Winstar Display Co., LTD
華凌光電股份有限公司
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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WG12864AB-TMI-V#N

General Specification

Item	Dimension	Unit
Number of dots	128 x 64	—
Module dimension	93.0 x 70.0 x 13.6 (MAX)	mm
View area	72.0 x 40.0	mm
Active area	66.52 x 33.24	mm
Dot size	0.48 x 0.48	mm
Dot pitch	0.52 x 0.52	mm
Duty	1/64	
View direction	6 o'clock	
Backlight Type	LED, White	
IC	NT7107, NT7108	

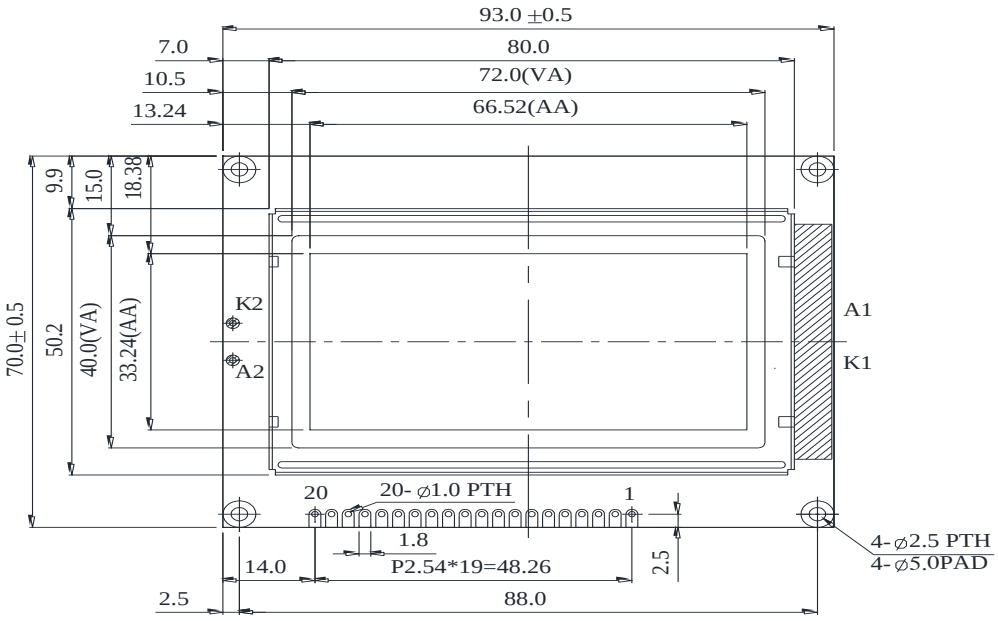
Absolute Maximum Ratings

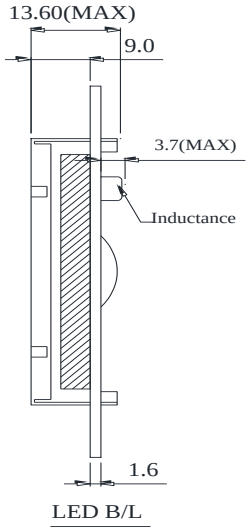
Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	℃
Storage Temperature	T_{ST}	-30	—	+80	℃
Supply Voltage For Logic	V_{DD}-V_{SS}	-0.3	—	7.0	V
Driver Supply Voltage	V_{LCD}	V_{EE}-0.3	—	V_{DD}+0.3	V

Interface Pin Function

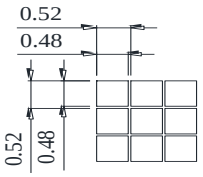
Pin No.	Symbol	Level	Description
1	V_{SS}	0V	Ground
2	V_{DD}	3.3V	Supply voltage for logic
3	V_o	(Variable)	Operating voltage for LCD
4	D/I	H/L	H: Data , L : Instruction
5	R/W	H/L	H: Read (MPU←Module) , L: Write (MPU→Module)
6	E	H	Enable signal
7	DB0	H/L	Data bus line
8	DB1	H/L	Data bus line
9	DB2	H/L	Data bus line
10	DB3	H/L	Data bus line
11	DB4	H/L	Data bus line
12	DB5	H/L	Data bus line
13	DB6	H/L	Data bus line
14	DB7	H/L	Data bus line
15	CS1	H	Select Column 1~ Column 64
16	CS2	H	Select Column 65~ Column 128
17	/RES	L	Reset signal
18	Vout	—	Negative Voltage output
19	A	—	Power Supply for LED backlight (+)
20	K	—	Power Supply for LED backlight (-)

Contour Drawing & Block Diagram





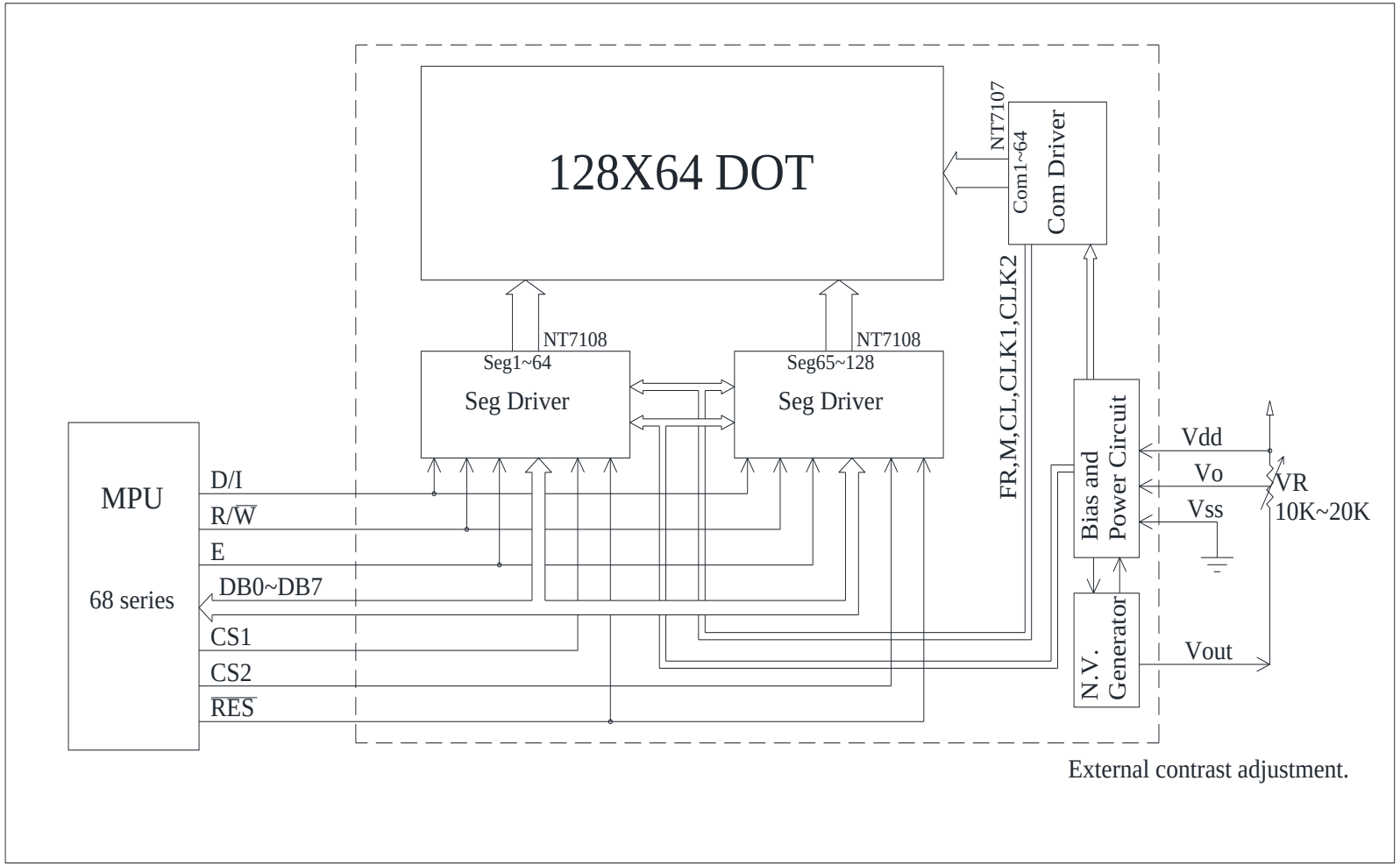
LED B/L



DOT SIZE
SCALE 10/1

PIN NO.	SYMBOL
1	Vss
2	Vdd
3	Vo
4	D/I
5	R/$\overline{W}$
6	E
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	CS1
16	CS2
17	$\overline{RES}$
18	Vout
19	A
20	K

The non-specified tolerance of dimension is ±0.3mm.


128X64 DOT
NT7107
Com1~64
Com Driver
NT7108
Seg1~64
Seg Driver
NT7108
Seg65~128
Seg Driver
FR,M,CL,CLK1,CLK2
Bias and Power Circuit
N.V. Generator
Vdd
Vo
Vss
VR
10K~20K
Vout
MPU
68 series
D/I
R/W
E
DB0~DB7
CS1
CS2
RES
External contrast adjustment.