



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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NHD-7.0-800480WF-ATXI#-T

TFT (Thin-Film-Transistor) Color Liquid Crystal Display Module

NHD-	Newhaven Display
7.0-	7.0" Diagonal
800480-	800xRGBx480 pixels
WF-	Model
A-	Built-in driver / No Controller
T-	White LED backlight
X-	TFT
I-	6:00 view, Wide Temp
#-	RoHS Compliant
T-	Touch Panel

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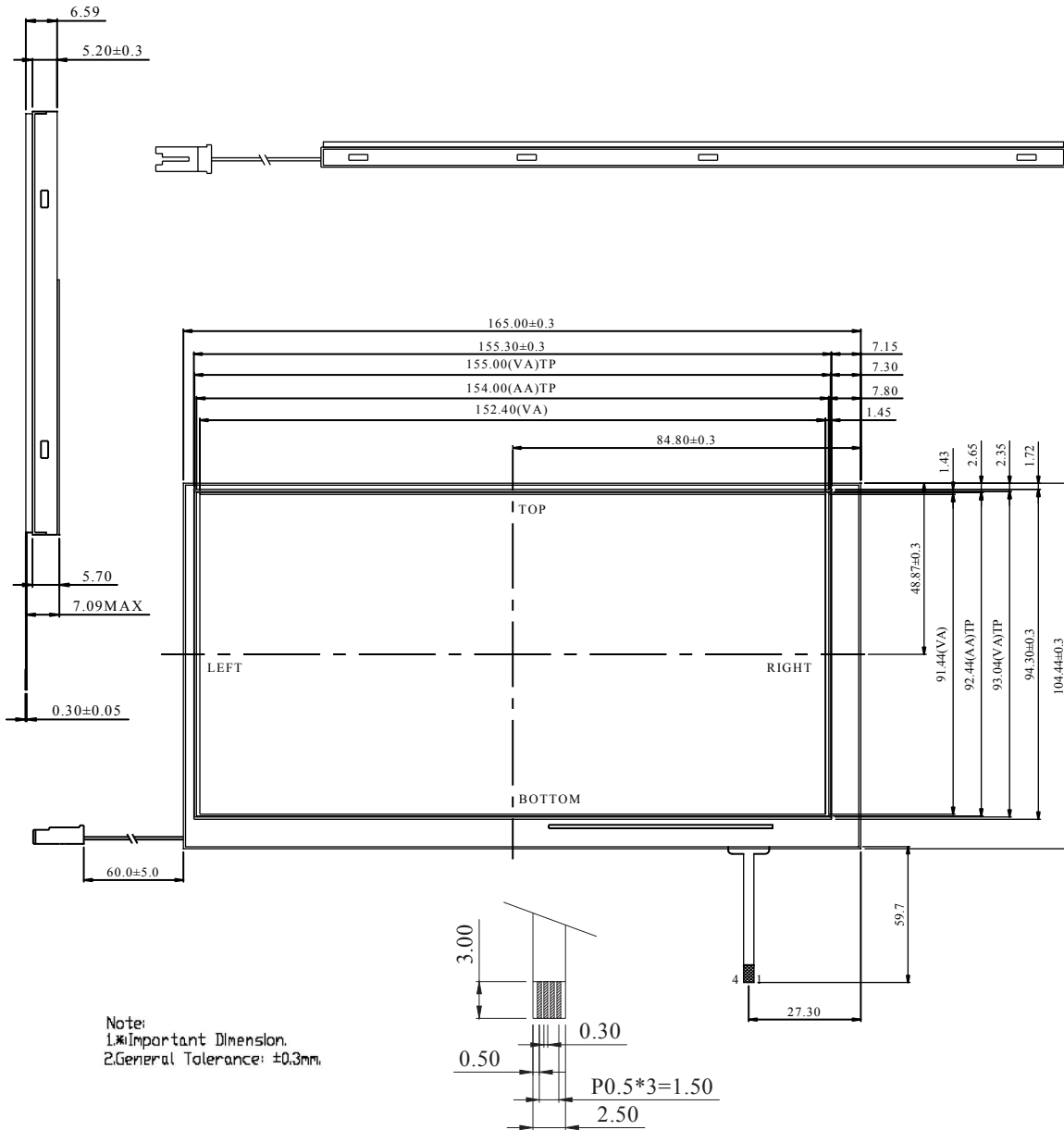
Document Revision History

Revision	Date	Description	Changed by
0	9/13/2011	Initial Release	-
1	10/7/2011	Backlight and Touch Panel pin descriptions added	AK

Functions and Features

- 800xRGBx480 resolution
- LED backlight
- 18-bit digital RGB interface
- 262,144 colors
- Touch Panel

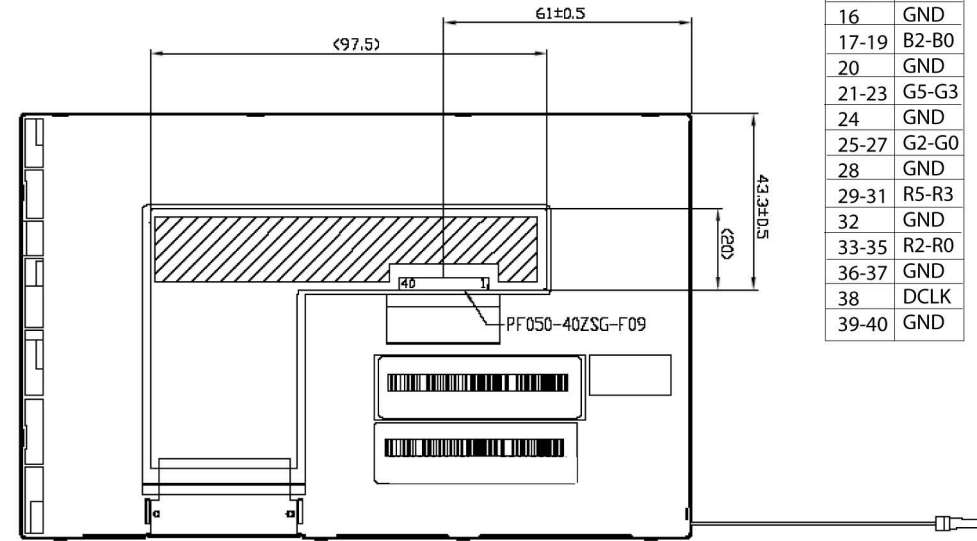
Mechanical Drawing



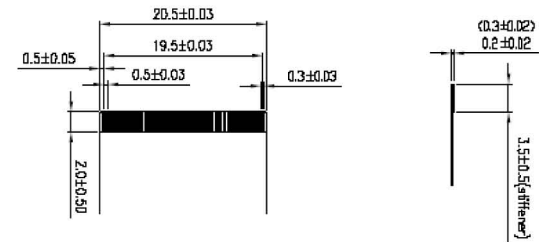
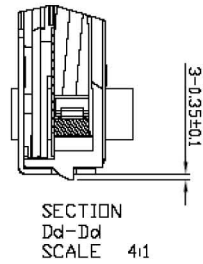
Note:
 1. *Important Dimension.
 2. General Tolerance: ±0.3mm.

Pin Assignment

1	GND
2	GND
3	NC
4-7	VDD
8	NC
9	DE
10-12	GND
13-15	B5-B3
16	GND
17-19	B2-B0
20	GND
21-23	G5-G3
24	GND
25-27	G2-G0
28	GND
29-31	R5-R3
32	GND
33-35	R2-R0
36-37	GND
38	DCLK
39-40	GND



Recommended FPC Outline Dimension
 (Suitable connector PF050-40ZSG-F09
 made by UJU Electronics or equivalent)



Newhaven Display
 NHD-7.0-800480WF-ATX1#-T

Pin Description

Pin No.	Symbol	Connection	Function Description
1	GND	Power Supply	Power Ground
2	GND	Power Supply	Power Ground
3	NC	-	No connect
4-7	VDD	Power Supply	Power Supply (+3.3V)
8	NC	-	No connect
9	DE	MPU	Data Enable signal
10-12	GND	Power Supply	Power Ground
13-15	B5-B3	MPU	Blue B5 (MSB) to B3
16	GND	Power Supply	Power Ground
17-19	B2-B0	MPU	Blue B2 – B0(LSB)
20	GND	Power Supply	Power Ground
21-23	G5-G3	MPU	Green G5 (MSB) to G3
24	GND	Power Supply	Power Ground
25-27	G2-G0	MPU	Green G2 – G0(LSB)
28	GND	Power Supply	Power Ground
29-31	R5-R3	MPU	Red R5 (MSB) to R3
32	GND	Power Supply	Power Ground
33-35	R2-R0	MPU	Red R2 – R0(LSB)
36-37	GND	Power Supply	Power Ground
38	DCLK	MPU	Clock (Falling edge triggered)
39-40	GND	Power Supply	Power Ground

LCD connector: UJU p/n: PF050-40ZSG-F09-S (or equivalent)

Backlight Pin-Out:

Pin No.	Symbol	Connection	Function Description
1	VDD	Power Supply	Power Supply (+9.9V)
2	GND	Power Supply	Power Ground

Backlight connector: JST p/n: BHSR-02VS-1

Recommended mating connector: JST p/n: SM 02B-BHSS-1

Touch Panel Pin-Out:

Pin No.	Symbol	Connection	Function Description
1	X-	Touch Panel	Touch Panel – RIGHT
2	Y-	Touch Panel	Touch Panel – BOTTOM
3	X+	Touch Panel	Touch Panel – LEFT
4	Y+	Touch Panel	Touch Panel – TOP

Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Operating Temperature Range	Top	Absolute Max	-20	-	+70	°C
Storage Temperature Range	Tst	Absolute Max	-30	-	+80	°C
Power Supply for Logic	VDD		3.0	3.3	3.6	V
Input Logic HIGH	VIH		0.7VDD	-	VDD	V
Input Logic LOW	VIL		0	-	0.3VDD	V
Power Supply Current	IVDD	VDD=3.3V 25°C	-	200	260	mA
Backlight Supply Current	ILED		-	160	200	mA
Backlight Supply Voltage	VLED	ILED=160mA	-	9.9	-	V
Backlight Lifetime		Until half-brightness	10,000	20,000	-	Hr

Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Viewing Angle –Top		Cr ≥10	50	60	-	°
Viewing Angle –Bottom		Cr ≥10	60	70	-	°
Viewing Angle – Left		Cr ≥ 10	60	70	-	°
Viewing Angle – Right		Cr ≥ 10	60	70	-	°
Contrast Ratio	Cr	-	250	400	-	
Luminance	L	-	300	350	-	cd/m ²
Response Time (rise)	Tr	-	-	5	10	ms
Response Time (fall)	Tf	-	-	11	16	ms

Touch Panel Characteristics

Item	Min.	Typ.	Max.	Unit
Linearity	-	-	1.5	%
Circuit Resistance – X-Axis	450	800	1300	Ω
Circuit Resistance – Y-Axis	100	350	800	Ω
Insulation Resistance	10	-	-	MΩ
Operating Voltage	-	-	5	V
Chattering	-	-	10	ms
Transmittance	82	-	-	%
Activation Force	50	-	200	g
Pen Writing Durability	100,000	-	-	Characters
Pitting Durability	1,000,000	-	-	Touches
Surface Hardness	3	-	-	H
Haze	-	7	-	%

Driver Information

Built-in HX8262

For specific timing and color information, please download specification at

http://www.newhavendisply.com/app_notes/HX8262.pdf

Quality Information

Test Item	Content of Test	Test Condition	Note
High Temperature storage	Endurance test applying the high storage temperature for a long time.	+80°C , 200hrs	2
Low Temperature storage	Endurance test applying the low storage temperature for a long time.	-30°C , 200hrs	1,2
High Temperature Operation	Endurance test applying the electric stress (voltage & current) and the high thermal stress for a long time.	+70°C 200hrs	2
Low Temperature Operation	Endurance test applying the electric stress (voltage & current) and the low thermal stress for a long time.	-20°C , 200hrs	1,2
High Temperature / Humidity Operation	Endurance test applying the electric stress (voltage & current) and the high thermal with high humidity stress for a long time.	+60°C , 90% RH , 96hrs	1,2
Thermal Shock resistance	Endurance test applying the electric stress (voltage & current) during a cycle of low and high thermal stress.	-20°C,30min -> 25°C,5min ->70°C,30min = 1 cycle 10 cycles	
Vibration test	Endurance test applying vibration to simulate transportation and use.	10-55Hz , 1.5mm amplitude. 60 sec in each of 3 directions X,Y,Z For 15 minutes	3
Static electricity test	Endurance test applying electric static discharge.	VS=800V, RS=1.5kΩ, CS=100pF One time	

Note 1: No condensation to be observed.

Note 2: Conducted after 4 hours of storage at 25°C, 0%RH.

Note 3: Test performed on product itself, not inside a container.

Precautions for using LCDs/LCMs

See Precautions at www.newhavendisplay.com/specs/precautions.pdf

Warranty Information and Terms & Conditions

http://www.newhavendisplay.com/index.php?main_page=terms