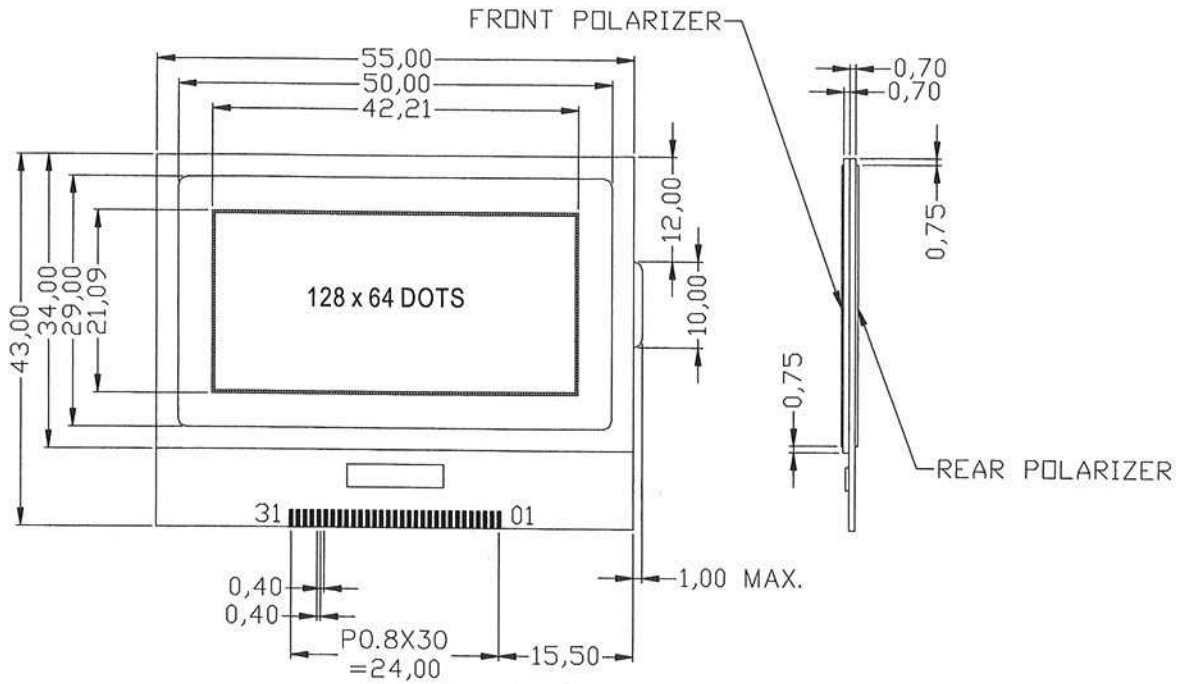
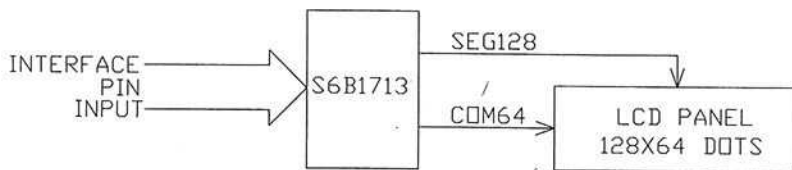


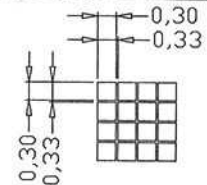
# OUTLINE DIMENSION



## BLOCK DIAGRAM



## DISPLAY PATTERN



## MECHANICAL SPECIFICATION

Item	Dimensions (W) X (H)	Unit
Overall Size	55.0 X 43.0	MM
View Area	50.0 X 29.0	MM
Dot Size	0.30 X 0.30	MM
Dot Pitch	0.33 X 0.33	MM

## PIN ASSIGNMENT

Pin No.	Symbol	Description
1,31	NC	Not connected
2	CS1B	Data/Instruction input pin
3	RES1B	Reset input pin
4	RS	Register select input pin
5	RW_WR/RW	Read/Write execution control pin
6	E_RE/E	Read/Write execution control pin
7-12	DB0-5	8 bit bi-directional data bus
13	DB6/SCLK	Serial input clock
14	DB7/SID	Serial input data
15	MI	Microprocessor interface selects input pin
16	PS	Parallel/Serial data input select input pin
17	Vss	Ground serial input data
18	Vdd	Power supply serial input clock
19	VOUT	Voltage converter I/O pin
20,21	C3+,C3-	Positive/Negative connection for capacitor 3
22,23	C1+,C1-	Positive/Negative connection for capacitor 1
24,25	C2+,C2-	Positive/Negative connection for capacitor 2
26-30	V0-V4	Driving supply voltage

## 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	V <sub>LCD</sub>	25°C	-18	0.3	V
Input voltage	VI	25°C	-0.3	VDD+0.3	V

## ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Value	Unit
Supply voltage for logic and for converter voltage	VDD	25°C	2.8+/-0.1	V
Supply voltage for LCD	V <sub>LCD</sub>	25°C	9.0+/-0.1	V
Consumption voltage of the whole LCD module	V <sub>OUT</sub>	25°C	10.0+/-0.2	V
Input voltage	VI	25°C	680(max)	uA

## REMARKS:

1.LCD options: STN, FSTN.

2.Back light Options: EL Back light feature, other Specs not available on catalog is under request.