

FEATURES

AVAILABLE OPTIONS	CHARACTERISTICS	CODE	No.
DISPLAY FORMAT	16 Characters by 2 Lines	FC1604A04	1~6
POLARIZER OPTIONS	Positive Reflective	R	7
BACKLIGHT TYPE OPTIONS	No Backlight	N	8
BACKLIGHT COLOR OPTIONS	No Backlight	N	9
LCD PANEL OPTIONS	Yellow-Green STN	Y	10
VIEWING ANGLE OPTIONS	6:00 (Bottom)	B	11
TEMPERATURE RANGE OPTIONS	-20°C ~ 70°C, Positive Voltage Driving Only	W	12
SUGGESTED DRIVING VOLTAGE	V _{lcm} = 3.0V	1	13
SUGGESTED LED DRIVING MODE	No Backlight	6	14
CONTROLLER ▲1	SPLC780D	L	15
FONT MAP CODE	E Version	E	16
DRIVING DUTY	1/16	—	—
DRIVING BIAS	1/5	—	—

▲1 Please ask for datasheet of the mentioned controller from FORDATA or FORDATA's authorized distributors. You can find the related information including AC & DC characteristics, Write & Read Timing diagram, Instruction table and descriptions, DDRAM & CGRAM, Rest Function and so on from the datasheet of controller.

▲1 You can ask for the example of software program (C language) from FORDATA or FORDATA's authorized distributors.

MECHANICAL SPECIFICATIONS

OVERALL SIZE	87.0W x 60.0H	mm	THICKNESS	max 9.5	mm
VIEWING AREA	61.8W x 25.2H	mm	HOLE-HOLE	82.0W x 55.0H	mm
CHARACTER SIZE	2.96W x 4.76H	mm	CHARACTER PITCH	0.59W x 0.59H	mm
DOT SIZE	0.56W x 0.56H	mm	DOT PITCH	0.04W x 0.04H	mm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
POWER SUPPLY (LOGIC)	V _{dd}	25°C	-0.3	—	7.0	V
POWER SUPPLY (LCD)	V ₀	25°C	V _{dd} -13.5	—	V _{dd} +0.3	V
INPUT VOLTAGE	V _{in}	25°C	-0.3	—	V _{dd} +0.3	V
OPERATING TEMPERATURE	V _{opr}	—	-20	—	70	°C
STORAGE TEMPERATURE	V _{stg}	—	-30	—	80	°C

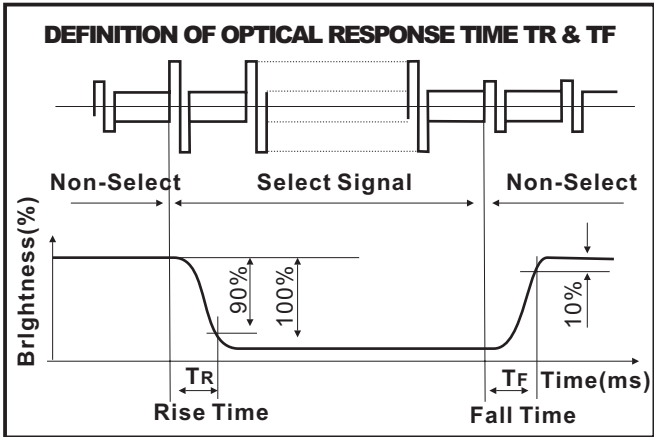
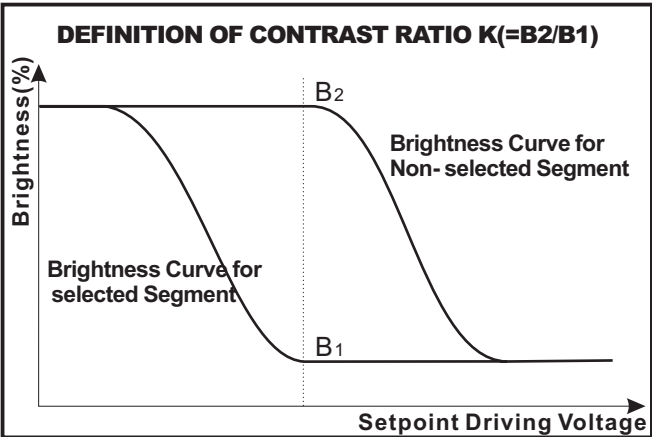
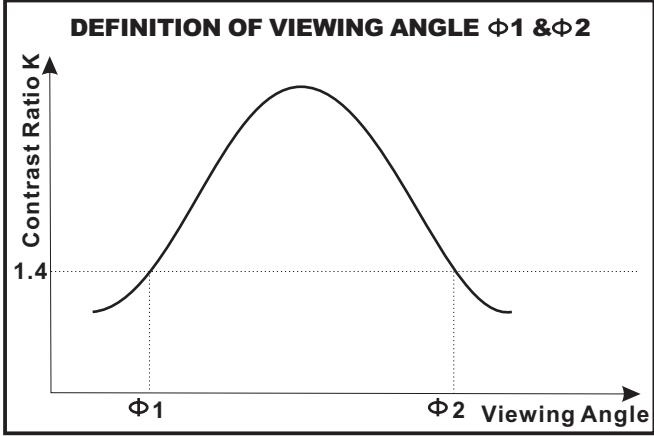
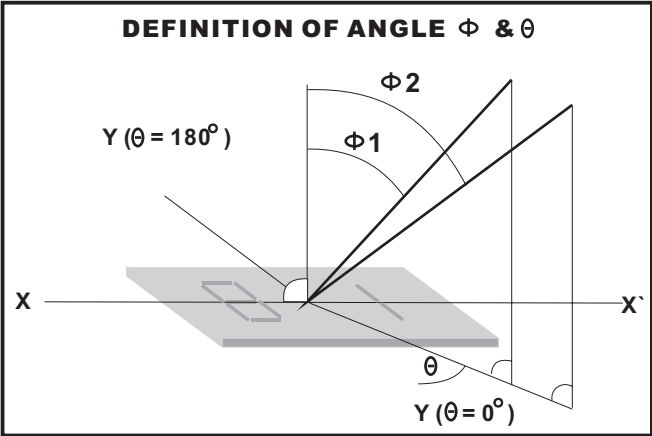
ELECTRONIC CHARACTERISTICS *

ICONS	ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
	INPUT VOLTAGE	V _{lcm} = V _{dd}	—	—	3.0	—	V
	SUPPLY CURRENT	I _{dd}	V _{dd} =3V	—	1.5	—	mA
	DRIVING VOLTAGE FOR LCD PANEL	V _{lcd} = (V _{dd} - V ₀)	-20°C	—	—	—	V
			0°C	—	—	—	
			25°C	—	—	—	
			50°C	—	—	—	
			70°C	—	—	—	

* All data are recorded from TEST REPORT #FSYP000700046



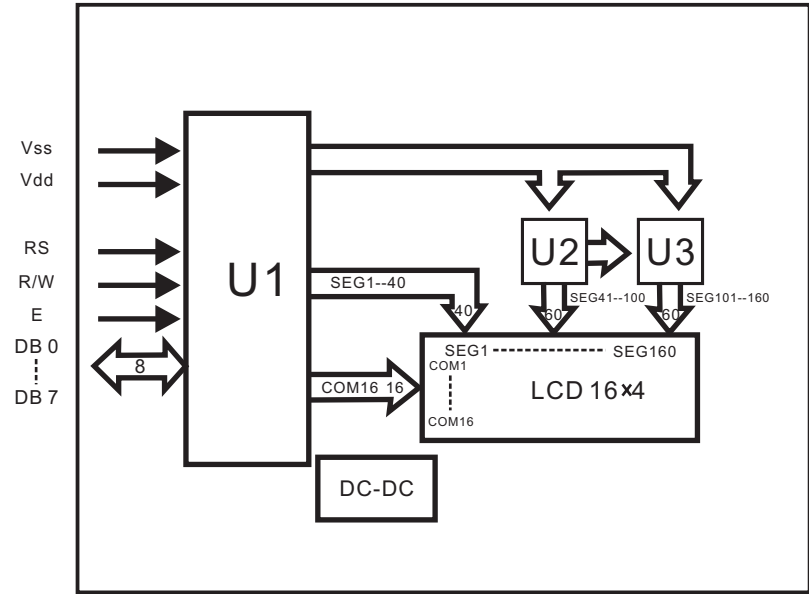
FOR STN/FSTN TYPE LCD Panel (TA=25 °C, Vdd=3.0V ± 0.25V)							
ICONS	ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
	VIEWING ANGLE	$\Phi 2 - \Phi 1$	K=4	40	—	—	deg
		θ		60			
	CONTRAST RATIO	K	—	—	10	—	—
	RESPONSE TIME(RISE)	TR	—	—	150	250	ms
	RESPONSE TIME(FALL)	TF	—	—	150	250	ms



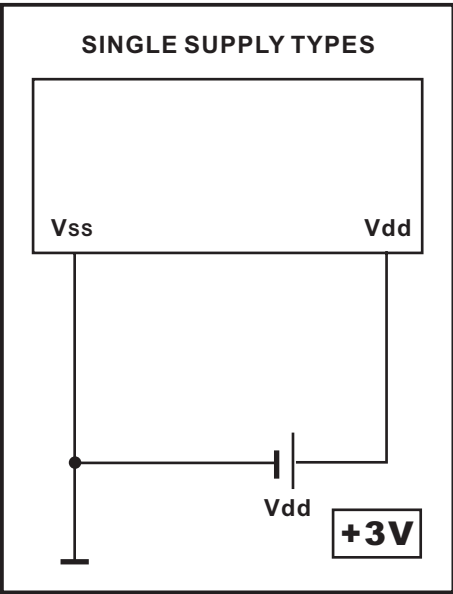
PIN ASSIGNMENT

PIN	SYMBOL	DESCRIPTION	REMARKS
1	Vss	GND	
2	Vdd	Power supply for LCM	3.0V
3	NC	No connection	
4	RS	Register Select Signal	
5	R/W	Data Read / Write	
6	E	Enable Signal	
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	NC	No connection	
16	NC	No connection	

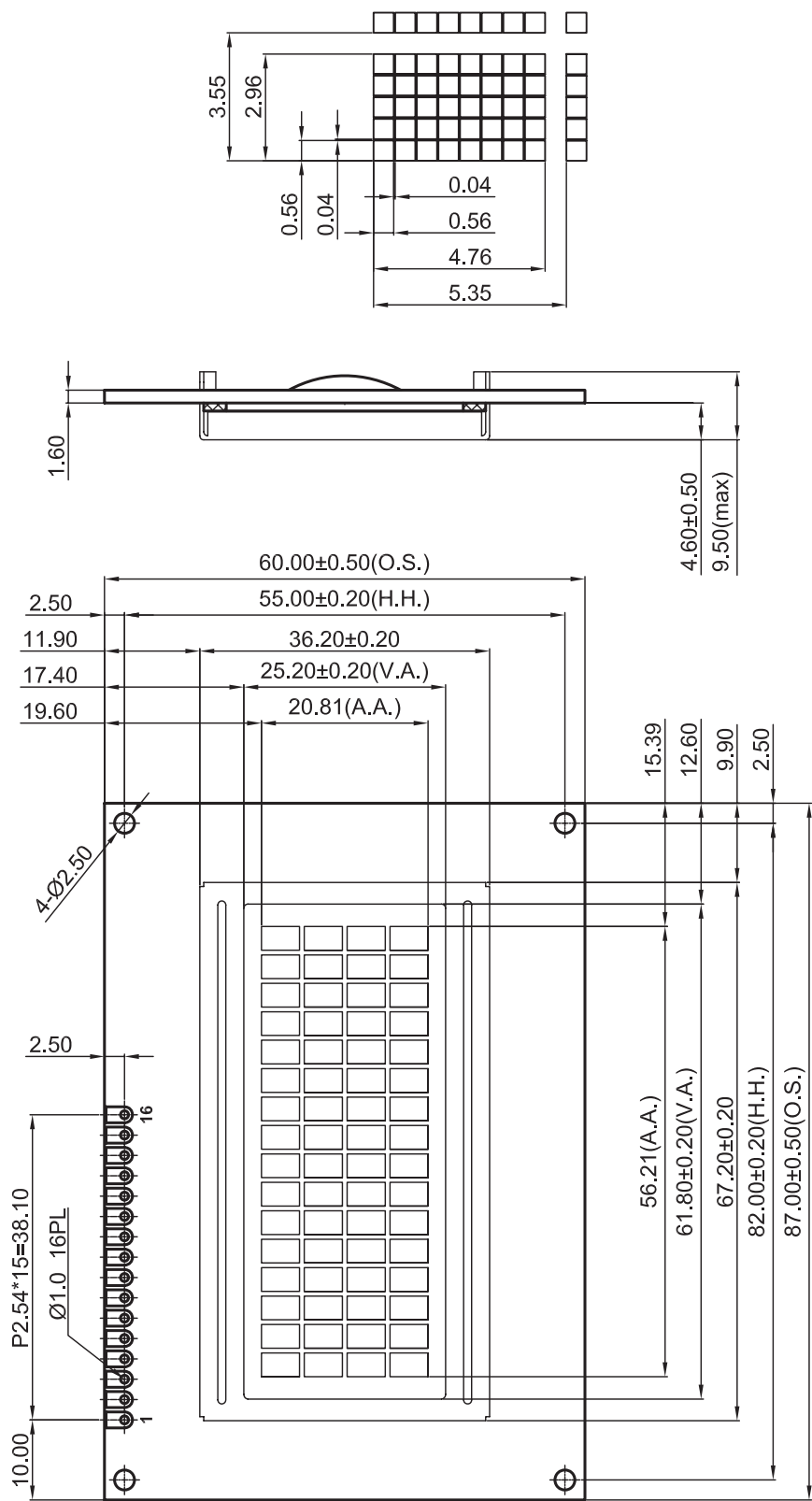
BLOCK DIAGRAM



POWER SUPPLY DIAGRAM



Upper 4bit Lower 4bit		LLLL	LLHH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHHL	HHHH
LLLL	CG RAM (1)															
LLHH	(2)															
LLHL	(3)															
LLHH	(4)															
LHLL	(5)															
LHLH	(6)															
LHHL	(7)															
LHHH	(8)															
HLLL	(1)															
HLLH	(2)															
HLHL	(3)															
HLHH	(4)															
HHLL	(5)															
HHHL	(6)															
HHHL	(7)															
HHHH	(8)															



FULL-SIZED PACKAGE
30 PCS/BOX
8 BOXES/CARTON
240 PCS/CARTON
18.00 KGS/CTN(G.W.)
0.054 M ³ /CARTON

HALF-SIZED PACKAGE
30 PCS/BOX
4 BOXES/CARTON
120 PCS/CARTON
9.00 KGS/CTN(G.W.)
0.027 M ³ /CARTON

PACKING DECLARATION

1. This packaging information is for reference only. The actual information is subject to the actual packaging. Especially for packaging of LCL, tolerances may exist.
2. FORDATA will not be responsible for quality problems caused by unnormal transportation conditions (including but not limited to climate factors or human factors, such as improper handling).

