

COMPACT LINEAR POWER CHIP WITH TEMPERATURE CONTROL

v. 1.41

Features

- linear power regulated digital converter
- rising and lowering module
- reverse battery polarity protection
- overheat protection
- temperature control
- huge energy efficiency
- intuitive controlled multi-language interface
- upgradable firmware
- very small size.
- pre-heat with fine tuning power and duration
- wari-term mode
- lock function
- board heating real-time monitor
- rotate screen in menu
- detachable mounting holes
- internal charger with possibility to use external USB port
- custom logo
- low battery drain mode

Specifications:

Output voltage	0-9 Volts
Output Power	0-75 Watts
Atomizer Resistance	0.1- 5 Ohm
Dimensions	Height 23.5 mm. Mounting plates 2 x 5 mm Width 19.3 mm. Thickness 13.5 mm.
Screen size	0.66'' OLED
Charger module	Internal 0.5A Charger module with pin to use external USB port
Interface language	English, Spanish, French, Russian
Reverse battery polarity protection	+
Control	Gyroscopic and button control is available
Board temperature control	+
Step-Up / Step-Down	Linear
Ability to update software	+
Coil temperature control	Nickel / Titan / SS / User changeable coefficient
Saving settings after changing batteries	+

Contents

Specifications:	1
Main screen	3
Control	3
Temperature control and Wari-Term mode	4
Error messages	5
Firmware update	6
Upload your logo	6
Pinout	7
External USB connector	7
Mechanical Dimensions	8
Installation notes	9
Safety information	9

Main screen

Screen language can be changed in “Settings mode”.



The main screen shows:

- Board heat state
- Output voltage
- Real coil temperature (if TC or Wari-Therm mode enabled)
- Power
- Resistance
- Battery level

The “Up” и “Down” buttons directly change the power on the main screen.

Releasing the button, the screen lights at reduced brightness for 5 seconds, then it goes into standby mode. This brightness time is adjustable in menu “Settings” -> “Advanced”.

Control

3 fast clicks - enter main menu. +1 click- enter gyroscopic adjust power mode



When in settings menu gyroscopic and button control is available.

Turn left and turn right to go on menu item.

“Fire” = ENTER, pushing main button will confirm action.

“UP” and “DOWN” buttons repeat your gyroscopic actions. To make control easy gyroscopic action turn off if you press “UP” and “DOWN” buttons in menu.

5 fast clicks - Lock mode.



7 fast clicks - On/Off.



Temperature control and Wari-Term mode

General information

When the new coil is installed the chip automatically fixes the resistance of the “cold” coil and uses it for temperature control calculation methods.

WARNING: important to cool down the coil before use when new build installed.

Wattage in temperature control mod

TC in wattage mode

Setting wattage in TC power mode only affects the rate of heating spiral. The higher wattage the faster coil would be heated up (boost heating mod). As soon as the coil heated up to the desired temperature the chip instantly decrease the power just to to maintain the desired temperature.

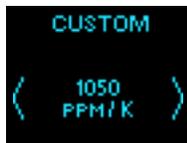
Wari-Term mode

In this mode you need to ajust olny temperature. Coil type or coefficient must be set in settings. Setting wattage don't affect power and not changeable. Board increase power for quick reach desired temperature, then decrease or increase again the power to mantain this temperature.

TC settings

To set TC settings, enter the “Termal Control” in “Settings” menu.

Pre-resistance values for titanium, nickel, ss 304, ss 316L, ss 317L are available. You can set custom coefficient selecting “Custom” menu item.



Error messages

Low Battery



Short circuit



Non high drain battery or poor contact between the battery and board



No atomizer



Board overheat. Needs to cool down.



Firmware update

Bootloader and new firmware you can find following the link
<http://starplat.com/firmwares/>

Firmware update process

- 1) Load HIDBootloader (Windows).exe
- 2) Disconnect the battery.
- 3) Hold "FIRE" button and plud the chip to your PC.
- 4) Wait till the chip will be ready for operations.
- 5) When ready release the "FIRE" button
- 6) Choose the update file "*.hex"
- 7) Click "program"
- 8) Wait till update is ready (the check procedure will fail- it is OK)
- 9) Disconnect the chip or click "reset"

Note. Firmware with index "v1_40" (e.g. starplat_v1_40_03) compatible olny with new version of Board (1.40 and later). You can see current version of board in menu "Firmware version"

Upload your logo

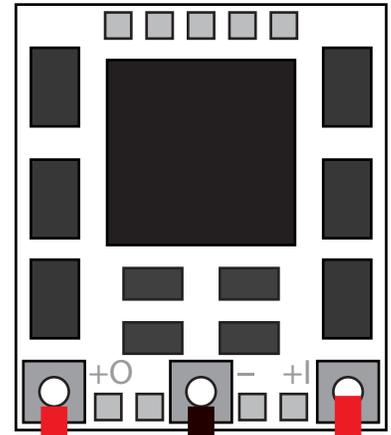
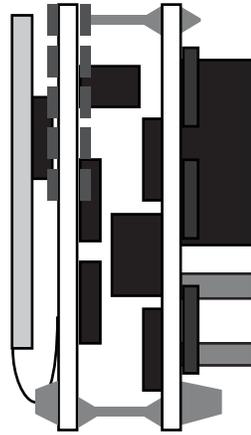
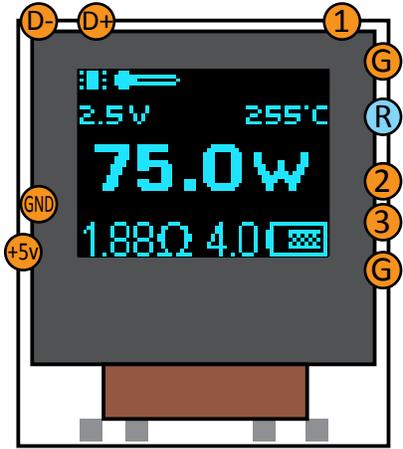
Logo must be only black and white (2 bit) bitmap in .bmp format 64x48 pixels

Logo changer software logo.exe you can find follow the link
<http://starplat.com/firmwares/logo.zip>

Change logo process

1. Run logo.exe
2. Connect board to computer (without holded any button and no need to disconnect battery)
3. Click "Scan ports"
4. In drop-down menu choose "COM3"
5. Click "Open file" and select your bitmap file. File must be only black and white (2 bit) bitmap in .bmp format 64x48 px.
You should see preview of bitmap in preview area.
6. Click "Load to Flash"
7. Disconnect from computer. Enjoy

Pinout



Buttons

- G** Buttons -
- R** Reset Button. Not wired. Used only for update firmware when not able to disconnect battery.
- 1** Fire Button +
- 2** Button Up +
- 3** Button Down +

OUT +
To atomizer

-
Common
GND for
atomizer
and battery

IN +
To battery

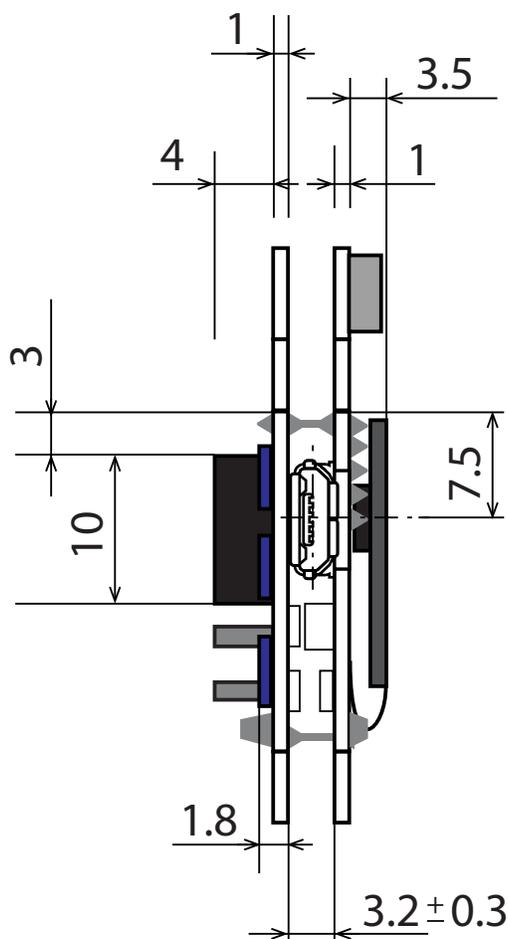
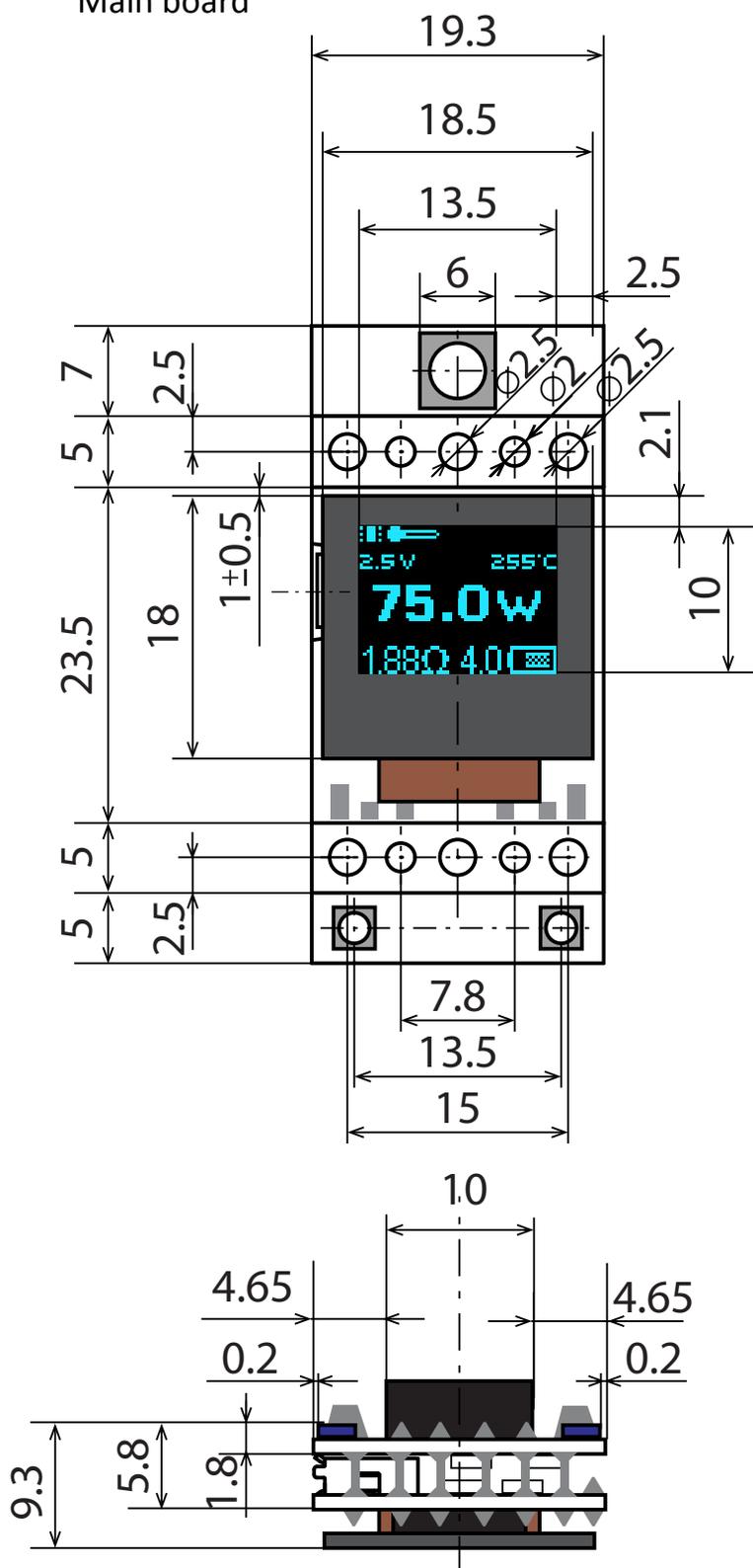
External USB connector (optional)

You can use any standart external USB connector or USB Extension Cable.

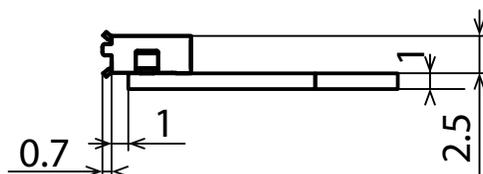
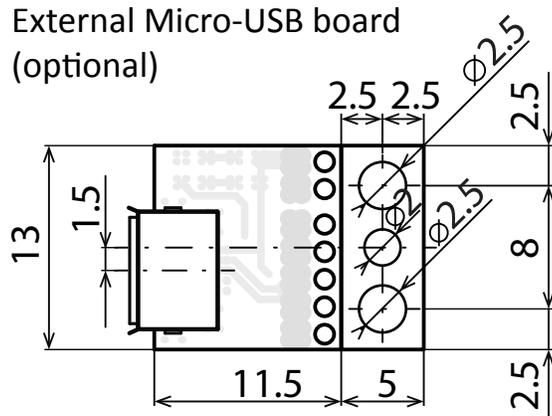
- D+** USB Data +
- D-** USB Data -
- +5v** USB Vcc
- GND** USB Ground

Mechanical Dimensions, mm

Main board



External Micro-USB board (optional)



Installation notes

- You may remove button plates from top and/or bottom of board to make size smaller.
- You may remove unused mounting plates from top and/or bottom of board to make size smaller.

Safety information

Very important!

- Do not heat a display above 60° C (140° F) ever for short time.
Do not use hot glue gun or soldering iron near display.
Overheating will cause a loss of display luminosity. All oled display fear of high temperature.
- Be careful with display wire.
- Do not spill liquids on board.