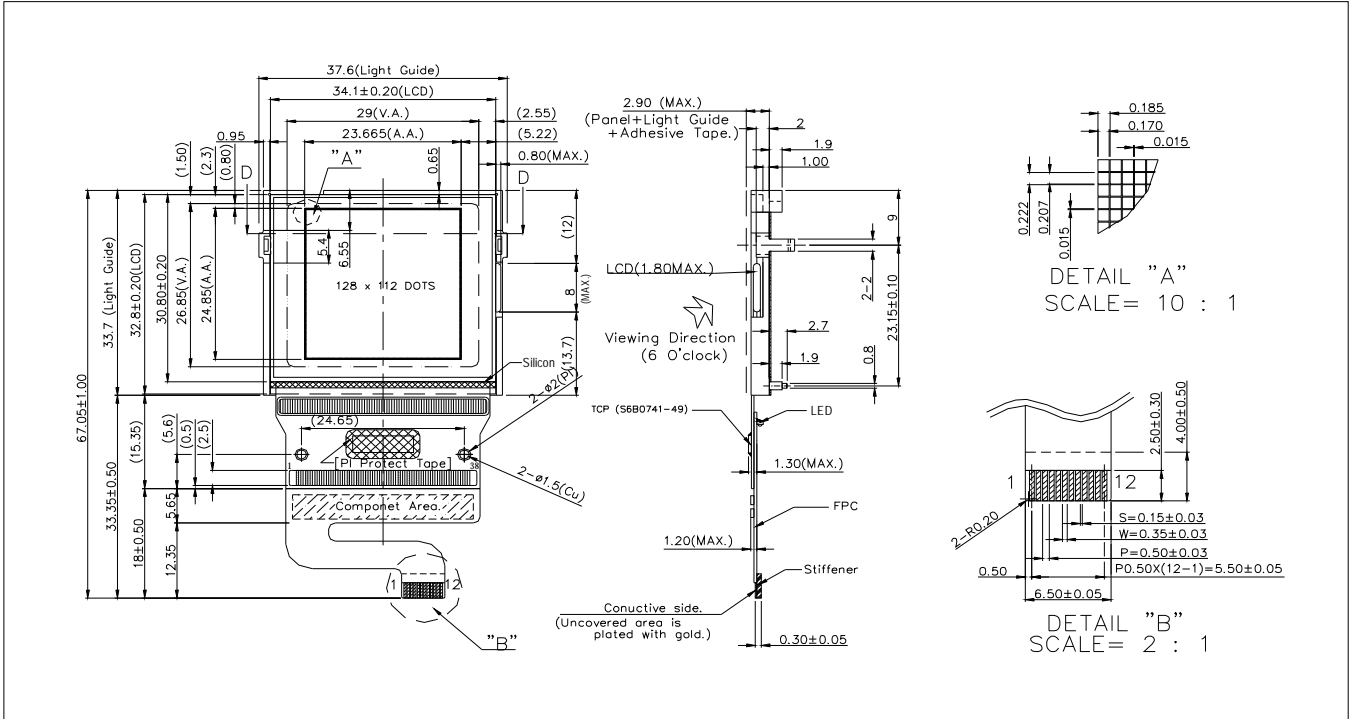
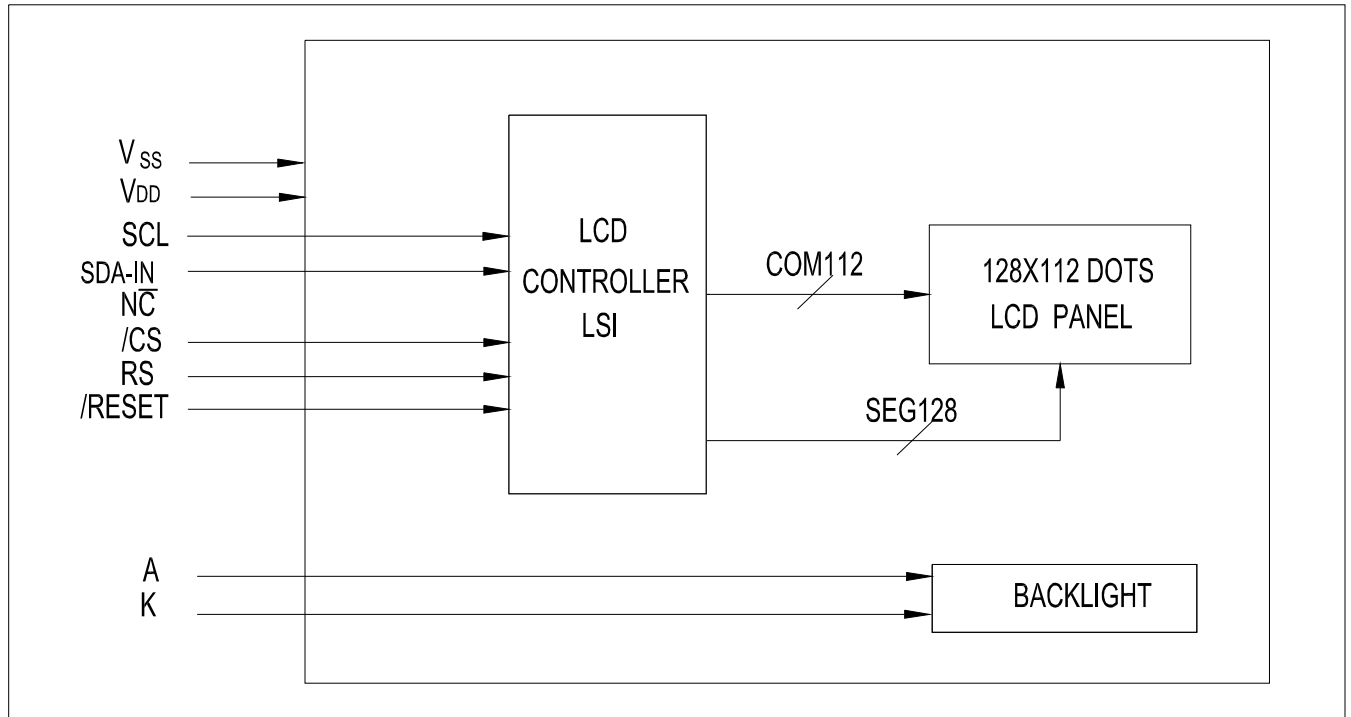


## 1.0 DIMENSIONAL DRAWING



## 2.0 BLOCK DIAGRAM



## 3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V<sub>DD</sub>=2.80V±0.25V

Item	Symbol	Test Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply Voltage	V <sub>DD</sub> -V <sub>SS</sub>	25°C	2.4	2.8	3.6	V
LCD Operation Voltage	V <sub>OP</sub>		-	11.8	-	V
LCM Current Consumption	I <sub>DD</sub>		-	0.2	0.3	mA
Backlight Forward Voltage	V <sub>F</sub>		-	3.2	-	V
Backlight Current Consumption	I <sub>F</sub>		-	20	-	mA

## 4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD}-V_{SS}$	25°C	-0.3	7	V
Supply Voltage (LCD)	$V_{DD}-V_{O}$		-0.3	17	V
Input Voltage	$V_{IN}$		-0.3	$V_{DD}+0.3$	V
Operating Temp.	$T_{OPR}$		-20	70	°C
Storage Temp.	$T_{STR}$		-40	80	°C

## 5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	$V_{DD}$	Power supply for Logic voltage
2	$V_{DD}$	Power supply for Logic voltage
3	SCL	Serial input clock
4	SDA_IN	Serial input data
5	NC	No Connection
6	/CS	Chip selection
7	RS	Selects the register
8	/RESET	Reset input
9	LED+	Power supply for LED voltage
10	LED-	Power supply for LED voltage
11	$V_{SS}$	Ground
12	$V_{SS}$	Ground

### Remark

1. LCD option: STN, FSTN .
2. Customized module.
3. Backlight option: LED backlight feature, other specs not available on catalog is under request.