

# MODULE SPECIFICATION

## 4 Daily Alarms Clock Module, with 3 Keys

Model No.: 50C-AXG-Z (12-Hr), 50E-AXG-Z (24-Hr)

### General Description

This is a LCD 4 channels daily alarm clock module with 3 keys. Each alarm channel has its individual output pole. Optionally all alarm channels may share the same output pole too. It operates with 1.5 V DC, with extremely low power consumption. AAA (UM4) battery holder is mounted on the rear side. Soldering pads are arranged at both sides of PCB for external connection.

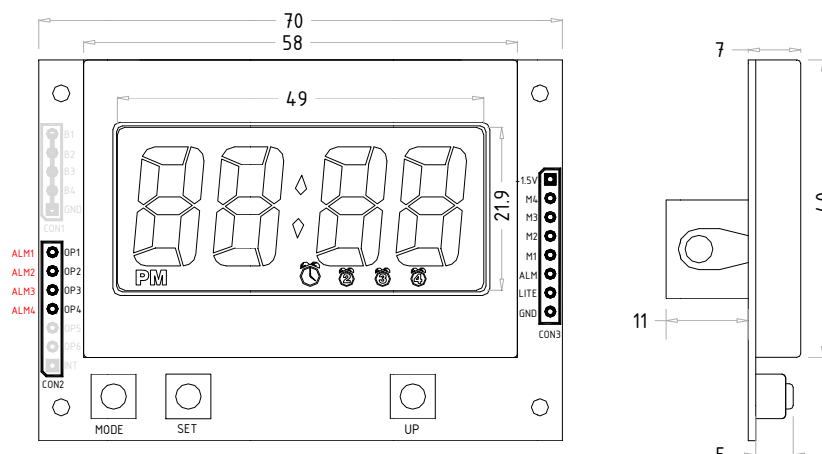


### Main Features

- Real time clock, display hour and minute
- Low power consumption
- Available in 12 or 24 hour versions
- 4 daily alarms for 1 minute
- Endless audible alarm available upon request
- Soldering pads at both sides of PCB for external connection of power source, keys, and output poles
- 3 keys operation, mode, set, and up
- Power: 1.5V DC, AAA (UM4) battery holder mounted
- 4 output poles for each alarm channel, or single pole with 2, 4, and 8 seconds pulse for all alarm channels

### Specifications

- ✧ Physical Size:
  - PCB Size: 70 x 51.2 mm
  - Plastic Frame: 58 x 40 mm
  - Thickness: 7 mm (battery holder not included)
- ✧ LCD Display
  - Screen Size: 49 x 21.9 mm
  - Number of Digit: 4 digits
  - Digit Height: about 16.00 mm
- ✧ Button: tact s/w, 5 mm height; externally connection is possible
- ✧ Power Source: +1.5VDC, using one piece of UM4(AAA), battery holder mounted; externally input is possible
- ✧ Audible Alert Method:
  1. 4K Hz beep for 1 minute
  2. Endless Alarm by request: beep three time, then wait for 1 minute and repeat again



✧ Technical Data:

Operating Voltage: +1.20 ~ + 1.70 volts

Typical Current Drain: 3μA in normal condition; 400 μA when alarm goes off

Operation Temperature: -10 ~ +50 °C

Storage Temperature: -20 ~ +60 °C

### External Connections:

✧ Two Types of Output Poles (at CON2):

1. Individual Output – each channel has its own pole; the signal can be either level high (1.5V) for 1 minute or deliver signal pulse with duration of 3 seconds

OP1: for 1<sup>st</sup> output; OP2: for 2<sup>nd</sup> output; OP3: for 3<sup>rd</sup> output; OP4: for 4<sup>th</sup> output

2. Single Output – all channels share the same pole; 2 options of signal combination

A. Option A

- i. OP1/OP2: pulse, 3 seconds

- ii. OP3/OP4: level high (1.5V) for 1 minute

B. Option B

- i. OP1: pulse, 1 second

- ii. OP2: pulse, 2 seconds

- iii. OP3: pulse, 4 seconds

- iv. OP4: pulse 8 seconds

✧ External Power Input:

“+1.5V” and “GND” at CON3

✧ Keys:

1. Mode – M1 at CON3 connect to +1.5V
2. Set – M2 at CON3 connect to +1.5V
3. Up – M3 shorts to +1.5V
4. Audible alarm output at “ALM” of CON3
5. “LITE” at CON3 normally disabled

### Key Operation

#### A. The Keys

- a. Mode – Press to enter each alarm channel or back to real time
- b. Set – Press to enter setting mode of real time or each alarm time
- c. Up- Press to adjust hour or minute of real time and each alarm time. It is used to set each alarm time On or Off also.

#### B. How to Set Real Time

1. Along with beeping sound, full LCD screen is displayed for 3 seconds when power on, then shows clock mode 12:00 or 0:00.
2. Press “SET” key to enter setting mode of hour. The hour reading on the screen will be flashing.
3. Use “UP” key to adjust the hour.
4. Press “SET” key again to enter setting mode of minute. The minute reading will be flashing. Use “UP” key to adjust minute.
5. To return to normal clock display press “SET” key or wait for 10 seconds without any depress of any key.

#### C. How to Set Each Alarm Time

1. At real time mode, press “Mode” key to enter each alarm channel. The related alarm symbol appears with flashing.
2. Press “SET” key to enter setting mode of hour.
3. Use “UP” key to adjust the hour.
4. Press “SET” key again to enter setting mode of minute.
5. Use “UP” key to adjust the minute.

6. Press “SET” key to complete setting of alarm time. Make sure the related alarm symbol is in flashing or not. The flashing symbol means the related channel of alarm is not set ON yet.
7. Press “UP” key to set the alarm ON. At the meantime the symbol becomes steady.
8. Press “MODE” key to return to real time.

**D. How to Set Alarm “ON” or “OFF”**

1. At real time mode, if the alarm symbol appears steady, means the related alarm channel is set ON. Use “MODE” key to enter the channel, press “UP” key to turn OFF the setting. The symbol should be changed to flashing. This means this channel is turned OFF.
2. If the alarm symbol does not appear, means the related alarm channel is not set ON yet. Use “MODE” key to enter the related alarm channel. The symbol should be in flashing. Press “UP” key to turn it ON.
3. Then press “SET” key or wait for 10 seconds to return real time.

**List of Available Versions:**

Model No.	12-Hr or 24-Hr	No. of Alarm/Output	No. of Keys	Audible Alarm Method	Type of Output Signal	LITE Disable or Enable
50C-AXG	12-Hr	-	2	-	-	-
50E-ACG	24-Hr	-	2	-	-	-
50C-AXGA-3MIL	12-Hr	1	3	M	I	L
50E-AXGA-3PI	24-Hr	1	3	P	I	-
50C-AXGB-3MI	12-Hr	2	3	M	I	-
50E-AXG-B-3MS	24-Hr	2	3	M	S	-
50C-AXGY-3PI	12-Hr	3	3	P	I	-
50E-AXGY-3PI	24-Hr	3	3	P	I	-
50C-ACGZ-3MS	12-Hr	4	3	M	S	-
50E-AXG—3MI	24-Hr	4	3	M	I	-

## Represent of Suffix Codes for Additional Features

Code	Description	Suffix Code	Represent of Feature
The 1 <sup>st</sup> Code	No. of key	3	Three keys
		5	Five keys
The 2 <sup>nd</sup> Code	Audible alarm method	M	1 minute alarm plus the related alarm symbol blinking
		P	PSEA, beep 3 times then wait for 1 minute and repeat, never stop unless "mode" button depressed, plus the related alarm symbol blinking
The 3 <sup>rd</sup> Code	Type of output signal	I	Individual output pole for each alarm channel
		S	Single output pole for all alarm channels
The 4 <sup>th</sup> Code	LITE	L	If "LITE" pole activated, level high when alarm goes off for 1 minute, or any key activated,

Examples:

50E-AXGZ-3MIL

means: 24 hour version, 4 alarm channels, 3 buttons, 1 minute audible alarm, individual output pole, "LITE" pole activated