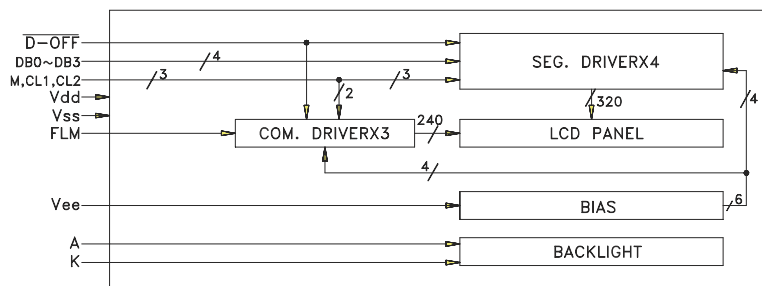
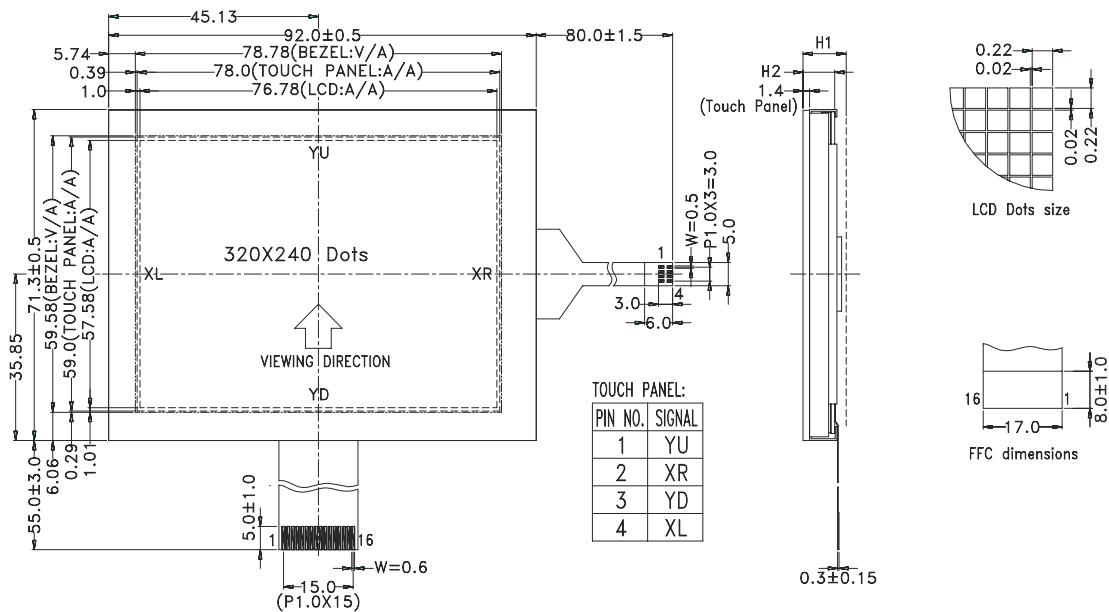


### OUTLINE DIMENSION & BLOCK DIAGRAM



### MECHANICAL SPECIFICATION

Overall Size	92.0 x 71.3 mm	Module	H2 / H1
View Area	78.78 x 59.58 mm	W/O B/L	- / -
Dot Size	0.22 x 0.22 mm	EL B/L	- / - mm
Dot Pitch	0.24 x 0.24 mm	LED B/L	6.9 / 9.3 mm

### PIN ASSIGNMENT

Pin No.	Symbol	Function
1	FLM	Display cycle
2	M	AC signal input
3	CL1	Bi-directional shift register
4	CL2	Clock input pin
5	/D-OFF	Control input
6-9	DB0-3	Display data input
10	VDD	Logic system power supply
11	VSS	Ground
12	VEE	LCD operator voltage
13	VSS	Ground
14	NC	No connection
15	A	Power supply(LED+)
16	K	Power supply (LED-)

### ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min.	Max.	Units
Supply for logic voltage	V <sub>DD</sub> -V <sub>SS</sub>	25°C	-0.3	7.0	V
LCD driving supply voltage	V <sub>DD</sub> -V <sub>EE</sub>	25°C	-	21.8	V
Input Voltage	V <sub>IN</sub>	25°C	-0.3	V <sub>DD</sub> +0.3	V

### ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min.	Typical	Max.	Units		
Power supply voltage	V <sub>DD</sub> -V <sub>SS</sub>	25°C	2.5	5.0	5.5	V		
LCD operation voltage	V <sub>OP</sub>	T <sub>OP</sub>	N	W	N	W	V	
		-20°C		22.0		22.3	22.6	V
		0°C						V
		25°C		20.7		21.0	21.3	V
		50°C						V
		70°C		18.7		19.0	19.3	V
LCM current consumption (No B/L)	I <sub>DD</sub>	V <sub>DD</sub> =5V		12.0	20.0	mA		
	I <sub>EE</sub>	V <sub>DD</sub> =5V				mA		
Backlight current consumption	I <sub>FLED</sub>	V <sub>B/L</sub> =3.3V		80.0		mA		

### REMARK

LCD option: STN, FSTN  
Backlight Option: EL, LED