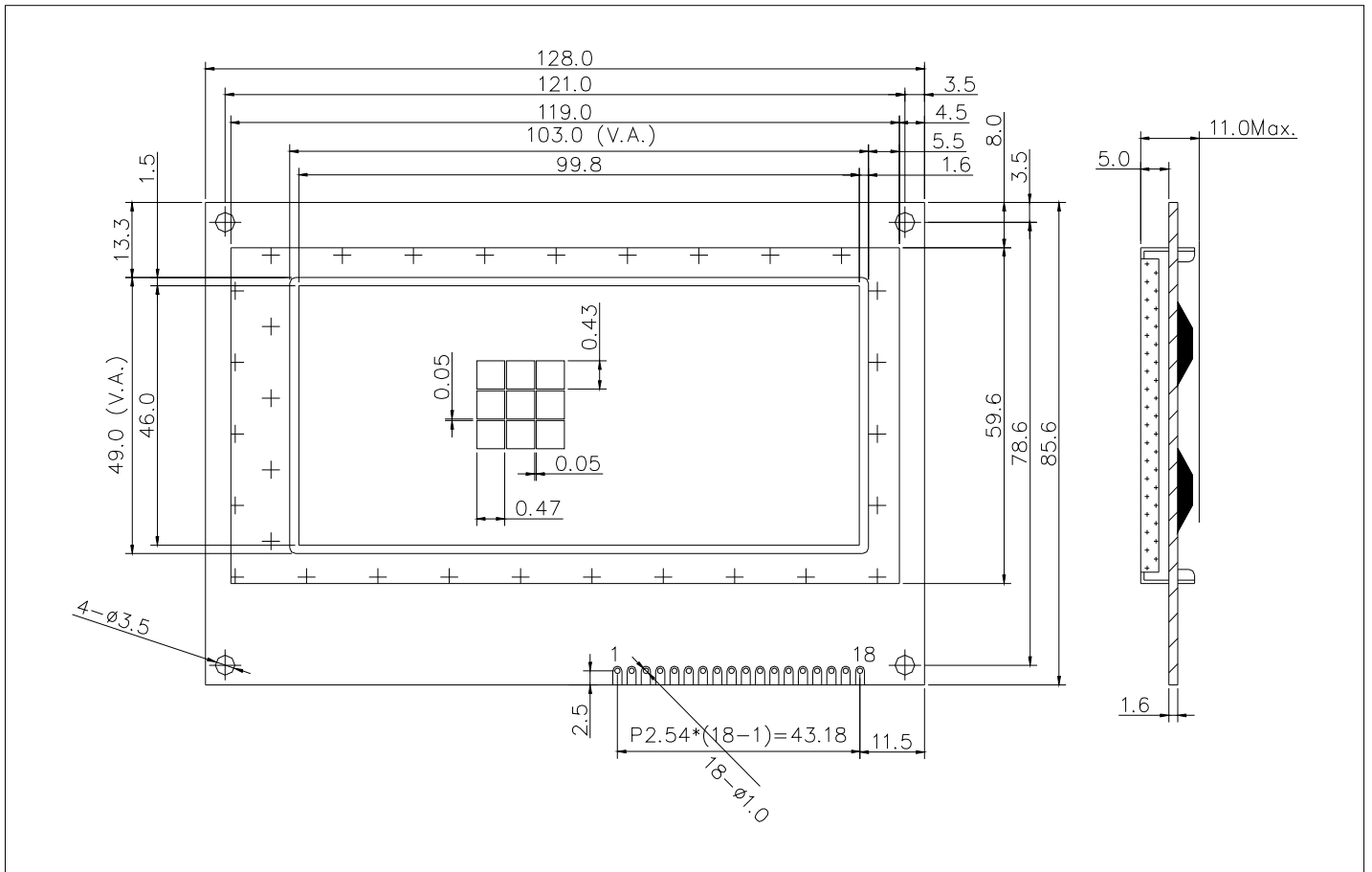
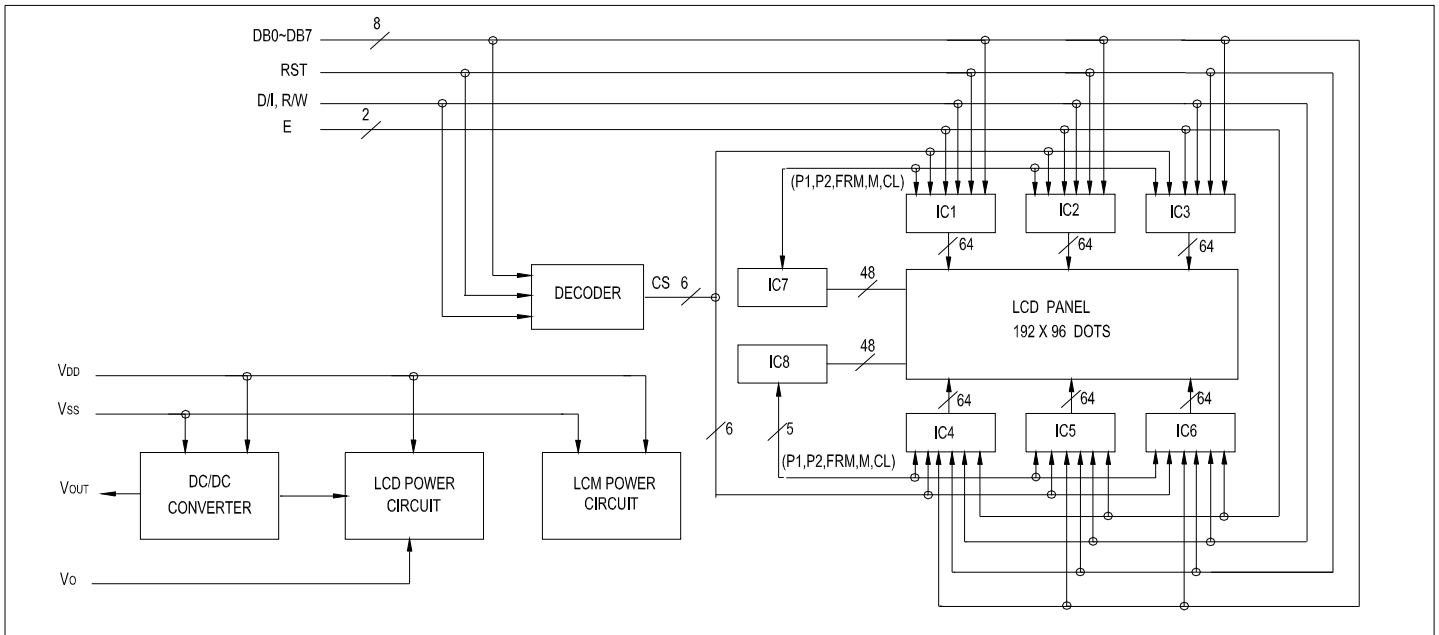


1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



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

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	V _{DD} -V _{SS}	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	V _{OP}		-	9.6	-	V
LCM Current Consumption	I _{DD}		-	10.0	18.0	mA
Backlight Forward Voltage	V _F		-	5.0	-	V

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)	$V_{DD}-V_O$		-0.3	17.5	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	Vout	Negative Voltage Output
2	RST	Reset Signal
3-10	DB0-DB7	Data bus line
11	E	Chip Enable signal
12	R/W	H: Data/status read L: Data/instruction write
13	D/I	H: Display data L: Instruction code
14	Vo	Contrast adjust
15	V_{DD}	Power supply
16	Vss	Power supply(GND)
17	NC	No connection
18	NC	No connection

Remark

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