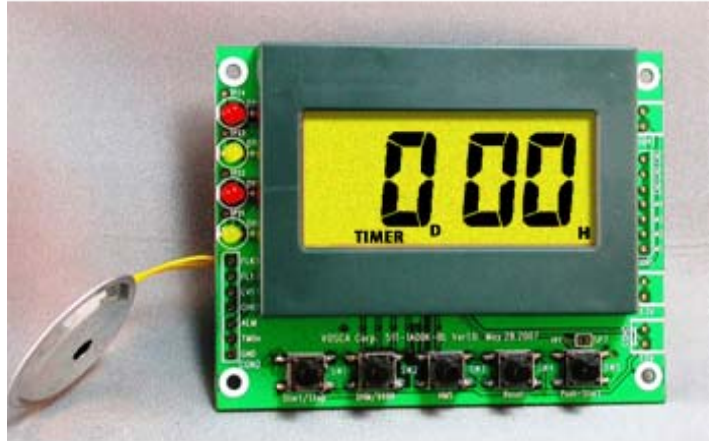


# MODULE SPECIFICATION

## 99 Days 23 Hours Countdown/Up Timer Module with LED Back-Light Model No.: 51T-A0H-DH Series

### Descriptions

3.3 VDC operated 4 digits, 99 days 23 hours maximum capacity countdown and up timer; LED back-light, available in amber, yellow, green, and white color. This is a full function test kit. 5 keys; start/stop, day, hour, reset, and push-start. Various kinds of output and control poles are designed to provide user comprehensive applications. Battery holder for 2 x UM4 is mounted on the rear side.



### Main Features

- Maximum Countdown Capacity: 99 days 23 hours
- Maximum Count Up Capacity: 9999 days
- Resolution: 1 second after counting under 1 hour
- Minimum setting interval: 1 hour
- 5 keys: Start/Stop, Day, Hour, Reset, and Push-On (release-off)
- Automatically memory resets the display to the last set time
- Depending upon the counting status, the display automatically changed to an appropriate format
- Power: 3.3 VDC, external power; 2 x UM4 battery holder mounted on rear side for test purpose
- PSEA (Power Saving Endless Alert) alert
- Various output poles with LED indicator

### Specifications

- ✧ Physical Size:
  - PCB Size: 77 x 60 mm
  - Plastic Frame: 58 x 40 mm
  - Thickness: 10 mm (battery holder not included)
- ✧ LCD Display
  - Screen Size: 49.3 x 22.3 mm
  - Number of Digit: 4 digits
  - Digit Height: about 16.00 mm
- ✧ Button: 5 tact s/w, 5 mm height; externally connection is possible
- ✧ Power Source: +3.3VDC, external power; 2 x UM4(AAA) battery holder mounted;
- ✧ Alert Methods:
  - Visual – repeat full LCD blinking
  - Audible – PSEA (Power Saving Endless Alert), beep six times, then wait for 10 seconds and repeat, never stop unless the “start/stop” key depressed
- ✧ Technical Data:
  - Operating Voltage: +1.80 ~ + 3.80 volts
  - Typical Current Drain: 20  $\mu$ A in normal condition; 56 mA or higher when LED B/L engaged

Operation Temperature: -10 ~ +50 °C  
 Storage Temperature: -20 ~ +60 °C  
 Output Options: please refer next paragraph

## Connectors and Applications

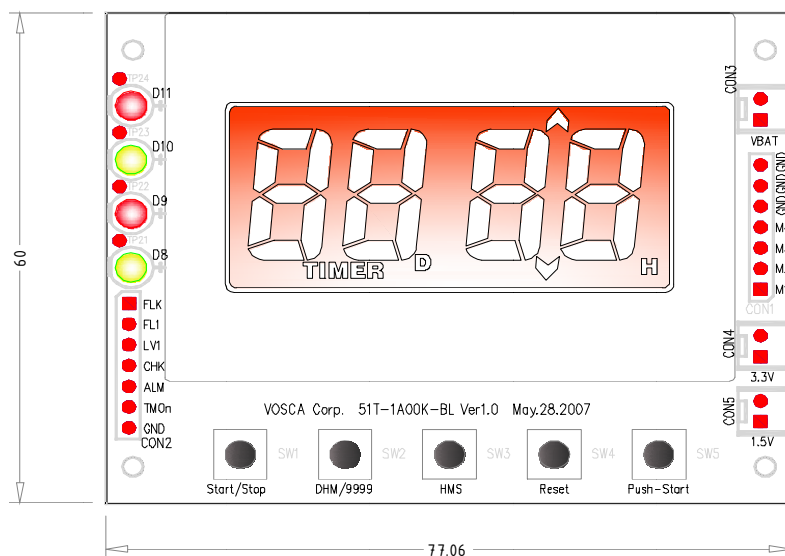
### A. Power Connectors

CON3/CON4 – 3.3VDC input  
 CON5 – 1.5VDC, normally not connected

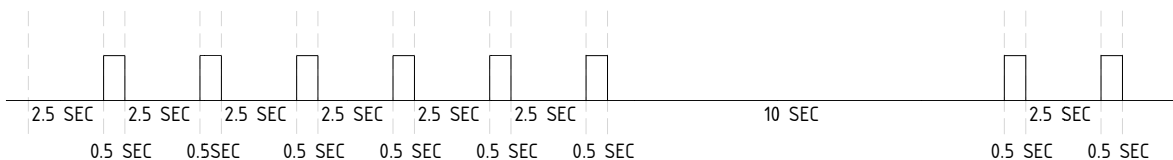
### B. Keys (at CON1)

M1 to 1.5V – Start/Stop/Recall  
 M2 to 1.5V – Day adjust  
 M3 to 1.5V – hour adjust  
 M4 to 1.5V – Reading reset

### C. Output Poles (at CON2):



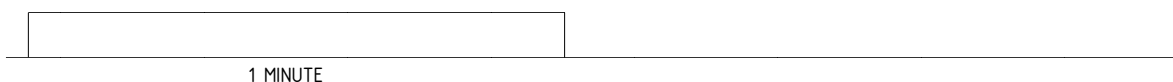
FLK Output (LED D11): When time up, blinking 6 times, then wait for 10 seconds and repeat again continuously until STOP key depressed.



FL1 Output (LED D10): Turn ON every 2 seconds for one minute when time up.



LV1 Output (LED D9): Turn ON for one minute when time up.



CHK: Invalid

ALM Output: Audio alert when time up, same as FLK output, but with 4K Hz.

TMOOn Output (LED D8): Turn ON when timer engaged.

## Represent of Suffix Codes for Additional Features

	Description	Suffix Code	Represent of Feature	Remarks
The 1 <sup>st</sup> Code	counting method	D	countdown only	upon request
		U	countdown then count up	default
The 2 <sup>nd</sup> Code	alert method	M	1 minute alarm plus full LCD endless linking	upon request
		P	PSEA, beep 6 times then wait for 10 seconds and repeat, never stop unless "stop" button depressed, plus full LCD endless blinking	upon request
		N	no alarm, plus full LCD endless blinking	upon request
		A	Endless alarm unless "Stop" key is depressed	default
The 3 <sup>rd</sup> Code	output	N	no output pole	default
		O	all output poles activated	upon request
		L	"LITE" pole activated	upon request
The 4 <sup>th</sup> Code	Color of LED Back-light	A	amber	
		Y	yellow	
		G	green	
		W	white	
The 5 <sup>th</sup> Code	pace beeping	s	every 30 seconds beeping during counting	Upon request

Examples:

51T-A0H-MS-DMN-A

means: 99 minutes 59 seconds capacity; countdown only; 1 minute aural alert; no output pole; amber color of LED back-light

51T-A0M-HH-UPL-Y-s

means: 9999 hours capacity; countdown and count up; PSEA alert, i.e., beep 6 times, then waiting for 10 seconds and repeat again, never stop beep unless "stop"

depressed; "LITE" output pole only; yellow color of LED back-light; with 30 seconds  
pace beeping during counting

#### List of Popular Counting Capacity with Recommend Options

Model No.	Maximum Capacity	Minimum Setting Interval	Counting Method	Alert Method	Output	Back-lite Color
51T-A0H-MS-DMO-A	99 min 59 sec	1 sec	down	for 1 min	all activated	amber
51T-A0H-HM-UPO-Y	99 hr 59 min	1 min	down/up	PSEA	all activated	yellow
51T-A0H-DH-UPO-W	99 days 23 hr	1 hour	down/up	PSEA	all activated	white
51T-A0M-MM-UAN-G	9999 min	1 minute	down/up	endless	no	green
51T-A0M-HH-UAO-A	9999 hr	1 hour	down/up	endless	all activated	amber
51T-A0M-DD-UPL-Y	9999 days	1 day	down/up	PSEA	LITE only	yellow