HannStar HannStar Display Corp.

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TO:廣貿光電

Date: Sep,01, 2008

Customer Acceptance Specification

Model: **HSD100IFW1**-A00

相關文件:

Accepted by:						
Signature	Date					
Proposed by: Technical Service Division						
Signature	Date					

Note:1. Please contact HannStar Display Corp. before designing your product based on this module specification.

2. The information contained herein is presented merely to indicate the characteristics and performance of our products. No responsibility is assumed by HannStar for any intellectual property claims or other problems that may result from application based on the module described herein.

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Rev. Date Sub-Model Description of change 1.0 Sep,1,2008 A00 Preliminary Product Specification was first released.	



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1.0 GENERAL DESCRIPTION

1.1 Introduction

HannStar Display model HSD100IFW1-A is a color active matrix thin film transistor (TFT) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching device. This model is composed of a TFT LCD panel, a driving circuit and a back light system. This TFT LCD has a 10 (17:10) inch diagonally measured active display area with WSVGA (1024 horizontal by 600 vertical pixel) resolution.

1.2 Features

- 10 (17:10 diagonal) inch configuration
- One channel LVDS interface
- 256K color by 6 bit R.G.B signal input
- RoHS Compliance

1.3 Applications

- Mobile NB
- Digital Photo frame
- Display terminal for AV application

1.4 General information

Item		Specification	Unit
Outline Dimension		235 x 145.8 x 5.5 (Typ.)	mm
Display area		220.416(H) x 129.15(V)	mm
Number of Pixel		1024 RGB (H) x 600(V)	pixels
Pixel pitch		0.21525(H) x 0.21525(V)	mm
Pixel arrangement		RGB Vertical stripe	
Display mode		Normally white	
Surface treatmer	nt	Antiglare, Hard-Coating (3H) with EWV film	
Weight		253 (Typ.)	g
Back-light		Single LED (Side-Light type)	
Power Logic System		1.1 (Max.)	W
Consumption	B/L System	3.1 (Max.)	W

1.5 Mechanical Information

	Item	Min.	Тур.	Max.	Unit
Modulo	Horizontal (H)	234.5	235	235.5	mm
Module Size	Vertical (V)	145.3	145.8	146.3	mm
	Depth (D)	_	5.5	5.8	mm
Weight		_	253	270	g



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2.0 ABSOLUTE MAXIMUM RATINGS

2.1 Electrical Absolute Rating

2.1.1 TFT LCD Module

Item	Symbol	Min.	Max.	Unit	Note
LED Power Supply voltage	V_{LED}	-0.3	6.0	V	GND=0
Logic Supply voltage	V_{DD}	-0.3	6.0	V	

2.2 Environment Absolute Rating

Item	Symbol	Min.	Max.	Unit	Note
Operating Temperature	T_{opa}	0	50	$^{\circ}\mathbb{C}$	
Storage Temperature	T_{stg}	-20	60	$^{\circ}\mathbb{C}$	



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3.0 OPTICAL CHARACTERISTICS

3.1 Optical specification

Item		Symbol	Condition	Min.	Тур.	Max.	Unit	Note
Contrast		CR		400	500	_		(1)(2)
Response	Rising	T _R		_	5	7		(4)(0)
time	Falling	T _F	⊖=0		20	28	msec	(1)(3)
White lumin (Center)	ance	Y _L	Normal viewing	200	250		cd/m ²	(1)(4) (I _L =200mA)
Color		W _x	angle	0.260	0.310	0.360		
chromaticity (CIE1931)	White	W _y		0.280	0.330	0.380		
	l la "	θι		60	70			(1)(4)
Viewing	Hor.	Θ_{R}	OD 40	60	70	_		(1)(4)
angle	\	θυ	CR>10	40	50	_		
	Ver.	θр		50	60	_		
Brightness uniformity		B _{UNI}	⊖=0	70	_		%	(5)
Optima View Direction		irection 6 O' clock						(6)

3.2 Measuring Condition

■ Measuring surrounding: dark room

■ LED current I_L: 200mA

■ Ambient temperature: 25±2°C

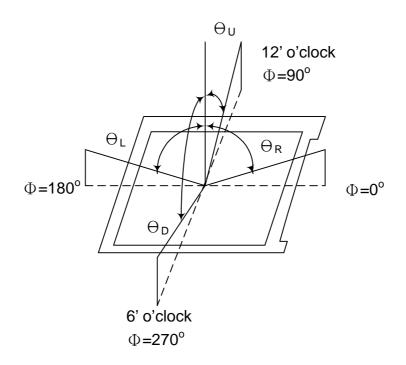
■ 15min. warm-up time.



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3.3 Measuring Equipment

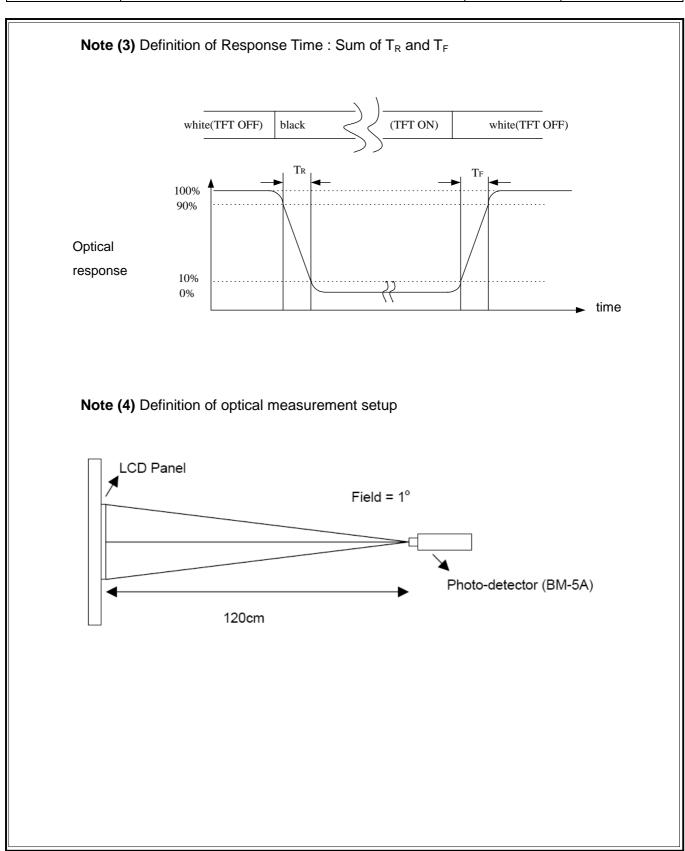
- FPM520 of Westar Display technologies, INC., which utilized SR-3 for Chromaticity and BM-5A for other optical characteristics.
- Measuring spot size : 20 ~ 21 mm Note (1) Definition of Viewing Angle:



Note (2) Definition of Contrast Ratio (CR) : measured at the center point of panel

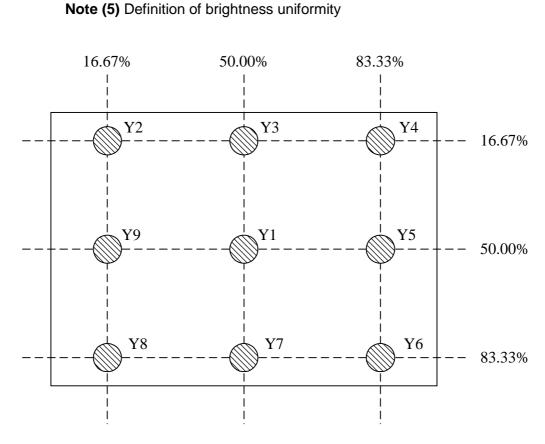
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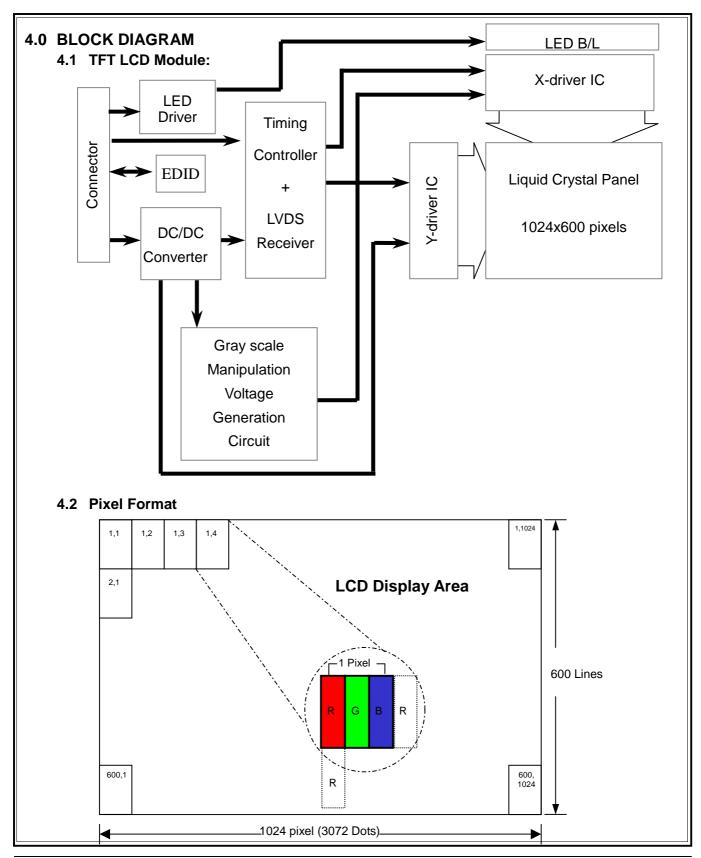
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 $Luminance uniformity = \frac{\text{(Min Luminance of 9 points)}}{\text{(Max Luminance of 9 points)}} \times 100\%$

Note (6): Rubbing Direction (The different Rubbing Direction will cause the different optima view direction.

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4.3	Relation	nsł	nip E	Betw	een	Dis	playe	d Col	or a	nd I	nput	:						
		MSI	 3			LSB	м	SB			L	SBMS	В			L	SB	Gray scale
	Display		R4	R3	R2				G3	G2		G0B5		В3	В2		В0	level
	Black	L	L	L	L	L	LL	L	L	L	L	LL	L	L	L	L	L	-
	Blue	L	L	L	L	L	LL	L	L	L	L	LH	Н	Н	<u>H</u>	<u>H</u>	Н	-
	Green	L	<u>L</u>	L	<u>L</u>	<u>L</u>	LH	Н	Н	Н	Н	HL	<u>L</u>	<u>L</u>	<u>L</u>	<u>L</u>	L	-
Basic	Light Blue		<u>L</u>	<u>L</u>	<u>L</u>	<u> </u>	LH	<u>H</u>	<u>H</u>	<u>H</u>	<u>H</u>	HH	<u>H</u>	<u>H</u>	<u>H</u>	<u>H</u>	Н	-
color	Red	Н	H H	H H	H	H	H L H L	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L H	<u>L</u> Н	<u>L</u> H	<u>L</u>	<u>L</u> Н	L	-
	Purple Yellow	H H	<u>п</u> Н	<u>п</u> Н	<u>п</u> Н	<u>п</u> Н	HH	<u>L</u> H	<u>L</u> H	<u>L</u> Н	<u>L</u> H	HL		 	<u>H</u> L		H	-
-	White	H	<u>''</u>	<u>''</u>	<u>''</u>	H	HH	<u></u>	 H	<u>''</u>	<u></u>	HH	H	 -	H	<u> </u>	Н	
	Black	i i	L	L	L	L	LL	L	L	<u>'''</u>	L	LL	<u> </u>	<u></u>	L	- ; ; _		LO
•	2.0.0.1	Ē	Ē	Ē	Ē	Ē	HL	Ē	L	Ē	Ē	LL	Ē	Ē	Ē	Ē	Ī	L1
		L	L	L	L	Н	LL	L	L	L	L	LL	L	L	L	L	L	L2
Gray scale	Dark ↑								:									L3L60
of Red	↓ Light								:					:				
	Ligiti	Н	Н	Н	Н	L	HL	L	L	L	L	LL	L	L	L	L	L	L61
		H	H	H	H	<u>-</u> Н	LL	L	L	L	L	LL	L	L	L	L	Ē	L62
-	Red	Н	H	H	H	H	HL	L	L	- <u>-</u>	L	LL	L	L	L	L	L	Red L63
	Black	i.	L	L	L	L	LL	ī	ī	ī	Ē	LL	ī	i	ī	ī	i	L0
•	Diagit	L	L	L	L	L	LL	L	L	L	L	HL	L	L	L	L	Ē	L1
		L	L	L	L	L	LL	L	L	L	Н	LL	L	L	L	L	L	L2
Gray scale of	Dark ↑ ↓			;					:					:				L3L60
Green	Light																	
		L	L	L	L	L	LH	Н	Н	Н	L	ΗL	L	L	L	L	L	L61
-		L	L	L	L	L	LH	Н	Н	Н	Н	LL	L	L	L	L	L	L62
	Green	L	<u>L</u>	<u>L</u>	<u> </u>	<u>L</u>	LH	<u>H</u>	Н	<u>H</u>	Н	HL	<u> </u>	<u>L</u>	<u> </u>	<u>L</u>	L	Green L6
-	Black	L.	<u>Ļ</u>	Ļ	<u> </u>	<u> </u>	<u>L L</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>L L</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L	L0
		<u> </u>	<u>L</u> L	<u> </u>	<u>L</u> L	<u>L</u>	LL LL	L	<u>L</u> L	<u>L</u>	<u>L</u> L	L L L L	<u> </u>	<u> </u>	<u>L</u> L	<u> </u>	H L	L1 L2
Gray	Dark	_	<u> </u>		<u> </u>		<u> </u>	<u> </u>				LL	<u> </u>			п		
scale of Blue	Ţ ↓			:					:					:				L3L60
Side	Light																	
		L	L	L	L	L	LL	L	L	L	L	LH	Н	Н	Н	L	Н	L61
		L	<u>L</u>	L	L	<u>L</u>	LL	L	<u> </u>	<u>L</u>	L	LH	Н	Н	Н	Н	L	L62
	Blue	L.	<u>L</u>	<u> </u>	<u> </u>	<u> </u>	<u>LL</u>	<u> </u>	<u> </u>	Ļ	_ <u>L</u> _	LH	<u>H</u>	<u>H</u>	<u>H</u>	<u>H</u>	H	Blue L63
-	Black	L	<u> </u>	<u> </u>	<u> </u>	<u> </u>	LL	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L L H L	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L H	L0
		<u> </u>	L	L	<u>L</u>	<u>L</u> H	H L L L	<u> </u>	<u>L</u> L	L	<u>L</u> H	H L L L	_ <u>L</u>	<u>L</u>	<u>L</u>	<u>L</u> H	L	L1 L2
Gray	Dark	!				17	느ㄴ		<u> </u>		רו	<u> </u>				17	ᆫ	L_
scale of White & Black	Dark ↑ ↓ Light			:	:				:					:				L3L60
	9'''	Н	Н	Н	Н	L	НН	Н	Н	Н	L	НН	Н	Н	Н	L	Н	L61
		H	H	H	- <u>''</u>	<u>-</u> -	L H	<u>''</u> H	<u>''</u>	<u> </u>	Н	LH	H	H	- <u>''</u>	Н	L	L62
							-111					-111					_	



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5.0 INTERFACE PIN CONNECTION

5.1 TFT LCD Module:

CN1 (Input signal): FI-XB30SSRL-HF16 (JAE or equivalent)

(1 3 /		
Pin No.	Signal	Description
1	GND	Ground
2	VDD	3.3V Power
3	VDD	3.3V Power
4	V_EDID	3.3V Power for EDID
5	ADJ	Adjust for LED brightness Note
6	CLK_EDID	EDID Clock Input
7	DATA_EDID	EDID Data Input
8	RXIN0-	LVDS Signal - channel0-
9	RXIN0+	LVDS Signal+ channel0+
10	GND	Ground
11	RXIN1-	Data Input channel1-
12	RXIN1+	Data Input channel1+
13	GND	Ground
14	RXIN2-	Data Input channel2-
15	RXIN2+	Data Input channel2+
16	GND	Ground
17	RXCLKIN-	Data Input CLK-
18	RXCLKIN+	Data Input CLK+
19	GND	Ground
20	NC	NC
21	NC	NC
22	GND	Ground
23	GND	Ground
24	VLED	LED Power +5V
25	VLED	LED Power +5V
26	VLED	LED Power +5V
27	NC	NC
28	NC	NC
29	NC	NC
30	NC	NC
		111 1 11 11 11 15

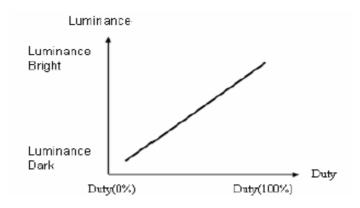
Note: The brightness of LCD panel could be changed by adjusting ADJ



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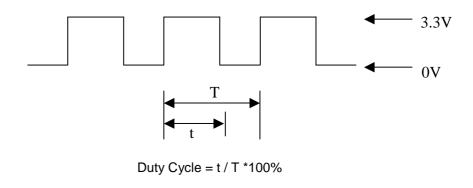
[Note]

(1) ADJ can adjust brightness to control Pin. Pulse duty the bigger the brighter.



(2) ADJ Signal=0~3.3V, Operation Frequency:

Dimming Range		
PWM Frequency (F)	Duty Cycle (Min.)	Duty Cycle (Max.)
100Hz < F < 500Hz	5%	100%
500Hz < F < 20KHz	10%	100%



T = 1/F



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6.0 ELECTRICAL CHARACTERISTICS

6.1 TFT LCD Module

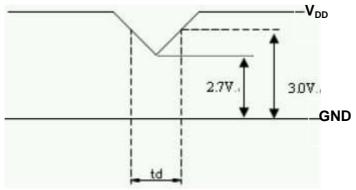
Item	Symbol	Min.	Тур.	Max.	Unit	Note
Supply Voltage	V_{DD}	3.0	3.3	3.6	V	Note (2)
Supply voltage	V_{LED}	4.7	5.0	5.3	V	
Current of power supply	IDD	-	0.3	-	Α	V _{DD} =3.3V ⋅ L0 pattern

Note $\,:\,$ (1) The brightness of LCD panel could be changed by adjusting ADJ.

(2) V_{DD} -dip codition :

When VDD operating within 2.7V \leq VDD<3.0V , td \leq 10ms , the display may momentarily become abnormal .

 $V_{DD}{>}3.0V$, $V_{DD}{\cdot}dip$ condition should be same as $V_{DD{\cdot}iurn{\cdot}con}$ condition.



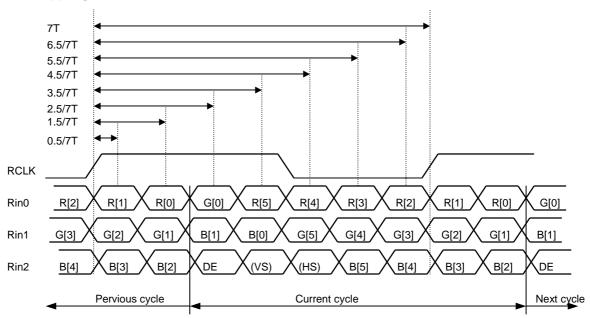


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6.2 Switching Characteristics for LVDS Receiver

Item	Symbol	Min.	Тур.	Max.	Unit	Conditions
Differential Input High Threshold	Vth	_	_	100	mV	V 4.2V
Differential Input Low Threshold	VtI	-100	_	_	mV	V _{CM} =1.2V
Input Current	I _{IN}	-10	_	+10	uA	
Differential input Voltage	$ V_{ID} $	0.1	_	0.6	٧	
Common Mode Voltage Offset	V_{CM}	(V _{ID} /2)	1.25	1.8-0.4-(V _{ID} /2)	V	

6.3 Bit Mapping & Interface Definition



LVDS Receiver Input Timing Definition for 6bits LVDS input

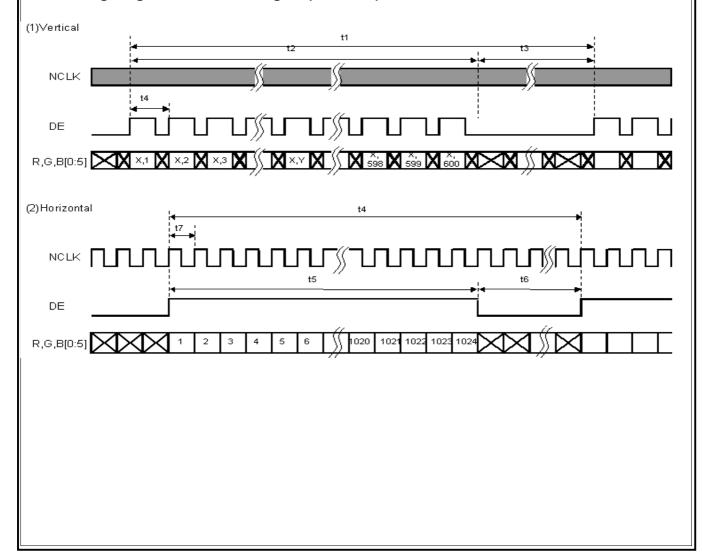


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6.4 Interface Timing (DE mode)

Item	Symbol	Min.	Тур.	Max.	Unit
Frame Rate		55	60	65	Hz
Frame Period	t1	612	625	638	line
Vertical Display Time	t2	600	600	600	line
Vertical Blanking Time	t3	12	25	38	line
1 Line Scanning Time	t4	1160	1200	1240	clock
Horizontal Display Time	t5	1024	1024	1024	clock
Horizontal Blanking Time	t6	136	176	216	clock
Clock Rate	t7	39	45	51.42	MHz

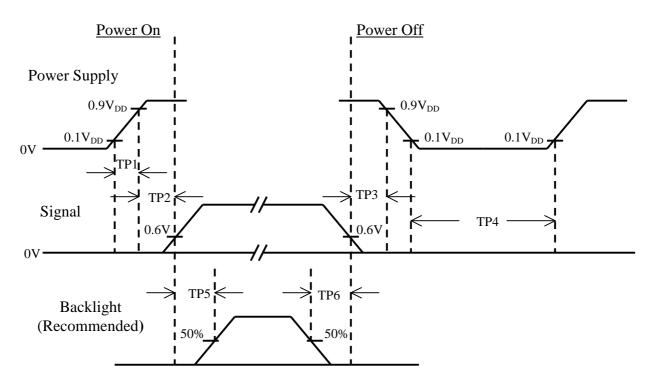
Timing Diagram of Interface Signal (DE mode)





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6.5 Power On / Off Sequence



Item	Min.	Тур.	Max.	Unit	Remark
TP1	0.5		10	msec	
TP2	0		50	msec	
TP3	0		50	msec	
TP4	500			msec	
TP5	200			msec	
TP6	200			msec	

Note : (1) The supply voltage of the external system for the module input should be the same as the definition of V_{DD} .

- (2) Apply the lamp volatge within the LCD operation range. When the back-light turns on before the LCD operation or the LCD truns off before the back-light turns off, the display may momentarily become white.
- (3) In case of VDD = off level, please keep the level of input signal on the low or keep a high impedance.
- (4) TP4 should be measured after the module has been fully discharged between power off and on period.



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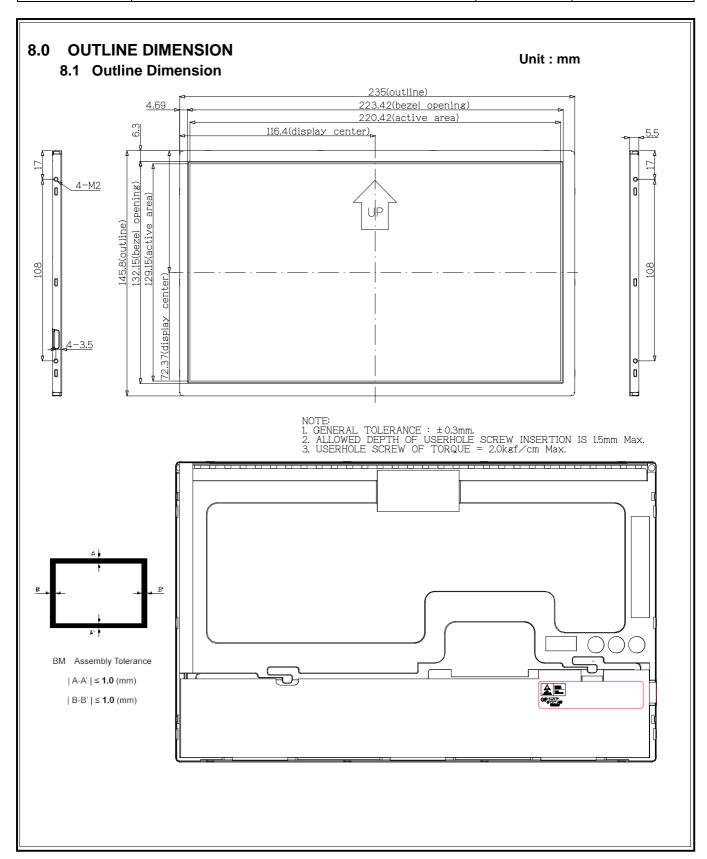
(5) Interface signal shall not be kept at high impedance when the power is on.

7.0 Reliability test items

No.	Item	Conditions	Remark
1	High Temperature Storage	Ta=+60°C, 240hrs	
2	Low Temperature Storage	Ta=-20°C, 240hrs	
3	High Temperature Operation	Ta=+50°C, 500hrs	
4	Low Temperature Operation	Ta=0°C, 500hrs	
5	High Temperature and High Humidity (operation)	Ta=+50°C, 80%RH, 500hrs	
6	Thermal Cycling Test (non operation)	$-20^{\circ}\text{C}(30\text{min}) \rightarrow +60^{\circ}\text{C}(30\text{min}), 100 \text{ cycles}$	
7	Electrostatic Discharge ±200V,200pF(0Ω) 1 time/connector		
8	Vibration	1.Random:	
		1.04G, 10~500Hz, XYZ,	
		30min/each direction	
		2.Sine:	
		1.5G, 5~500Hz, XYZ	
		30min/each direction	
9	Shock	Half-Sine, 220G, 2ms, ±XYZ, 1time	
10	Vibration (with carton)	Random:	
		1.04G, 10~500Hz, XYZ,	
		45min/each direction	
11	Drop (with carton)	Height: 60 cm	JIS Z0202
		1 corner, 3 edges, 6 surfaces	

Note: There is no display function NG issue occurred, all the cosmetic specification is judged before the reliability stress.

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9.0 LOT MARK

9.1 Lot Mark

3 4 10 11

Code 1,2,3,4,5,6: HannStar internal flow control code.

Code 7: production location. Code 8: production year. Code 9: production month.

Code 10,11,12,13,14,15: serial number.

Note (1) Production Year

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mark	9	0	1	2	3	4	5	6	7	8

Note (2) Production Month

Month	Jan.	Feb.	Mar.	Apr.	Мау.	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.
Mark	1	2	3	4	5	6	7	8	9	Α	В	С

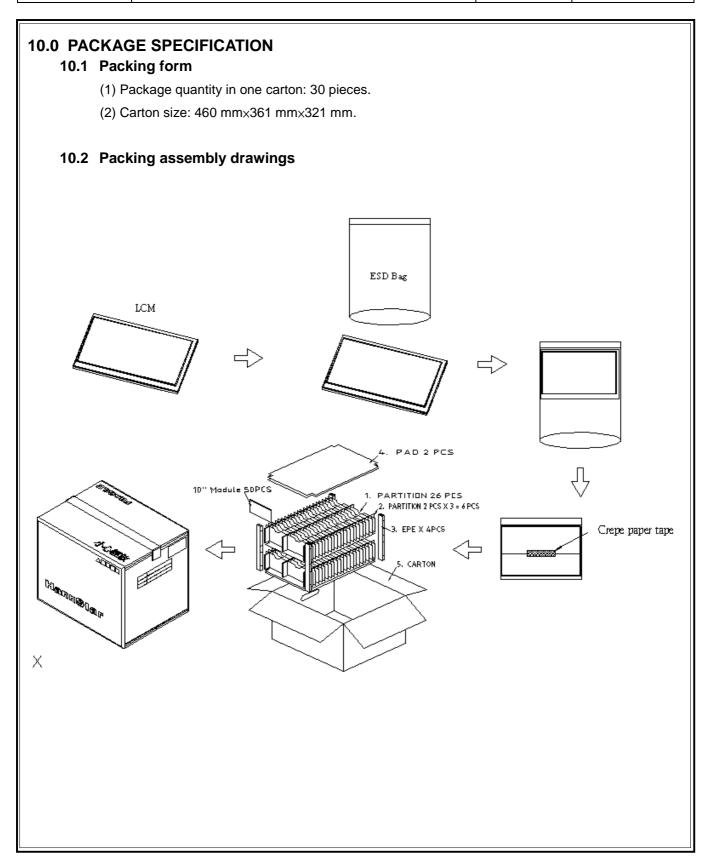
9.2 Location of Lot Mark

- (1) The label is attached to the backside of the LCD module.
- (2) This is subject to change without prior notice.





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11.0 GENERAL PRECAUTION

11.1 Use Restriction

This product is not authorized for use in life supporting systems, aircraft navigation control systems, military systems and any other application where performance failure could be life-threatening or otherwise catastrophic.

11.2 Disassembling or Modification

Do not disassemble or modify the module. It may damage sensitive parts inside LCD module, and may cause scratches or dust on the display. HannStar does not warrant the module, if customers disassemble or modify the module.

11.3 Breakage of LCD Panel

- 11.3.1.If LCD panel is broken and liquid crystal spills out, do not ingest or inhale liquid crystal, and do not contact liquid crystal with skin.
- 11.3.2. If liquid crystal contacts mouth or eyes, rinse out with water immediately.
- 11.3.3. If liquid crystal contacts skin or cloths, wash it off immediately with alcohol and rinse thoroughly with water.
- 11.3.4. Handle carefully with chips of glass that may cause injury, when the glass is broken.

11.4 Electric Shock

- 11.4.1. Disconnect power supply before handling LCD module.
- 11.4.2. Do not pull or fold the LED cable.
- 11.4.3. Do not touch the parts inside LCD modules and the fluorescent LED's connector or cables in order to prevent electric shock.

11.5 Absolute Maximum Ratings and Power Protection Circuit

- 11.5.1. Do not exceed the absolute maximum rating values, such as the supply voltage variation, input voltage variation, variation in parts' parameters, environmental temperature, etc., otherwise LCD module may be damaged.
- 11.5.2. Please do not leave LCD module in the environment of high humidity and high temperature for a long time.
- 11.5.3. It's recommended to employ protection circuit for power supply.

11.6 Operation

- 11.6.1 Do not touch, push or rub the polarizer with anything harder than HB pencil lead.
- 11.6.2 Use fingerstalls of soft gloves in order to keep clean display quality, when persons handle the LCD module for incoming inspection or assembly.
- 11.6.3 When the surface is dusty, please wipe gently with absorbent cotton or other soft material.



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- 11.6.4 Wipe off saliva or water drops as soon as possible. If saliva or water drops contact with polarizer for a long time, they may causes deformation or color fading.
- 11.6.5 When cleaning the adhesives, please use absorbent cotton wetted with a little petroleum benzine or other adequate solvent.

11.7 Mechanism

Please mount LCD module by using mounting holes arranged in four corners tightly.

11.8 Static Electricity

- 11.8.1 Protection film must remove very slowly from the surface of LCD module to prevent from electrostatic occurrence.
- 11.8.2 Because LCD module use CMOS-IC on circuit board and TFT-LCD panel, it is very weak to electrostatic discharge. Please be careful with electrostatic discharge. Persons who handle the module should be grounded through adequate methods.

11.9 Strong Light Exposure

The module shall not be exposed under strong light such as direct sunlight. Otherwise, display characteristics may be changed.

11.10 Disposal

When disposing LCD module, obey the local environmental regulations.

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Byte#	Byte#	Field Name 9 Comments	Value	Value	Value
Decimal)	(HEX)	Field Name & Comments	(HEX)	(BIN)	(DEC
0	0	Header	00	00000000	0
1	1	Header	FF	11111111	255
2	2	Header	FF	11111111	255
3	3	Header	FF	11111111	255
4	4	Header	FF	11111111	255
5	5	Header	FF	11111111	255
6	6	Header	FF	11111111	255
7	7	Header	00	00000000	0
8	8	EISA Manufacture Code LSB (3 character ID = HSD)	22	00100010	34
9	9	Compressed ASCII	64	01100100	100
10	0A	Product Code "1001"	E9	11101001	233
11	0B	Hex, LSB first	03	00000011	3
12	0C	LCD module Serial No - Preferred but Optional	00	00000000	0
13	0D	LCD module Serial No - Preferred but Optional	00	00000000	0
14	0E	LCD module Serial No – Preferred but Optional	00	00000000	0
15	0F	LCD module Serial No – Preferred but Optional	00	00000000	0
16	10	Week of manufacture=18	12	00010010	18
17	11	Year of manufacture = 2008	12	00010010	18
18	12	EDID Structure Version # = 1	01	00000001	1
19	13	EDID revision # = 3	03	00000011	3
20	14	Video input definition = Digital input, CRGB	80	10000000	128
21	15	Max H image size = 22cm	16	00010110	22
22	16	Max V image size = 13cm	0D	00001101	13
23	17	Display Gamma = 2.2	78	01111000	120
24	18	Feature support (DPMS) = Active off, RGB color	0A	00001010	10
25	19	Red/green low bits (10000110)	86	10000110	134
26	1A	Blue/white low bits (00100110)	26	00100110	38
27	1B	Red x, Red $x = 0.58$	94	10010100	148
28	1C	Red y , Red y = 0.34	57	01010111	87
29	1D	Green x, Green x = 0.317	51	01010001	81
30	1E	Green y, Green y = 0.564	90	10010000	144
31	1F	Blue x , Blue x = 0.152	27	00100111	39

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D. 4.5.#	D. d. d.		Value	Value	Value
Byte#	Byte#	Field Name & Comments	Value	Value	Value
(Decimal)	(HEX)		(HEX)	(BIN)	(DEC)
32	20	Blue y, Blue $y = 0.131$ White x, White $x = 0.31$	21	00100001	33
33	21	White x, White $x = 0.31$	4F	01001111	79
34	22	White y , White $y = 0.33$	54	01010100	84
35	23	Established timing 1	00	00000000	0
36	24	Established timing 2	00	00000000	0
37	25	Manufacturer's timings	00	00000000	0
38	26	Standard timing #1 was not used	01	00000001	1
39	27		01	00000001	1
40	28	Standard timing #2 was not used	01	00000001	1
41	29		01	00000001	1
42	2A	Standard timing #3 was not used	01	0000001	1
43	2B		01	0000001	1
44	2C	Standard timing #4 was not used	01	0000001	1
45	2D		01	0000001	1
46	2E	Standard timing #5 was not used	01	0000001	1
47	2F		01	0000001	1
48	30	Standard timing #6 was not used	01	0000001	1
49	31		01	0000001	1
50	32	Standard timing #7 was not used	01	0000001	1
51	33		01	0000001	1
52	34	Standard timing #8 was not used	01	0000001	1
53	35		01	0000001	1
54	36	Detailed timing/monitor (descriptor #1)	94	10010100	148
55	37	1024x600 @60Hz: Pixel Clock = 45 MHz	11	00010001	17
56	38	Horizontal active=1024 pixels (L8b)	00	00000000	0
57	39	Horizontal blanking= 176 pixels (L8b)	В0	10110000	176
58	3A	HA (U4b): HB (U4b)	40	01010000	64
59	3B	Vertical active=600 lines (L8b)	58	01011000	88
60	3C	Vertical blanking= 25 lines (L8b)	19	00011001	25
61	3D	HA (U4b): HB (U4b)	20	00100000	32
62	3E	H sync. Offset= 53 pixels	35	00110101	53
63	3F	H sync. Width= 35 pixels	23	00100011	35

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Byte#	Byte#		Value	Value	Value
(Decimal)	(HEX)	Field Name & Comments	(HEX)	(BIN)	(DEC)
64	40	V syna Offsat 4 lines	45	01000101	69
65	41	V sync. Offset= 4 lines V sync. Width= 5 lines	00	0000000	0
66	42	H image size = 220 mm (L8b)	DC	11011100	220
67	43	V image size = 220 mm (L8b)	81	10000001	129
68	44	, ,	00	0000000	0
		Horizontal Image (U4b): Vertical Image (U4b)			_
69	45	No Horizontal Border=0	00	00000000	0
70	46	No Vertical Border=0	00	00000000	0
71	47	Non-interlaced, Normal display, No stereo, Digital separate sync, H/V pol Negatives	19	00011000	25
72	48	Detailed timing/monitor (descriptor #2)	16	00010110	22
73	49	1024x600 @65Hz: Pixel Clock = 51.42 MHz	14	00010100	20
74	4A	Horizontal active=1024 pixels (L8b)	00	00000000	0
75	4B	Horizontal blanking=216pixels (L8b)	D8	11011000	216
76	4C	HA (U4b): HB (U4b)	40	01000000	64
77	4D	Vertical active=600 lines (L8b)	58	01011000	88
78	4E	Vertical blanking= 38 lines (L8b)	26	00100110	38
79	4F	HA (U4b): HB (U4b)	20	00100000	32
80	50	H sync. Offset= 93 pixels	5D	01011101	93
81	51	H sync. Width= 35 pixels	23	00100011	35
82	52	V sync. Offset= 17lines	15	00010101	21
83	53	V sync. Width=5 lines	04	00000100	4
84	54	H image size = 220 mm (L8b)	DC	11011100	220
85	55	V image size = 129 mm (L8b)	81	10000001	129
86	56	Horizontal Image (U4b): Vertical Image (U4b)	00	00000000	0
87	57	No Horizontal Border=0	00	00000000	0
88	58	No Vertical Border=0	00	00000000	0
89	59	EDID Module revision	00	00000000	0
90	5A	Flag	00	00000000	0
91	5B	Flag	00	00000000	0
92	5C	Flag	00	00000000	0
93	5D	Dummy Descriptor	FE	11111110	254
94	5E	Flag	00	00000000	0
95	5F	PC Maker P/N 1 st Character =M	00	00000000	0

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Decimal (HEX)	-	1		ſ		
Checimal Checimal Checimal Checimal Checimal Checimal Checimal	Byte#	Byte#	Field Name & Comments	Value	Value	Value
97 61 PC Maker P/N 3 rd Character =4 00 00000000 0 98 62 PC Maker P/N 4 th Character =9 00 00000000 0 0 00000000 0 0 0 000000	(Decimal)	(HEX)		(HEX)	(BIN)	(DEC)
98 62 PC Maker P/N 4 th Character =9 00 00000000 0 99 63 PC Maker P/N 5 th Character =5 00 00000000 0 100 64 LCD Supplier EEDID Revision # =1.0 00 00000000 0 0 101 65 Manufacturer P/N = 1 00 00000000 0 102 66 Manufacturer P/N = 5 00 00000000 0 103 67 Manufacturer P/N = P 00 00000000 0 104 68 Manufacturer P/N = P 00 00000000 0 105 69 Manufacturer P/N = N 00 00000000 0 106 6A Manufacturer P/N = 1 00 00000000 0 106 6A Manufacturer P/N = 1 00 00000000 0 106 6A Manufacturer P/N = 4 00 00000000 0 0 107 6B Manufacturer P/N = 4 00 00000000 0 0 107 6B Manufacturer P/N = 4 00 00000000 0 0 107 6D Flag 00 00000000 0 0 107 6D Flag 00 00000000 0 107 6D Flag 00 000000000 0 107 6D Flag 00 000000000	96	60	PC Maker P/N 2 nd Character =3	00	00000000	0
99 63	97	61	PC Maker P/N 3 rd Character =4	00	00000000	0
100	98	62		00	00000000	0
101 65	99	63	PC Maker P/N 5 th Character =5	00	00000000	0
102	100	64	LCD Supplier EEDID Revision # =1.0	00	0000000	0
103	101	65	Manufacturer P/N = 1	00	00000000	0
104	102	66	Manufacturer P/N = 5	00	00000000	0
105	103	67	Manufacturer P/N = P	00	00000000	0
106	104	68	Manufacturer P/N = X	00	00000000	0
107	105	69	Manufacturer P/N = 1	00	00000000	0
terminate with ASCII code, set remaining=20h) 108 6C Flag 00 00000000 0 109 6D Flag 00 00000000 0 110 6E Flag 00 00000000 0 111 6F Data Type Tag FE 11111110 254 112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 111 nit 00 00000000 0 120 78 SMBUS Value = 156 nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00000000 0 124 7C (If<13 char, then terminate with ASCII code OAh,set remaining char=20h) 125 7D (If<13 char, then terminate with ASCII code OAh,set remaining char=20h) 126 7E Extension Flag = 00 00 00 00000000 0	106	6A	Manufacturer P/N = 4	00	00000000	0
108 6C Flag 00 00000000 0 109 6D Flag 00 00000000 0 110 6E Flag 00 00000000 0 111 6F Data Type Tag FE 11111110 254 112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = max nit 00 00000000 0 120 78 SMBUS Value = 156 nit 00 00000000 0	107	6B		00	00000000	0
109 6D Flag 00 00000000 0 110 6E Flag 00 00000000 0 111 6F Data Type Tag FE 11111110 254 112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000			remaining=20h)			
109 6D Flag 00 00000000 0 110 6E Flag 00 00000000 0 111 6F Data Type Tag FE 11111110 254 112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000	108	6C	Flag	00	00000000	0
111 6F Data Type Tag FE 11111110 254 112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 0 122 7A Panel Self Test (00-Not Present, 00 00000000 0 0 123 7B (If<13 char, then termina	109	6D	Flag	00	00000000	0
112 70 Flag 00 00000000 0 113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 0 122 7A Panel Self Test (00-Not Present, 01-Present) 00 00000000 0 123 7B (If<13 char, then terminate with ASCII code 0Ah, set remaining char=20h)	110	6E	Flag	00	00000000	0
113 71 SMBUS Value = 20 nit 00 00000000 0 114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00 00000000 0 123 7B (If<13 char, then terminate with ASCII 00	111	6F	Data Type Tag	FE	11111110	254
114 72 SMBUS Value = 28 nit 00 00000000 0 115 73 SMBUS Value = 40 nit 00 00000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000001 1 122 7A Panel Self Test (00-Not Present, 00 00000000 0 0 123 7B (If<13 char, then terminate with ASCII code OAh,set remaining char=20h)	112	70	Flag	00	00000000	0
115 73 SMBUS Value = 40 nit 00 000000000 0 116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00000000 0 0 123 7B (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	113	71	SMBUS Value = 20 nit	00	00000000	0
116 74 SMBUS Value = 56 nit 00 00000000 0 117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00 00000000 0 123 7B (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	114	72	SMBUS Value = 28 nit	00	00000000	0
117 75 SMBUS Value = 79 nit 00 00000000 0 118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00000000 00000000 0 123 7B (If<13 char, then terminate with ASCII 00	115	73	SMBUS Value = 40 nit	00	00000000	0
118 76 SMBUS Value = 111 nit 00 00000000 0 119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00000000 0 0 123 7B (If<13 char, then terminate with ASCII 00	116	74	SMBUS Value = 56 nit	00	00000000	0
119 77 SMBUS Value = 156 nit 00 00000000 0 120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 00000000 1 122 7A Panel Self Test (00-Not Present, 00 00000000 00000000 0 123 7B (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	117	75	SMBUS Value = 79 nit	00	00000000	0
120 78 SMBUS Value = max nit 00 00000000 0 121 79 Number of LVDS channels=1 01 000000001 1 122 7A Panel Self Test (00-Not Present, 00 000000000 0 0 123 7B (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	118	76	SMBUS Value = 111 nit	00	00000000	0
121 79 Number of LVDS channels=1 01 000000001 1 122 7A Panel Self Test (00-Not Present, 00 00000000 0 000000000 0 123 7B (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	119	77	SMBUS Value = 156 nit	00	00000000	0
122 7A Panel Self Test (00-Not Present, 01-Present) 00 000000000 00000000 0	120	78	SMBUS Value = max nit	00	00000000	0
123 7B (If<13 char, then terminate with ASCII 00 00000000 0 code 0Ah,set remaining char=20h) 124 7C (If<13 char, then terminate with ASCII 00 00000000 0 code 0Ah,set remaining char=20h) 125 7D (If<13 char, then terminate with ASCII 00 00000000 0 code 0Ah,set remaining char=20h) 126 7E Extension Flag = 00 00 00000000 0	121	79	Number of LVDS channels=1	01	00000001	1
code 0Ah,set remaining char=20h) 124 7C (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	122	7A	· ·	00	00000000	0
124 7C (If<13 char, then terminate with ASCII code 0Ah,set remaining char=20h)	123	7B	(If<13 char, then terminate with ASCII	00	00000000	0
125 7D (If<13 char, then terminate with ASCII code 0Ah, set remaining char=20h)	124	7C	(If<13 char, then terminate with ASCII	00	00000000	0
126 7E Extension Flag = 00 00 00000000 0	125	7D	(If<13 char, then terminate with ASCII	00	00000000	0
	126	7F		00	00000000	0
	127	7E	Checksum	C8	11001000	200

Note: 1. Checksum will be changed according to LCD module Serial No (HEX Byte 0C~0F) · Week of manufacture (HEX Byte 10) · Year of manufacture (HEX Byte 11) changed.