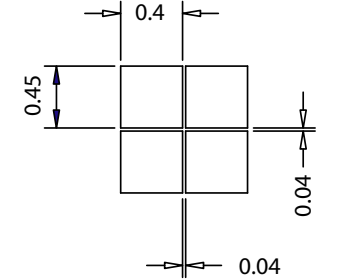


### DOTS DETAIL

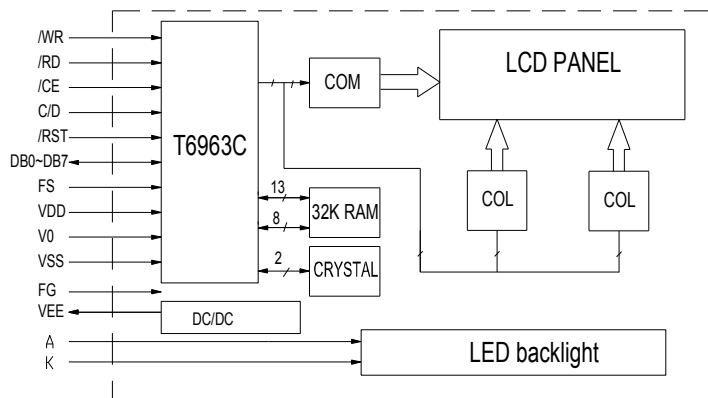


PIN NO	Symbol
1	FGND
2	VSS
3	VDD
4	V0
5	/WR
6	/RD
7	/CE
8	C/D
9	VEE
10	/RET
11	DB0
18	DB7
19	FS
20	NC
A	LED+
K	LED-

### Feature

1. 128x64dots display
2. Built-in controller (T6963C)
3. +5V power supply
4. 1/64 duty cycle;1/9bias;
5. STN or FSTN mode
6. With LED backlight or EL backlight

### Block diagram:



### Absolute Maximum Rating

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Input voltage	VI	-0.3	-----	5.5	V
Power supply	VDD-VSS	-0.3	-----	VDD	

### Electronical characteristics

Item	Symbol	Condition	Standard			Unit
			Min	Typ	Max	
Input voltage	VDD	+5V	4.7	5.0	5.5	V
		+3.3V	---	---	---	
Supply current	IDD	VDD=5V	---	7.2	8	mA
Recommended LCD driving voltage for normal temp version module	VDD-V0	-20°C	---	---	---	V
		0 °C	---	9.8	---	
		25°C	---	9.5	---	
		50°C	---	9.3	---	
70°C	---	---	---	---		
LED forward voltage	VF	25°C	-----	4.2	5.0	V
LED forward current	IF	25°C	-----	360	-----	mA
EL power supply current	IEL	VEL=110V AC 400Hz	-----	---	---	mA

### Mechanical thickness

LCD module thickness	T1	T2	UNIT
Without or EL backlight	4.6	9.0	mm
With edge LED backlight	---	---	mm
With LED bottom backlight	8.7	13.0	mm

### Mechanical data

Item	Standard	Unit
Module dimension	93.0x70.0	mm
Viewing area	72.0x40.0	mm
Dot size	0.48x0.48	mm
Dot pitch	0.52x0.52	mm