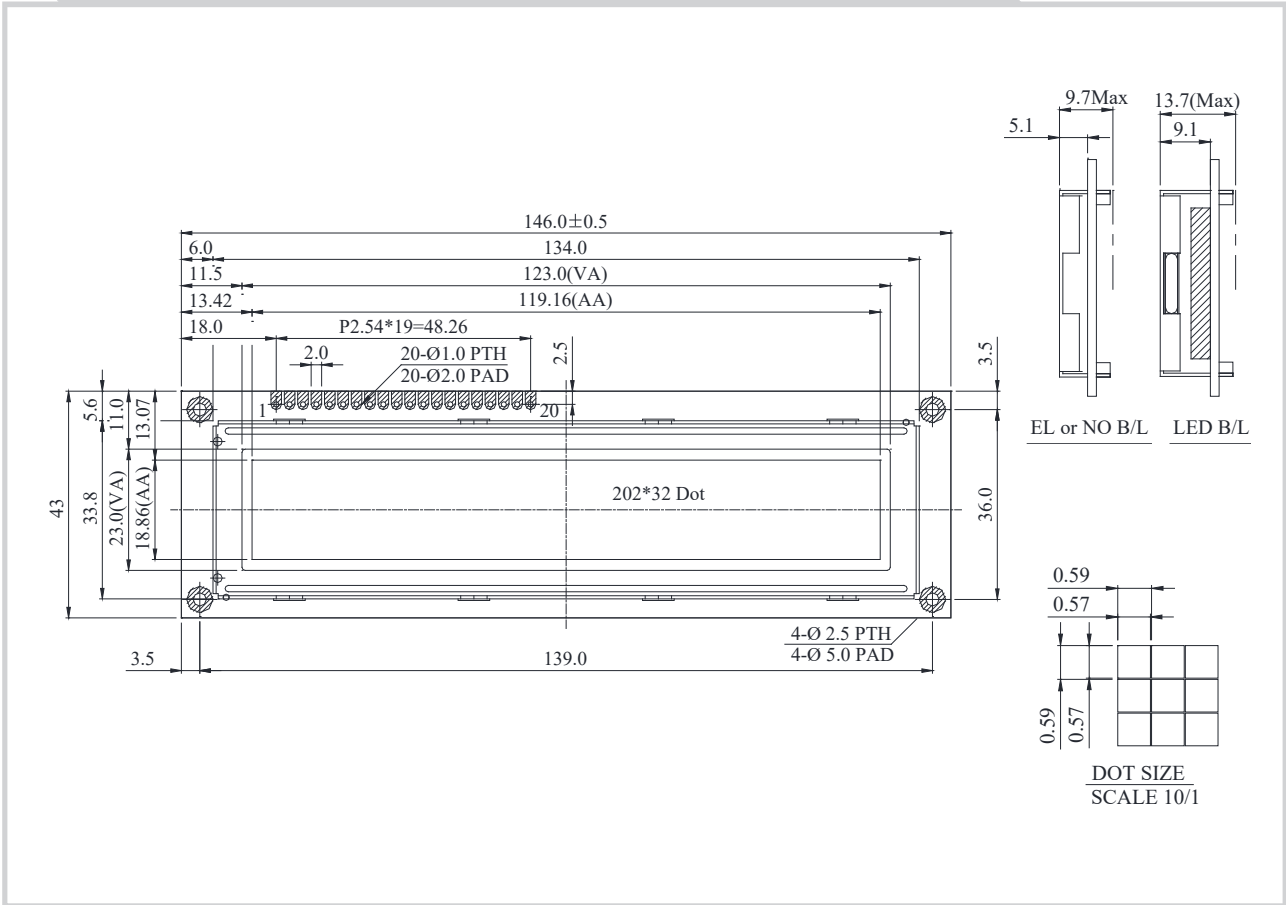


NTG20232A Graphic 202x32 dots



Feature

1. Built-in oscillation
2. Built-in controller Avant (SBN1661G or equivalent)
3. 1/32 duty cycle
4. 2.85~5V power supply

Pin No.	Symbol	Description
1	V _{SS}	Ground
2	V _{DD}	Power supply for logic
3	V _O	Contrast Adjustment
4	A0	Data/ Instruction select signal
5	R/W	Read/Write select signal
6	CS1	Chip Select Signal for IC1
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	V _{EE}	Negative Voltage Output
16	RES	Controller reset signal, Active Low
17	A	Power supply for B/L +
18	K	Power supply for B/L -
19	CS2	Chip Select Signal for IC2
20	CS3	Chip Select Signal for IC3

Mechanical Data

Item	Standard Value	Unit
Module Dimension	146.0 x 43.0	mm
Viewing Area	123.0 x 23.0	mm
Mounting Hole	139.0 x 36.0	mm
Dot Pitch	0.59 x 0.59	mm
Dot Size	0.57 x 0.57	mm

Electrical Characteristics

Item	Symbol	Standard Value	Unit
		typ.	
Input Voltage	V _{DD}	5.0	V
Recommended LCD Driving Voltage for Normal Temp. Version module @25°C	V _{DD-VO}	5.0	V