

# Deepakshi display devices pvt ltd.

## DC CHARACTERISTICS

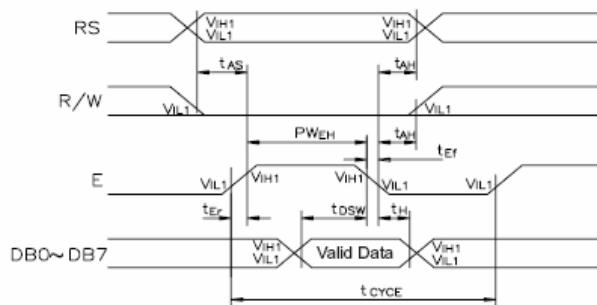
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT	APPLICABLE TERMINAL
			MIN	TYP	MAX		
Power Supply Voltage	$V_{DD}$		4.5	5	5.5	V	$V_{CC}$
Input "H" Level Voltage	$V_{IH1}$		2.2	-	$V_{DD}$	V	RS,R/ $\bar{W}$ ,E,DB <sub>0</sub> ~DB <sub>7</sub>
Input "L" Level Voltage	$V_{IL1}$		-0.3	-	0.6	V	
Output "H" Level Voltage	$V_{OH}$	$I_{OH}=0.205\text{ mA}$	2.4	-	-	V	DB <sub>0</sub> ~DB <sub>7</sub>
Output "L" Level Voltage	$V_{OL}$	$I_{OL}=1.2\text{ mA}$	-	-	0.4	V	
Input Leakage Current	$I_{LI}$	$V_{IN}=0\sim V_{DD}$	-1	-	1	$\mu\text{A}$	RS,R/ $\bar{W}$ ,E,DB <sub>0</sub> ~DB <sub>7</sub>
Power Supply current	$I_{DD}$	$V_{DD}=5\text{V}$	-	-	3	mA	$V_{CC}$
LCD Power Supply Voltage	$V_{LCD}$	$V_{DD}-V_0$	3	-		V	$V_0$

## AC CHARACTERISTICS

ITEM	SYMBOL	MIN	MAX	UNIT
Enable Cycle Time	$t_{CYCE}$	500	-	ns
Enable Pulse Width	"High Level" $P_{WEH}$	230	-	ns
Enable Rise/Fall Time	$t_{ER}, t_{EF}$	-	20	ns
Address Set-up Time	RS,R/ $\bar{W}$ to E $t_{AS}$	40	-	ns
Address Hold Time	$t_{AH}$	10	-	ns
Data Set-up Time	$t_{DSW}$	80	-	ns
Data delay Time	$t_{DDR}$	-	160	ns
Data Hold Time (Writing)	$t_H$	10	-	ns
Data Hold Time (Reading)	$t_{DHR}$	5	-	ns
Clock Oscillation Frequency	$f_{OSC}$	270 (TYP.)		KHz

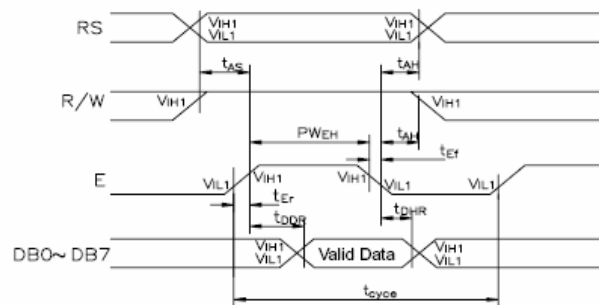
## TIMING CHARACTERISTICS

FIG.1 WRITE OPERATION



(Write Data from MPU to MODULE)

FIG.2 READ OPERATION



(Read Data from MODULE to MPU)