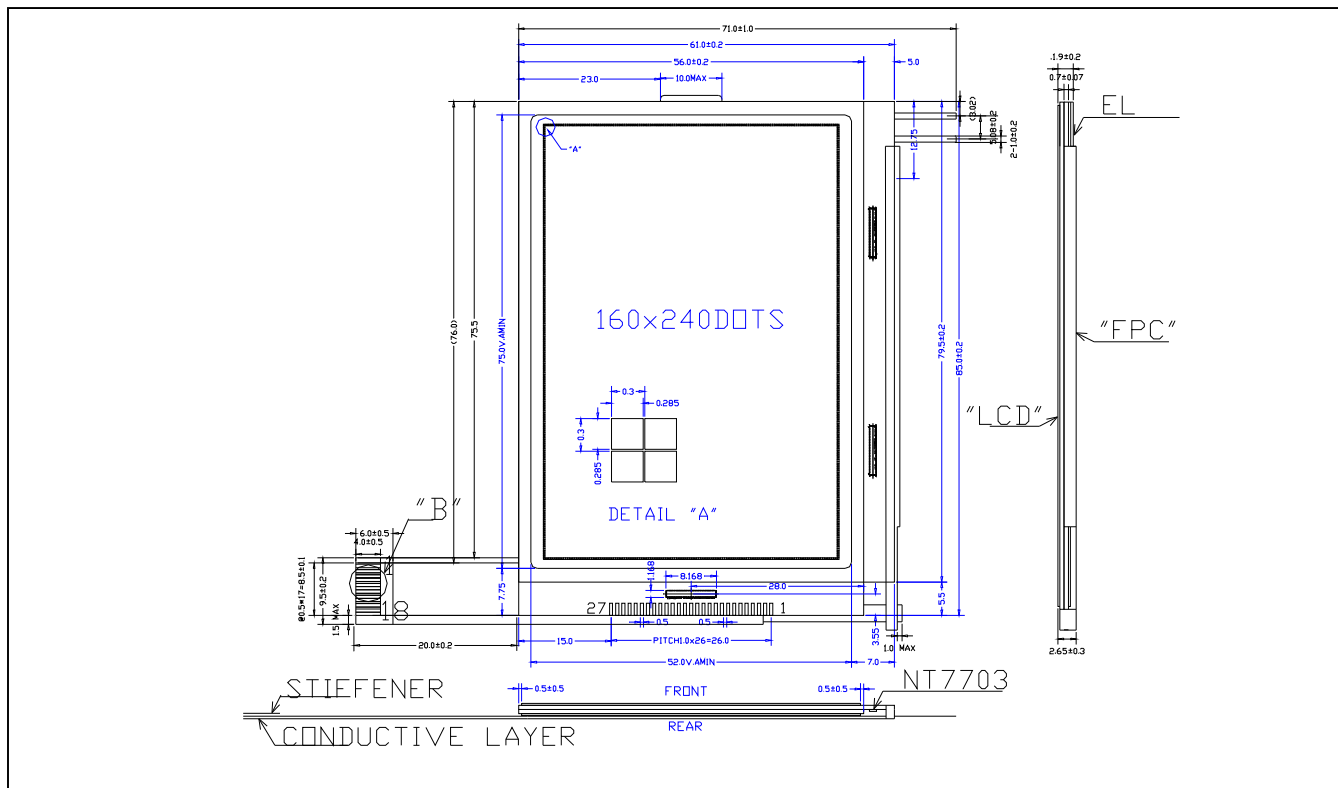
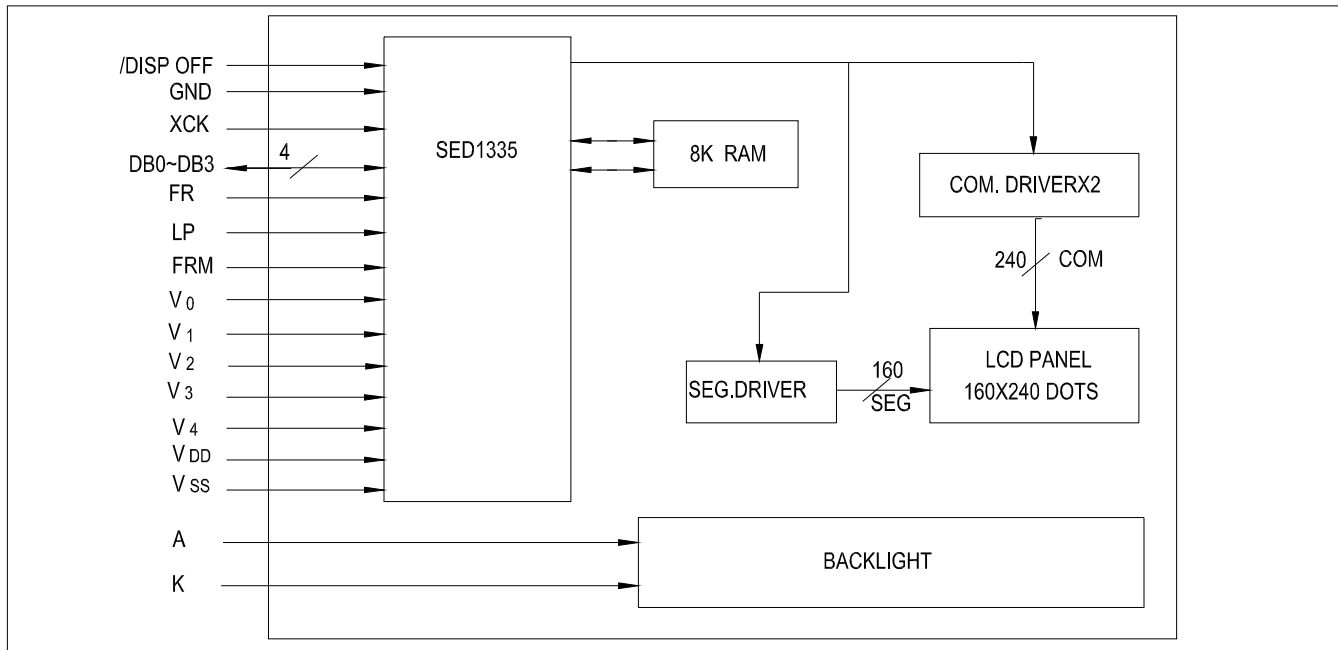


1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V_{DD}=3.0V±0.25V

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	V _{DD} -V _{SS}	25°C	2.5	3.0	5.5	V
LCD Operation Voltage	V _{OP}			24		V
LCM Current Consumption	I _{DD}			TBD		mA
Backlight Forward Voltage	V _F			100	150	Vrms
Backlight Current Consumption	I _F					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	V
Supply Voltage (LCD)	V_0-V_{SS}		-0.3	32.0	V
Input Voltage	V_{IN}		-0.3	$V_{DD}+0.3$	V
Operating Temp.	T_{OPR}		-10	60	°C
Storage Temp.	T_{STG}		-20	70	°C

5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	V_0	Power supply for LCD
2	V_1	Bias Voltage for(Common drive)
3	V_2	Bias Voltage for(Common drive)
4	V_3	Bias Voltage for(Common drive)
5	V_4	Bias Voltage for(Common drive)
6	V_{SS}	Ground (0V), these two pads must be connected to each other
7	GND	Ground
8	NC	—
9	V_{DD}	Power supply for LCD
10	/DISP OFF	Control input for deselect output level
11	XCK	Display data shift clock input for segment mode
12	FRM	Input / output for chip select or data of shift register
13	LP	Latch pulse input / shift clock input for the shift register
14	FR	AC-converting signal input for LCD driver waveform
15~18	D_3-D_0	Input data signal

Remark

1. LCD option: STN, FSTN .
2. Customized module.
3. Backlight option: LED,EL backlight feature, other specs not available on catalog is under request.