PhonOptics



V1/APRIL/2021

DATASHEET

English version

PHANTOM
SPY MICROPHONE



Phonoptics manufactures fiber optic sensors for use in harsh environments. Within the framework of its developments, Phonoptics offers its know-how in terms of optical sources.

This microphone is a high sensitivity, low noise version of Phonoptics industrial microphone. It is specifically designed for voice listening. It integrates a noise reducing system that offers 20dB less noise than industrial version, and it also integrates a micro-controler in order to offer recording with CD audio quality through microSD card up to 32gb.The recording uses the standard VOX trigger and TIME trigger.

Phonoptics microphone is designed to listen while remaining fully undetectable and impertubable.

As it is made of plastic and glass there is no electricity involved. nor metal parts. It only works with light.

Indeed Phonoptics' microphone was born to resist to electromagnetic interferences: it is totally **insensitive to electromagnetic jammers** and is fully **undetectable** in plastic version. Beleive it or test it

Based on a patented sensor technology using only one fiber, the microphone has an exceptional range of more than **10 km** (6 miles) between the microphone and the electronic unit with no need of a repeater.

Due to its small form factor, the sensor can be easily installed. Moreover, thanks to the use of telecom fiber, **it can be plugged in already existing fiber networks.**

The **Phantom** is shipped with:

- 1x Acoustic sensor (2 meters long: other on request)
- 1x Opto-electronic unit (conditioner)
- 1x Power supply
- 1x32GB SD card with preloaded code and manual to use triggers







CONTACT US

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91080 Évry-Courcouronnes

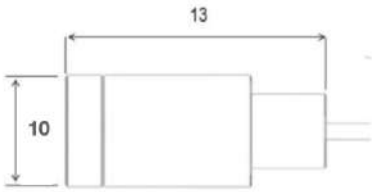
+33 9 86 60 83 56
www.phonoptics.fr

PhonOptics
Listening Everywhere

Rev0 Nov2020

Detailed specifications

Mechanical drawings *Dimensions in mm*



Weighs only 2 grammes !

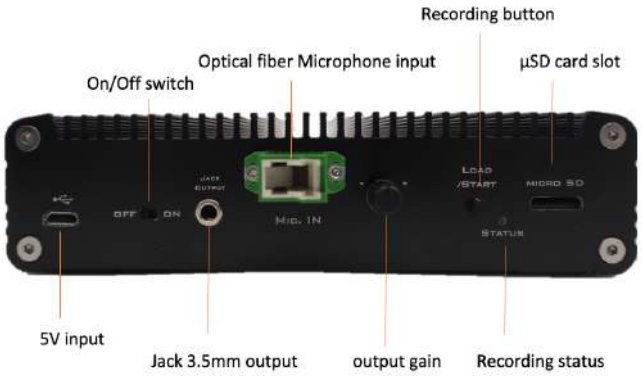
Two types of microphones available:

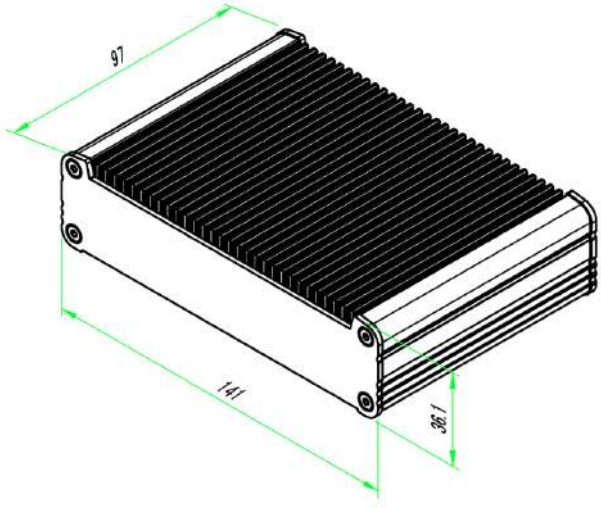
- A straight one



- A right-angled one







Source: TAKACHI ELECTRONICS ENCLOSURE CO., LTD . Showed without connectors. Actual lengths can change.

Optical Fiber Microphone

Material	Ultem (plastic), or metal
Bandwidth	150Hz to 10kHz(±3dB)
Signal-to-Noise Ratio	70dB (measured at 1kHz, 94dB,gain settled at center detent
Max Pressure	130dB SPL
OperatingTempérature	- 10 °C to +50 °C
Storage Température	- 20 °C to +70 °C

Optical Fiber

Dimensions	diameter 0.9 to 3mm
Connector	E2000/APC (built-in protective cap)
Type	Multimode OM1/OM2/OM3/OM4/OM5
Loss of signal	0.3 dB /Km to 0.6 dB/km
Min Radius of Curvature	5 mm instant, 40 mm long term strorage

Conditioner

Dimensions	141x97x36 mm (length x width x height)
Sensitivity	150mV/Pa (measured at 1 kHz,94dB, gain settled at center detent)
Max Output Voltage	+5V
Output connector	Jack 3.5mm
Operating Temperature	0°C to + 40°C
Storage Tempe rature	-20 °c to +70 °c
Power Supply	Wall adapter or smartphone external battery with µUSB
Power Consumption	5V- 0.5 Watt
Battery integrated	18650 format, 3600mAh
Recording	microSD card, up to 32GB

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