

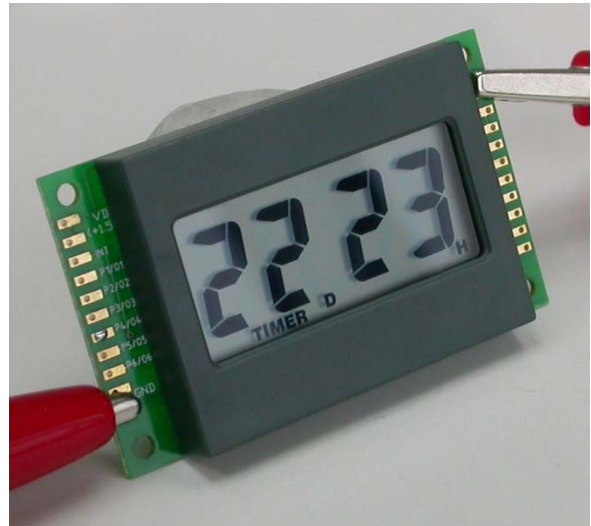
MODULE SPECIFICATION

LCD Countdown Timer Module

Model No.: 4XT-A0H-MS; 4XT-A0H-HM; 4XT-A0H-DH; 4XT-A0M-MM; 4XT-A0M-HH; 4XT-A0M-DD

Descriptions

This series of modules are designed for external connection of power supply and keys. 1.50 VDC operated 4 digits, with 11.4 mm digit height. Six versions with different maximum counting capacities. All soldering pads are arranged at both edges of PCB for external connection. The timer is featured with audible alarm when counting down to zero. Piezo buzzer with amplified circuit is built-in to provide high volume of beep sound. Along with audible alarm, the full LCD display keeps blinking always when counting down to zero, unless "stop" button is depressed.



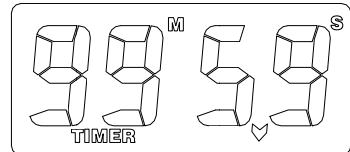
Main Features

- External connection of power supply and keys
- Resolution: dynamic change depending upon counting status
- Buttons: 4 keys
- Display format: depending upon counting status, dynamic changes to proper one
- Power: 1.5 VDC
- Visual & Audible Alert: full LCD endless visually blinking, and optionally to select 1 minute or PSEA (power saving endless alert) audible alert

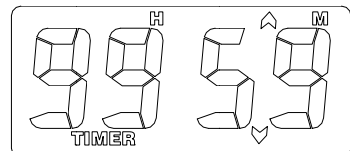
Specifications

- Physical Size:
 - PCB Size: 55 x 32 mm
 - Plastic Frame: 43 x 32 mm
 - Thickness: 7 mm
- LCD Display
 - Screen Size: 36 x 16 mm
 - Number of Digit: 4 digits
 - Digit Height: about 11.40 mm
- Button: 3 to 4 keys; externally connection
- Power Source: +1.5 VDC, externally input
- Technical Data:
 - Operating Voltage: +1.20 ~ + 1.70 volts

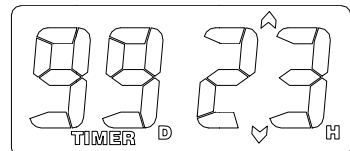
Model No. 4XT-A0H-MS



Model No. 4XT-A0H-HM



Model No. 4XT-A0H-DH



Typical Current Drain: 3 μ A in normal condition; 400 μ A at alarm mode

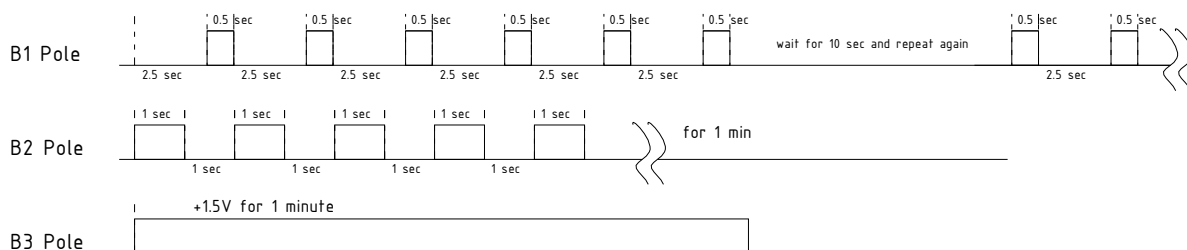
Operation Temperature: -10 ~ +50 $^{\circ}$ C

Storage Temperature: -20 ~ +60 $^{\circ}$ C

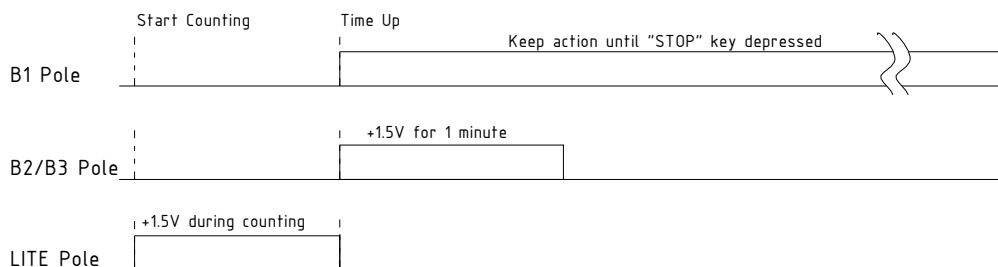
Applications

- Audible alarm: 4 K Hz for 1 minute or PSEA endless alert which beeps 6 times, then waits for 10 seconds and then repeat
- Output Poles (upon request):
 - B1: After counting to zero, delivers 2.5 sec “OFF”, 0.5 sec “ON” for 6 times, then wait for 10 sec and repeat again. Never stop unless “Stop” key is depressed.
 - B2: After counting to zero, delivers 1 sec “ON”, 1 sec “OFF” for 1 minute.
 - B3: After counting to zero, delivers level high (1.5 VDC) for 1 minute
 - B4: Power “ON” auto-start counting (application details upon request)
 - LITE: Deliver levels high (+1.5 VDC) signal during counting
 - ALM: Audible alarm output, 4K Hz for 1 minute, or PSEA endless alert signal

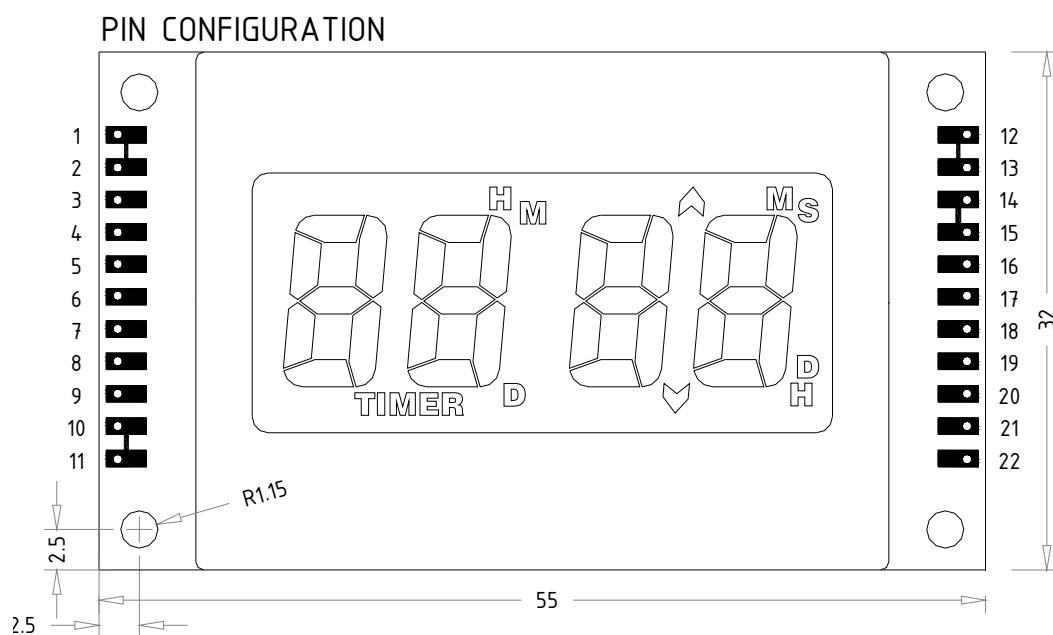
a) Wave Form of each Output Pole at Timer Countdown to zero:



b) Action Chart of each pole :



Pin Configuration



Pin #	Descriptions	Pin #	Descriptions
1	VDD, +1.5 V	12	VDD, +1.5 V
2	VDD, +1.5V	13	VDD, +1.5 V
3	NC	14	GND, 0 V
4	NC	15	GND, 0V
5	NC	16	ALM2, alarm output post amplifier
6	NC	17	ALM1, alarm output pre- amplifier
7	NC	18	LGT, LED output
8	NC	19	M4, reset
9	NC	20	M3, adjust sec (or min/hr)
10	GND, 0 V	21	M2, adjust min (or hr/day)
11	GND, 0V	22	M1, start/stop

The Keys Connection

1. M1: pin#22, to start or stop counting when connect to VDD
2. M2: pin#21, to adjust minute (or hr/min) when connect to VDD
3. M3: pin#20, to adjust sec (or min/hr) when connect to VDD
4. M4: pin#19, to reset LCD reading when connect to VDD

Additional Features Available upon Request

- Count up after countdown to zero
- Power On start counting right away
- Power Saving Endless Alert, i.e., PSEA
- Various signal output or control poles for different application (please refer to the previous paragraph)

Versions Table

Model No.	Maximum Capacity	Resolution	Minimum Setting Interval
4XTT-A0H-MS	99 Min 59 Sec	1 sec	1 sec
4XT-A0H-HM	99 Hr 59 Min	dynamic	1 min
4XT-A0H-DH	99 Days 23 Hours	dynamic	1 hr
4XT-A0M-MM	9999 Minutes	dynamic	1 min
4XT-A0M-HH	9999 Hours	dynamic	1 hr
4XT-A0M-DD	9999 Days	dynamic	1 day

Remark: many other versions available upon request.