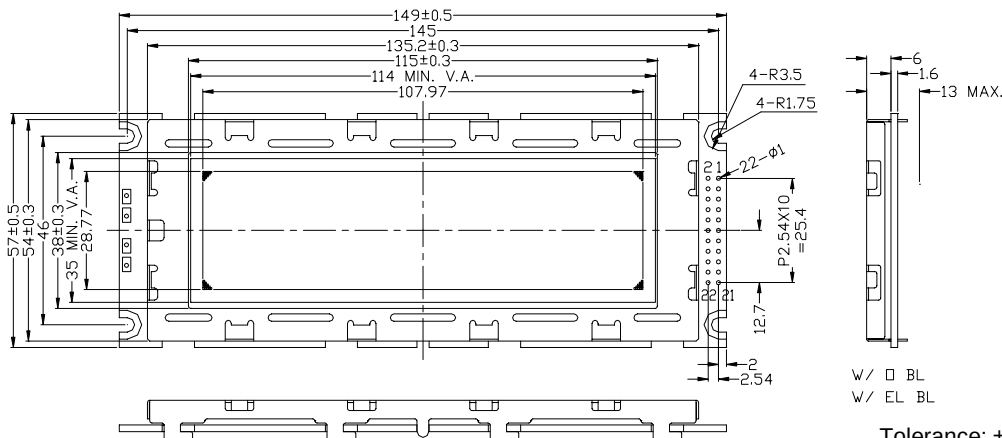
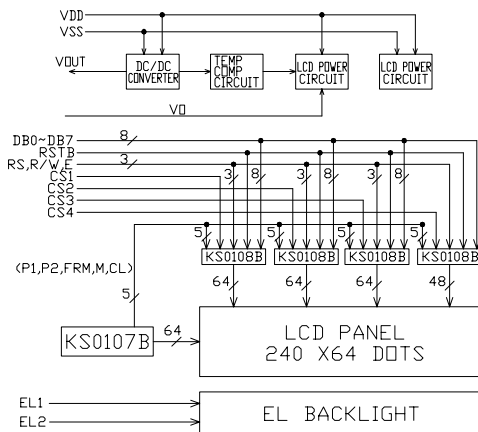


OUTLINE DIMENSION

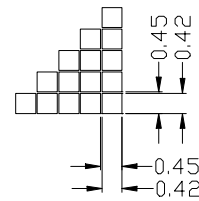


Tolerance: ± 0.20mm, unless otherwise specified.

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	149.0×57.0	MM
View Area	114.0×35.0	MM
Dot Size	0.42×0.42	MM
Dot Pitch	0.45×0.45	MM

PIN ASSIGNMENT

Pin no	Symbol	Function
1	VSS	Ground
2	VDD	Supply voltage for logic
3	VO	Contrast adjust
4	RS	Data / Instruction signal
5	R/W	Read / Write signal
6	E	Clock
7	RSTB	Reset signal
8~15	DB0~DB7	Data bus
16~19	CS1~CS4	Chip select signal
20	VOUT	Voltage booster output
21	EL1	EL anode
22	EL2	EL cathode

ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min	Max	Unit
Supply voltage for logic	VDD	25°C	-0.3	7.0	V
Supply voltage for LCD	VDD-Vo	25°C	-0.3	VDD+0.3	V
Input voltage	VI	25°C	-0.3	VDD+0.3	V

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	VDD	---	4.5	5.0	5.5	V
Supply current for logic	IDD	---	---	5.26	10.0	mA
Operation voltage for LCD	VDD-Vo	0°C	12.2	12.9	13.6	V
		25°C	11.9	12.6	13.3	V
		50°C	11.5	12.2	12.9	V
Supply voltage EL	VF	---	---	85	100	V
Supply frequency EL	Freq	---	---	600	1000	Hz
Input voltage "H" level	VIH	---	0.7VDD	---	VDD	V
Input voltage "L" level	VIL	---	0	---	0.3VDD	V

REMARKS:

- LCD options: STN, FSTN.
- Back light type: EL Back light feature.