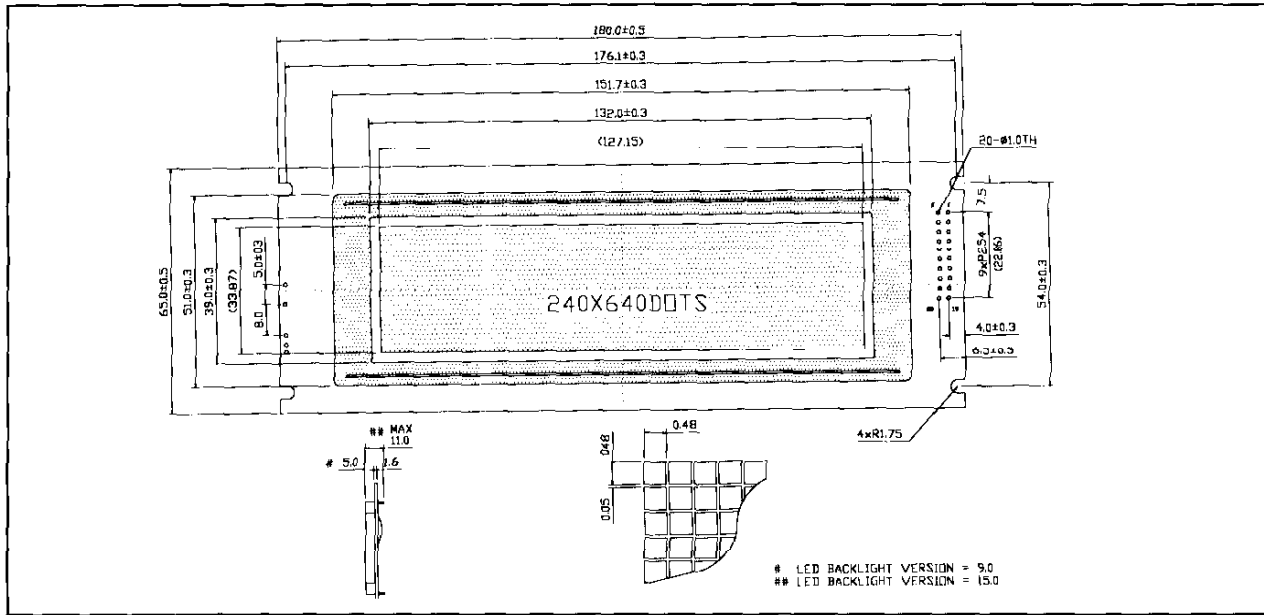


AG2406401

* EXTERNAL DIMENSIONS AND DISPLAY PATTERNS



MECHANICAL DATA (Nominal dimensions)

Module size	180W x 65H x 11T (max.)mm
Effective display area	132.0W x 39.0H mm
Dot size	0.48W x 0.48H mm
Dot pitch	0.53W x 0.53H mm
Weight	about 155g (Approx.)

ABSOLUTE MAXIMUM RATINGS MIN. MAX.

Power supply for logic (V_{DD})	-0.3	7.0 V
Power supply for LCD drive ($V_{DD} - V_O$)	$V_{DD} - 0.3$	$V_{DD} + 0.3$ V
Input voltage (V_i)	-0.3	$V_{DD} + 0.3$ V
Operating temperature (T_a)	0	+50°C
Storage temperature (T_{stg})	-20	+70°C

ELECTRICAL CHARACTERISTICS

$T_a = 25^\circ\text{C}$, $V_{DD} = 5.0V \pm 0.25V$

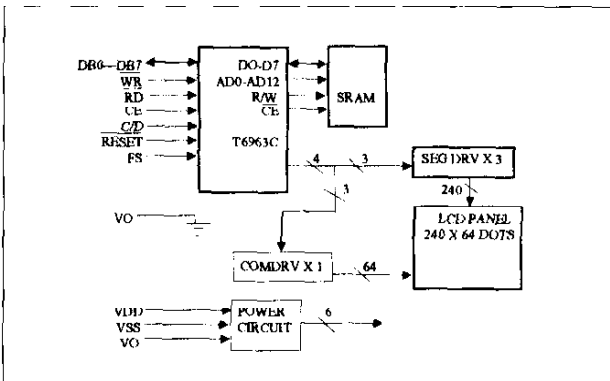
Input "high" voltage (V_{ih})	0.7 V_{DD} V min.
Input "low" voltage (V_{il})	0.3 V_{DD} V max.
Output "high" voltage (V_{oH}) ($I_{oH} = 0.2\text{mA}$)	2.4V min.
Output "low" voltage (V_{oL}) ($I_{oL} = 1.6\text{mA}$)	0.4V max.
Power supply for LCD drive ($V_{DD} - 5.0V$)	11.0mA typ.

Drive method

Power supply LCD drive ($V_{DD} - V_O$)

$T_a = 0^\circ\text{C}$	15.7V typ.
$T_a = 25^\circ\text{C}$	14.7V typ.
$T_a = 50^\circ\text{C}$	13.7V typ.

* BLOCK DIAGRAM



* PIN Assignment

Pin No.	Symbol	Level	Description
1	/FG	0V	Frame Ground
2	Vss (GND)	0V	Ground
3	V_{DD}	5.0V	Power Supply Voltage for Logic & LCD (+)
4	V_o	-	Operating Voltage for LCD (Variable)
5	/WR	L	Write Signal
6	/RD	L	Read Signal
7	/CE	L	Chip Enable Signal
8	C/D	H/L	H : Instructure Code, L : Data
9	NC	-	No Connection
10	/RESET	L	Reset Signal
11	DB0	H/L	Data bus bit 0
12	DB1	H/L	Data bus bit 1
13	DB2	H/L	Data bus bit 2
14	DB3	H/L	Data bus bit 3
15	DB4	H/L	Data bus bit 4
16	DB5	H/L	Data bus bit 5
17	DB6	H/L	Data bus bit 6
18	DB7	H/L	Data bus bit 7
19	FS	H/L	Font Select Signal (H: 6 x 8 Dots, L: 8 x 8 Dots)
20	NC	-	No Connect
21	+	-	Backlight
22	-	-	Backlight

* BACKLIGHT CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

LED Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V_f	$I_f = 540\text{mA}$	4.2	4.6		V
Reverse Current	I_r	$V_r = 10V$		0.65		mA
Luminous Intensity	I_k	$I_f = 540\text{mA}$	45	150		mCD
Peak Emission Wave Length		$I_f = 540\text{mA}$		565		nm
Spectral Line Half Width		$I_f = 540\text{mA}$		40		nm

EL	Item	Symbol	Standard	Unit
EL	Voltage	V_{el}	Typ	Vrms
	Frequency	F_{el}	100	Hz
	Current	I_{el}	12.3	15.7 mA