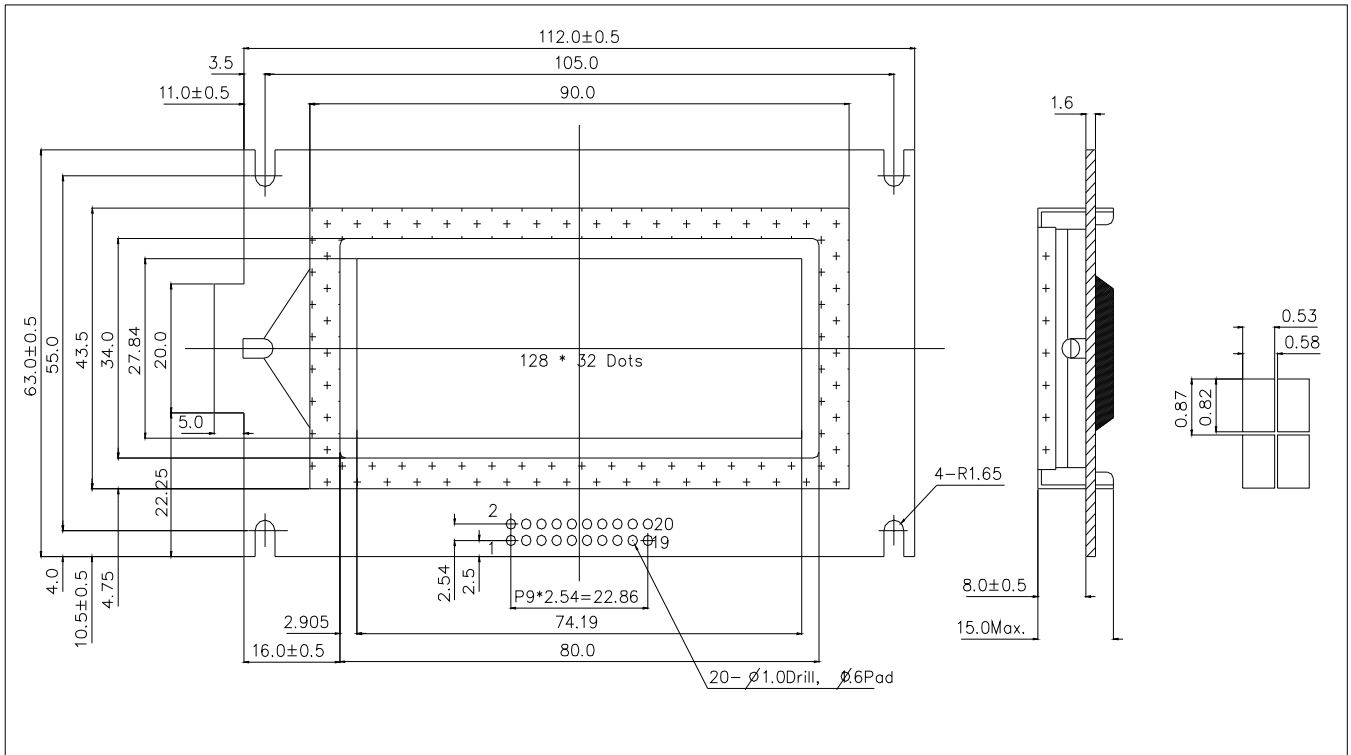
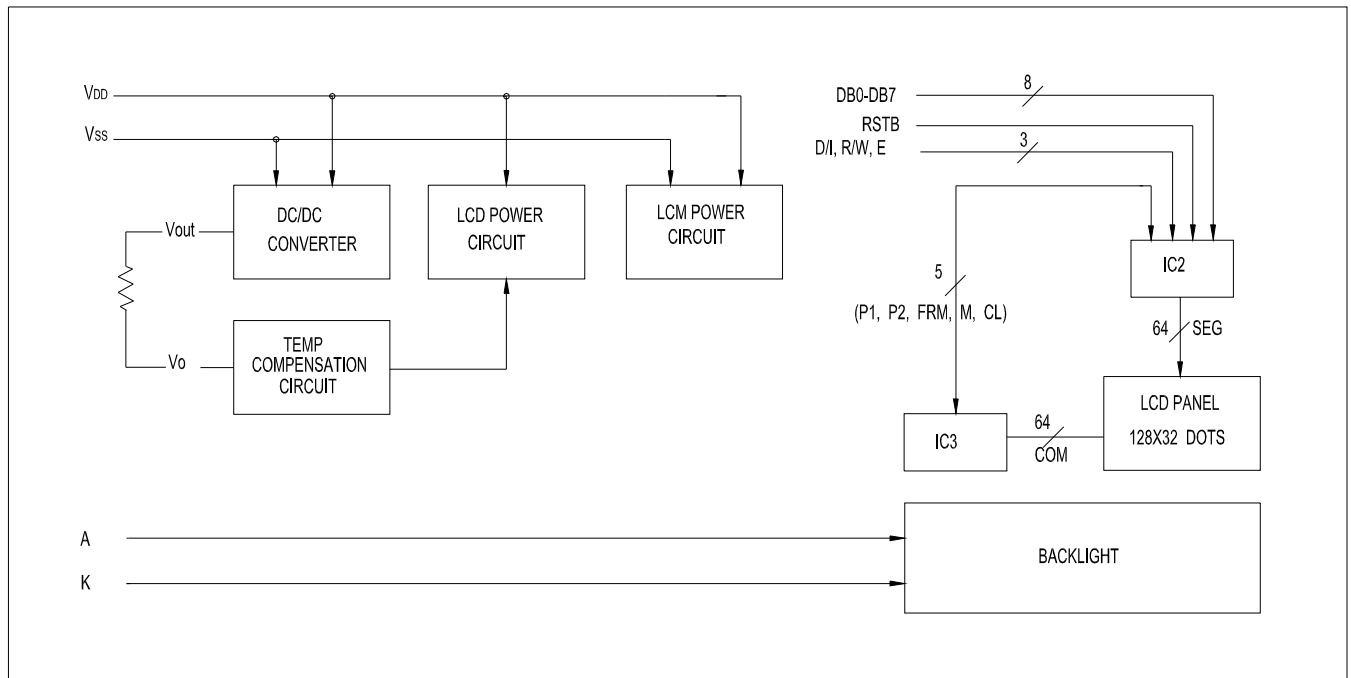


## 1.0 DIMENSIONAL DRAWING



## 2.0 BLOCK DIAGRAM



## 3.0 ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ $V_{DD}=5.0V \pm 0.25V$

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	$V_{DD}-V_{SS}$	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	$V_{OP}$		-	12.5	-	V
LCM Current Consumption	$I_{DD}$		-	3.0	4.0	mA
Backlight Forward Voltage	$V_F$		-	5	-	V

#### 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	7.0	V
Supply Voltage (LCD)	$V_{DD}-V_{O}$		-0.3	17.5	V
Input Voltage	$V_{IN}$		-0.3	$V_{DD}+0.3$	V
Operating Temp.	$T_{OPR}$	-	-20	70	°C
Storage Temp.	$T_{STG}$	-	30	80	°C

#### 5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	GND	Power supply(GND)
2	$V_{DD}$	Power supply
3	nc	No connection
4	D/I	Register selection H: Display data; L: Instruction
5	R/W	Read/Write selection H: Read; L: Write
6	E	Enable signal
7~14	DB0~DB7	Data bus
15	LEDK	LED Back-light
16	LEDA	LED Back-light
17~20	nc	No connection

#### Remark

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