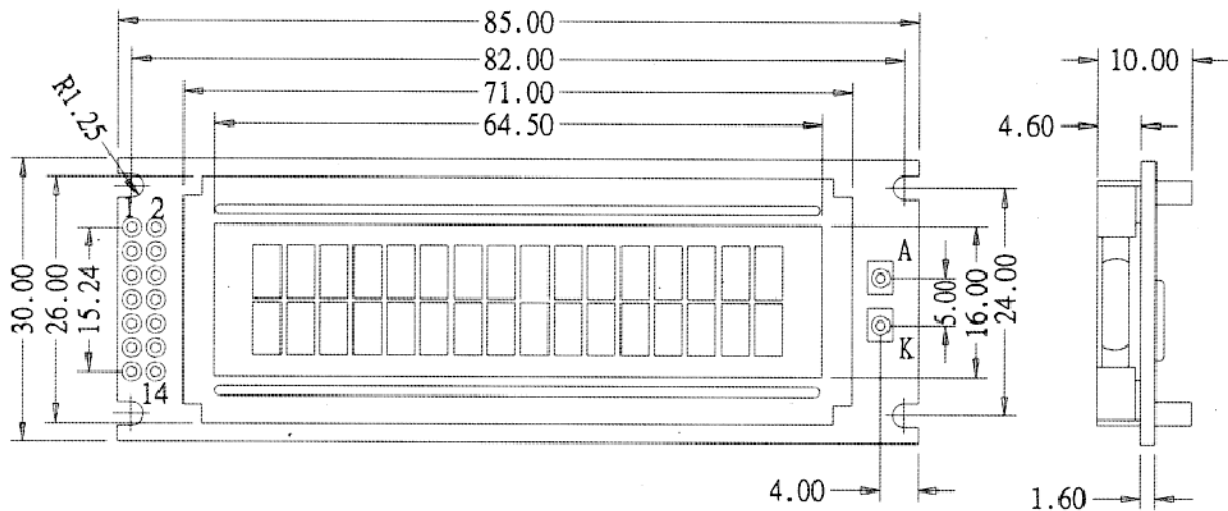


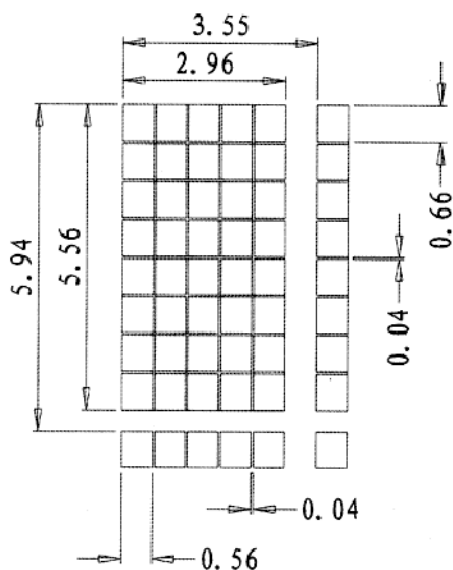
ITM-1602D

1/16 DUTY, 1/5 BIAS
16 CHAR. X 2 LINES

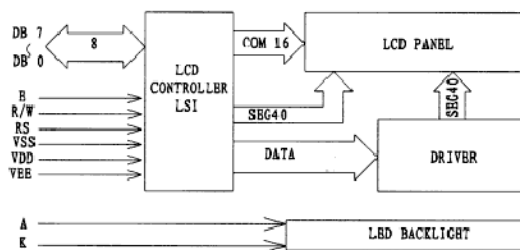
1 EXTERNAL DIMENSION



2 DISPLAY DOTS



3 BLOCK DIAGRAM



4 PIN CONNECTIONS

PIN NO	1	2	3	4	5	6	7	8
SIGNAL	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
PIN NO	9	10	11	12	13	14		
SIGNAL	E	RW	RS	VEE	VSS	VDD		

ITM-1602 D

1/16 DUTY, 1/5 BIAS
16 CHAR. X 2 LINES

5 ELECTRICAL CHARACTERISTICS (T_a=25°C, V_{DD}=5.0V±0.5V)

ITEM	SYMBOL	TEST CONDITION	MIN	TYPE	MAX	UNIT
Input High Voltage	V _{IH}	-	2.2	-	V _{DD}	V
Input Low Voltage	V _{IL}	-	-0.3	-	0.6	V
Output High Voltage	V _{OH}	I _{OH} = 0.205mA	2.4	-	-	V
Output Low Voltage	V _{OL}	I _{OL} = 1.6mA	0	-	0.4	V
Supply Current	I _{DD}	V _{DD} = 5.0V	-	1.5	3.0	mA

6 ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V _{DD}	+4.5V ~ +5.5V	V
Lcd Supply Voltage	V _{EE}	V _{DD} - 13.5 ~ V _{DD} + 0.3	V
Input Voltage	V _r	V _{SS} ~ V _{DD}	V
Operating Temperature	T _{opr}	0 ~ +50	°C
Storage Temperature	T _{stg}	-20 ~ +70	°C

7 MECHANICAL SPECIFICATION

PARAMETER	DIMENSIONS (mm)
Overall Size	85.0 X 30.0 X 10.0
Viewing Area	64.5 X 16.0
Character Size	5.56 X 2.96
Character Pitch	5.94 X 3.55
Dot Size	0.66 X 0.56
Weight	30 (g)
Overall Size with Led B/L	85.0 X 30.0 X 10.0

8 FEATURE

PART NUMBER	LCD MODE	B/L
ITM-1602DTR	TN REFLECTIVE	--
ITM-1602DSR	STN REFLECTIVE	--
ITM-1602DTTL	TN TRANSFLECTIVE	LED
ITM-1602DSTL	STN TRANSFLECTIVE	LED