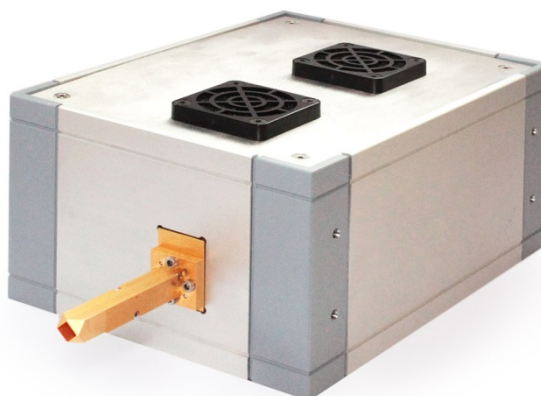




Sub-Terahertz Wave Source

(Based on IMPATT technology)



MANUAL Revision-01 (Nov.2017)

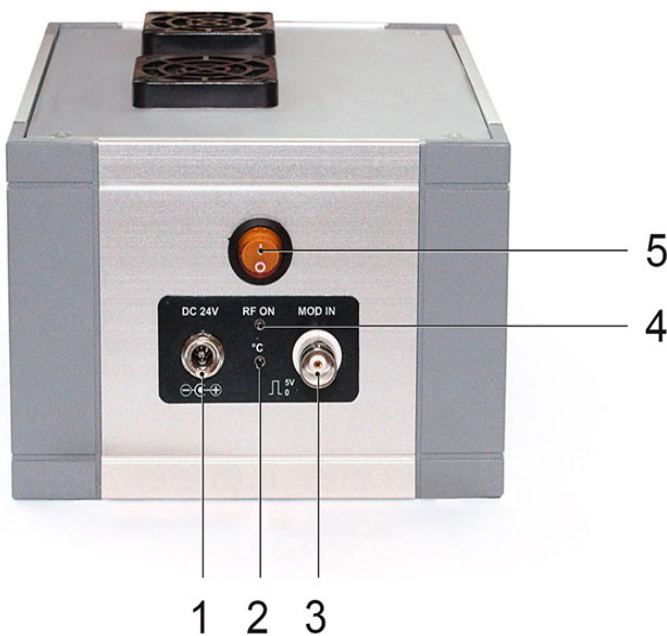
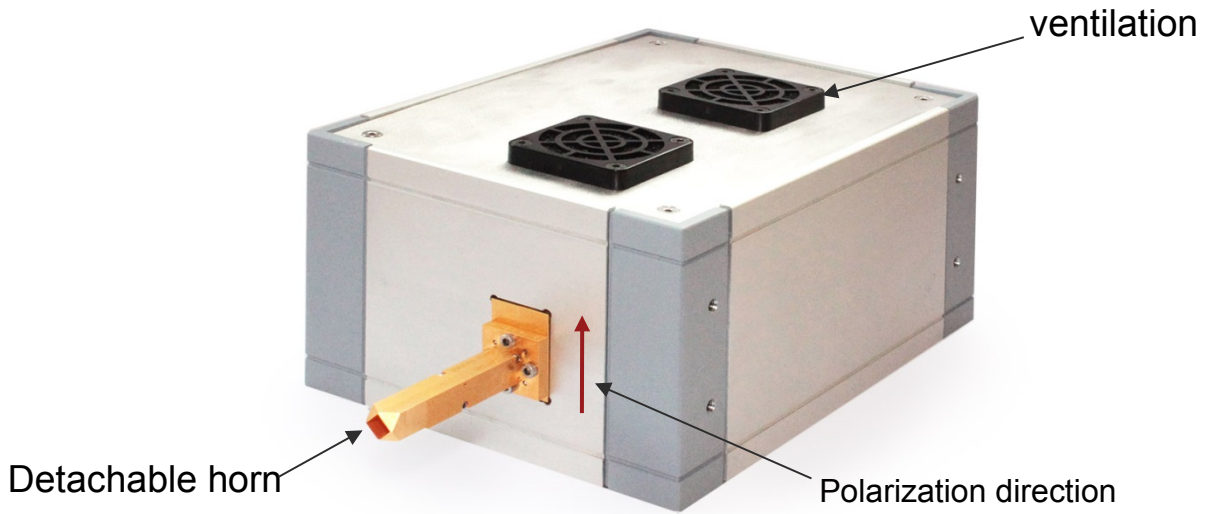
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Overview



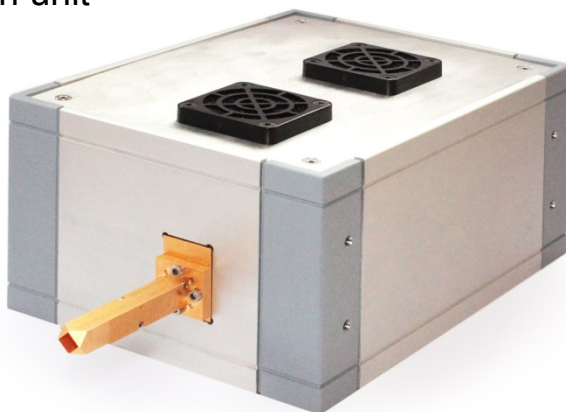
- 1 - power connector
- 2 - overheating LED
- 3 - modulation input
- 4 - radiation LED
- 5 - power switch

Specifications

Frequency	~ 300 GHz
Output power	~ 10mW
Output flange	WR-3.4
Horn antenna	Gain 26 dB, Detachable (length: 56 mm)
Dimensions	191 x 129 x 91.9 mm (without horn)
Weight	1 kg (w/o AC adapter)
Power supply	24VDC 8W, 110-240V AC adapter included
Power Connector	IEC 60130-10 Type A (OD 5.5mm, ID 2.1mm)
Modulation	+5V, square wave
MOD frequency	1Hz — 10 kHz
MOD Connector	BNC
Operating conditions	In-door, 10 - 25°C, humidity < 75%

Supply package

main unit



power cord



AC adapter

Operation

To turn on:

- Plug power adapter cable to the power connector.
- Plug power adapter to a wall socket.
- Turn on the power switch.

To turn off:

- Turn off the power switch.
- Unplug power adapter cable from the power connector.
- Unplug power adapter from the wall socket.

Always make sure that the power switch is in the OFF position before plugging or unplugging of the power adapter!

To use modulation:

Output radiation can be modulated at frequencies between 1Hz and 10 kHz.

In order to modulate output radiation connect 5V square wave signal generator to the modulation input. The radiation is off when input signal is high.

The modulation input draws about 10 mA, when high.

The modulation input only can switch the radiation off or on, it can't regulate power in any way.

Do not apply to modulation input any voltage but 0 or 5V.

Do not apply any signal form but square wave to the modulation input.

Do not use the modulation input to switch the radiation off for a prolonged time.

Overheating

The source includes overheating protection. If the overheating condition occurs, the radiation is switched off and the red overheating LED is lighted up.

In order to restore operation of the device after overheating let it cool down without switching it off then switch it off, wait for 10 seconds and switch it on again.

If the source overheats repeatedly, reduce ambient temperature or provide additional external cooling.

Warnings

Never block ventilation grids!

Do not operate the source if its fan is not running.

Quick powercycling of the device after overheating may reduce its lifetime.

Drawings

