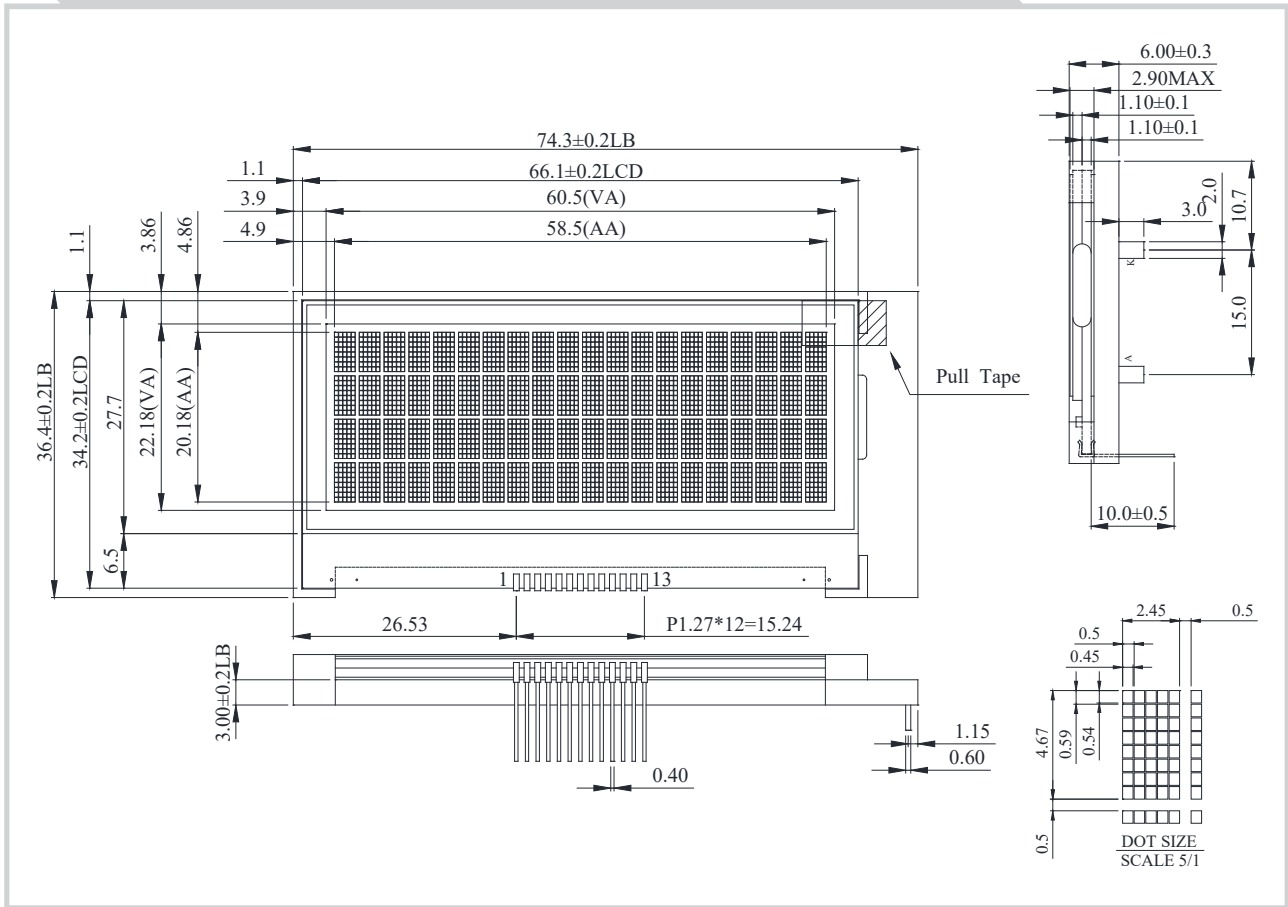


# NTO2004A Character 20x4



## Feature

1. 1.5x8 dots includes cursor
2. Built-in controller SSD1803AM1Z
3. 3V/5V power supply
4. 1/33 duty cycle, 1/6 Bias

Pin No.	Symbol	Description
1	/RES	Controller reset signal, Active Low
2	Vout	Positive Voltage output
3	V0	Bias voltage levels for LCD driving
4	V1	Bias voltage levels for LCD driving
5	V2	Bias voltage levels for LCD driving
6	V3	Bias voltage levels for LCD driving
7	V4	Bias voltage levels for LCD driving
8	V <sub>DD</sub>	Power supply for logic
9	VDDREG	Enable VDD regulator in 5V I/O Application:
10	VDDIO	Power supply for logic
11	V <sub>SS</sub>	Ground
12	SCL	Serial clock input
13	SDA	Serial input data

## Mechanical Data

Item	Standard Value	Unit
Module Dimension	74.3 x 36.4	mm
Viewing Area	60.5 x 22.18	mm
Dot Pitch	0.50 x 0.59	mm
Dot Size	0.45 x 0.54	mm

## Electrical Characteristics

Item	Symbol	Standard Value	Unit
		typ.	
Input Voltage	VDD	3.0	V
Recommended LCD Driving Voltage for Normal Temp. Version module @25°C	V <sub>o</sub> -V <sub>ss</sub>	7.80	V