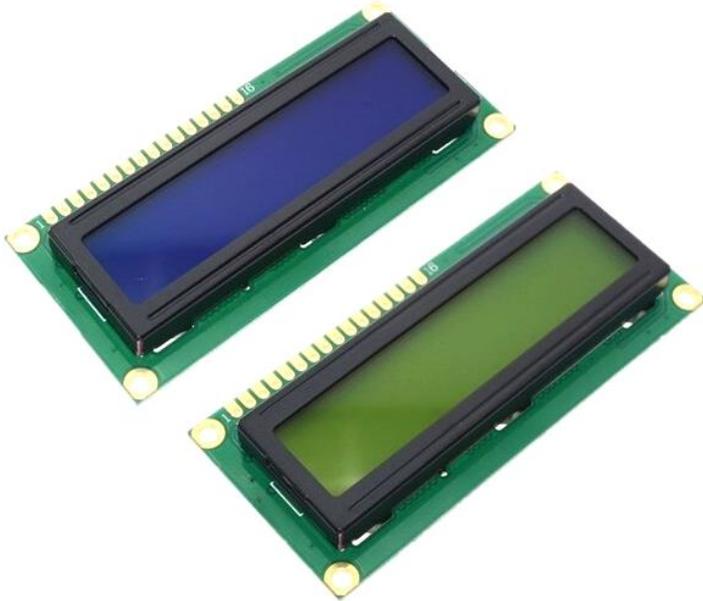**LCD 1602 (2x16 Characters)**
5V standard LCD with HD44780 compatible controller and backlight

USBtinyISP, ISP AVR programmer for Atmega Attiny Arduino is an extremely popular ISP programming device and tested with Windows, macOS, and Linux. We recommend using the driver packages from the download section below. USBtinyISP is compatible with AVRDUDE version 5.5 and newer and is supported by Arduino IDE. Within the Arduino IDE, it can be selected to burn the boot loader on a blank chip or to upload your sketches on Arduino chips and board without a boot loader (this saves some memory). USBtinyISP only works with controllers with 64kB or less memory (for example Atmega 2560 with 256kB is not supported).

Our USBtinyISP comes with a 6-pin cable, compatible with the standard ICSP header like on Arduino boards.

ABSOLUTE MAXIMUM

Item	Symbol	Min.	Max.	Unit
Power Supply for logic	Vdd	-0.3	+7.0	V
Power supply for LCD Drive	Vlcd	Vdd-10.0	Vdd+0.3	V
Input Voltage	Vi	-0.3	Vdd+0.3	V
Operating Temperature	Ta	0	+50	℃
Storage Temperature	Tstg	-10	+60	℃

ELECTRICAL CHARACTERISTICS

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power Supply for Logic	Vdd	--	4.7	5.0	5.5	V
Operating Voltage for LCD	Vdd-Vo	--	--	5.0	--	V
Input High voltage	Vih	--	2.2	--	Vdd	V
Input Low voltage	Vil	--	-0.3	--	0.6	V
Output High voltage	Voh	-Ioh=0.2mA	2.4	--	--	V
Output Low voltage	Vol	Iol=1.2mA	--	--	0.4	V
Power supply current	Idd	Vdd=3.0v	--	1.1	--	mA

MECHANICAL PARAMETERS

Item	Description	Unit
PCB Dimension	80.0*36.0*1.6	mm
View Dimension	69.5*14.5	mm

PIN ASSIGNMENT

No.	Symbol	Level	Function	
1	Vss	--	0V	Power Supply
2	Vdd	--	+5V	
3	V0	--	for LCD	
4	RS	H/L	Register Select: H:Data Input L:Instruction Input	
5	R/W	H/L	H--Read L--Write	
6	E	H,H-L	Enable Signal	
7	DB0	H/L	Data bus used in 8 bit transfer	
8	DB1	H/L		
9	DB2	H/L		
10	DB3	H/L		
11	DB4	H/L	Data bus for both 4 and 8 bit transfer	
12	DB5	H/L		
13	DB6	H/L		
14	DB7	H/L		
15	BLA	--	BACKLIGHT +5V	
16	BLK	--	BACKLIGHT 0V	

LCD 1602

LED
IC
ZEBRA
PCB

11,00±0,2
7,00±0,2
1,60±0,2

0.62
2.9
5.15
0.70
0.05
0.60
0.05
0.54

2,50±0,2
4-∅2,80±0,2
16-∅1,00±0,2
16

PITCH 2.54X(16-1)=38,10±0,2

55.70(A.A)
69.60(V.A)
70,70±0,2
75,40±0,2
80,00±0,2

11.00(A.A)
14.50(V.A)
23,80±0,2
31,40±0,2
36,00±0,2
8,00±0,2
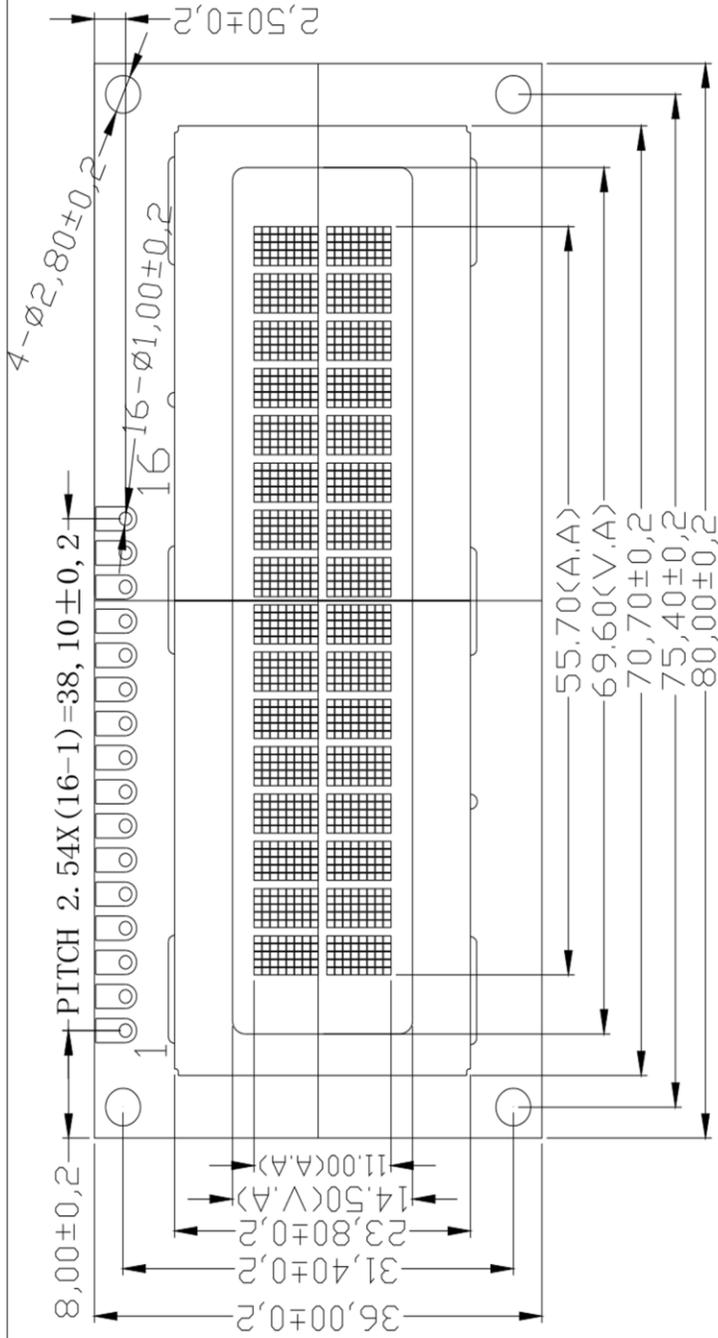
DISPLAY TYPE: STN
VIEWING DIRECTION: 6:00
DISPLAY MODE: TRANS/YELLOW GREEN
DRIVING METHOD: 1/16DUTY 1/5BIAS
OPERATING VOLTAGE: 4.7V
OPERATING TEMPERATURE: -20° ~ 70°C
STORAGE TEMPERATURE: -30°~80°C

BACKLIGHT: LED
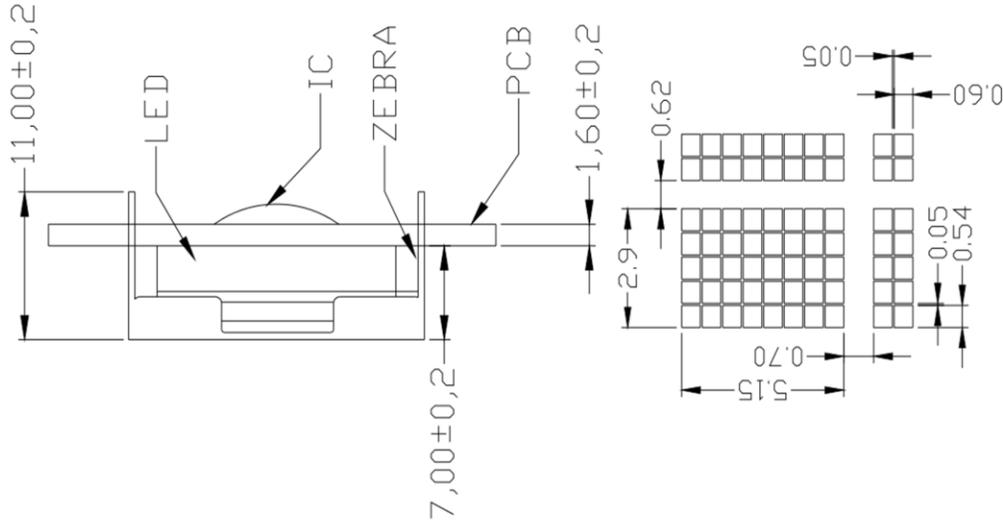
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VSS	VDD	VO	RS	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	BLA	BLK