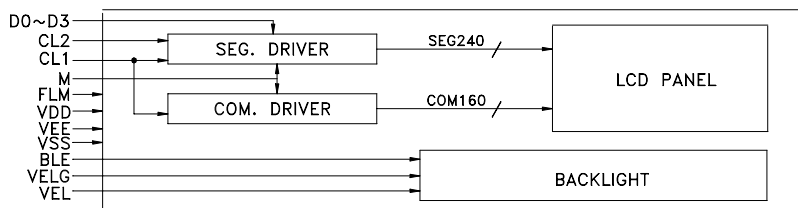
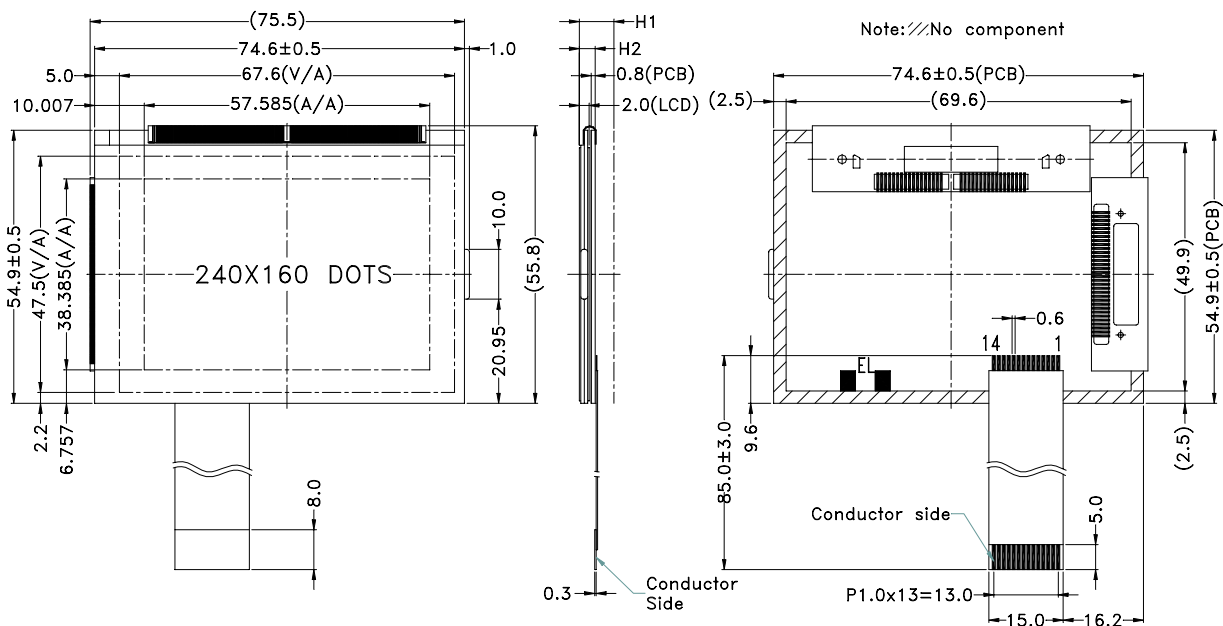
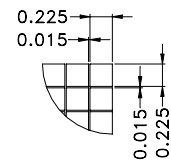


## OUTLINE DIMENSION & BLOCK DIAGRAM



The tolerance unless classified  $\pm 0.3\text{mm}$



SCALE:20/1

### MECHNICAL SPECIFICATION

Overall Size	74.6 x 54.9 mm	Module	H2 / H1
View Area	67.6 x 47.5 mm	W/O B/L	2.9 / 5.0
Dot Size	0.225 x 0.225 mm	EL B/L	3.2 / 7.0
Dot Pitch	0.24 x 0.24 mm	LED B/L	- / -

### PIN ASSIGNMENT

Pin No.	Symbol	Function
1	CL2(SCP)	Data shift pulse
2	CL1(LP)	Data latch pulse
3	FLM	Scan start-up signal
4	M	Frame reverse signal(Alternate signal)
5	D0	Data display
6	D1	Data display
7	D2	Data display
8	D3	Data display
9	VEE	Power supply voltage for LCD(+V)
10	VDD	Power supply voltage for logic
11	VSS	Ground
12	BLE	EL enable/disable
13	VELG	Power supply for EL(-)
14	VEL	Power supply for EL(+)

### ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min.	Max.	Units
Supply for logic voltage	$V_{DD}-V_{SS}$	25°C	-0.3	7.0	V
LCD driving supply voltage	$V_{DD}-V_{EE}$	25°C	-0.3	30.0	V
Input Voltage	$V_{IN}$	25°C	-0.3	$V_{DD}+0.3$	V

### ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min.	Typical	Max.	Units	
Power supply voltage	$V_{DD}-V_{SS}$	25°C	4.5	5.0	5.5	V	
LCD operation voltage	$V_{OP}$	$T_{OP}$	N	W	N	W	V
		-20°C	-	-	21.5	-	V
		0°C	-	20.1	20.7	-	V
		25°C	-	19.6	19.6	20.2	V
		50°C	-	18.6	18.7	19.3	V
		70°C	-	-	17.7	-	V
LCM current consumption (No B/L)	$I_{DD}$	$V_{DD}=5V$	-	0.3	-	mA	
	$I_{EE}$	$V_{DD}=5V$	-	3.0	-	mA	
Backlight current consumption	EL	$V_{OP}=5V$	-	40.0	-	mA	

### REMARK

LCD option: STN, FSTN

Backlight Option: EL backlight feature, other specs not available on catalog is under request.