

## GENERAL SPECIFICATION

Item	Content
Number of Character	320x240
Module Size	167.1(W)x109.0(H)x11.0(D)mm Max
Viewing Area	122.0(W)x92.0(H)mm
Dot Size/Dot Pitch	0.34(W)x0.34(H)mm/0.36(W)x0.36(H)mm
Backlight	CCFL
Options	Black & White Positive/Negative/Extended Temperature/Bottom Viewing
Built-In Controller	none

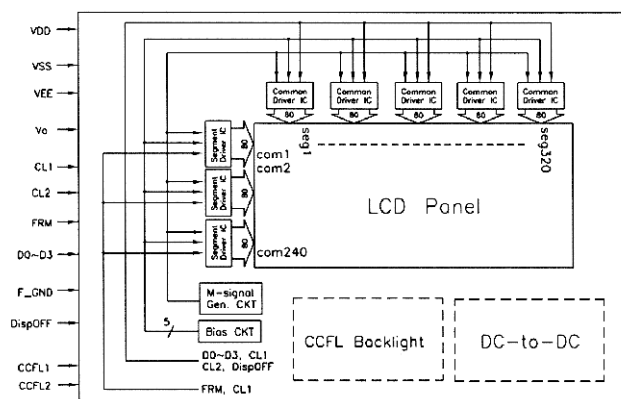
## ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min.	Typ	Max.	Unit	note
Power Supply for Logic	$V_{DD}-V_{SS}$	-	2.7	4.5	5.5	Volt	-
Input Voltage	$V_{IL}$	L level	$V_{SS}$	$0.2V_{DD}$	-		
	$V_{IH}$	H level	$0.8V_{DD}$	$V_{DD}$	-		
LCM Recommend LCD Module Driving Voltage	$V_{DD}-V_O$	$T_a=0^{\circ}C$	21.7	22.2	22.7	Volt	-
		$T_a=25^{\circ}C$	20.8	21.2	21.6		
		$T_a=50^{\circ}C$	20.1	20.6	21.1		
Power Supply Current for LCM	$I_{DD}(B/L OFF)$	$V_{DD}=4.5V$ $T_a=25^{\circ}C$	-	3.4	-	mA	-
	$I_{EE}$	$V_{EE}-V_{SS}=21.2V$	-	2.9	-		
CCFL Starting Voltage	$V_{FLS}$	FLM=64Hz $T_a=25^{\circ}C$	-	750	-	$V_{RMS}$	-
CCFL driving Voltage	$V_{CCFL}$		-	360	-	$V_{RMS}$	-
CCFL driving Current	$I_{CCFL}$	$V_{CCFL}=450V_{RMS}$	-	5.0	-	mA	-
CCFL driving Frequency	$F_{CCFL}$	$F_{CCFL}=30KHz$ $T_a=25^{\circ}C$	15	30	85	$KHz$	-
CCFL Saturation Time	$T_{SAT}$		-	1	-	minut	-

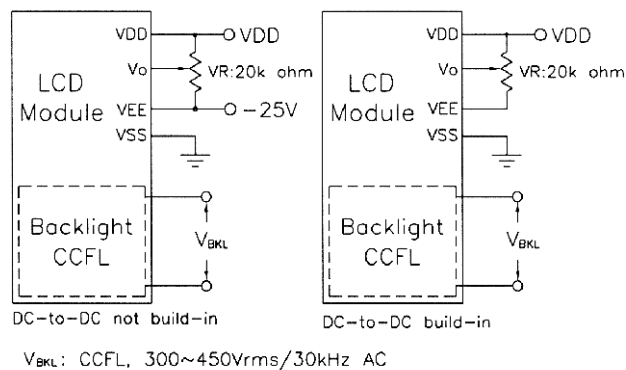
## INTERFACE PIN ASSIGNMENT

Pin No.	Pin Out	Function Description
1~4	DB0~DB3	Data input signal
5	D/OFF	Display off. Active Low
6	FRM	Frame start signal (Data signal from the common driver shift register)
7	NC	No connection
8	CL1	Common driver data shift signal: also latches the data of the line immediately above.
9	CL2	Clock pulse for segment shift register
10	$V_{DD}$	Logic supply voltage
11	$V_{SS}$	GND
12	$V_{EE}$	Negative power supply voltage
13	$V_O$	Power supply for LCD panel
14	FGND	Frame ground

## BLOCK DIAGRAM



## POWER SUPPLY



## MECHANICAL

