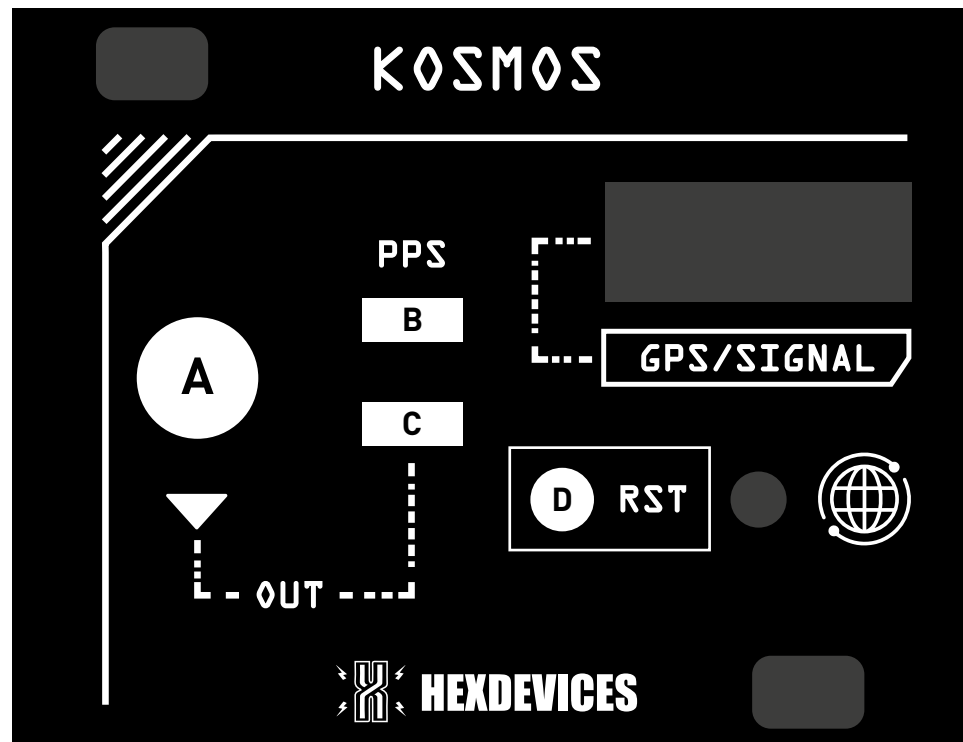




HEXDEVICES
technology for humans

User Manual Kosmos

Thank you, and congratulations on your purchase of the Hexdevices Kosmos Module! That was a smart move. You are now the proud owner of a small but useful clock module.



The brain inside the shell

This clock module utilizes a GPS receiver to capture the PPS timing information transmitted by the satellite's atomic clocks. With the use of a microcontroller, the signal timing is monitored and "stored", ensuring that even if the signal is lost, your output maintains the same tempo with minimal drift. Once the signal is restored, the system automatically corrects any drift and synchronizes the output immediately. Please keep in mind that this module functions most effectively outdoors or in areas with clear line of sight to GPS signals.

Kosmos may struggle to receive GPS signals through walls or in basements, for example. However, this limitation doesn't make it unusable, as it generates its own internal accurate clock by default. Thus, it can still serve as a reliable master clock for your system.

How to use (see pic.)

A: Is the output of the module. With the use of a 3.5mm TS mono mini jack, you can take your pulse output signal and use it, for example, as a clock or trigger signal for other devices.

B: This LED indicates the incoming satellite PPS signal.

C: This LED indicates the internal clock signal.

D: A reset button is provided for user convenience. If you encounter any issues with the device's performance, such as a discrepancy between the output and the GPS signal, or if you simply wish to refresh the system, you can use the reset button.

Extra info

For optimal performance, we recommend outdoor use.

The LEDs indicating the PPS signal and the internal clock may appear out of sync. This effect is due to the shorter duration of

the PPS signal, causing it to turn off before the internal clock LED. However, it's important to understand that the output clock remains synchronized with the PPS signal.

Specifications:

- Low-drift clock pulse generator with GPS clock synchronization capability.
- Output signal 0-5V
- Power, +-12VDC Eurorack format, +12VDC/57mA
- Module format 1U, 10HP
- Dimensions in mm, 50.8x40x35*
- Weight, 41g

**Measured from the front panel till the edge of the power connector.*

Warranty

This module comes with a 5-year warranty from the day of purchase for the electronic part only. Not for the casing or front panel. More information can be found here:

www.hexdevices.com/policy

Recycling guidelines

First of all, why throw away this masterpiece?! Anyway, if you want to do so, please be mindful that our planet is already full of waste. So please throw this device only in special electronic recycling places. More information can be found here:

www.hexdevices.com/policy

Contact with us

info@hexdevices.com