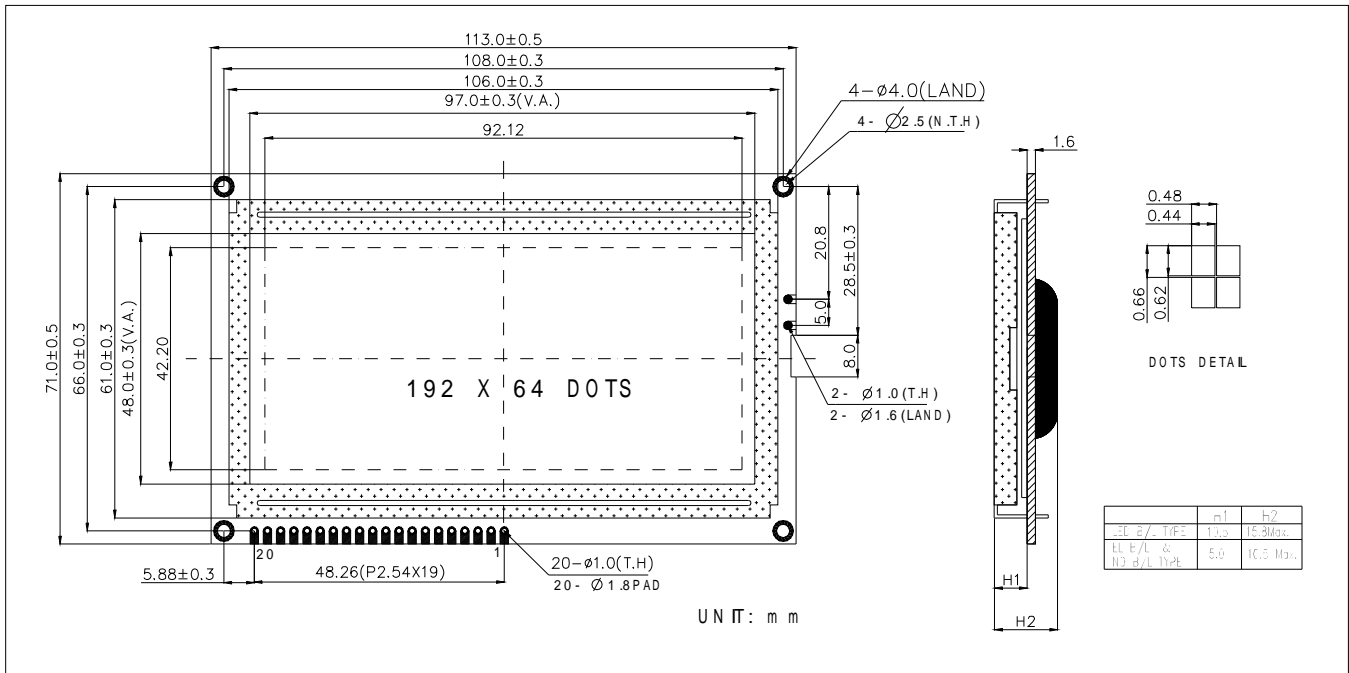


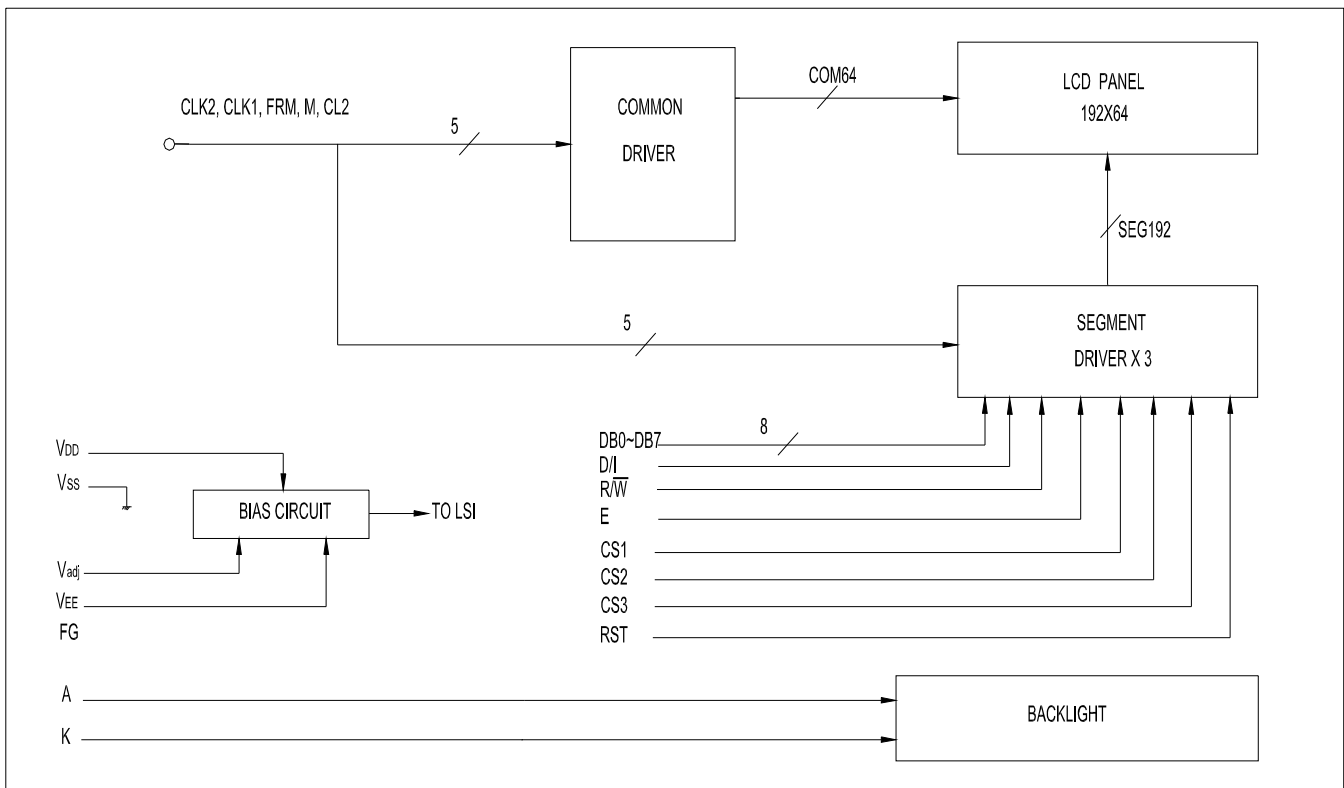
BTG-190601B

1/64 DUTY, 1/9 BIAS
192x64 DOTS

1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V_{DD}=5.0V±0.25V

Item	Symbol	Test Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply Voltage	V _{DD} -V _{SS}	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	V _{OP}		-	9.0	-	V
LCM Current Consumption	I _{DD}		-	5.0	7.5	mA
Backlight Forward Voltage(EL)	V _F		-	-	-	ACV

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	14	V
Input Voltage	V_{IN}		-0.3	$V_{DD}+0.3$	V
Operating Temp.	T_{OPR}	-	0	50	°C
Storage Temp.	T_{STG}	-	-20	70	°C

5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	Vss	Ground
2	V_{DD}	supply voltage for logic and LCD
3	Vo	Operating voltage for LCD
4	D/I	H: Data Input, L: Instruction Code Input
5	R/W	Read/Write selection ,H: Read, L: Write
6	E	Enable signal
7~14	DB0-DB7	Data bus
15	CS1	Chip Selection for IC1
16	CS2	Chip Selection for IC2
17	CS3	Chip Selection for IC3
18	RST	Reset signal
19	Vout	Output Voltage for LCD driving
20	NC	No connection

Remark

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