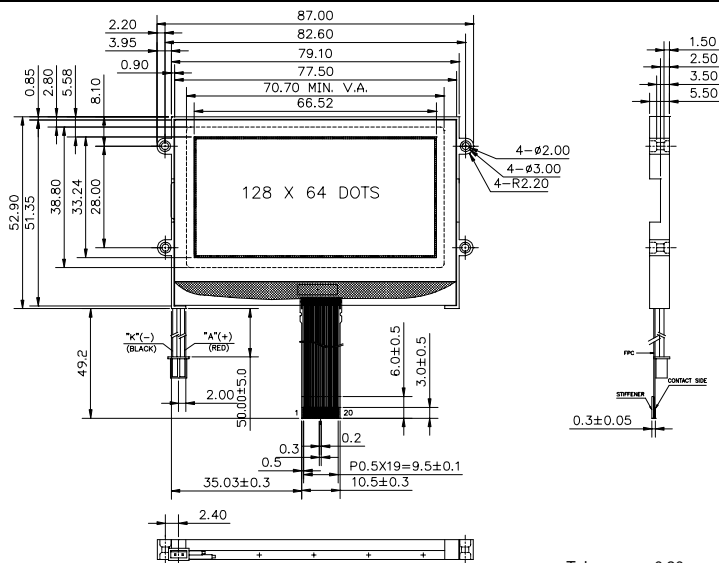
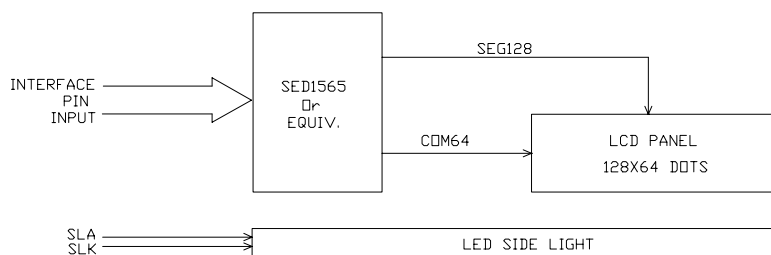


### OUTLINE DIMENSION

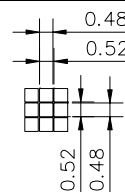


Tolerance:  $\pm 0.20\text{mm}$ , unless otherwise specified.

### BLOCK DIAGRAM



### DISPLAY PATTERN



### MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	87.0x52.9	MM
View Area	70.7x38.8	MM
Dot Size	0.48x0.48	MM
Dot Pitch	0.52x0.52	MM

### PIN ASSIGNMENT

PinNo	Symbol	Level	Description
1-5	V1-V5	---	LCD biasing voltages
6	VRS	---	Can not be used
7	CAP2+	---	DC/DC voltage converter
8	CAP2-	---	DC/DC voltage converter
9	CAP1-	--	DC/DC voltage converter
10	CAP1+	---	DC/DC voltage converter
11	VOU	---	DC/DC voltage converter
12	Vss	---	Power supply
13	VDD	---	Power supply
14	SI	H/L	Serial data input
15	SCL	H-L	Serial clock input
16	/RD	H-L	Read signal (8080)
17	/WR	H-L	Write signal (8080)
18	AO	H/L	Data / Instruction signal
19	/RESET	H-L	Reset
20	/CS1	H-L	Chip select signal

### ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min	Max	Unit
Supply for logic voltage	VDD	25°C	-0.3	7.0	V
LCD driving supply voltage	VLCD	25°C	-18	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 and for converter voltage	VDD	25°C	---	3.0±0.1	---	V
Current consumption	IDD	25°C	---	96.0	---	uA
Input voltage " H " level	VIH	VDD=3V	0.8VDD	---	VDD	V
Input voltage " L " level	VIL	VDD=3V	VSS	---	0.2VDD	V

### REMARKS:

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