GENERAL SPECIFICATION

Item	Content
Number of Character	160x160
Module Size	89.2(W)x85.0(H)x10.4/14.4(D)mm Max
Viewing Area	62.0(W)x62.0(H)mm
Dot Size/Dot Pitch	0.34(W)x0.34(H)mm/0.38(W)x0.38(H)mm
Backlight	Without/EL/LED
Options	FSTN Negative/Positive/Gray STN/Yellow STN/Normal/Extended Temperature/Bottom Viewing
Built-in Controller	None

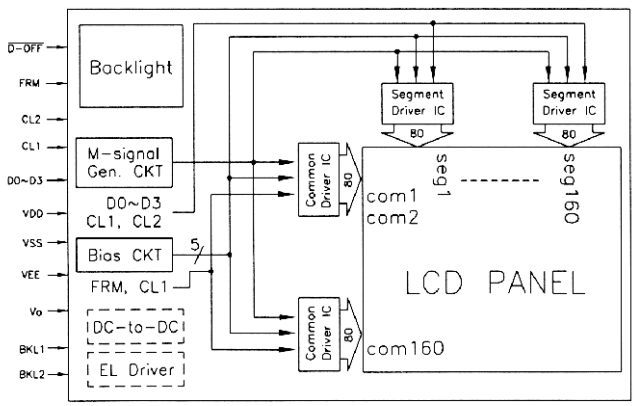
ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min.	Typ	Max.	Unit	note
Power Supply for Logic	V_{DD}-V_{SS}	-	2.7	3.0	5.5	Volt	-
Input Voltage	V_{IL}	L level	V_{SS}	$0.2V_{DD}$	-	Volt	-
	V_{IH}	H level	$0.8V_{DD}$	V_{DD}	-	Volt	-
LCM Recommend LCD Module Driving Voltage	V_{DD}-V_O	Ta=20°C	19.4	19.6	19.8	Volt	-
		Ta=25°C	18.7	19.0	19.2	Volt	-
		Ta=50° C	17.8	18.0	18.2	Volt	-
Power Supply Current for LCM	I_{DD}	V_{DD}=4.5V V_{DD}-V_O=19.0V FLM=64Hz	-	1.8	2.5	mA	-
	I_{EE}		-	2.0	2.3	mA	-

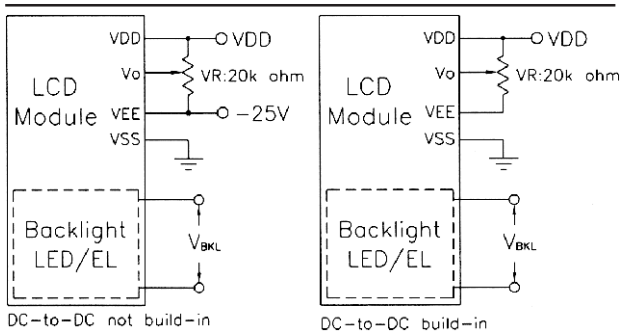
INTERFACE PIN ASSIGNMENT

Pin No.	Pin Out	Function Description
1	V_{SS}	GND
2	NC	No connection
3	FLM	Frame start signal (Data signal from the common driver shift register)
4	CL1	Common driver data shift signal: also latches the data of the line immediately above.
5	CL2	Clock pulse for segment shift register
6~9	D3~D0	Data Bus
10	V_{EE}	LCD driver supply voltage
11	V_{DD}	Logic supply voltage
12	V_O	Bias voltage for LCD panel, tuning from V_{DD}-V_{EE}
13	DispOff	Display off, active Low
14	BKLK	Power supply for backlight. See Jumper Explanation below. 100V/400Hz AC for EL, 4.2V or 350~500mA DC for LED backlight. Don't care if no backlight
15	BKLA	

BLOCK DIAGRAM



POWER SUPPLY



V_{BKL}: LED, 4.2VDC or 5V with current-limiting Resistors
EL, 100VAC/400Hz

MECHANICAL