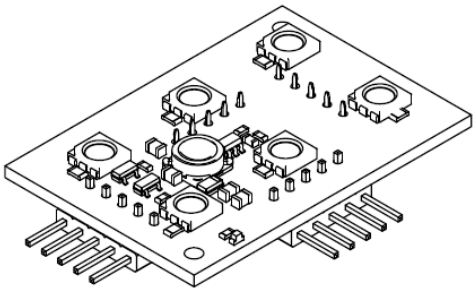
ClimateGuard

UVC_board-1v0

Air and surface disinfection module

Specification



1 Key features

Functional:

- 6 diodes with wavelength in the spectral range of 265-285*nm* UV-C spectrum
- Power supply scheme
- Boost converter
- Cluster up to 9 boards
- Standard PLS 2.54 connector

Electrical:

- Power supply: 3.5*V*

Technical:

- Module size:
  44*mm* x 30*mm* x 6.76*mm*
- Module weight: 6*g*
- Operating temperature range:
  -30°*C* to +60°*C*

2 Description

UVC_board – modular device for air and surface disinfection.

Connectors located at module edges allow combining up to 9 boards into a cluster

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3 Module specification

3.1 Technical

Parameter	Value			Dimension
	Min	Operating	Max	
Power supply	3	-	5.5	V
Consumption 5V	-	-	0.3	A
Consumption 3.3V	-	-	0.5	A
Wavelength	265	-	285	nm
Temperature range	-30	+20	+60	°C
Humidity range	0	60	98	%

Table 1 (technical characteristics)

3.2 Dimensions

Module size: 44*mm* x 30*mm* x 6.76*mm*

Module weight: 6*g*

3.3 Safety

Be careful when handling any UV sources. UV light can be harmful to your eyes, do not look directly into the UV light source.

Use of a special glasses with UV protection is required.

4 Control

The module circuit includes a mosfet switch for power control. To turn the module on, it is necessary to send a high log level to the "ctrl" port.

Pins highlighted on the figure below are used for power supply connection and control.

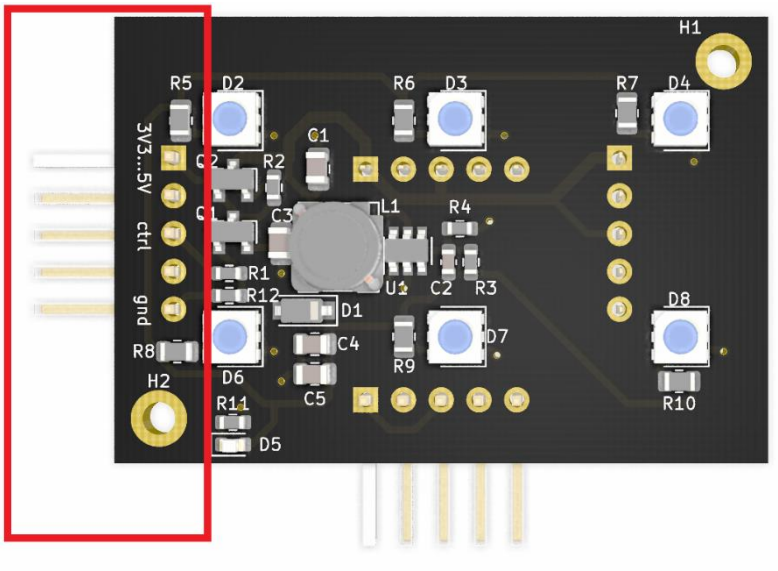


Figure 1 (controlling pins)

5 Connection socket

Contact	Name	Application
1	3v3-5v	Module supply circuit
2	-	reserve
3	CTRL	Module control line
4	-	reserve
5	GND	Generic output

Table 2 (pinout of connection socket)

6 Clustering

Connectors located at module edges allow combining up to 9 boards into a cluster. Control of an individual module within a cluster is not supported – only the entire cluster turn on/off is possible. Any pins highlighted on the Figure 1 can be used for power supply and cluster control.

Connecting more than one power source to a cluster or to a separate module is not recommended.

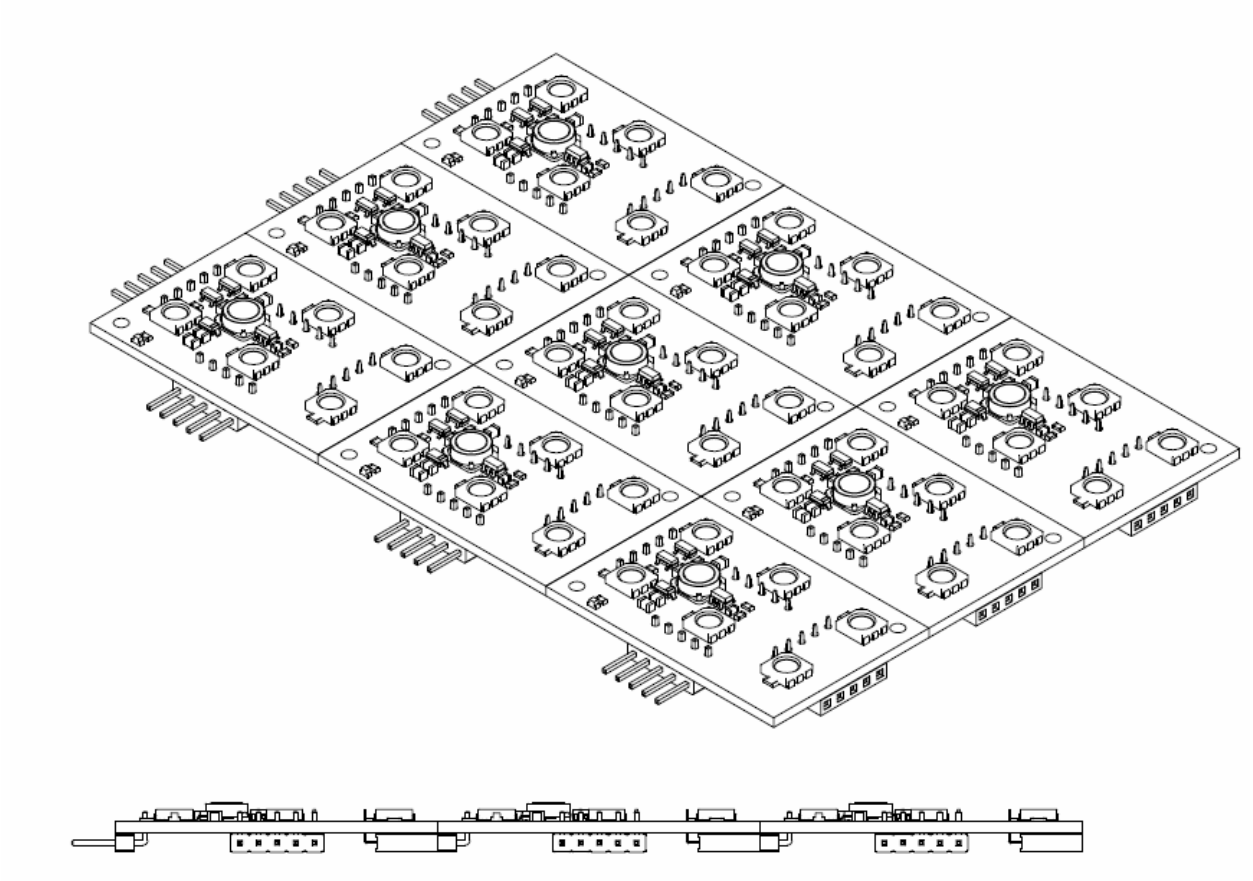
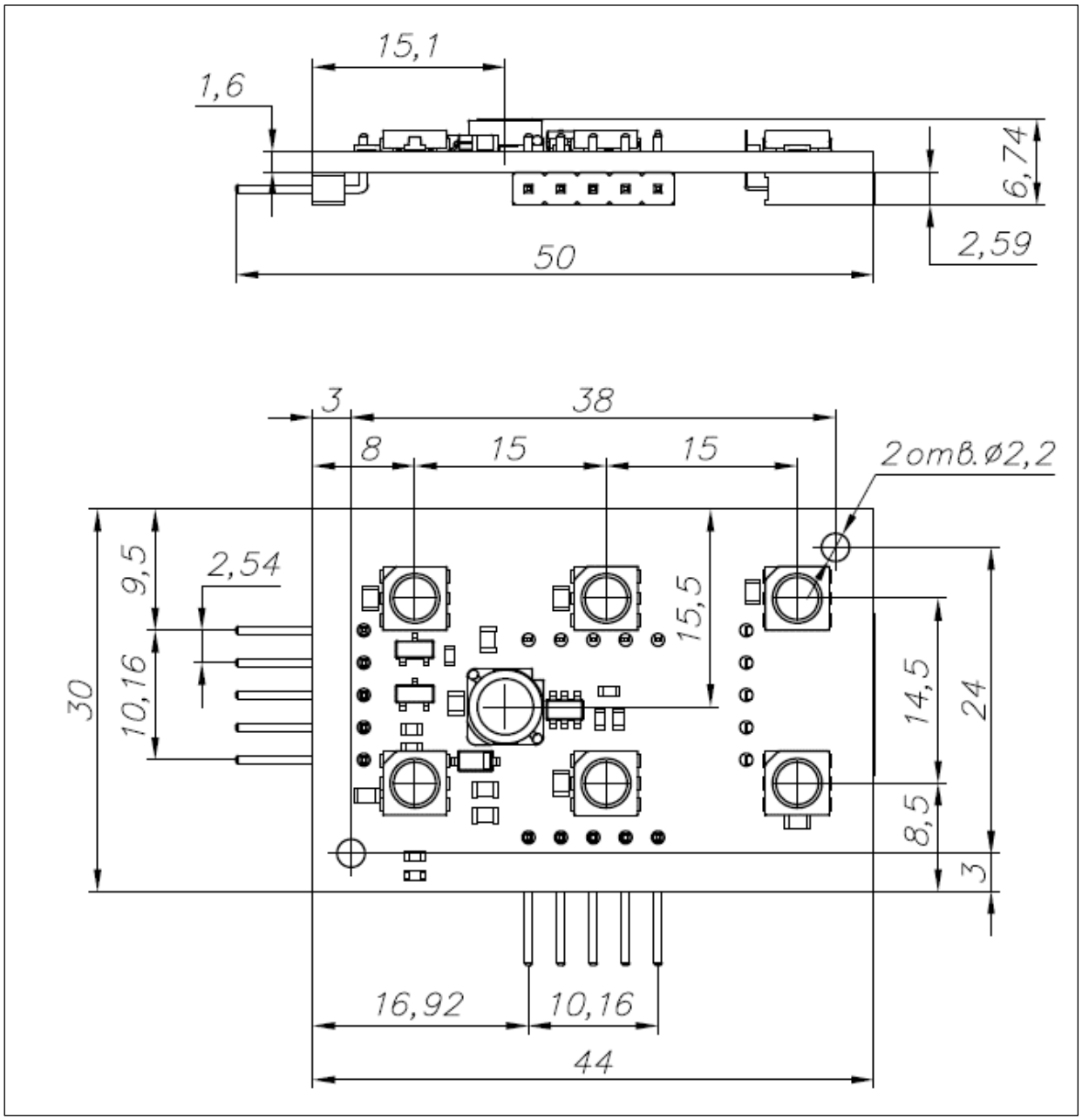


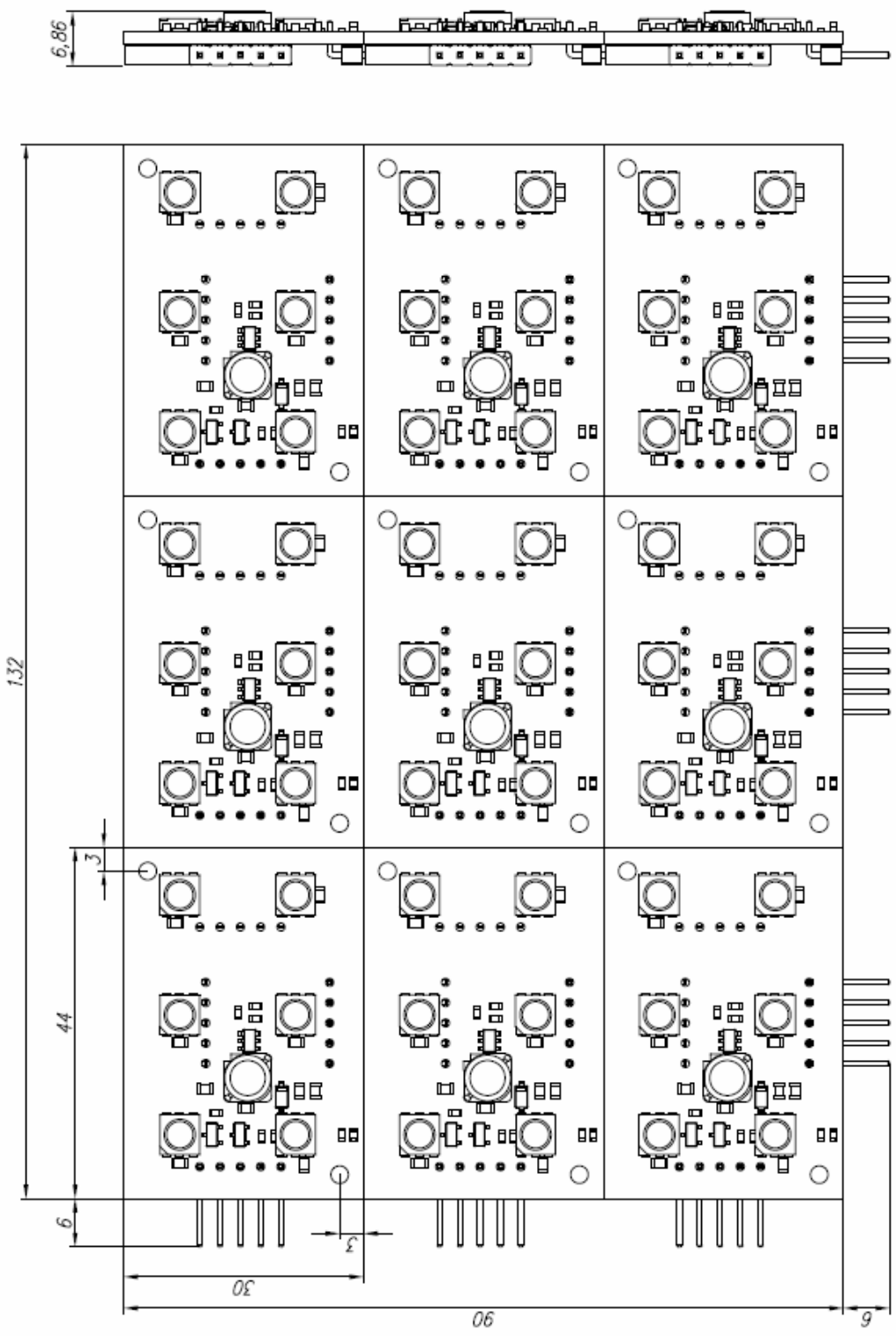
Figure 2 (clustering scheme)

7 Drawings

7.1 Module



7.2 Cluster



8 Reference

Description	Link
Manufacturer website	http://climateguard.ru/
Module library	https://github.com/climateguard/UVC_board

Table 3 (reference materials)