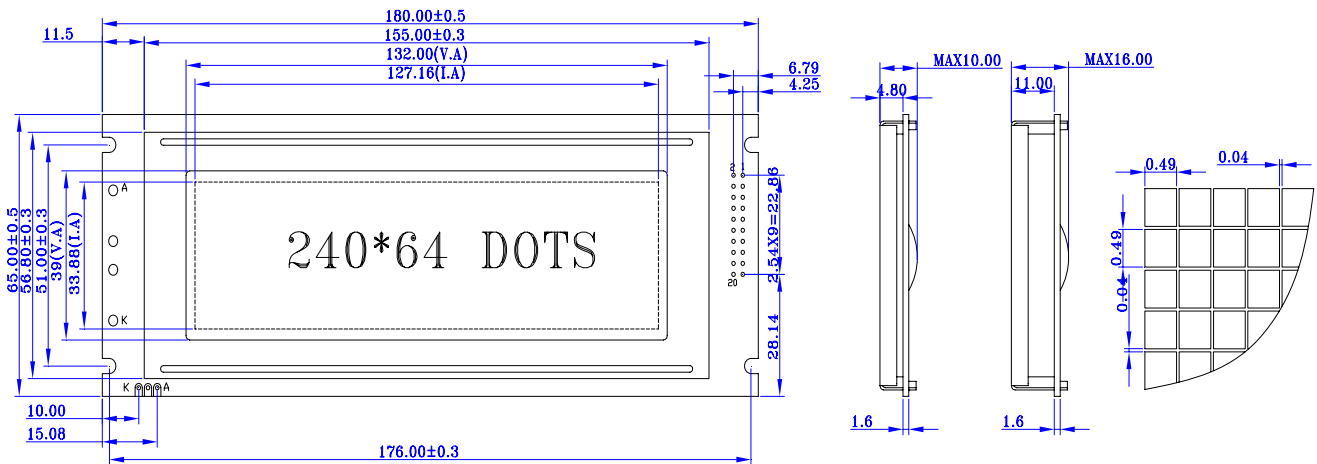
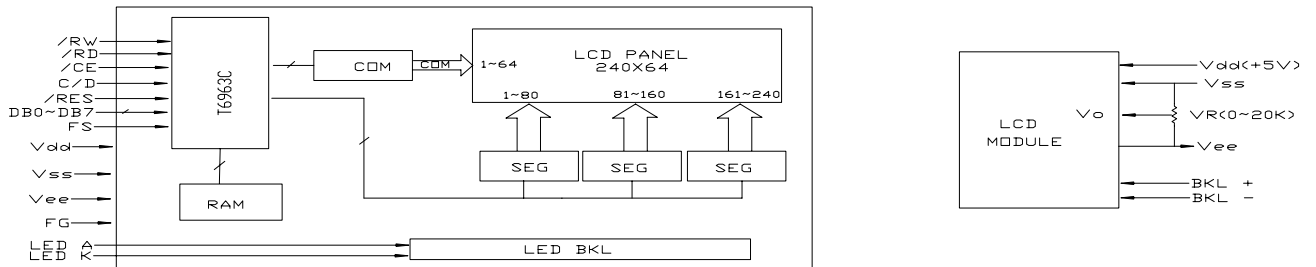




◆ **OUTLINE DIMENSION**



◆ **BLOCK DIAGRAM & POWER SUPPLY**



◆ **MECHANICAL SPEC. & FEATURES**

Item	Dimension(mm)	Features	
Module Size(W×H×T)	180.0×65.0×10.5/16.0	LC Fluid	STN (Yellow-green, Gray, Blue), FSTN
Viewing Area(W×H)	132.0×39.0	Polarizer	Reflective, Transflective, Transmissive
Dot Size(W×H)	0.49×0.49	View Angle	6:00 o'clock or 12:00 o'clock
Dot Pitch(W×H)	0.53×0.53	Display Type	Positive or Negative
Dots×Dots	240×64	Backlight	LED, CCFL, EL (Optional)
		Operating Temp.	0°C~50°C or -20°C~70°C
		Controller	T6963C or Equivalent

◆ **INTERFACE PIN CONNECTIONS**

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	FG	Frame ground	8	C/D	Register selection (H:Data, L:Instruction)
2	Vss	Ground for logic	9	VEE	Negative voltage output
3	Vdd	Power supply for logic	10	/RES	Reset signal
4	V0	Power supply for LCD	11~18	DB0~DB7	Data bus lines
5	/WR	Write enable	19	FS	Font selection
6	/RD	Read enable	20	NC	---
7	/CE	Enable signal for IC			

◆ **ELECTRICAL CHARACTERISTICS**

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Operating Voltage	Vdd	Ta=25°C	---	5.0	---	V
Operating Voltage for LCD	Vlcd	Ta=25°C	---	12.5	---	V
Supply Current	Idd	Ta=25°C, Vdd=5.0V	---	2.5	3.0	mA
Supply Voltage for LED	Vf	Ta=25°C	---	4.2	---	V
Supply Current for LED	If	Ta=25°C, Vf=4.2V	---	630	---	mA