



### Feature

1. Built-in controller Samsung- (KS0713)
2. +3V or +5V Power supply
3. 1/65 duty cycle
4. Optional touch panel

### Pin Assignment

Pin	Symbol	Pin	Symbol
1	NC	24	CLS
2	TEMPS	25	MS
3	INTRS	26	DUTY1
4	HPM	27	DUTY0
5	DCDC5B	28	DB7
6	BSTS	29	DB6
7	V4	30	DB5
8	V3	31	DB4
9	V2	32	DB3
10	V1	33	DB2
11	V0	34	DB1
12	VR	35	DB0
13	C2-	36	E_RD
14	C2+	37	RW_WR
15	C1-	38	RS
16	C1+	39	RESETB
17	C3-	40	CS2
18	C3+	41	CS1B
19	Vout	42	DISP
20	Vdd	43	CL
21	Vss	44	M
22	PS	45	FRS
23	MI	46	NC

### Mechanical Data

Item	Standard Value	Unit
Module Dimension	56.0 x 42.5	mm
Viewing Area	52.0 x 33.5	mm
Dot Size	0.35 x 0.4	mm
Dot Pitch	0.37 x 0.42	mm

### Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	-2.4	--	5.5	V
Input Voltage	VI	-0.3	--	VDD	V

Note: VSS=0 Volt, VDD=5.0 Volt.

### Electronical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	L level	0.8V <sub>DD</sub>	--	V <sub>DD</sub>	V
	VIO	H level	--	--	--	V
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	9.5	10.0	10.5	V
		0°C	9.3	9.8	10.3	
		25°C	7.9	8.4	8.9	
		50°C	7.0	7.5	8.0	
		70°C	6.8	7.3	7.8	