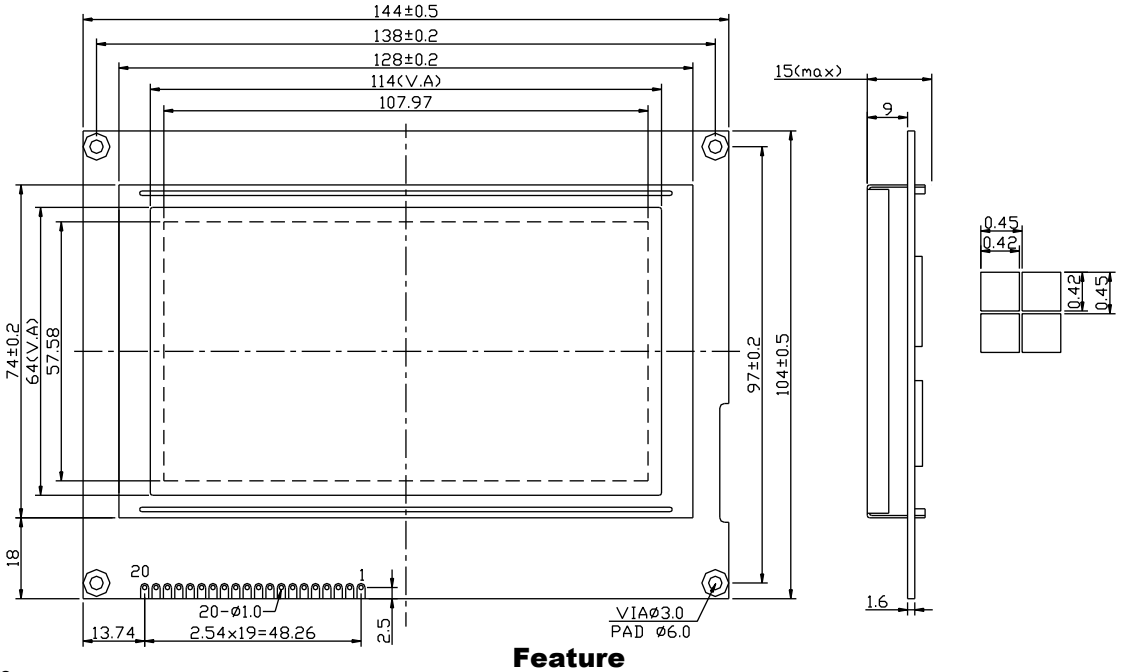
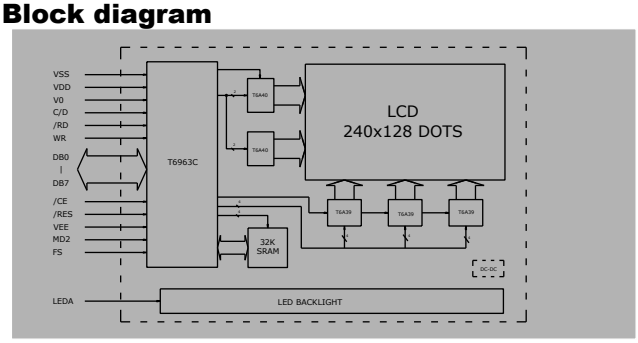
Outline Dimension



Block diagram



Interface pin connections

PIN NO	Symbol	Function
1	VSS	Power supply
2	VDD	
3	VO	Contrast adjustment
4	RS	H/L Register select signal
5	R/W	H/L Read/Write signal
6	E	H/L Enable signal
7 -14	DB0-DB7	H/L Data bus for 8 bit mode
15	CE	Chip Enable
16	RES	Reset signal
17	VEE	LCD driver supply voltage
18	MD2	H=32,L=40
19	FS	Font Select.H=6x8 dot matrix,L=8x8 Dot matrix
20	LED+	+12V for BKL

Feature

1. Display format:240x128 dots matrix gaphic
2. STN or FSTN mode
3. Interface with 8-bit MPU
4. Low power consumption
5. LED backlight
6. Viewing angle: 6:00 clock or 12:00 clock
7. Driving method:1/128 duty,1/11 bias
8. LCD controller: T6963C

Mechanical Data

Item	Standard	Unit
Module dimension	144.0x104.0	mm
Viewing area	114.0x64.0	mm
Dot size	0.42x0.42	mm
Dot pitch	0.45x0.45	mm

Absolute Maximum Rating

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Power supply	VDD-VSS	−0.3	--------	7.0	V
Input voltage	VI	-0.3	--------	VDD+0.3	

Electronical characteristics

Item	Symbol	Condition	Standard			Unit
			Min	Typ	Max	
Input voltage	VDD	------	4.5	5.0	5.5	V
Supply current	IDD	VDD=5V	------	------	-----	mA
Recommended LCD driving voltage for normal temp version module	VDD-V0	-20ºC	------	------	------	V
		0 ºC	-----	------	-----	
		25ºC	18.0	12.6	18.6	
		50ºC	-----	------	-----	
		70ºC	------	------	-----	
LED forward voltage	VF	25ºC	------	12	-----	V
LED forward current	IF	25ºC	------	-----	300	mA
EL power supply current	IEL	VEL=110V AC 400Hz	-----	-------	------	mA