

Phoenix Display International, Inc.

PRODUCT PREVIEW

160 x 150 Monochrome

TN/STN

Graphics
Liquid Crystal Display

SPECIFICATIONS

MODULE

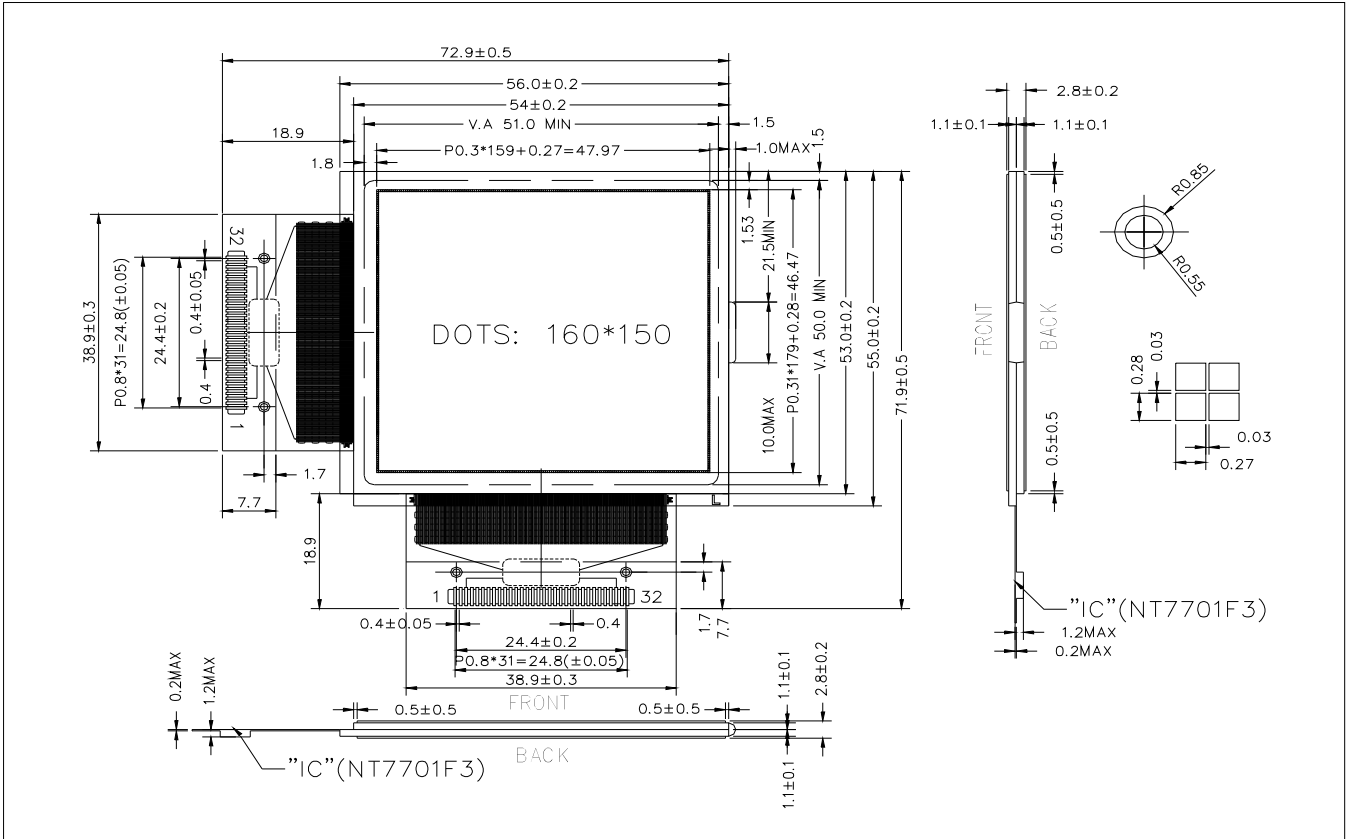
Part Number	G-16015001T-VA
Format	160 Columns by 150 Rows
Controller	NT7701F3
Overall Dimensions	72.9mm x 71.9mm x 3.0mm
Active Area	48.0mm x 46.5mm
Pixel Pitch	300um x 310um
Pixel Size	270um x 280um
Backlight System	None
Driver Attach	TAB
Display Type	STN, FSTN
Duty	1/160
Bias	1/13



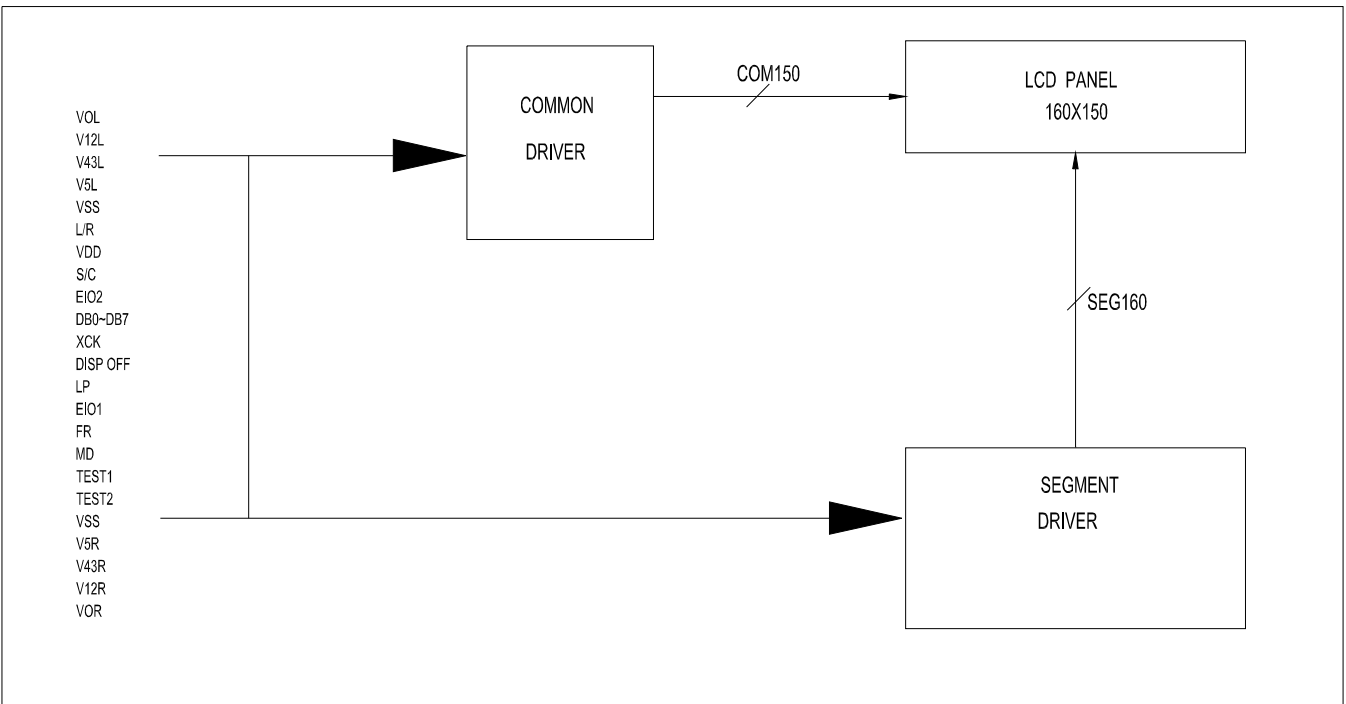
G-16015001T-VA

1/160 DUTY, 1/13 BIAS
160X150 DOTS

1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS $T_a=25\text{ }^\circ\text{C}$ $V_{DD}=3.0V\pm 0.25V$

Item	Symbol	Test Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply Voltage	$V_{DD}-V_{SS}$	25°C	2.7	3.0	4.5	V
LCD Operation Voltage	V_{OP}			21.2		V
LCM Current Consumption	I_{DD}			2	3	mA

4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD}-V_{SS}$	25°C	-0.3	7.0	V
Supply Voltage (LCD)	$V_{DD}-V_O$		-0.3	30	V
Input Voltage	V_{IN}		-0.3	$V_{DD}+0.3$	V
Operating Temp.	T_{OPR}		-20	70	°C
Storage Temp.	T_{STG}		-30	80	°C

5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	NC	No Connection
2	V0L	Power supply for LCD driver
3	V _{12L}	Power supply for LCD driver
4	V _{43L}	Power supply for LCD driver
5	V _{5L}	Power supply for LCD driver
6	V _{SS}	Ground
7	L/R	Display data shift direction selection
8	V _{DD}	Power supply for the logic system
9	S/C	Segment mode / common mode selection
10	EIO2	Input / output for chip select or data of shift register
11~18	D0~D7	Data bus
19	XCK	Display data shift clock input for segment mode
20	/DISP OFF	Control input for deselect output level
21	LP	Latch pulse input/shift clock input for the shift register
22	EIO1	Input / output for chip select or data of the shift register
23	FR	AC-converting signal input for LCD driver waveform
24	MD	Mode selection input
25	TEST1	Test pin, no connection for user
26	TEST2	Test pin, no connection for user
27	V _{SS}	Ground
28	V _{5R}	Power supply for LCD driver
29	V _{43R}	Power supply for LCD driver
30	V _{12R}	Power supply for LCD driver
31	V _{0R}	Power supply for LCD driver
32	NC	No Connect

Remark

1. LCD option: STN, FSTN .
2. Customized module.