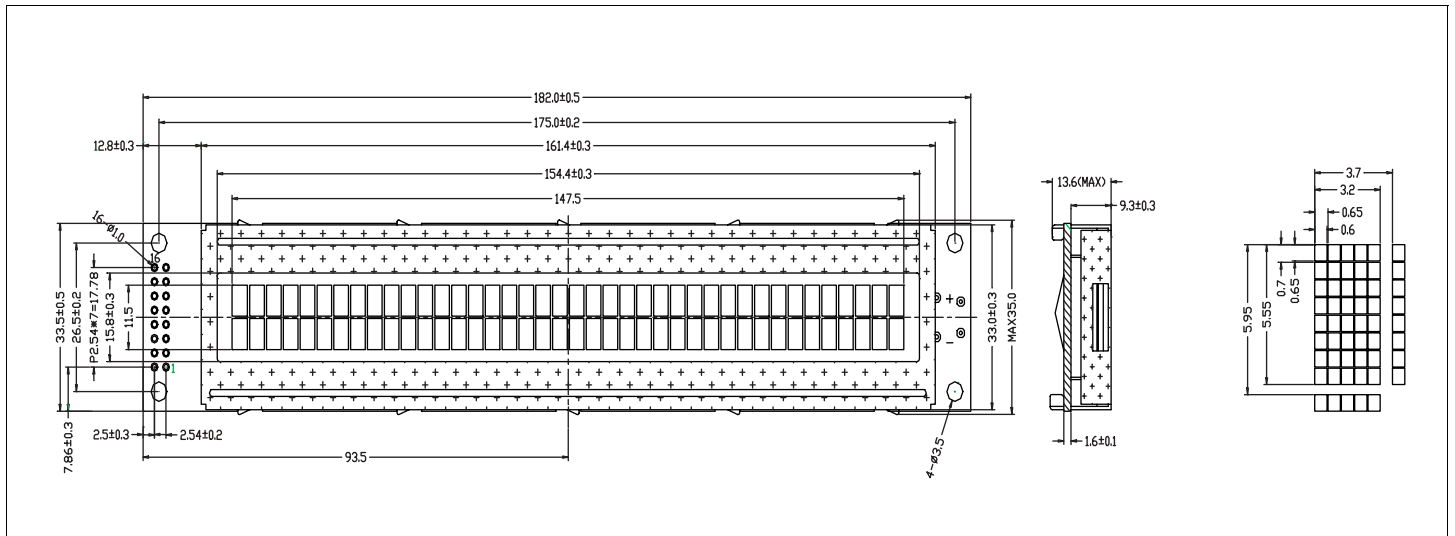


# HDM40216L-1

Dimensional Drawing

40 Character x 2 Lines, LED Backlight



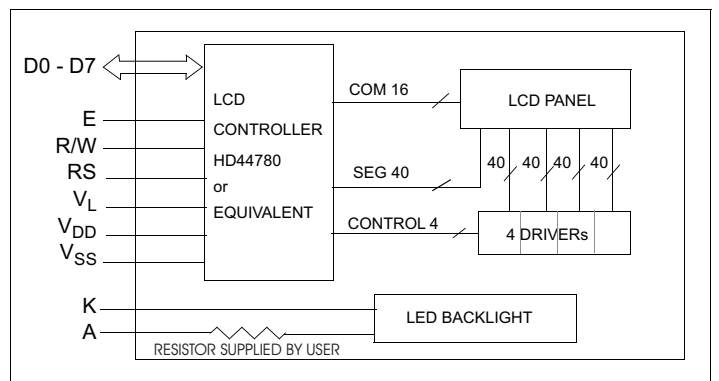
## Features

Character Format ..... 5x7 Dots with Cursor  
 Backlight.....White or Yellow LED  
 Options.....TN/Gray STN/Yellow STN, FSTN  
 12 o'Clock/6 o'Clock View  
 Normal/Extended Temperature  
 Normal/Negative Displays

## Physical Data

Module Size ..... 182.0W x 33.5H x 13.6T mm  
 Viewing Area Size..... 154.4W x 15.8H mm

## Block Diagram



## Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	0	7.0	V
SUPPLY VOLTAGE FOR LCD	$V_{DD}-V_L$	0	13.5	V
OPERATING TEMPERATURE	$T_{OP}$	0	50	°C
STORAGE TEMPERATURE	$T_{STG}$	-20	70	°C
LED REVERSE VOLTAGE (White)	$V_R$	-	5	V
(Yellow)		-	8	

## Electrical Characteristics (VDD=5.0±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
POWER SUPPLY CURRENT	$I_{DD}$	$V_{DD}=5.0V$	-	1.21	3.0	mA
POWER SUPPLY FOR LCD	$V_{DD}-V_L$	$T_A=25^\circ C$	4.2	4.7	5.2	V
LED FORWARD Vtg (White)	$V_F$	$I_F=40mA$	4.3	4.6	4.9	V
(Yellow/green)		$I_F=260mA$	3.85	4.05	4.25	
BRIGHTNESS (White LED)	L	$I_F=40mA$	-	135	-	$cd/m^2$
(Yellow/green LED )		$I_F=260mA$	80	100	-	
LED POWER (White)	$P_D$	-	-	200	mW	
(Yellow)		-	-	1100		
DRIVE METHOD	1/16 Duty					

## Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	$V_{SS}$	-	0V	Power supply
2	$V_{DD}$	-	5V	
3	$V_L$	-	-	
4	RS	H/L	H: Data input L: Instruction data input	
5	R/W	H/L	H: Data read L: Data write	
6	E	H	Enable signal	
7	D0	H/L	Data bus	
8	D1	H/L		
9	D2	H/L		
10	D3	H/L		
11	D4	H/L		
12	D5	H/L		
13	D6	H/L		
14	D7	H/L		
15	A	-	Anode for LED backlight	
16	K	-	Cathode for LED backlight	