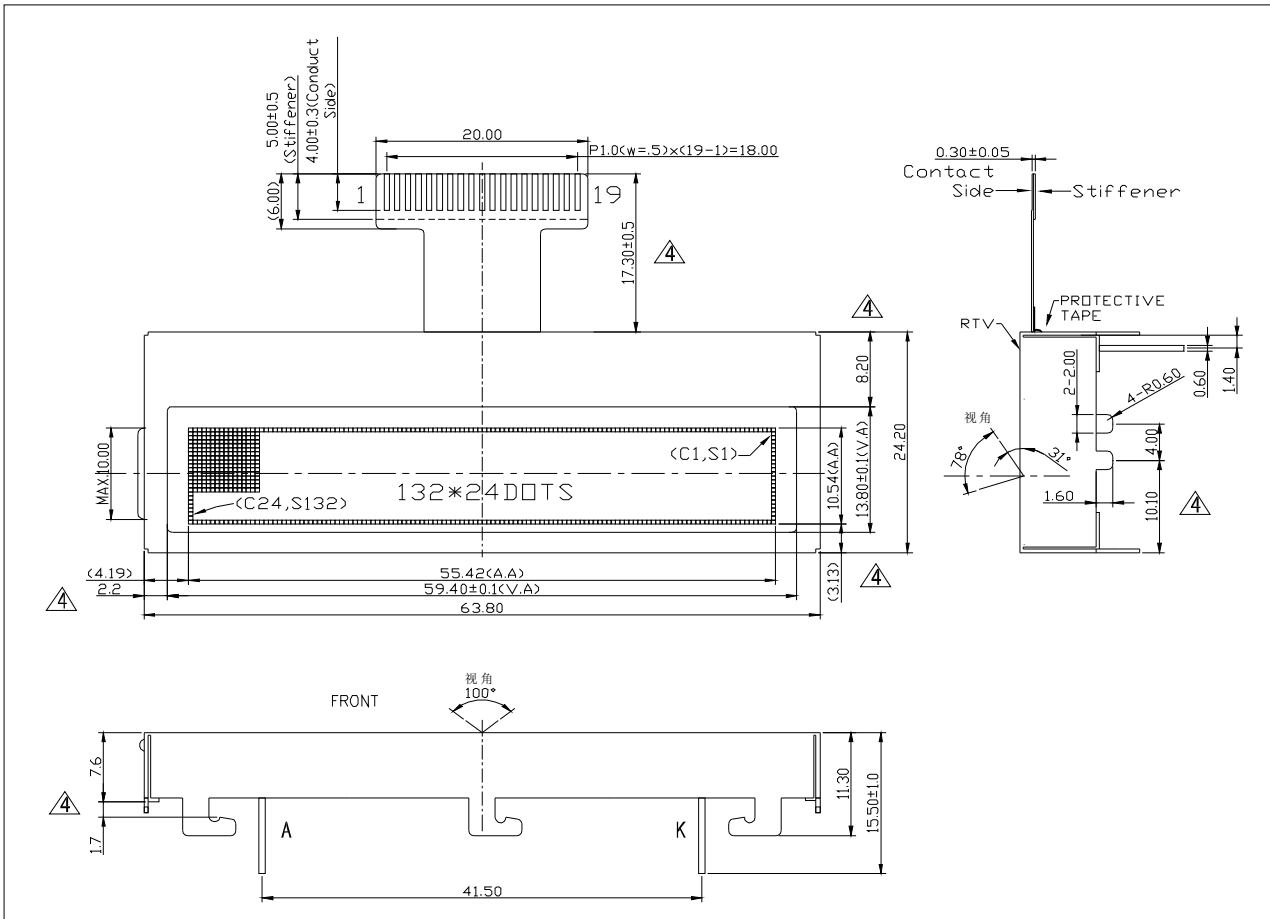
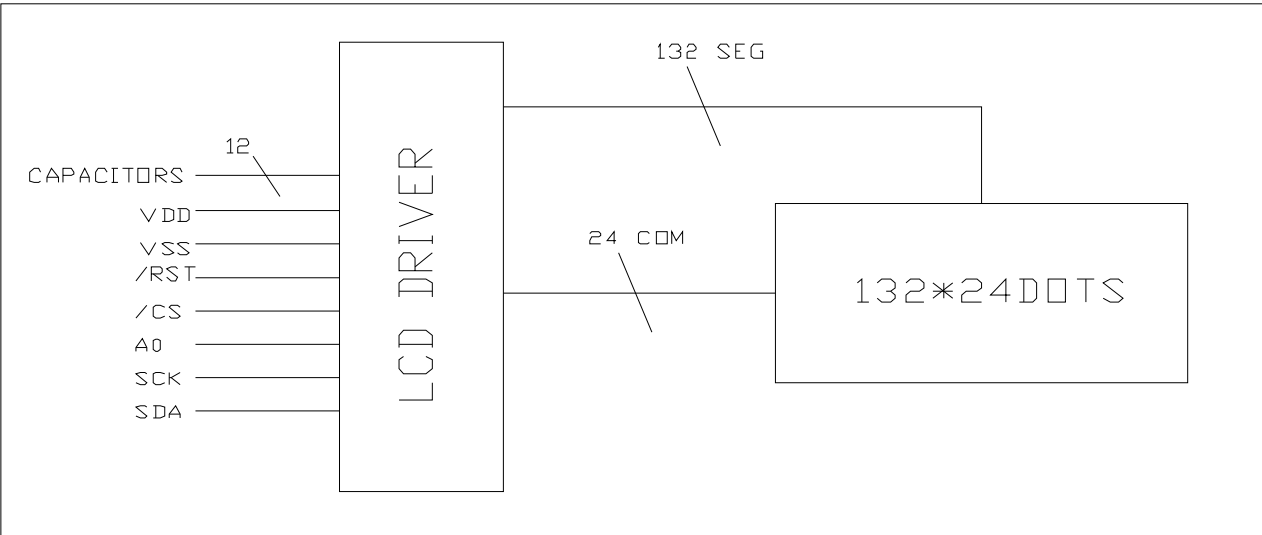


### 1.0 DIMENSIONAL DRAWING



### 2.0 BLOCK DIAGRAM



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

Item	Symbol	Test Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply for Logic	VDD	25°C	3.1	3.3	3.5	V
LCD Operation Voltage	Vop.	25°C	7.8	8.0	8.2	V
LCM Current Consumption	Idd	25°C			1.0	mA

## 4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Standard Value		
		Min.	Max.	Unit
Power Supply for Logic	VDD	-0.3	7.0	V
LCD Operation Voltage	Vo.	-0.3	13.5	V
Input Voltage	Vin	-0.3	Vdd+0.3	V
Operating Temp	Top.	-20	70	°C
Storage Temp	Tst.	-30	80	°C

## 5.0 PIN ASSIGNMENT

PIN NO.	NAME	RECOMMEND CONNECTION
1	/CS1	L: Chip select input; H: Chip is not selected
2	/RES	Reset; L: Enable; H: Disable
3	A0	H: Display Data; L: Control Data;
4	SCK	Serial Clock Input
5	SDA	Data Input
6	VDD	Power supply pin. Suggest: +3.3±0.2V
7	VSS	GROUND
8	VOUT	≈ 2.2uF ≈ VSS
9	C3P	→ 2.2uF → C1N
10	C1N	→ 2.2uF → C1P; → 2.2uF → C3P
11	C1P	→ 2.2uF → C1N
12	C2P	→ 2.2uF → C2N
13	C2N	→ 2.2uF → C2P
14	C4P	Left open.
15	V4	→ 1.0uF → VSS
16	V3	→ 1.0uF → VSS
17	V2	→ 1.0uF → VSS
18	V1	→ 1.0uF → VSS
19	V0	→ 1.0uF → VSS

### Remark

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