

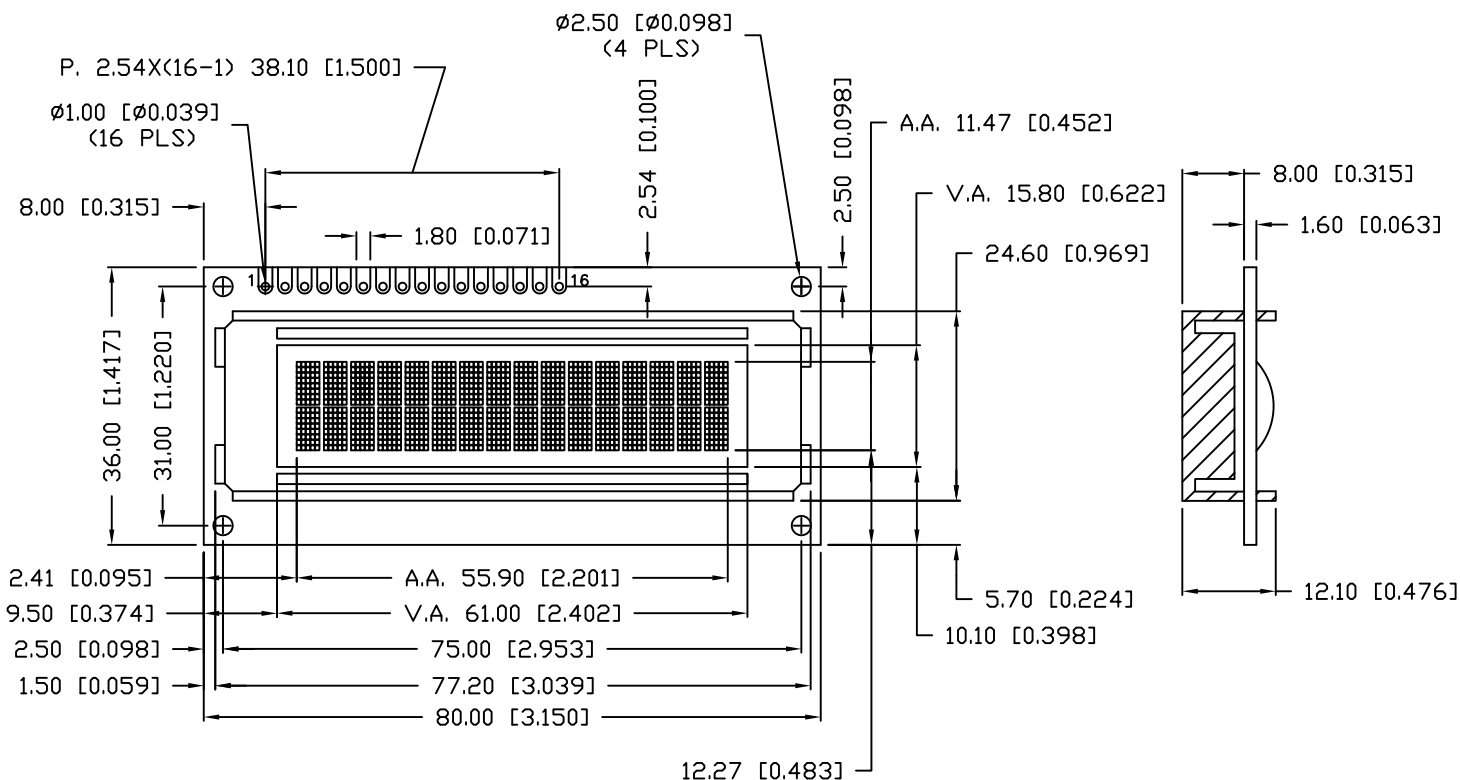
CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

PRELIMINARY IN P/N DIR

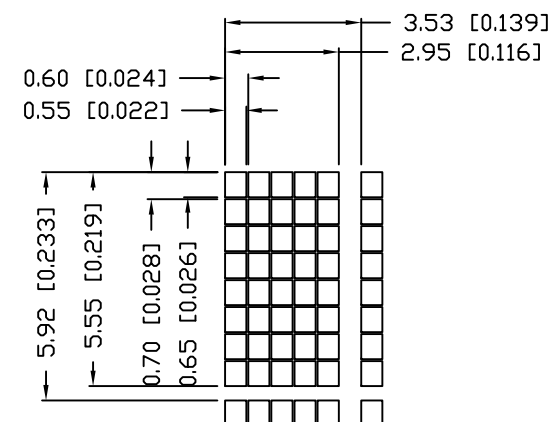
PART NUMBER

LCM-H01602DEN/A-W

REV.



CHARACTER DETAIL



NOTE:

1. THE DIMENSION IS FOR EBTN VERSIONS ONLY

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

REV.

PART NUMBER

LCM-H01602DEN/A-W

16X2 CHARACTER LCD MOD, EBTN,
TRANSMISSIVE, NEGATIVE IMAGE WHITE LED BLKT

CONFIDENTIAL INFORMATION

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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.



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DATE: 6.8.15

PAGE: 1 OF 2

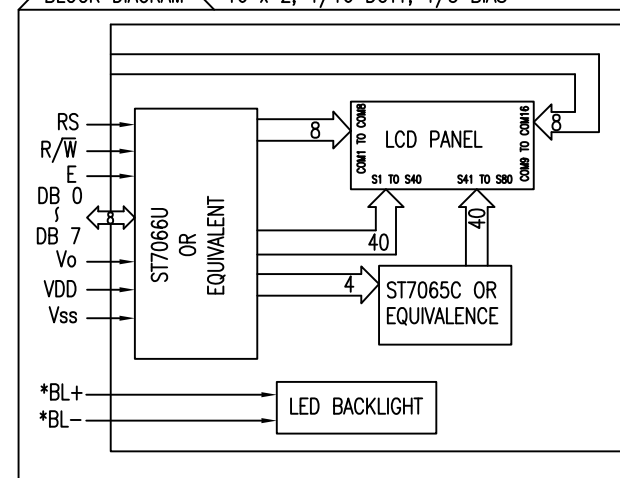
SCALE: N/A

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	—	POWER SUPPLY	GND (0V)
2	V _{DD}	—		5V
3	V _O	—		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/ $\overline{W}$	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	BL+	—	SUPPLY VOLTAGE FOR BACKLIGHT (+VE)	
*16	BL-	—	SUPPLY VOLTAGE FOR BACKLIGHT (-VE)	

PRELIMINARY IN P/N DIR

BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS



(*) NOTE: PIN 15 & 16 ARE USED FOR BACKLIGHT VERSIONS ONLY

ELECTRICAL CHARACTERISTICS

 $V_{SS}=0V, T_A=25^{\circ}C$

ITEM		SYMBOL	CONDITION	STANDARD VALUE			UNIT
				MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC		V_{DD}	—	4.75	5.0	5.25	V
SUPPLY CURRENT FOR LOGIC		I_{DD}	—	—	0.88	1.20	mA
LCD DRIVING VOLTAGE FOR EBTN		V_0	—	−4.45	−4.00	−3.55	V
INPUT VOLTAGE		V_{IH}	—	0.7V _{DD}	—	V _{DD}	V
HIGH LOW		V_{IL}	—	−0.3	—	0.6	V
*LED BACKLIGHT	VOLTAGE	V_f	If=40mA	—	3.5	—	V
	CURRENT	If	—	—	40	46	mA
	POWER CONSUMPTION	PD	—	—	140	—	mW
	COLOR	WHITE	—	—	—	—	—

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	VDD	Ta=25°C	-0.3	7	V
LCD DRIVING VOLTAGE FOR EBTN	VDD	—	-4.45	-3.55	V
INPUT VOLTAGE	V _I	Ta=25°C	-0.3	VDD+0.3	V
OPERATING TEMPERATURE	T _{opr}	LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-H	-30	80	°C

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