

SCALE: N/A

LCM-X01602CGXX/A-3

PRELIMINARY IN P/N DIR

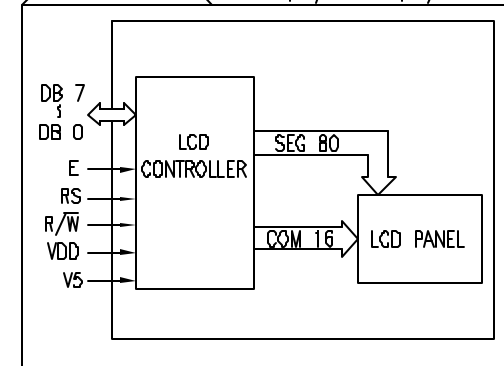
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	-	POWER SUPPLY GND (0V) FOR LCD DRIVE
2	V ₅	-	
3	V _{DD}	-	
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.

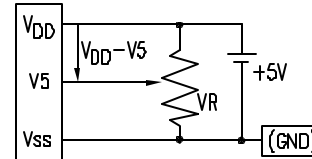
PIN CONFIGURATION

PAD NO.	CONFIGURATION
1	COM1[C1(R1-R80)]
8	COMB[C8(R1-R80)] SEG1[R1(C1-C16)]
9	
88	SEG80[R80(C1-C16)] COM16[C16(R1-R80)]
89	
96	COM9[C9(C1-C16)]

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



V_{DD}-V₅: LCD DRIVING VOLTAGE
VR: 10KΩ-20KΩ



ELECTRICAL CHARACTERISTICS

V_{DD}=4.7V to 5.3V, T_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	MIN.	TYP.	MAX.	
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	-	2.0	3.0	mA
INPUT VOLTAGE	V _{IH}	I _{QH} =-0.25mA	2.2	-	V _{DD}	V
	V _{IL}		-0.3	-	0.8	V
OUTPUT VOLTAGE	V _{OH}	I _{QH} =-0.25mA	2.4	-	-	V
	V _{OL}	I _{QL} =1.2mA	-	-	0.4	V
DRIVER VOLTAGE	V _{COM}	I _D =5μA	-	-	0.3	V
	V _{SEG}	I _D =5μA	-	-	0.3	V
INPUT LEAKAGE CURRENT	I _{IL}	V _{IN} =0 TO V _{DD}	-1	-	1	μA
PULL-UP MOS CURRENT	-I _P	V _{DD} =5V	30	75	150	μA
SUPPLY CURRENT POWER	I _{OP}	Rf OSCILL. FROM FROM EXT. CLOCK VDD=5V fosc=FCP=540KHz	-	1	1.5	mA

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V ₅	-	0	V _{DD} +0.3	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
		LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C
		LCM-H	-30	85	°C

*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

REV.

PART NUMBER

LCM-X01602CGXX/A-3

4.35mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
16 x 2 C.O.G LCD MODULE, 1/16 DUTY, 1/5 BIAS, 6:00 VIEW.

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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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SCALE: N/A

JD