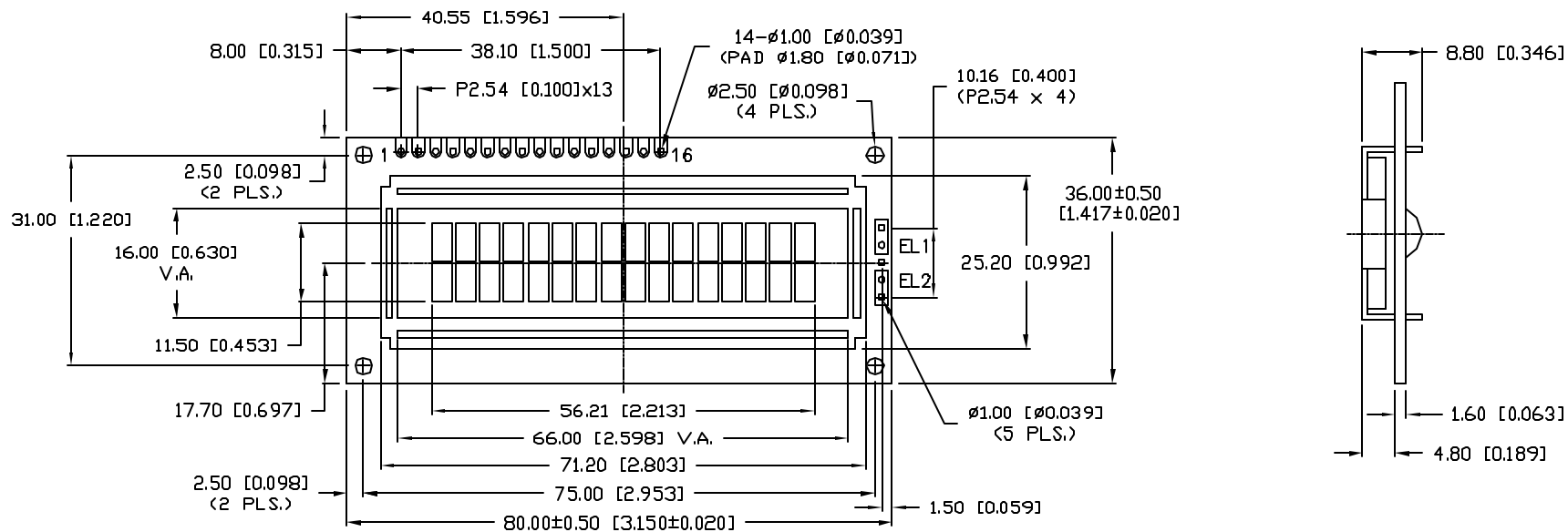
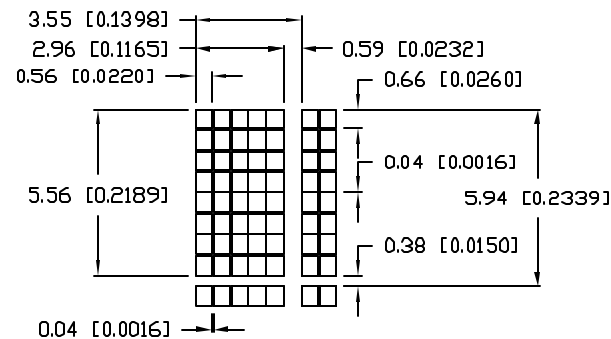


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

CHARACTER DETAIL



UNCONTROLLED DOCUMENT

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030), MIN.= +DECIMAL PRECISION -0.00, MAX.= +0.00 -DECIMAL PRECISION

REV.

PART NUMBER

LCM-S01602DTF+A-13

5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, RELECTIVE,
16x2 LCD MODULE, 1/16 DUTY, 1/5 BIAS,
TN, TRANSFLECTIVE, 3V, WHITE EL BACKLIGHT.

CONFIDENTIAL INFORMATION

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



290 E. HELEN ROAD
PALATINE, IL 60067-6976
PHONE: +1.847.359.2790
US WEB: www.lumex.com
TW WEB: www.lumex.com.tw

DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 7.27.04

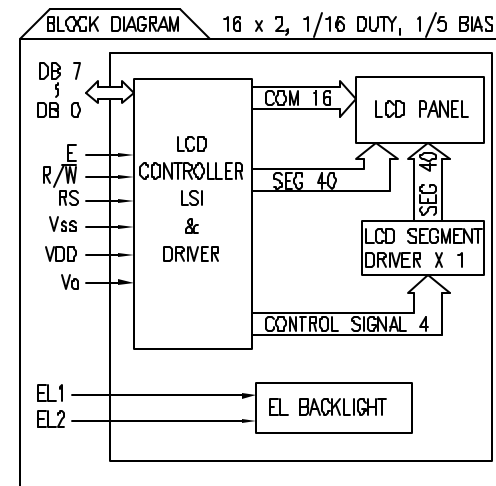
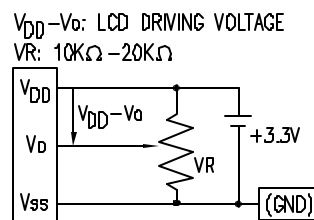
PAGE: 1 OF 2

SCALE: N/A

JD

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	-	POWER SUPPLY
2	V _{DD}	-	
3	V _O	-	
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)
6	E	H,H->L	ENABLE
7~14	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE 4 OR 8 BIT MODE.
15	EL1		EL1 BACKLIGHT
16	EL2		EL2 BACKLIGHT



ELECTRICAL CHARACTERISTICS

V_{DD}=4.7V to 5.3V, T_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	-	5.0	-	V
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	-	1.6	2.5	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD}
		V _{IL}	-	0	-	0.6
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	V
		V _{OL}	-	-	0.4	V
EL BACKLIGHT	VOLTAGE	V _{EL}	F _{EL} =400Hz	-	100	150
	CURRENT	I _{EL}	V _{EL} =100Vrms	-	3.7	-
	FREQUENCY	F _{EL}	-	-	400	800
	LUMINOUS	L	100Vrms, 400Hz	50	-	-
	EXPECTED LIFE	-	-	-	5000	-

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	2.7	4.5	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	-	2.2@50°C	4.3@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030), MIN.=+DECIMAL PRECISION-0.00, MAX.=+0.00-DECIMAL PRECISION

REV.

PART NUMBER

LCM-S01602DTF/A-13

CONFIDENTIAL INFORMATION
THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



290 E. HELEN ROAD
PALATINE, IL 60067-6976
PHONE: +1.847.359.2790
US WEB: www.lumex.com
TW WEB: www.lumex.com.tw

5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, RELECTIVE,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS,
TN, TRANSFLECTIVE, 3V, WHITE EL BACKLIGHT.

DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 7.27.04

PAGE: 2 OF 2

SCALE: N/A

JD