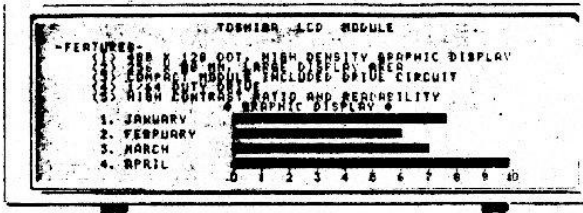


TLC-272



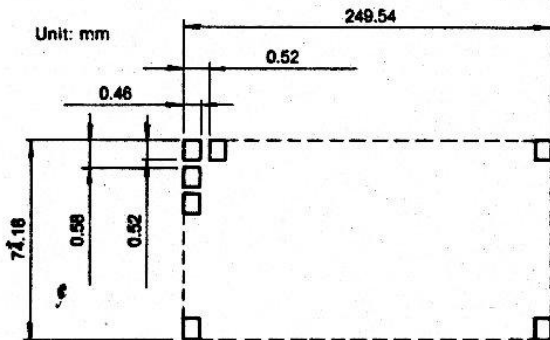
- 480 (Horiz.) × 128 (Vert.) dots.
- Build in timing control CIRCUIT

MAXIMUM RATINGS

Please make sure not to exceed following maximum rating values under the worst probable conditions.

Item	Symbol	Rating	Unit
Supply Voltage	V _{DD}	7	V
	V _{DD} -V _{EE}	15	V
Input Voltage	V _{IN}	0 ≤ V _{IN} ≤ V _{DD}	V
Operating Temperature	T _{OP}	0 to 50	°C
Storage Temperature	T _{STG}	-20 to 70	°C

DIMENSIONS OF DOT MATRIX



MECHANICAL CHARACTERISTICS

Item	Specification	Unit
Outline Dimension	274.0 W × 96.4 H × 20.0 D	mm
Number of Dots	480 × 128	—
Number of Characters	80 × 16 (1280) Characters (6 × 8 dot format, alpha-numeric)	—
Viewing Area	254.46 W × 81 H	mm
Bezel Opening	255.46 W × 82 H	mm
Dot Size	0.46 W × 0.52 H	mm
Dot Pitch	0.52 (Horiz.), 0.58 (Vert.)	mm
Weight	320	g

ELECTRICAL CHARACTERISTICS

Item	Symbol	MIN.	TYP.	MAX.	Unit
Supply Voltage	V _{DD}	4.75	5.0	5.25	V
	V _{DD} -V _{EE}	11	13	15	V
"H" Level Input Voltage	V _{IH}	+4.0	—	V _{DD}	V
"L" Level Input Voltage	V _{IL}	0	—	+0.5	V
Power Consumption	P _O	—	200	—	mW

Recommended power supply for LCD drive (V_{DD}-V_{EE})

LCD Panel is driven by the voltage V_{DD}-V_{EE}, so adjustable V_{EE} is required for contrast control and temperature compensation.

Temperature (°C)	V _{DD} -V _{EE}
0°C	14.1V
25°C	13.0V
50°C	11.1V

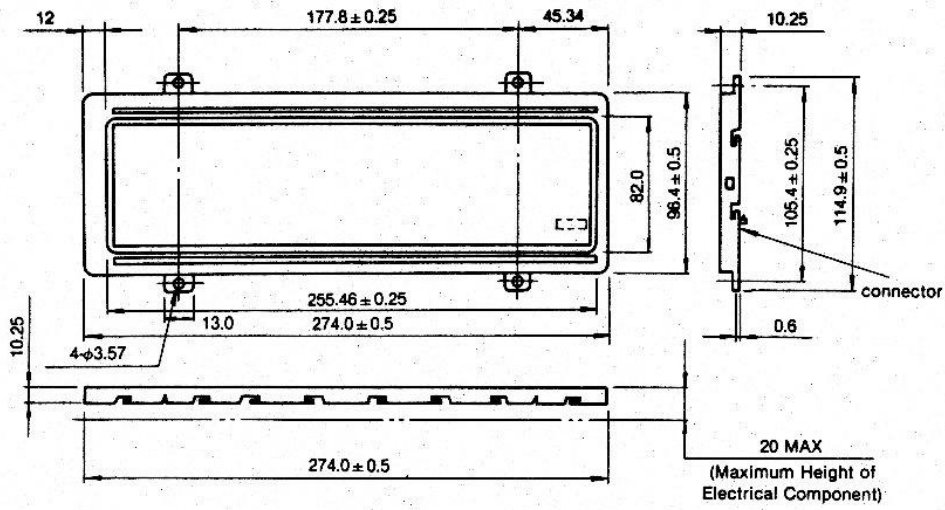
CONNECTOR PIN ASSIGNMENT

Pin No.	Symbol	Interfaces Signal
1	V _{DD}	Power Supply (+5V)
2	NC	No. Connection
3	DATA	Data Input
4	CLOCK	Clock
5	VSYNC	Vertical Synchronizing signal
6	HSYNC	Horizontal Synchronizing signal
7	GND	Ground (0V)
8	V _{EE}	Power Supply (-8 ± 2V, Variable for contrast control)

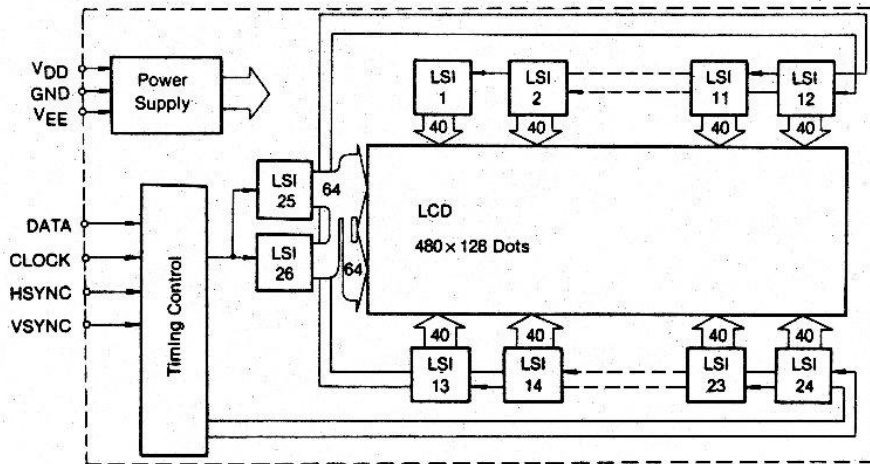
CONNECTOR: 5046-08A (MOLEX)

DIMENSIONAL OUTLINE

Unit: mm

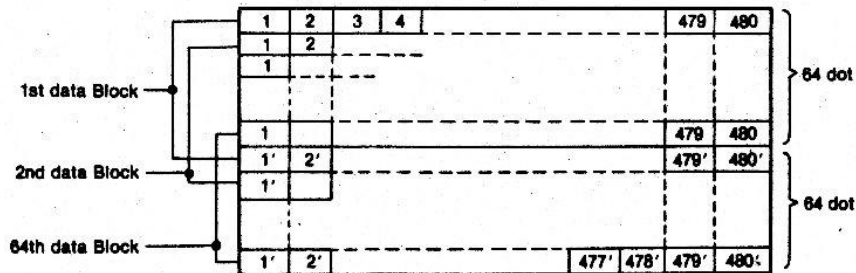


BLOCK DIAGRAM



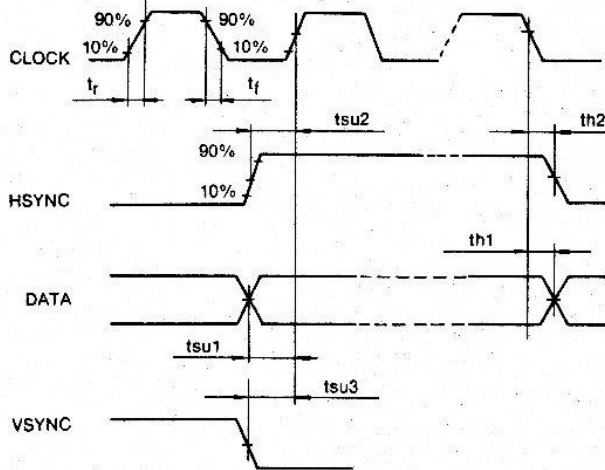
INTERFACE See page 38 to 39.

DATA MAP



INTERFACE for TLC-272

TIMING CHARACTERISTICS



TIMING CHARACTERISTICS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Clock Frequency	f_{CL}	3.5	3.94	4.4	MHz
Input Signal Rise Time	t_r	—	—	10	ns
Input Signal Fall Time	t_f	—	—	10	ns
Data Set up Time	t_{su1}	25	—	—	ns
Data Hold Time	t_{h1}	—	—	5	ns
HSYNC Set up Time	t_{su2}	25	—	—	ns
HSYNC Hold Time	t_{h2}	—	—	5	ns
VSYNC Set up Time	t_{su3}	25	—	—	ns
VSYNC Cycle Time	T_{VSYNC}	14	16	18	ms

TIMING CHART

