td>120 Hz</td></tr> </tbody> </table>	bit3	Dynamic frame rate	0	Disable(default)	1	Enable	FR[2:0]	Frame rate	000	12.5 Hz	001	25 Hz	010	50 Hz(default)	011	65 Hz	100	75 Hz	101	85 Hz	110	100 Hz	111	120 Hz
bit3	Dynamic frame rate																								
0	Disable(default)																								
1	Enable																								
FR[2:0]	Frame rate																								
000	12.5 Hz																								
001	25 Hz																								
010	50 Hz(default)																								
011	65 Hz																								
100	75 Hz																								
101	85 Hz																								
110	100 Hz																								
111	120 Hz																								
Remark	- Horizontal  - Vertical 																								
Restriction																									

8.3.5 R40H (TSC): Temperature Sensor Command

R40H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
TSC	W	0	0	1	0	0	0	0	0	0	40H
1 st Parameter	R	1	D10/TS[	D9/TS[6	D8/TS[5	D7/TS[4	D6/TS[	D5/TS[2	D4/TS[1	D3/TS[0	-
2 nd Parameter	R	1	D2/	D1/	D0						-



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	24 of 53

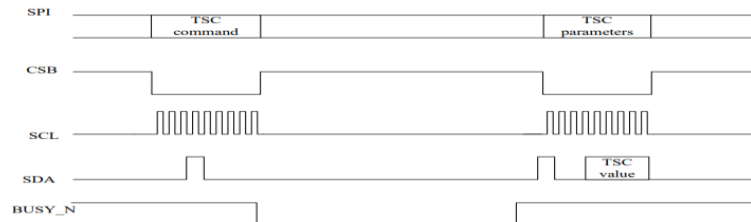
Description

- The command define as follows:

This command indicates the temperature value.

If R41H(TSE) bit7 set to 0, this command reads internal temperature sensor value.

If R41H(TSE) bit7 set to 1, this command reads external (LM75) temperature sensor value



TS[7:0]/D[10:3]	T (°C)	TS[7:0]/D[10:3]	T (°C)	TS[7:0]/D[10:3]	T (°C)
11100111	-25	00000000	0	00011001	25
11101000	-24	00000001	1	00011010	26
11101001	-23	00000010	2	00011011	27
11101010	-22	00000011	3	00011100	28
11101011	-21	00000100	4	00011101	29
11101100	-20	00000101	5	00011110	30
11101101	-19	00000110	6	00011111	31
11101110	-18	00000111	7	00100000	32
11101111	-17	00001000	8	00100001	33
11110000	-16	00001001	9	00100010	34
11110001	-15	00001010	10	00100011	35
11110010	-14	00001011	11	00100100	36
11110011	-13	00001100	12	00100101	37
11110100	-12	00001101	13	00100110	38
11110101	-11	00001110	14	00100111	39
11110110	-10	00001111	15	00101000	40
11110111	-9	00010000	16	00101001	41
11111000	-8	00010001	17	00101010	42
11111001	-7	00010010	18	00101011	43
11111010	-6	00010011	19	00101100	44
11111011	-5	00010100	20	00101101	45
11111100	-4	00010101	21	00101110	46
11111101	-3	00010110	22	00101111	47
11111110	-2	00010111	23	00110000	48
11111111	-1	00011000	24	00110001	49

TS[9:8]	T (°C)
00	+0
01	+0.25
10	+0.5
11	+0.75



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	25 of 53

Restriction	This command only actives when BUSY_N = "1".
-------------	--

8.2.14 R41H (TSE): Temperature Sensor Calibration Register

R41H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
TSE	W	0	0	1	0	0	0	0	0	1	41H
1 st Parameter	W	1	TSE	-	-	TO[4]	TO[3]	TO[2]	TO[1]	TO[0]	00h
Description	-The command defines as: This command indicates the driver IC temperature sensor enable and calibration function. Reserve one temperature offset TO[3:0] for calibration 1. TO[3]: mean '+' or '-', while 0 is '+' ; 1 is '-' 2. TO[2:0]: mean temperature offset value										
	Bit	Name	Description								
	3-0	TO[3:0]	Temperature level: 0000: +0°C (default) 0001: +0.5°C 0010: +1°C 0011: +1.5°C 0100: +2°C 0101: +2.5°C 0110: +3°C 0111: +3.5°C 1000: -4°C 1001: -3.5°C 1010: -3°C 1011: -2.5°C 1100: -2°C 1101: -1.5°C 1110: -1°C 1111: -0.5°C								
	4	TO[4]	0: +0.0°C (default) 1: +0.25°C								
	7	TSE	Internal temperature sensor enable 0: Internal temperature sensor enable. (default) 1: Internal temperature sensor disable, using external temperature sensor.								
Restriction	This command only actives after R04H(PON)										

8.2.15 R42H (TSW): Temperature Sensor Write Register

R42H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
TSW	W	0	0	1	0	0	0	0	1	0	42H
1 st Parameter	W	1	WATTR[7]	WATTR[6]	WATTR[5]	WATTR[4]	WATTR[3]	WATTR[2]	WATTR[1]	WATTR[0]	00h
2 nd Parameter	W	1	WMSB[7]	WMSB[6]	WMSB[5]	WMSB[4]	WMSB[3]	WMSB[2]	WMSB[1]	WMSB[0]	00h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	26 of 53

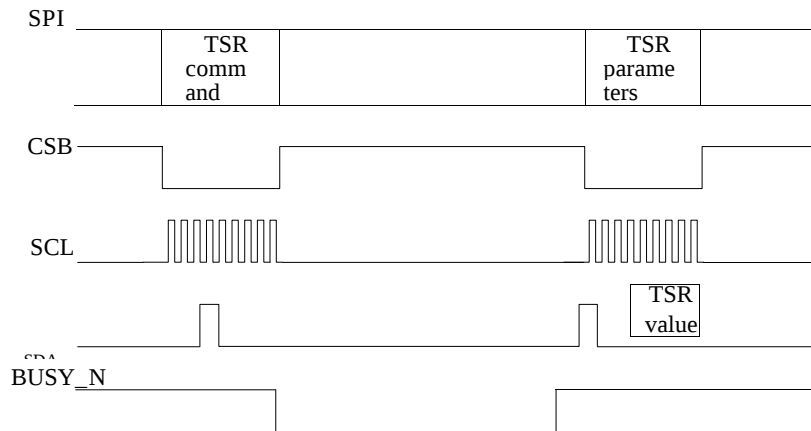
3 rd Parameter	W	1	WLSB[7]	WLSB[6]	WLSB[5]	WLSB[4]	WLSB[3]	WLSB[2]	WLSB[1]	WLSB[0]	00h
Description	-The command defines as: This command writes the temperature. 1 st Parameter:										
	Bit	Name	Description								
	2-0	WATTR[2:0]	Pointer setting								
	5-3	WATTR[5:3]	User-defined address bits (A2, A1, A0)								
	7-6	WATTR[7:6]	I2C Write Byte Number 00: 1 byte (head byte only) 01: 2 bytes (head byte + pointer) 10: 3 bytes (head byte + pointer + 1st parameter) 11: 4 bytes (head byte + pointer + 1st parameter + 2nd parameter)								
	2 nd Parameter:										
	Bit	Name	Description								
	7-0	WMSB[7:0]	MSByte of write-data to external temperature sensor								
	3 rd Parameter:										
	Bit	Name	Description								
	7-0	WLSB[7:0]	LSByte of write-data to external temperature sensor								
	Restriction	This command only actives after R04H(PON)									

8.2.16 R43H (TSR): Temperature Sensor Read Register

R43H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
TSR	W	0	0	1	0	0	0	0	1	1	43H
1 st Parameter	R	1	RMSB[7]	RMSB[6]	RMSB[5]	RMSB[4]	RMSB[3]	RMSB[2]	RMSB[1]	RMSB[0]	-
2 nd Parameter	R	1	RLSB[7]	RLSB[6]	RLSB[5]	RLSB[4]	RLSB[3]	RLSB[2]	RLSB[1]	RLSB[0]	-
Description	-The command defines as:										
	This command reads the temperature sensed by the temperature sensor.										
	1 st Parameter:										
	Bit		Name		Description						
	7-0		RMSB[7:0]		MSByte of read-data from external temperature sensor						
	2 nd Parameter:										
	Bit		Name		Description						
7-0		RLSB[7:0]		LSByte of write-data from external temperature sensor							



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	27 of 53



Restriction This command only actives after R04H(PON)

8.2.17 R50H (CDI): VCOM and DATA interval setting Register

R50H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
CDI	W	0	0	1	0	1	0	0	0	0	50H
1 st Parameter	W	1	VBD[2]	VBD[1]	VBD [0]	DDX	CDI[3]	CDI[2]	CDI[1]	CDI[0]	97h
Description	-The command defines as: This command can set 2 kinds of parameters, 1.VCOM to data output interval(CDI) : CDI[3:0]: This command indicates the interval of VCOM and data output. When setting the vertical back porch, the total blanking will be keep (55hsync).										
	Bit	Name	Description								
	3-0	CDI[3:0]	Vcom and data interval 0000: 17 hsync 0001:16 hsync 0010:15 hsync 0011:14 hsync 0100:13 hsync 0101:12 hsync 0110:11 hsync 0111:10 hsync(default) 1000:9 hsync 1001:8 hsync 1010:7 hsync 1011:6 hsync 1100:5 hsync 1101:4 hsync 1110:3 hsync 1111:2 hsync								



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	28 of 53

VBD[2:0]: Border data selection. (from LUT output by IP port border_w[1:0]) This register will make boarder pin output being mapped to a certain gray scale. <table border="1"> <thead> <tr> <th>Bit 4</th><th>Bit7-5</th><th>Description</th><th>IP setting for Border LUT select</th></tr> </thead> <tbody> <tr> <td>DDX</td><td>VBD[2:0]</td><td>Gray level</td><td></td></tr> <tr> <td rowspan="5">0</td><td>000</td><td>Floating</td><td>N/A</td></tr> <tr> <td>001</td><td>Gray3</td><td>border_buf=011</td></tr> <tr> <td>010</td><td>Gray2</td><td>border_buf=010</td></tr> <tr> <td>011</td><td>Gray1</td><td>border_buf=001</td></tr> <tr> <td>100</td><td>Gray0</td><td>border_buf=000</td></tr> <tr> <td rowspan="5">1 (default)</td><td>000</td><td>Gray0</td><td>border_buf=000</td></tr> <tr> <td>001</td><td>Gray1</td><td>border_buf=001</td></tr> <tr> <td>010</td><td>Gray2</td><td>border_buf=010</td></tr> <tr> <td>011</td><td>Gray3</td><td>border_buf=011</td></tr> <tr> <td>100</td><td>Floating</td><td>N/A</td></tr> </tbody> </table> Border output voltage level: The level selection is based on mapping LUT data. Ex: Gray 1 waveform is mapping to 15V, without VCOM offset, the real output on Boarder pin shall be 15V. Boarder output will follow FOPT definition being defined in R00h.				Bit 4	Bit7-5	Description	IP setting for Border LUT select	DDX	VBD[2:0]	Gray level		0	000	Floating	N/A	001	Gray3	border_buf=011	010	Gray2	border_buf=010	011	Gray1	border_buf=001	100	Gray0	border_buf=000	1 (default)	000	Gray0	border_buf=000	001	Gray1	border_buf=001	010	Gray2	border_buf=010	011	Gray3	border_buf=011	100	Floating	N/A
Bit 4	Bit7-5	Description	IP setting for Border LUT select																																								
DDX	VBD[2:0]	Gray level																																									
0	000	Floating	N/A																																								
	001	Gray3	border_buf=011																																								
	010	Gray2	border_buf=010																																								
	011	Gray1	border_buf=001																																								
	100	Gray0	border_buf=000																																								
1 (default)	000	Gray0	border_buf=000																																								
	001	Gray1	border_buf=001																																								
	010	Gray2	border_buf=010																																								
	011	Gray3	border_buf=011																																								
	100	Floating	N/A																																								
Restriction																																											

8.2.18 R51H (LPD): Lower Power Detection Register

R51H	Bit										
Inst/ Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
LPD	W	0	0	1	0	1	0	0	0	1	51H
1 st Parameter	R	1	-	-	-	-	-	-	-	LPD	--

NOTE: "-" Don't care, can be set to VDD or GND level



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	29 of 53

Description	-The command defines as: This command indicates the input power condition. Host can read this data to understand the battery's condition. When LPD="1", system input power is normal. When LPD="0", system input power is lower (VDD<2.5v, which could be select in RE4H (LVSEL)). 1st Parameter: <table border="1"> <tr> <td>Bit 0</td><td>LPD</td></tr> <tr> <td>0</td><td>Low power input.</td></tr> <tr> <td>1</td><td>Normal status.</td></tr> </table>	Bit 0	LPD	0	Low power input.	1	Normal status.
Bit 0	LPD						
0	Low power input.						
1	Normal status.						
Restriction	This command only actives when BUSY_N = "1" .						

8.2.19 R61H (TRES): Resolution setting

R61H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
TRES	W	0	0	1	1	0	0	0	0	1	61H
1 st Parameter	W	1	-	-	-	-	-	-	HRES(9)	HRES(8)	00h
2 nd Parameter	W	1	HRES(7)	HRES(6)	HRES(5)	HRES(4)	HRES(3)	HRES(2)	0	0	00h
3 th Parameter	W	1	-	-	-	-	-	-	VRES(9)	VRES(8)	00h
4 th Parameter	W	1	VRES(7)	VRES(6)	VRES(5)	VRES(4)	VRES(3)	VRES(2)	VRES(1)	VRES(0)	00h

NOTE: "-" Don't care, can be set to VDD or GND level



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	30 of 53

Description	-The command define as follows: When using register: Horizontal display resolution(source) = HRES Vertical display resolution(gate) = VRES Note: No matter HRES[9:8],HRES[1:0],VRST[9] value being filled, it's always be 00b. Channel disable calculation: GD : First G active = G0; LAST active GD= first active +VRES[9:0] - 1 SD : First active channel: =S0 ; LAST active SD= first active +HRES[9:2]*4- 1 EX :176X296 GD: First G active = G0 LAST active GD= 0+296- 1= 295; (G295) SD : First active channel: =S0 LAST active SD=0+44*4- 1=175; (S175) Note : Only supports source 176.ch for source 160ch. above
Restriction	Horizontal resolution should be 4-multiple.

8.2.20 R65H(GSST): Gate/Source Start Setting Register

R65H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
GSST	W	0	0	1	1	0	0	1	0	1	65H
1 st Parameter	W	1	-	-	-	-	-	-	S_start[9]	S_start[8]	00h
2 nd Parameter	W	1	S_start[7]	S_start[6]	S_start[5]	S_start[4]	S_start[3]	S_start[2]	0	0	00h
3 rd Parameter	W	1	-	-	-	-	-	-	G_start[9]	G_start[8]	00h
4 th Parameter	W	1	G_start[7]	G_start[6]	G_start[6]	G_start[4]	G_start[3]	G_start[2]	G_start[1]	G_start[0]	00h

Description	-The command define as follows: Note: No matter S_start[9:8], S_start [1:0],VRST[9] value being filled, it's always be 00b. 1.S_Start [7:0] describe which source output line is the first date line 2.G_Start[8:0] describe which gate line is the first scan line
Restriction	S_Start should be the multiple of 4

8.2.21 R70H (REV): REVISION register

R70H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
REV	W	0	0	1	1	1	0	0	0	0	70H
1 st Parameter	R	1	0	0	0	0	0	0	1	1	03h
2 nd Parameter	R	1	0	0	0	0	0	0	1	0	02h
3 rd Parameter	R	1	0	0	0	0	0	0	0	1	01h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	31 of 53

Description	The command defines as:	
	1 st & 2 nd & 3 rd Parameter:	
	Bit	Description
	7-0	CHIP_REV
Restriction		

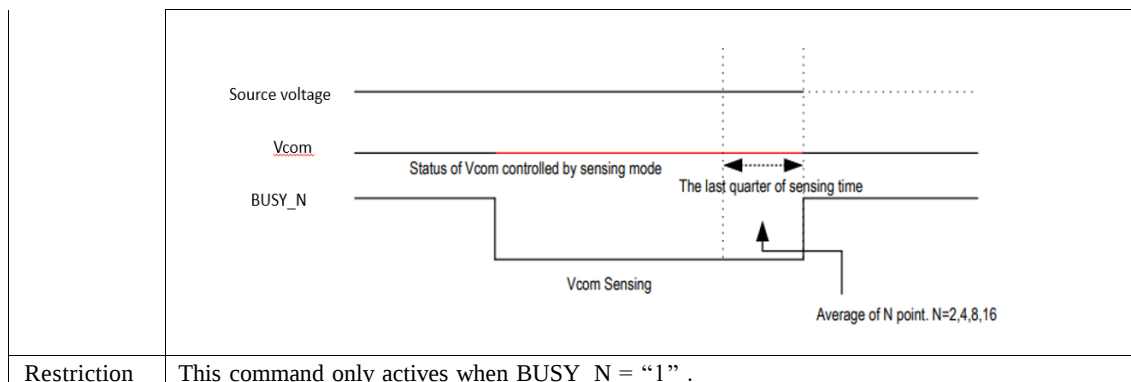
8.2.22 R80H (AMV): Auto Measure VCOM register

R80H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
AMV	W	0	1	0	0	0	0	0	0	0	80H
1 st Parameter	W	1	P[1]	P[0]	AMVT[1]	AMVT[0]	XON	AMVS	AMV	AMVE	00h

Description	- The command defines as: This command indicates the IC status. Host can read this data to understand the IC status.		
	1 st Parameter:		
	Bit	Name	Description
	0	AMVE	AMVE: Auto Measure Vcom Setting 0: Auto measure VCOM disable (default) 1: Auto measure VCOM enable
	1	AMV	AMV: Analog signal 0: Get Vcom value from R81h(default) 1: Get Vcom value in analog signal
	2	AMVS	AMVS: setting for Source output of AMV 0: Source output 0V during Auto Measure VCOM period. (default) 1: Source output VSPL_0 during Auto Measure VCOM period.
	3	XON	XON: setting for all Gate ON of AMV 0: Gate normally scan during Auto Measure VCOM period. (default) 1: All Gate ON during Auto Measure VCOM period.
	5-4	AMVT[1:0]	The sensing time of VCOM detection 00: 5s (default) 01: 10s 10: 15s 11: 20s
7-6	P[1:0]	The sensing points of sampling time 00: 2 (default) 01: 4 10: 8 11: 16 Sampling time = the last quarter of sensing time (T) VCOM = average of N points. N=2,4,8,16	



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	32 of 53



Restriction This command only activates when BUSY_N = "1".

8.2.23 R83H (PTL): Partial Window Register

R83H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PTL	W	0	1	0	0	0	0	0	1	1	83H
1 st Parameter	W	1	-	-	-	-	-	-	HRST[9]	HRST[8]	00h
2 nd Parameter	W	1	HRST[7]	HRST[6]	HRST[5]	HRST[4]	HRST[3]	HRST[2]	-	-	00h
3 rd Parameter	W	1	-	-	-	-	-	-	HRED[9]	HRED[8]	00h
4 th Parameter	W	1	HRED[7]	HRED[6]	HRED[5]	HRED[4]	HRED[3]	HRED[2]	-	-	00h
5 th Parameter	W	1	-	-	-	-	-	-	VRST[9]	VRST[8]	00h
6 th Parameter	W	1	VRST[7]	VRST[6]	VRST[5]	VRST[4]	VRST[3]	VRST[2]	VRST[1]	VRST[0]	00h
7 th Parameter	W	1	-	-	-	-	-	-	VRED[9]	VRED[8]	00h
8 th Parameter	W	1	VRED[7]	VRED[6]	VRED[5]	VRED[4]	VRED[3]	VRED[2]	VRED[1]	VRED[0]	00h
9 th Parameter	W	1	-	-	-	-	-	-	-	PMODE	00h
Description	_This command sets partial window.										
	Name			Description							
		HRST[9:2]		Horizontal start address							
		HRED[9:2]		Horizontal end address. HRED must be greater than HRST.							
		VRST[9:0]		Vertical start address.							
		VRED[9:0]		Vertical end address. VRED must be greater than VRST.							
		PMODE		0: disable partial mode(default) 1: enable partial mode							
	Note: No matter HRST[1:0] ,HRST[9:8],HRED[9:8],VRST[9],VRED[9] value being filled, it's always be 00b. No matter HRED[1:0] value being filled, it's always be 11b.										
	Gates scan both inside and outside of the partial window.										
	Restriction										

8.2.24 R9EH(REV2): REVISION2 register

R9EH	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
REV2	W	0	1	0	0	1	1	1	1	0	9EH
1 st Parameter	R	1	0	0	0	0	0	0	0	1	01h



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	33 of 53

	-The command defines as: 1st Parameter: <table><tr><th>Bit</th><th>Description</th></tr><tr><td>7-0</td><td>CHIP_REV</td></tr></table>		Bit	Description	7-0	CHIP_REV
Bit	Description					
7-0	CHIP_REV					
Description						
Restriction						

8.2.25 RE3H (PWS): Power Saving Register

RE3H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
PWS	W	0	1	1	1	0	0	0	1	1	E3H
1 st Parameter	W	1	VCOM_W[3:0]				SD_W[3:0]				00h

Description	- This command is set for saving power during refreshing period. If the output voltage of VCOM / Source is from negative to positive or from positive to negative, the power saving mechanism will be activated. The active period width is defined by the following two parameters. VCOM_W: VCOM power saving width (unit = line period) The diagram illustrates the power saving mechanism during the refreshing period. It shows the relationship between VSYNC, VCOM, Source, Gat, and Line N Data signals. VCOM_W [3:0] is the duration of VCOM power saving, and SD_W [3:0] is the duration of Source power saving. G2S [3:0] is the duration of Gate power saving.
-------------	--



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	34 of 53

8.2.26 RE4H (LVSEL): LVD Voltage Select Register

RE4H	Bit										
Inst/Para	R/W	D/CX	D7	D6	D5	D4	D3	D2	D1	D0	Code
LVSEL	W	0	1	1	1	0	0	1	0	0	E4H
1 st Parameter	W	1	-	-	-	-	-	-	LVD_SEL[1:0]		03h
Description	LVD_SEL[1:0]: Low Power Voltage Selection										
	LVD_SEL[1:0]			LVD value							
	00			< 2.2 V							
	01			< 2.3 V							
	10			< 2.4 V							
	11			< 2.5 V (default)							
Restriction											



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	35 of 53

9. FUNCTION DESCRIPTION

9.1 Power On/Off and DSLP Sequence

Power on Sequence

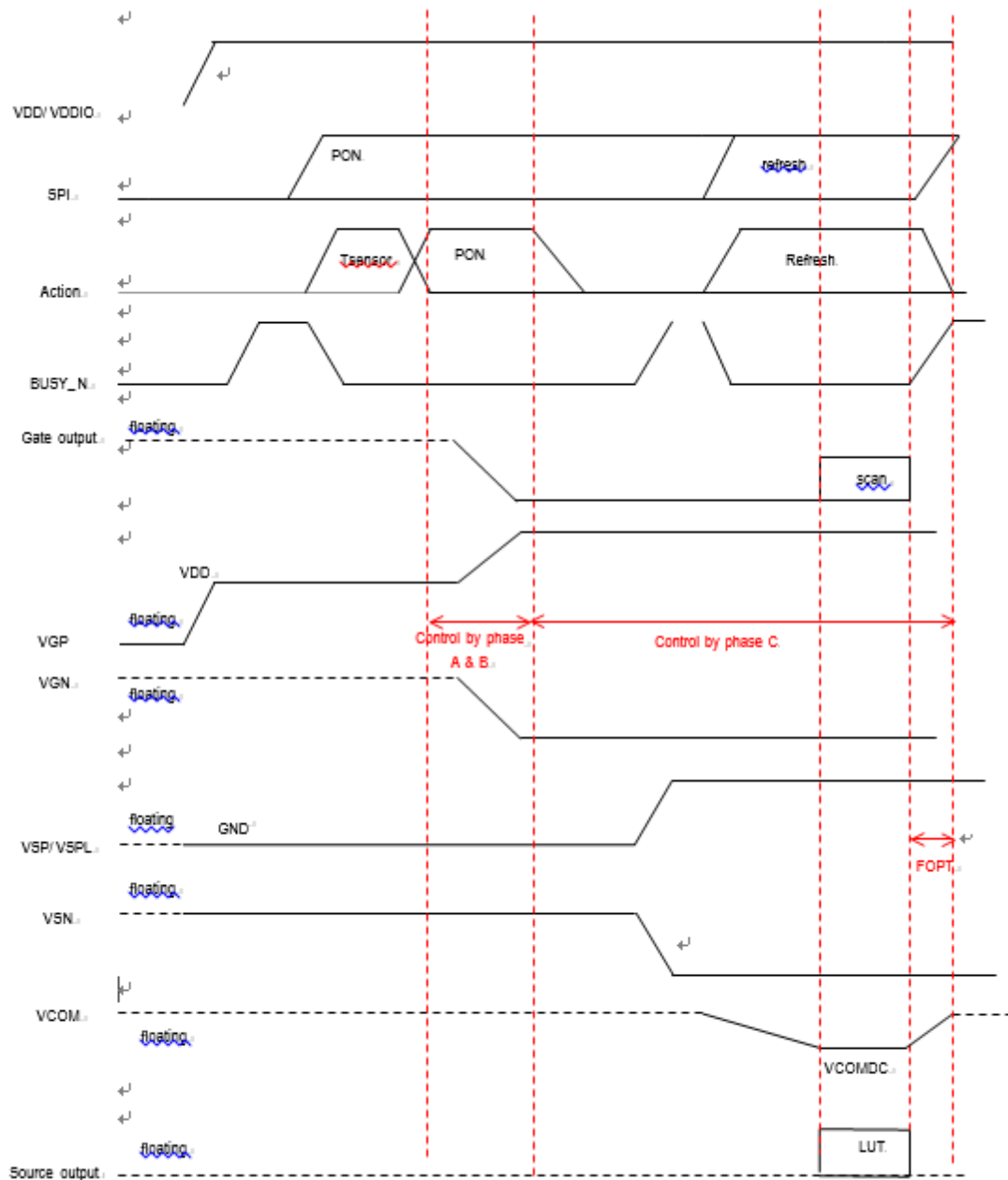


Figure 1: Power on sequence.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	36 of 53

Power off Sequence

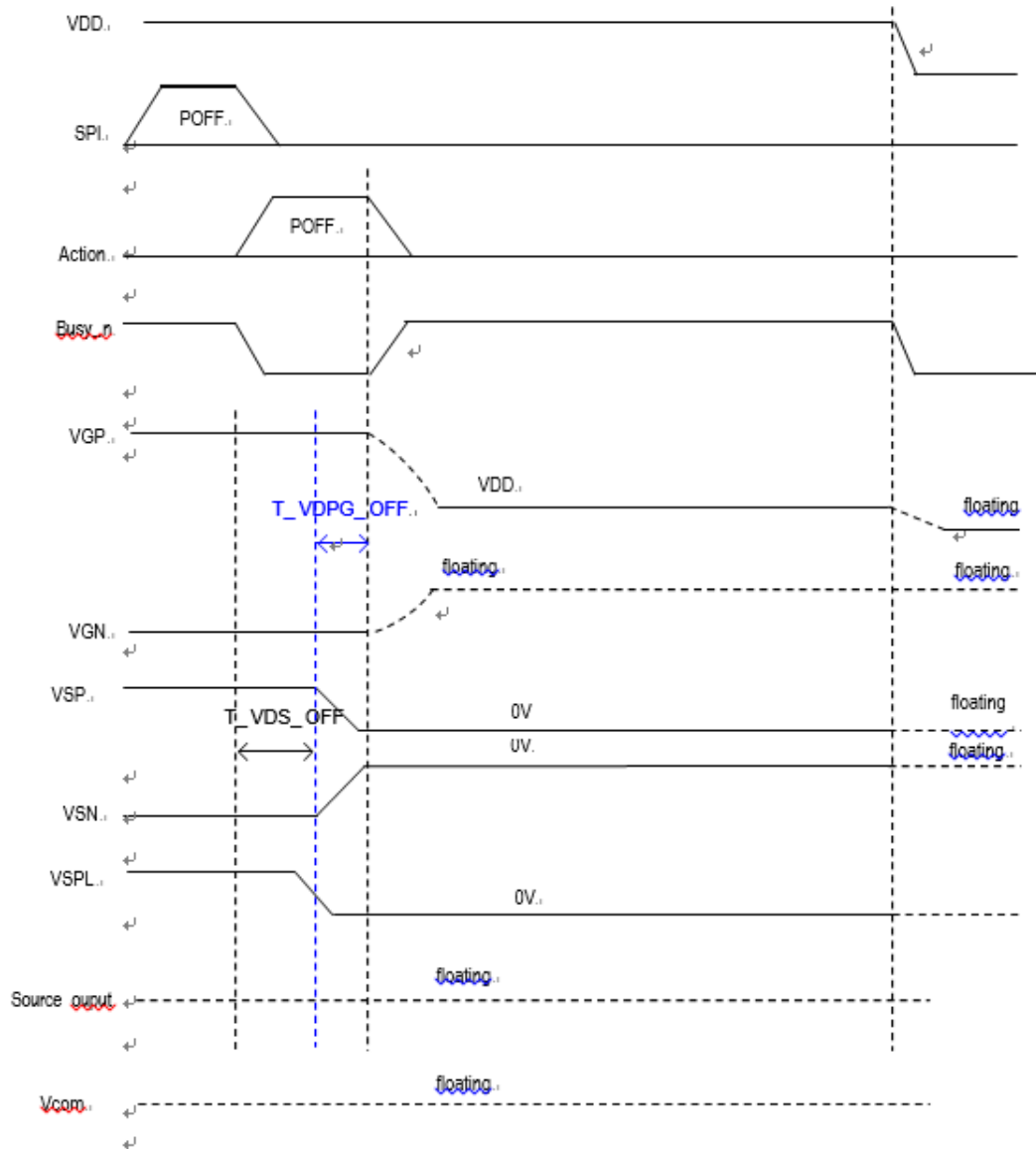


Figure 2: Power off sequence



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	37 of 53

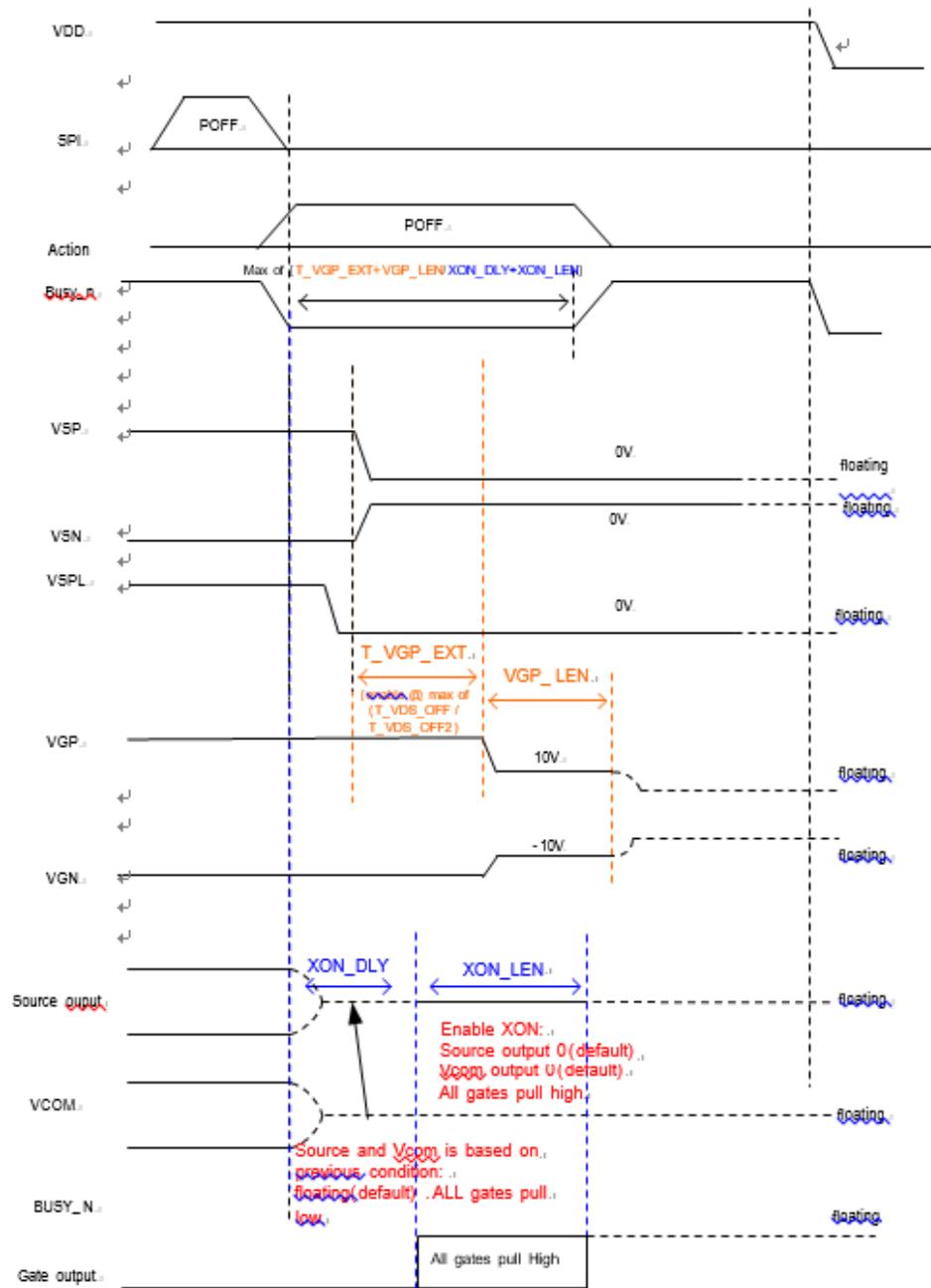


Figure 3: Power off sequence with EPD discharge.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	38 of 53

DSLSP sequence.

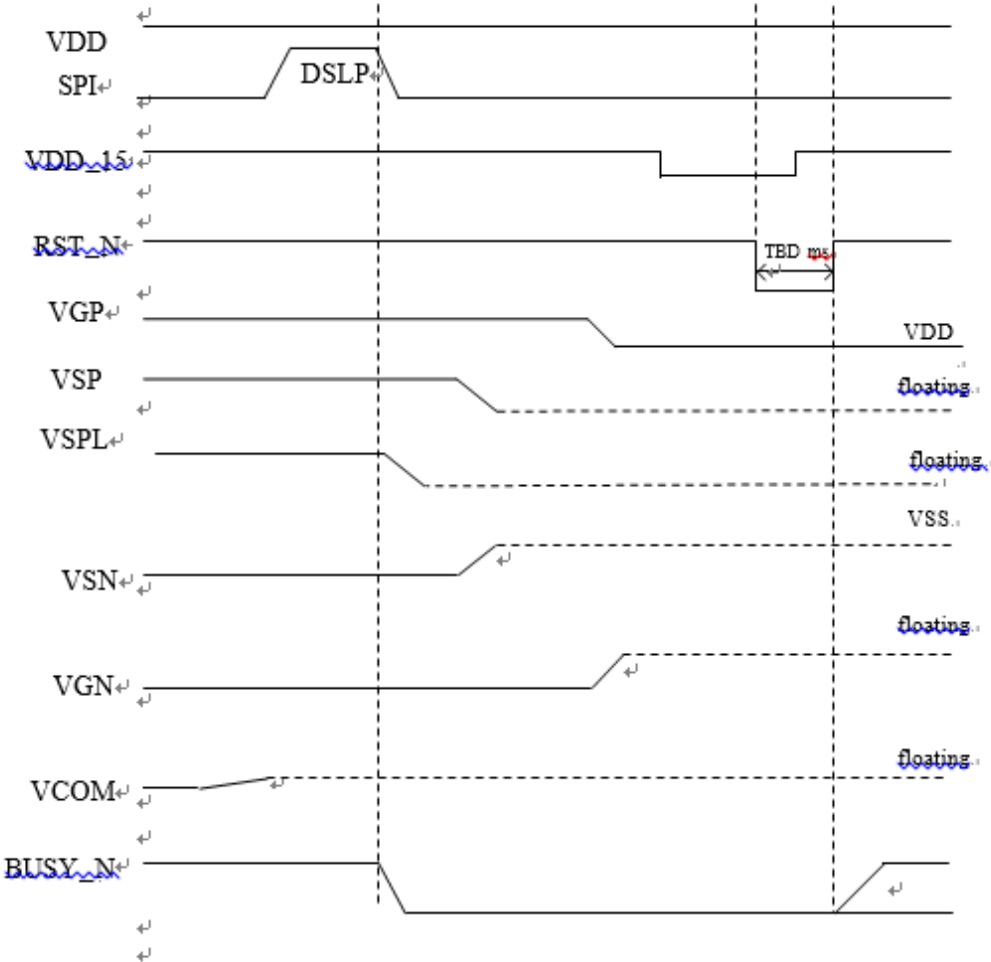


Figure 4: DSLSP sequence.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	39 of 53

10. Reference Circuit

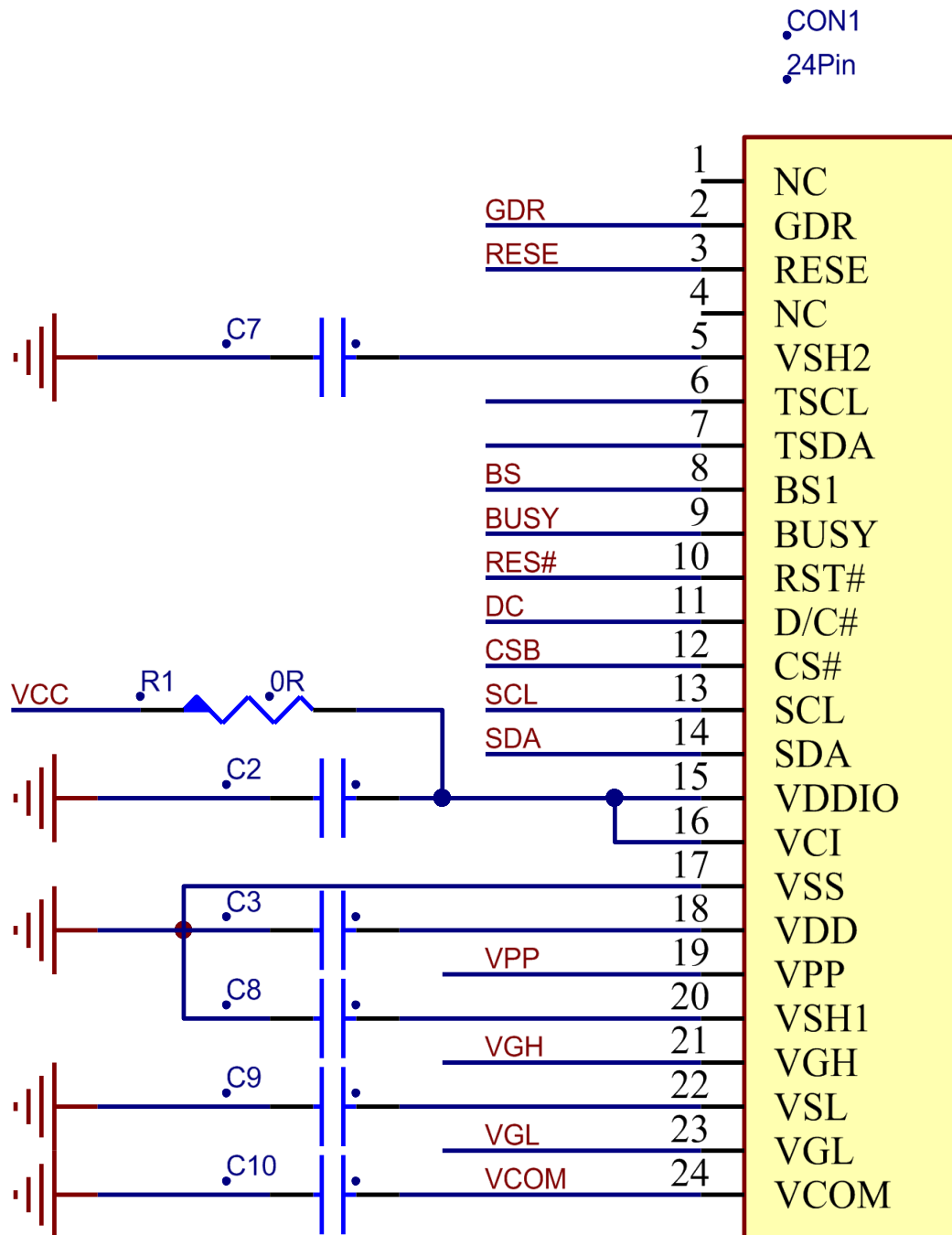


Figure. 9-1



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	40 of 53

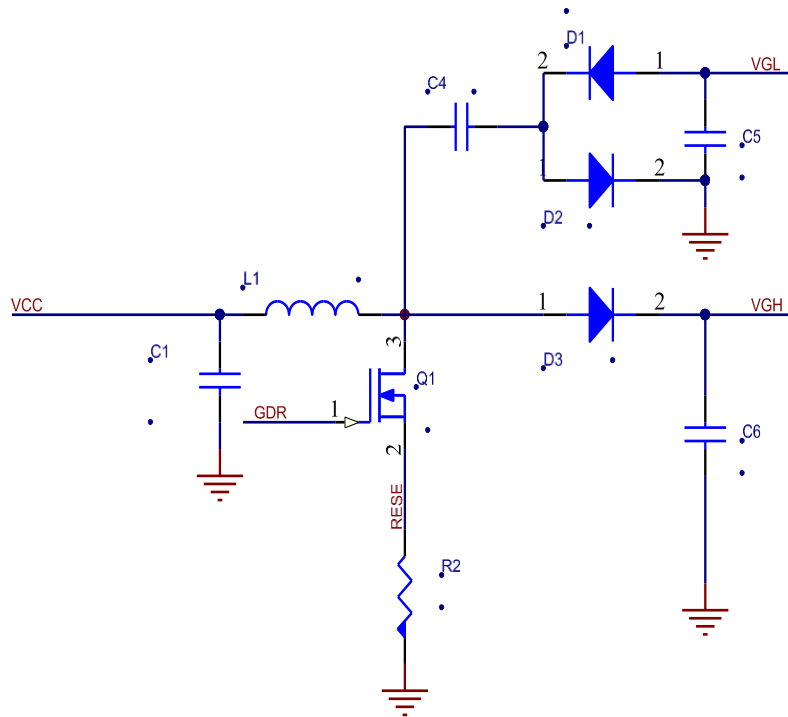


Figure. 9-2

Part Name	Value /requirement/Reference Part
C1—C3	1uF/0603;X5R;Voltage Rating: 25V
C4-C9	1uF/0603;X5R;Voltage Rating: 50V
C10	1uF/0603; X5R;Voltage Rating: 25V
D1—D3	MBR0530 1) Reverse DC voltage $\geq 30V$ 2) Forward current $\geq 500mA$ 3)Forward voltage $\leq 430mV$
R2	2.2 Ω /0603: 1% variation
Q1	NMOS:Si1308EDL、Si1304BDL 1) Drain-Source breakdown voltage $\geq 30V$ 2) $V_{gs(th)} = 0.9 (Typ)$, 1.3V (Max) 3) $R_{ds(on)} \leq 2.1\Omega @ V_{gs}=2.5V$
L1	47UH/NRH3010T470MN $I_o = 500 (Max)$



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	41 of 53

11. Absolute Maximum Rating

Symbol	Parameter	Rating	Unit	Humidity	Unit	Note
V _{DD}	Logic supply voltage	-0.3 to +6.0	V	-	-	
T _{OPR}	Operation temperature range	0 to 40	℃	45 to 70	%	
T _{ttg}	Transportation temperature range	-25 to 60	℃	45 to 70	-	Note11-2
T _{stg}	Storage condition	0 to 40	℃	45 to 70	%	Maximum storage time: 5 years

Note 11-1: Maximum ratings are those values beyond which damages to the device may occur. Functional operation should be restricted to the limits in the Electrical Characteristics chapter.

Note11-2: T_{ttg} is the transportation condition, the transport time is within 10 days for -25℃~0℃ or 50℃~60℃

Note 11-3: When the four-color product is stored. The display screen should be kept white and face up. We suggest that the full black and full white picture could be added to clear the screen after the module is refreshed for a long time, the display effect would be better.

Note 11-4: Due to the nature of FPL, we will not control the display effect of yellow and white characters on white and yellow characters on white.

12. DC Characteristics

The following specifications apply for: V_{SS}=0V, V_{DD}=3.3V, T_{OPR}=25℃

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V _{DD}	V _{DD} operation voltage	-	2.5	3.3	3.6	V
V _{IH}	High level input voltage	-	0.7xV _{IO}	-	V _{IO}	V
V _{IL}	Low level input voltage	-	GND	-	0.3xV _{DD}	V
V _{OH}	High level output voltage	I _{OH} = 400μA	V _{IO} -0.4	-	-	V
V _{OL}	Low level output voltage	I _{OL} = -400μA	GND	-	GND+0.4	V
I _{update}	Module operating current	-	-	3	-	mA
I _{sleep}	Deep sleep mode	V _{CI} =3.3V	-	-	3	uA

- The Typical power consumption is measured using associated 25℃ waveform with following pattern transition: from horizontal scan pattern to vertical scan pattern. (Note 12-)

- The listed electrical/optical characteristics are only guaranteed under the controller & waveform provided by XingTai.

Note 12-1

The Typical power consumption

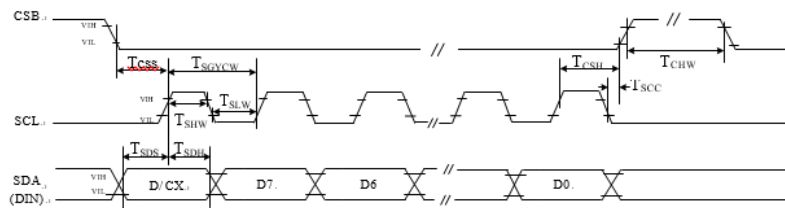


File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	42 of 53

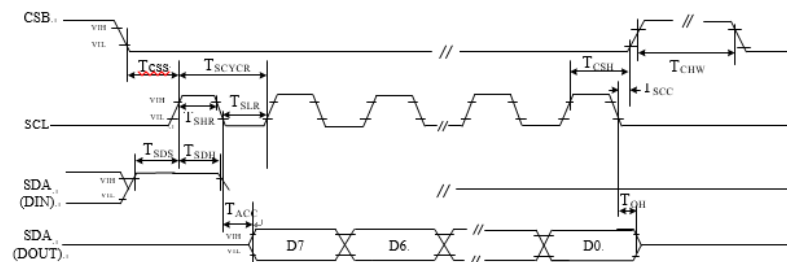
13. Serial Peripheral Interface Timing

The following specifications apply for: VSS=0V, VDD=2.5V to 3.6V, TOPR=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
SERIAL COMMUNICATION						
CSB	T _{CSS}	60			ns	Chip select setup time
	T _{CSH}	65			ns	Chip select hold time
	T _{SCC}	20			ns	Chip select CSB setup time
	T _{CHW}	40			ns	Chip select setup time
SCL	T _{SCYCW}	100			ns	Serial clock cycle (Write)
	T _{SHW}	35			ns	SCL "H" pulse width (Write)
	T _{SLW}	35			ns	SCL "L" pulse width (Write)
	T _{SCYCR}	150			ns	Serial clock cycle (Read)
	T _{SHR}	60			ns	SCL "H" pulse width (Read)
	T _{SLR}	60			ns	SCL "L" pulse width (Read)
SDA (DIN) (DOUT)	T _{SDS}	30			ns	Data setup time
	T _{SDH}	30			ns	Data hold time
	T _{ACC}			10	ns	Access time
	T _{OH}	15			ns	Output disable time
D/C	T _{DCS}	20			ns	DC setup time
	T _{DCH}	20			ns	DC hold time



3 pin serial interface characteristics (write mode)⁴⁾

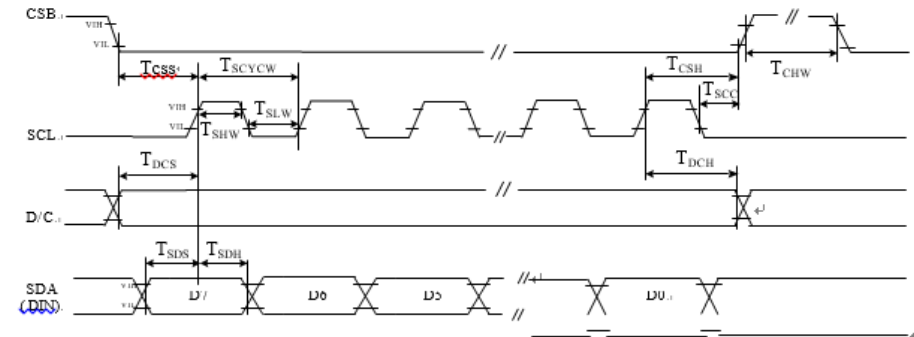


3 pin serial interface characteristics (read mode)⁴⁾

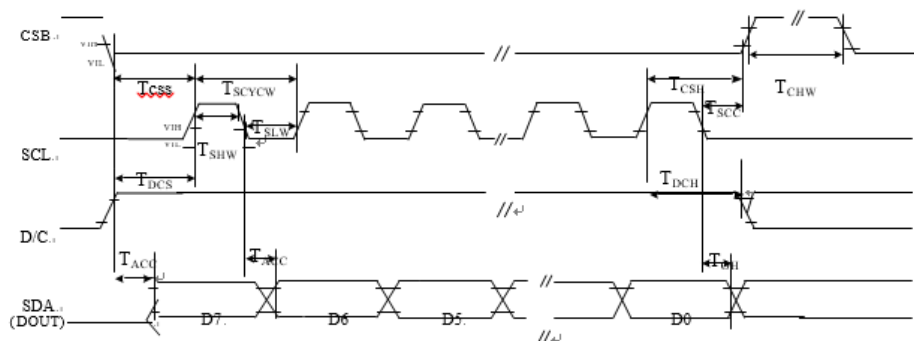


File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	43 of 53

V0.1.6



4 pin serial interface characteristics (write mode)



4 pin serial interface characteristics (read mode)

Figure 9: SPI interface timing

14. Power Consumption (Price tag screen)

Parameter	Symbol	Conditions	TYP	Max	Unit	Remark
Panel power consumption during update	-	25°C	-	70	mAs	-
Deep sleep mode	-	25°C	-	3	uA	-

mAs=update average current ×update time

15. Optical characteristics

15.1 Specifications

T=25°C, VDD=3.3V

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	Note
KS	Black State L* value	-	-	9	14	-	Note 15-1
	Black State a* value	-	-		7	-	Note 15-1
WS	White State L* value	-	63	65		-	Note 15-1



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	44 of 53

	White State b* value	-	-		3	-	Note 15-1
RS	Red State L* value	Red	25				Note 15-1
	Red State a* value	Red	38	40			Note 15-1
YS	Yellow State L* value	Yellow	53				Note 15-1
	Yellow State b* value	Yellow	63	68	-		Note 15-1
	Yellow State A* value				18		Note 15-1

WS : White state, KS : Black State, RS: Red State, YS : Yellow State

Note 15-1 : Luminance meter : i - One Pro Spectrophotometer

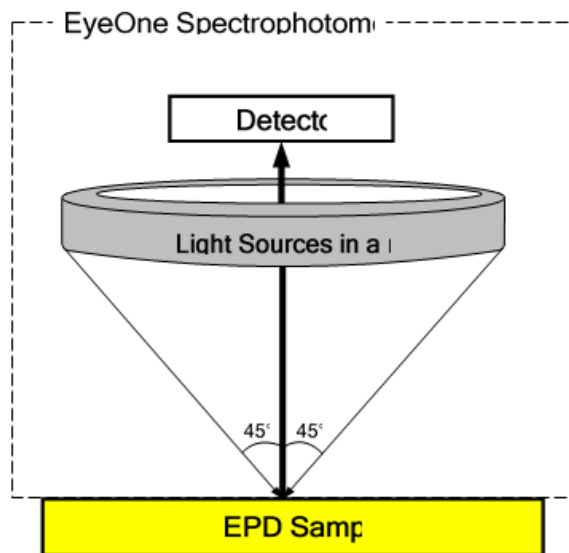
WS : White state, KS : Black State,

Note 15-1 : Luminance meter : i - One Pro Spectrophotometer

15.2 Definition of contrast ratio

The contrast ratio (CR) is the ratio between the reflectance in a full white area (Rl) and the reflectance in a dark area (Rd):

$$CR = Rl/Rd$$



15.3 Reflection Ratio

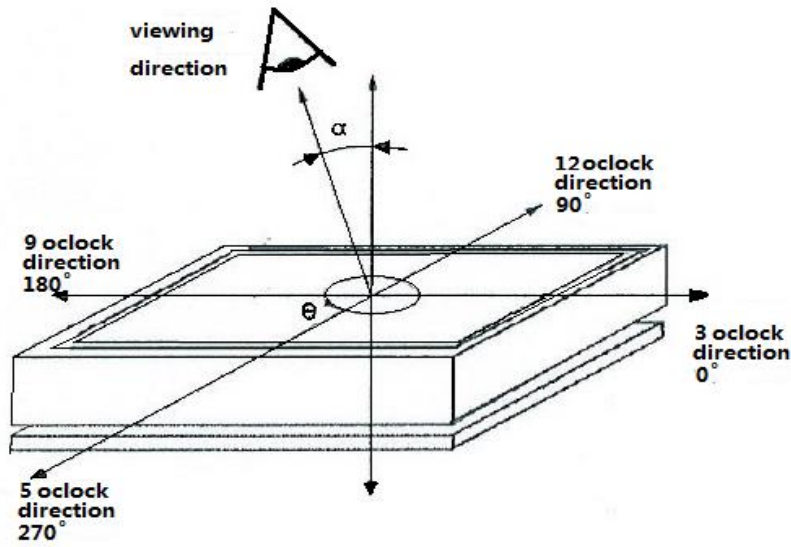
The reflection ratio is expressed as:

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

L center is the luminance measured at center in a white area (R=G=B=1). L white board is the luminance of a standard white board. Both are measured with equivalent illumination source. The viewing angle shall be no more than 2 degrees.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	45 of 53





File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	46 of 53

16. Handling Safety And Environmental Requirements

WARNING
The display module should be kept flat or fixed to a rigid, curved support with limited bending along the long axis. It should not be used for continual flexing and bending. Handle with care. Should the display break do not touch any material that leaks out. In case of contact with the leaked material then 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.
Observe general precautions that are common to handling delicate electronic components. The glass can break and front surfaces can easily be damaged . Moreover the display is sensitive to static electricity and other rough environmental conditions.

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 there is dust on the surface, gently wipe it with absorbent cotton or a dust-free cloth. It is recommended to use anhydrous ethanol to clean the adhesive used to attach 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	The data sheet contains final product specifications.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	47 of 53

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 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 dose not form part of the specification.

Product Environmental certification
ROHS
REMARK
All The specifications listed in this document are guaranteed for module only. Post-assembled operation or component(s) may impact module performance or cause unexpected effect or damage and therefore listed specifications is not warranted after any Post-assembled operation.



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	48 of 53

17. Reliability test

17.1 Reliability test items

	TEST	CONDITION	REMARK
1	High-Temperature Operation	T=40°C, RH=35%RH, For 240Hrs	
2	Low-Temperature Operation	T = 0°C for 240 hrs	
3	High-Temperature Storage	T=60°C RH=35%RH For 240Hrs	Test in white pattern
4	Low-Temperature Storage	T = -25°C for 240 hrs	Test in white pattern
5	High Temperature, High-Humidity Operation	T=40°C, RH=90%RH, For 168Hrs	
6	High Temperature, High-Humidity Storage	T=60°C, RH=80%RH, For 240Hrs	Test in white pattern
7	Temperature Cycle	-25°C(30min)~60°C(30min), 100 Cycle	Test in white pattern
8	Package Vibration	1.04G,Frequency : 20~200Hz Direction : X,Y,Z Duration: 30 minutes in each direction	Full packed for shipment
9	Package Drop Impact	Drop from height of 100 cm on Concrete surface Drop sequence:1 corner, 3edges, 6face One drop for each.	Full packed for shipment
10	UV exposure Resistance	765 W/m ² for 168hrs,40°C	
11	Electrostatic Discharge(no-operation)	(Machine model) : +/-200v, 0Ω,200PF	

Actual EMC level to be measured on customer application.

Note1: Stay white pattern for storage and non-operation test.

Note2: Operation is black/white pattern , hold time is 150S.

Note3: The function, appearance should meet the requirements of the test before and after the test.

Note4: Keep testing after 2 hours placing at 20°C-25°C.

17.2 Product life time

The EPD Module is designed for a 5-year life-time with 25 °C/50%RH operation assumption. Reliability estimation testing with accelerated life-time theory would be demonstrated to provide confidence of EPD lifetime.

17.3 Product warranty

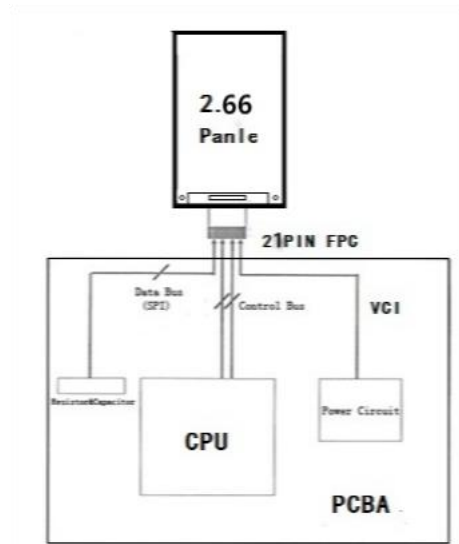
Warranty conditions have to be negotiated between Xingtai and individual customers.

Xingtai provides 12+1(one month delivery time) months warranty for all products which are purchased from Xingtai.

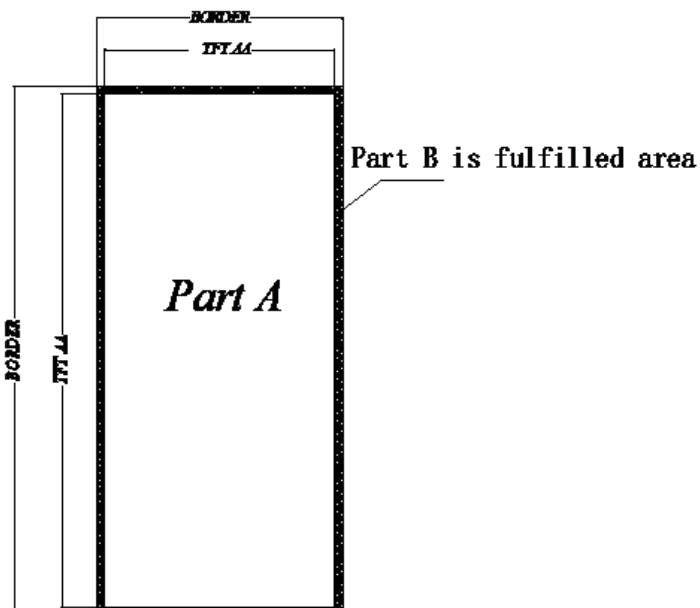


File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	49 of 53

18. Block Diagram



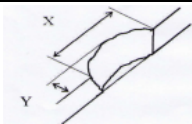
19. Part A/Part B specification





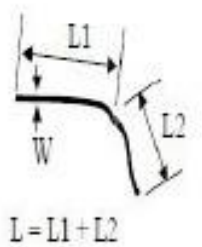
File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	50 of 53

20. Point and line standard

Shipment Inspection Standard						
Equipment: Electrical test fixture, Point gauge						
Outline dimension	36.3(H)×71.82(V) ×0.9(D)	Unit: mm	Part-A	Active area	Part-B	Border area
Environment	Temperature	Humidity	Illuminance	Distance	Time	Angle
	19℃～25℃	55%±5%RH	800～1300Lux	300 mm	35Sec	
Defect type	Inspection method	Standard		Part-A		Part-B
Spot	Electric Display	D≤0.25 mm		Ignore		Ignore
		0.25 mm < D≤0.4 mm		N≤4		Ignore
		D>0.4 mm		Not Allow		Ignore
Display unwork	Electric Display	Not Allow		Not Allow		Ignore
Display error	Electric Display	Not Allow		Not Allow		Ignore
Scratch or line defect(include dirt)	Visual/Film card	L≤2 mm, W≤0.2 mm		Ignore		Ignore
		2.0mm<L≤5.0mm, 0.2<W≤0.3mm,		N≤2		Ignore
		L>5 mm, W>0.3 mm		Not Allow		Ignore
PS Bubble	Visual/Film card	D≤0.2mm		Ignore		Ignore
		0.2mm≤D≤0.35mm & N≤4		N≤4		Ignore
		D>0.35 mm		Not Allow		Ignore
Side Fragment	Visual/Film card	X≤6mm, Y≤0.4mm, Do not affect the electrode circuit (Edge chipping) X≤1mm, Y≤1mm, Do not affect the electrode circuit((Corner chipping) Ignore				
						
Remark	1. Appearance defect should not cause electrical defects					
	2. Appearance defects should not cause dimensional accuracy problems					
	3.Module warping degree T≤2mm					
	L=long W=wide D=point size N=Defects NO					



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	51 of 53



Line Defect



Spot Defect

L=long W=wide D=point size



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	52 of 53

21. Barcode

The printed QR code is shown as below



What is the QR code after picture being scanned and read? It consist of 30 numbers and letters, here is explanation for it.

QR Code: ABBBBBBBBBBFFCCDDDEEEEGHIJKLL

- ① A means Factory code, eg: H(HINK)
- ② BBBBBBBBBB refers to product model name, which is in consistent with specification part number.eg:E0213A189 or E0266A120; When the total code is less than 9, it would be added suffix with **. eg: E027A45** or E0154A78*
- ③ FF means production workshop
- ④ CCC means date of production
- ⑤ DDD means production batch
- ⑥ EEEE means FPL lot
- ⑦ G means MP/Sample/Trial/Repair
- ⑧ HIJ:(H——TFT;I——PS;J——EC Glue)
- ⑨ KK means IC type
- ⑩ LL means serial number



File Name	Specification For 3.5" EPD	Module Number	HINK-E035A26-A0
Version	A0	Page Number	53 of 53

22. Packing

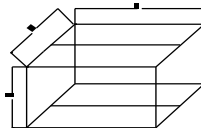
Packing Spec

Sheet No :

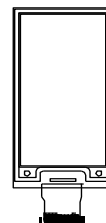
	Part No	HINK-E0266A**	DATE	2020. 07. 22	VER	A0	Page	1-1
---	---------	---------------	------	--------------	-----	----	------	-----

一, Package Type: Box

Box No	Holitech shipping box
Box size	515*322*170
Containment	288PCS

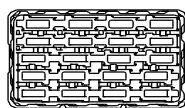


PRODUCT DRAWING



二, Inside package type: Plastic Tray
Tray unit: mm

Plastic Tray	465*280*15	13 pcs
Anti-static foil bags	700*530*0.1	1 pcs
EPE (inside)	408.86*231.5*2	12 pcs
EPE (Up-Down)	485*145*10	2 pcs
EPE (Left-Right)	285*480*10	2 pcs
EPE (Front-back)	310*145*10	2 pcs
Chip board	500*306*5	2 pcs
Quantity/tray	24 pcs	
Tray number/sheet	12+1 Sheets	
Box	1	



Step 1:

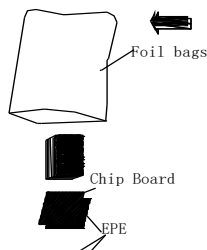
Material: Tray, EPE
Put the product in to the tray and keep the display side up. Then put anti-static EPE in to each holes.

Step 2:

1) Must keep the angle 180 degree placed between the neighboring Plastic trays.
2) There are 12 layers product, total 24*12=288 pcs.
3) An empty Plastic tray intersects put on the top of the plastic trays.

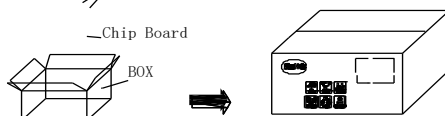
Step 3:

1) In each case, put 2 bags of desiccant, then seal the trays with adhesive tapes.
2) Put the trays into foil bags.
3) heat seal the foil bags.



Step 4:

1) First put a chip board on the bottom of the box, then placed the down EPE, the left-right and front-back EPE.
2) Placed the sealed products into the box.
3) The last placed the up EPE on the top of the trays, and place a chip board on it.



Step 5:

1) Seal the box with adhesive tapes.
2) Paste the label onto the exterior box, and the label can't cover the safety, transfer and RoSH sign.

Design	Z. Z. Q	Approve	H. Z. P	Confirm	X.X.M
Date	2020. 07. 22	Date	2020. 07. 22	Date	2020. 07. 22