



DISPLAY COMMANDS

INSTRUCTION	CODE										Description
	RS	R/W	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	
1: Clear Display	0	0	0	0	0	0	0	0	0	1	Clears entire display and sets DD RAM address 0 in address counter .
2: Return Home	0	0	0	0	0	0	0	0	0	1 *	Sets DD RAM address 0 in address counter . Also returns display from being shifted to original position . DD RAM contents remain unchanged .
3: Entry Mode Set	0	0	0	0	0	0	0	0	1	I/ D S	I/D=1 : Increment I/D=0 : Increment S=1 : Accompanies display shift
4: Display On/Off	0	0	0	0	0	0	0	1	D	C B	I/D=1/0 : Display on/off I/D=0/1 : cursor on/off S=1 : Blink of cursor
5: Cursor /Display shift	0	0	0	0	0	0	1	S/C	R/L	* *	S/C=1 : Display shift S/C=0 : Cursor move R/L=0 : Shift to left R/L=1 : Shift to right
6:Function Set	0	0	0	0	1	DL	N	F	*	*	DL=1 : 8 bits , DL=0 : 4 bits N=1 : 2 lines , N=0 : 1 line F=1 : 5*10 dots , F=0 : 5*8 dots
7: Set CG RAM Address	0	0	0	1	A _{CG}					A _{CG} : CG RAM address	
8: Set DD RAM address	0	0	1	A _{DD}					A _{DD} : DD RAM address corresponds to cursor address		
9: Read busy flag/address counter	0	1	BF	A _c					BF=1 : Busy , BF=0 : Not busy A _c : Address counter used for both of CG and DD RAM address		
10:Write data	1	0	WRITE DATA					Write data to CG or DD RAM			
11:Read data	1	1	READ DTAT					Read data from CG or DD RAM			

☆ Execution Time (Et) of Instruction : (Under condition of or fosc = 270 KHz)

1 & 2 : Et=1.52 ms

3 ~ 11 : Et=37 μs

☆ " * " : Either 0 or 1

CONNECTING BLOCK DIAGRAM

Example of Interface with 8-bit MPU (Z80)

