



TE 6303
Fibre Optic Microphones Kit

FIBRE OPTIC MICROPHONES KIT

TSE 6303 Optical microphone for surveillance operations and applications requiring RFI/EMI immunity

- Undetectable by conventional means
- EMI/RFI immunity
- Ultra-sensitive microphone,
- excellent sound accuracy
- Miniature size, lightweight
- Easy to conceal
- Fiber length - up to 1 KM with minimal quality loss



The ultra-sensitive SOM optical microphone captures a range of sound from normal conversation to soft whispering or the shuffling of papers with excellent sound accuracy. The SOM is based on our unique optical sensor technology. A beam of light is sent through an optical fiber to a sound sensitive membrane. Sound signals causes the membrane to vibrate and modulate the intensity of the light reflected off the membrane, which is then translated into an electrical signal.

The SOM delivers a high signal to noise (S/N) ratio, so even very low-level sound inputs can be heard clearly and accurately from many meters away. With an omni-directional polar pattern, the SOM can capture sound from all directions, thereby maximizing voice representation. The SOM.s excellent frequency response provides true-to-source sound reproduction.

The SOM cannot be detected by electromagnetic means, since the microphone head neither contains metal parts nor generates electromagnetic fields and is separated from its electronic components by many meters of optical fiber. With its miniature dimensions and versatile configurations, the SOM can be installed in a variety of ways to elude discovery both by the naked eye and sophisticated detection equipment such as non-linear junction detectors. Because of its RFI and EMI immunity, the SOM can continue to operate even in the harshest of environments, without any effect on its performance. These capabilities and characteristics have made the SOM the microphone of choice among law enforcement agencies.

The SOM can be customized for your needs, with the following variables: fiber length, fiber type, fiber color, and the head type. SOM Options include: Noise reduction software, extension cable, SOM Extra with built in battery and volume control and recording device.

The SOM can be used for a variety of other applications, including RFI testing laboratories, medical systems and monitoring sound in harsh environments.

TECHNICAL SPECIFICATIONS

Polar Pattern	Omni-directional
Frequency Range*	250 - 4500 Hz
S/N Ratio*	67 dB(A) @ 1 KHz 94 dB SPL
Sensitivity*	200-850 mV/Pa
THD	<1% at 84 dB SPL
Max. Acoustic Pressure	130 dB SPL
Output Impedance	<100 Ω (standard line input)
Supply Voltage	9-12 V DC
Current Drain	80 mA
Operating Temperature	-20°C to +60°C
Humidity	Up to 95% R.H. @ 40°C
MTBF	>100,000 hours
Standard Optical Fiber Length	10 up to 1000 meter
Dimensions of Microphone Head	Length - 16 mm Diameter - 6.0 mm Weight - 1 gram
Dimensions of Extension Tube	Length - 6 mm Diameter -1.5 mm

*Configuration Dependent





If you would like further Information about ELAMAN,
or would like to discuss a specific requirement or project, please contact us at:

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