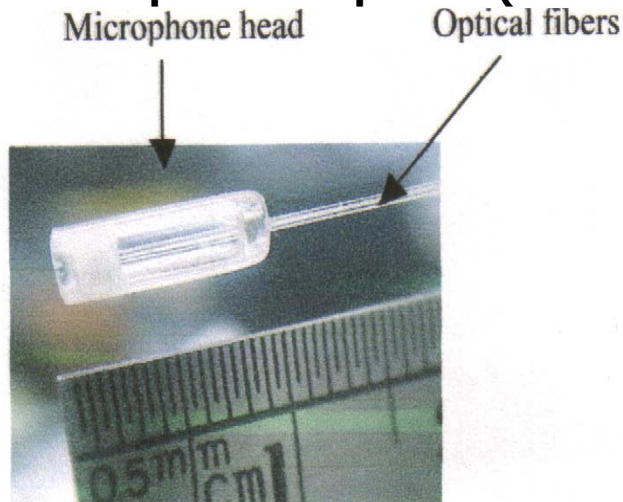


## Fiber Optic Microphone (3046)



- *Miniature in Size*
- *Easy Concealment*
- *Immune to Detection by Electromagnetic and Radio Frequency Detection Means*
- *Excellent Sensitivity and S/N Ratio*
- *Moisture Resistant*
- *One Year Warranty (Parts and Labor)2*

In the field of law enforcement, microphones often need to be employed in tactical operations. Microphones are needed to capture sensitive information, while eluding detection. Because traditional microphones contain metal and electronic circuitry, professional techniques have been developed to discover hidden microphones, such as non-linear junction detectors and other similar devices, which can detect the electromagnetic emissions inherent to these traditional microphones without difficulty.

A new type of microphone has been developed, which is based on unique optical sensor technology. The optical microphone's basic principal of operation involves sending a beam of light via an optical fiber to a sound sensitive, reflective membrane. Sound signals cause the membrane to vibrate and modulate the intensity of the light reflected off the membrane, which is translated into an audio signal through simple electronic processing. Because the microphone head and electronic components are separated by fiberoptics spanning great distances, the electronic portion of the microphone is completely

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isolated from the active microphone head and hence cannot be detected by electromagnetic means.

The optical microphone is ideal for surveillance operations, since it is miniature in size, made of plastic and glass, and immune to detection by both electromagnetic and radio frequency detection means. With excellent sensitivity and S/N ratio, it can record conversations, as well as the shuffling of papers, soft whispering, typing on a keyboard, or walking on a carpeted floor with excellent clarity. It can also function within harsh environments, such as heavy electromagnetic or radio frequency fields, without any disturbance to its performance.

### Specifications:

Polar Pattern	Omni-directional
Frequency Response	250-4500 Hz (+/- 5 dB)
S/N Ratio	64 +/- 3 dB SPL @ 1KHz
Noise Floor	30 +/- 3 dB SPL
Sensitivity	0.5 v/Pa
THD	<1% at 84dB
Max. Static Pressure on Membrane (SPL)	130 dB
Output Impedance	680 $\Omega$ (standard line input)
Supply Voltage	9-12 vDC
Current Drain	80 mA
Standard Optical Fiber Length	10/20 meters
Temperature	10 C to +50 C
Humidity	99% RH, non-condensing
Dimensions of Microphone Head	Length – 21.5mm; Diameter – 4.5mm; Weight – 1g
Dimension of Extension Tube	Length – 6 mm; Diameter – 1.5 mm

Each system is hand-crafted to exacting standards using the highest quality components and materials available. This industrial grade equipment is specifically designed and built for professional government, military and law enforcement use and is individually burned in and thoroughly tested. For your guarantee of quality assurance it comes with a copy of the engineer's test and calibration sheet.

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