



OPTIMIC™ 1140

Fiber Optic Microphone for Indoor Monitoring Applications

Miniature fiber optic microphone for indoor acoustic monitoring applications where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Excellent sound accuracy
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-8,000 Hz
Conformity 30 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 8000 Hz	±4.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 db SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain	80 mA ±10%
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	6/16 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ MRI/MEG scanners
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 1140 System Kit

Complete, versatile,
cost-effective solution

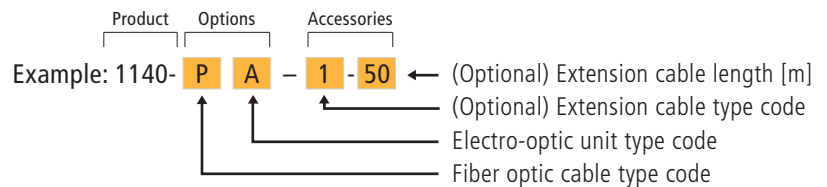
Optoacoustics' OPTIMIC 1140 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



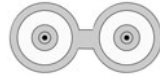
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B
				

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

Optoacoustics is a leading manufacturer of high performance, optical fiber-based sound and vibration sensors. Each of our products combines the natural intelligence of optics and acoustics to meet technical performance demands which cannot be addressed by conventional sensing solutions. Optoacoustics' pioneering technology is protected by over 20 international patents.

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DS-1140-1 1009



OPTIMIC™ 1150

Fiber Optic Microphone for High SPL Applications

Miniature fiber optic microphone for indoor acoustic monitoring of signals with sound pressure levels (SPL) as high as 140 dB. Ideal where the microphone placement footprint is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Linear response of up to 140 dB SPL
- ▶ Extended frequency response
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 10,000 Hz	±1 dB
Conformity 10,000 - 15,000 Hz	±3 dB
Sensitivity	7.5 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤55 dBA SPL
Maximum Acoustic Pressure	140 dB SPL
Total Harmonic Distortion	<1% at 110 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	6/16 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ MRI scanner room SPL measurement
- ▶ MRI earmuff noise measurement
- ▶ fMRI headphone calibration
- ▶ Industrial and noisy environments
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements



OPTIMIC™ 1150 System Kit

Complete, versatile,
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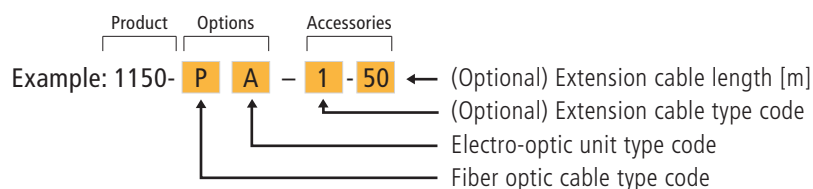
Optoacoustics' OPTIMIC 1150 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4



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DS-1150-1 1009



OPTIMIC™ 1155

Fiber Optic Microphone for High SPL Applications

Miniature fiber optic microphone for indoor acoustic monitoring of signals with sound pressure levels (SPL) as high as 130 dB. Ideal where the microphone placement footprint is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Linear response of up to 130 dB SPL
- ▶ Extended frequency response
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 10,000 Hz	±1 dB
Conformity 10,000 - 15,000 Hz	±3 dB
Sensitivity	15 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤45 dBA SPL
Maximum Acoustic Pressure	130 dB SPL
Total Harmonic Distortion	<1% at 100 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	6/16 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ MRI scanner room SPL measurement
- ▶ MRI earmuff noise measurement
- ▶ fMRI headphone calibration
- ▶ Industrial and noisy environments
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements



OPTIMIC™ 1155 System Kit

Complete, versatile,
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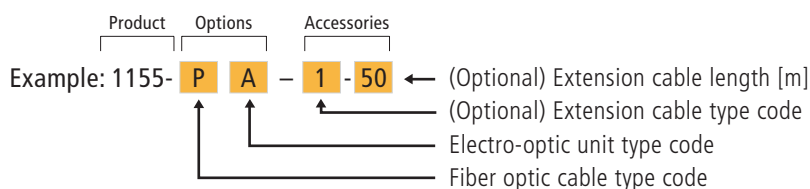
Optoacoustics' OPTIMIC 1155 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



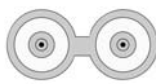
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B
				

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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DS-1150-2 0310



OPTIMIC™ 1160

Fiber Optic Microphone for Extended Frequency Applications

Miniature fiber optic microphone for indoor acoustic monitoring with extended frequency range response. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Extended frequency response
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	6/23 mm
Weight	0.6 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ High fidelity signal monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 1160 System Kit

Complete, versatile,
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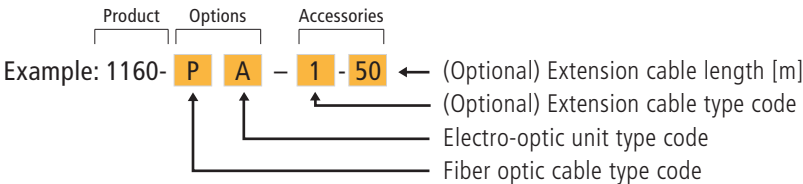
Optoacoustics' OPTIMIC 1160 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4



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DS-1160-1 1009



OPTIMIC™ 1170

Fiber Optic Microphone for Extreme Temperature Applications

Miniature fiber optic microphone for acoustic monitoring at extreme temperatures. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor
- ▶ Suitable for use at extreme temperatures
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-8,000 Hz
Conformity 30 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 8,000 Hz	±4.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain	80 mA ±10%
Operating Temperature	-50 to +120 °C (-58 to +128°F)
Storage Temperature	-50 to +120 °C (-58 to +128 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	6/16 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Extreme cold or hot environments
- ▶ High voltage electrical utilities
- ▶ High RFI and EMI areas
- ▶ Close-proximity machine monitoring
- ▶ Oil and gas detection sites
- ▶ Aerospace measurements
- ▶ Standard outdoor operations
- ▶ Highly explosive areas
- ▶ Petrochemical facilities



OPTIMIC™ 1170 System Kit

Complete, versatile,
cost-effective solution

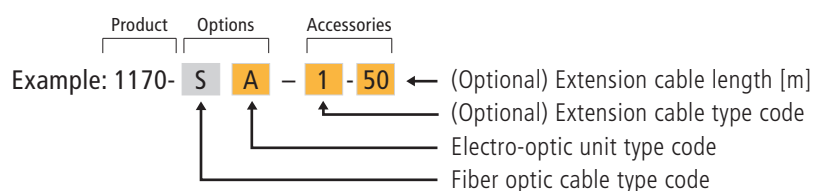
Optoacoustics' OPTIMIC 1170 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



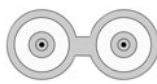
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Clear Teflon Ø 1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	S	A	B
			

Accessories	Extension Cable Type* (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				

* Extension cables listed here are not suitable for operation at extreme temperatures.



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OPTIMIC™ 1180

Fiber Optic Stereo Microphone for Extended Frequency Applications

Miniature fiber optic stereo microphone system for indoor acoustic monitoring with extended frequency range response. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Extended frequency response
- ▶ Matched stereo microphones
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Twin Microphone Amplitude Match	±0.5 dB
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 db SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	130 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head Material	Polycarbonate
Dimensions D/L	6/23 mm
Weight	0.6 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Monitoring two separate locations
- ▶ Sound energy density measurement
- ▶ Stereo fidelity binaural recording
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RFI or EMI areas
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 1180 System Kit

Complete, versatile,
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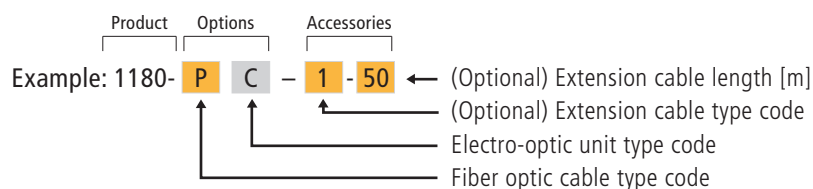
Optoacoustics' OPTIMIC 1180 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



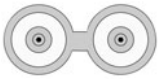
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 300 Stereo
Code	P	F	C
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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DS-1180-1 1009



OPTIMIC™ 1195

Fiber Optic Microphone for High SNR, Wide Frequency Applications

Miniature optical microphone for acoustic monitoring that requires high signal-to-noise ratios (SNR) and wide frequency response. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ High SNR, Wide Frequency
- ▶ Noise levels lower than ECM electret microphones
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Headphone output and volume control
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	250 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise Levels	≤22 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head Material	Polycarbonate
Dimensions D/L	6/30 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Extremely low level noise monitoring
- ▶ Long range peer-to-peer monitoring
- ▶ 'No interference' signal monitoring
- ▶ Oil and gas detection sites
- ▶ High voltage electrical utilities
- ▶ Highly explosive areas
- ▶ High RFI and EMI areas
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 1195 System Kit

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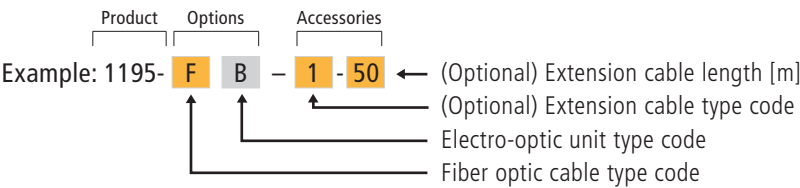
Optoacoustics' OPTIMIC 1195 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

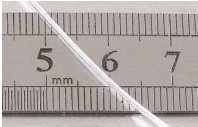
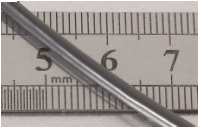


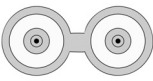
Optoacoustics EOU 200 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 200 Single Channel
Code	P	F	B
			

Accessories	Extension Cable Type (Specify length from 10-1000 m)		
Item	Outdoor, Milspec Ø 5 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	3	4
			



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DS-1195-1 1013



OPTIMIC™ 1195

Fiber Optic Microphone for High SNR, Wide Frequency Applications

Miniature optical microphone for acoustic monitoring that requires high signal-to-noise ratios (SNR) and wide frequency response. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ High SNR, Wide Frequency
- ▶ Noise levels lower than ECM electret microphones
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Headphone output and volume control
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	250 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise Levels	≤22 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head Material	Polycarbonate
Dimensions D/L	6/30 mm
Weight	0.5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Extremely low level noise monitoring
- ▶ Long range peer-to-peer monitoring
- ▶ 'No interference' signal monitoring
- ▶ Oil and gas detection sites
- ▶ High voltage electrical utilities
- ▶ Highly explosive areas
- ▶ High RFI and EMI areas
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 1195 System Kit

Complete, versatile,
cost-effective solution

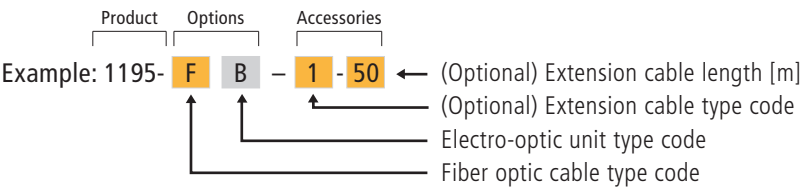
Optoacoustics' OPTIMIC 1195 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

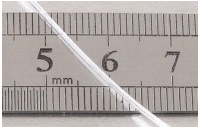
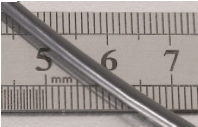


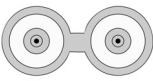
Optoacoustics EOU 200 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 200 Single Channel
Code	P	F	B
			

Accessories	Extension Cable Type (Specify length from 10-1000 m)		
Item	Outdoor, Milspec Ø 5 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	3	4
			



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

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DS-1195-1 1013



OPTIMIC™ 1200

Fiber Optic Microphone for Extremely Demanding Applications

Miniature optical microphone for acoustic monitoring with extended frequency response, high SNR over long distances and at extreme temperatures. Ideal where the footprint for microphone placement is severely limited or where the microphone is a sub-component in another device or system.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Extended frequency response
- ▶ High SNR over long distances
- ▶ Noise levels lower than ECM electret microphones
- ▶ Suitable for use at extreme temperatures
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional		
Frequency Response	10-15,000 Hz		
Conformity 10 - 1,000 Hz	±0.5 dB		
Conformity 1,000 - 15,000 Hz	±3.0 dB		
Sensitivity	100 mV/Pa ±10% at 1 kHz		
Equivalent Self-Noise Levels	≤19 dBA	≤21 dBA	≤34 dBA
At Distances	10 m	100 m	1000 m
Maximum Acoustic Pressure	114 dB SPL		
Total Harmonic Distortion	<1% at 84 dB SPL		
Equivalent Vibration Sensitivity	Max. 45 db SPL/g at 1 kHz		
Supply Voltage	8-15 V DC		
Current Drain (max.)	110 mA		
Operating Temperature	-50 to +120 °C (-58 to +248 °F)		
Storage Temperature	-50 to +120 °C (-58 to +248 °F)		
Humidity - 1000 hours	Up to 95% RH at 40 °C		
MTBF	>100,000 hours		
Microphone Head Material	Polycarbonate		
Dimensions D/L	6/23 mm		
Weight	0.6 g		
Optical Cable Length	10 m		

APPLICATIONS

- ▶ Extreme environments requiring high fidelity monitoring
- ▶ Extremely low noise level monitoring
- ▶ High voltage electrical utilities
- ▶ Long range peer-to-peer monitoring
- ▶ High RFI and EMI areas
- ▶ Close-proximity machine monitoring
- ▶ Oil and gas detection sites
- ▶ Petrochemical facilities



OPTIMIC™ 1200 System Kit

Complete, versatile, cost-effective solution

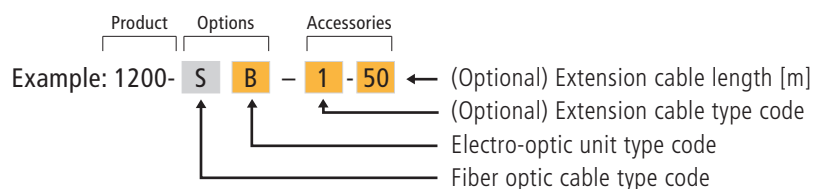
Optoacoustics' OPTIMIC 1200 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Clear Teflon Ø 1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	S	A	B

Accessories	Extension Cable Type (Specify length from 10-1000 m)		
Item	Outdoor, Milspec Ø 5 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	3	4

* Extension cables listed here are not suitable for operation at extreme temperatures.



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DS-1120-1 1009



OPTIMIC™ 2140

Ruggedized Fiber Optic Microphone for Remote Monitoring Applications

Stand-alone, ruggedized fiber optic microphone for indoor and outdoor acoustic monitoring applications. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Excellent sound accuracy
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-8,000 Hz
Conformity 30 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 8,000 Hz	±4.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	80 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Industrial equipment monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 2140 System Kit

Complete, versatile,
cost-effective solution

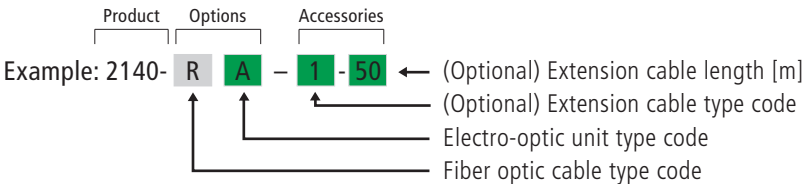
Optoacoustics' OPTIMIC 2140 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4



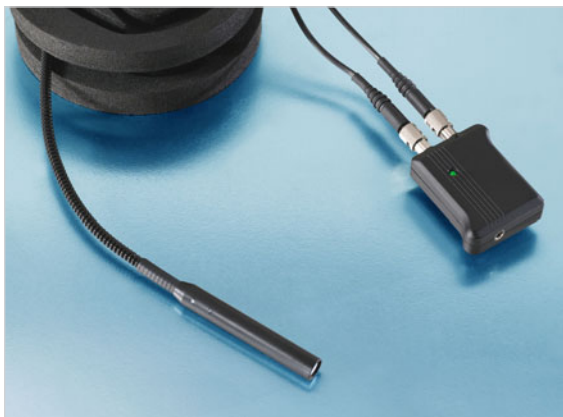
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OPTIMIC™ 2150

Ruggedized Fiber Optic Microphone for High SPL Applications

Fiber optic microphone for indoor and outdoor acoustic monitoring of signals with sound pressure levels (SPL) as high as 140 dB. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Linear response at up to 140 dB SPL
- ▶ Extended frequency response
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 10,000 Hz	±1 dB
Conformity 10,000 - 15,000 Hz	±3 dB
Sensitivity	7.5 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤55 dBA
Maximum Acoustic Pressure	140 dB SPL
Total Harmonic Distortion	<1% at 110 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Hazardous area SPL measurement
- ▶ Industrial equipment monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 2150 System Kit

Complete, versatile,
cost-effective solution

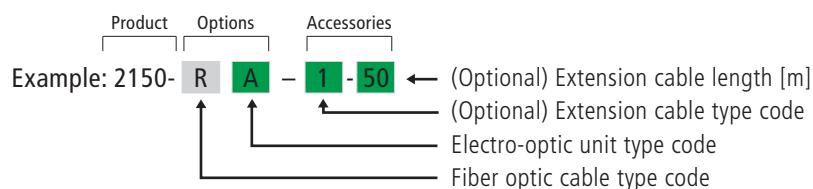
Optoacoustics' OPTIMIC 2150 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

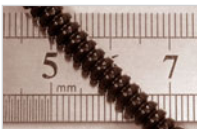


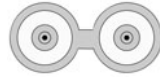
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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OPTIMIC™ 2155

Ruggedized Fiber Optic Microphone for High SPL Applications

Fiber optical microphone for indoor and outdoor acoustic monitoring of signals with sound pressure levels (SPL) as high as 130 dB. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Linear response at SPL of up to 130 dB
- ▶ Extended frequency response
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 10,000 Hz	±1.0 dB
Conformity 10,000 - 15,000 Hz	±3.0 dB
Sensitivity	15 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤45 dBA
Maximum Acoustic Pressure	130 dB SPL
Total Harmonic Distortion	<1% at 100 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/1 g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Hazardous area SPL measurement
- ▶ Industrial equipment monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 2155 System Kit

Complete, versatile,
cost-effective solution

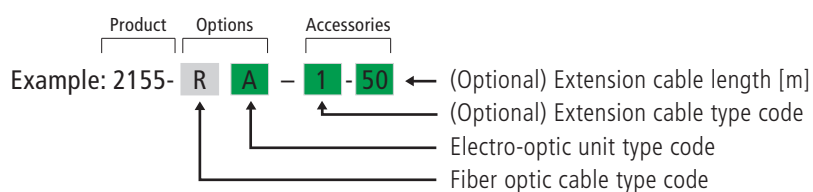
Optoacoustics' OPTIMIC 2155 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

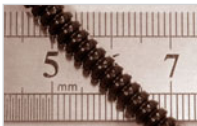


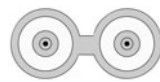
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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OPTIMIC™ 2160

Ruggedized Fiber Optic Microphone for Extended Frequency Applications

Fiber optic microphone for indoor and outdoor acoustic monitoring with extended frequency range response. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Extended frequency response
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	80 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ High fidelity equipment monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 2160 System Kit

Complete, versatile,
cost-effective solution

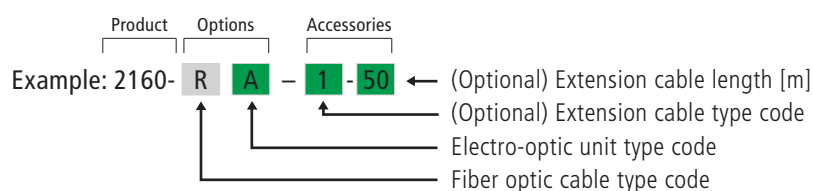
Optoacoustics' OPTIMIC 2160 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

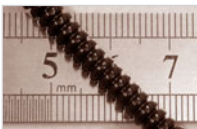


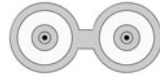
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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OPTIMIC™ 2170

Ruggedized Fiber Optic Microphone for Extreme Temperature Applications

Fiber optic microphone for indoor and outdoor acoustic monitoring at extreme temperatures. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor
- ▶ Suitable for use at extreme temperatures
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-8,000 Hz
Conformity 30 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 8,000 Hz	±4.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	80 mA
Operating Temperature	-50 to +120 °C (-58 to +248 °F)
Storage Temperature	-50 to +120 °C (-58 to +248 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Extreme cold or hot environments
- ▶ High voltage electrical utilities
- ▶ High RFI and EMI areas
- ▶ Close-proximity machine monitoring
- ▶ Oil and gas detection sites
- ▶ Aerospace measurements
- ▶ Robust outdoor operations
- ▶ Highly explosive areas
- ▶ Petrochemical facilities



OPTIMIC™ 2170 System Kit

Complete, versatile,
cost-effective solution

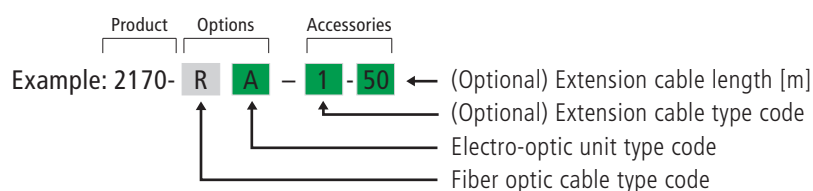
Optoacoustics' OPTIMIC 2170 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

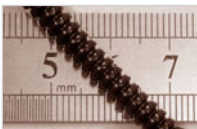


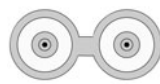
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				

* Extension cables listed here are not suitable for operation at extreme temperatures.



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DS-2170-1 1009



OPTIMIC™ 2180

Ruggedized Infrasound Fiber Optic Microphone, Extended Frequency

Fiber optic microphone for indoor/outdoor acoustic monitoring with infrasound and extended frequency range response. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no electrical parts
- ▶ Infrasound capability
- ▶ Extended frequency response
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	0.5-15,000 Hz
Conformity 0.5 - 1,000 Hz	±1.0 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Noise Density	0 dB SPL / √ Hz at 10 Hz
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Supply Voltage	8-15 V DC
Current Drain (max.)	80 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	30/90 mm
Weight	28 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ High fidelity equipment monitoring
- ▶ Oil and gas detection sites
- ▶ Aerospace measurements
- ▶ Infrasound measurements
- ▶ Highly explosive areas
- ▶ Petrochemical facilities
- ▶ High voltage electrical utilities
- ▶ High RFI and EMI areas
- ▶ EMC test labs



OPTIMIC™ 2180 System Kit

Complete, versatile,
cost-effective solution

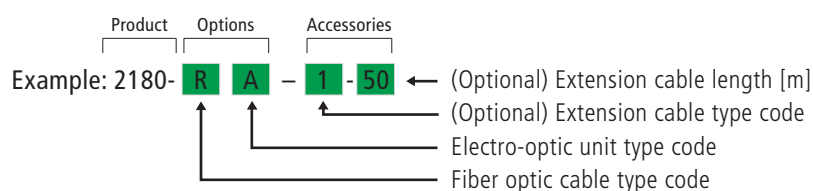
Optoacoustics' OPTIMIC 2180 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

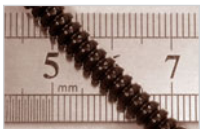


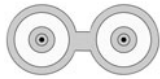
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	Milspec Ø 5 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	M	A	B
				

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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SOUND SOLUTIONS FROM LIGHT TECHNOLOGY



OPTIMIC™ 2182

Ruggedized Infrasound Microphone, with Extended Frequency, High SPL

Fiber optic microphone for indoor/outdoor acoustic monitoring with infrasound, extended frequency range response and high SPL. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no electrical parts
- ▶ Infrasound capability
- ▶ Extended frequency response and high SPL
- ▶ Standard analog output
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	0.5-15,000 Hz
Conformity 0.5 - 1,000 Hz	±1 dB
Conformity 1,000 - 15,000 Hz	±3 dB
Sensitivity	3 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤60 dBA
Maximum Acoustic Pressure	150 dB SPL
Total Harmonic Distortion	<1% at 120 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Delrin
Dimensions D/L	30/90 mm
Weight	28 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Infrasound measurements
- ▶ High fidelity equipment monitoring
- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High RFI and EMI areas
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 2182 System Kit

Complete, versatile,
cost-effective solution

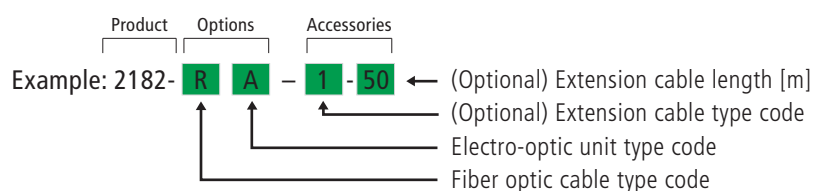
Optoacoustics' OPTIMIC 2182 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	Milspec Ø 5 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	M	A	B

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4



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OPTIMIC™ 2190

Ruggedized Fiber Optic Microphone for High SNR, Long Range Applications

Fiber optic microphone for indoor and outdoor acoustic monitoring that requires high signal-to-noise ratios (SNR) over extended distances. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ High SNR over long distances
- ▶ Noise levels lower than best electret microphones
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional		
Frequency Response	10-10,000 Hz		
Conformity 10 - 1,000 Hz	±0.5 dB		
Conformity 1,000 - 10,000 Hz	±3.0 dB		
Sensitivity	100 mV/Pa ±10% at 1 kHz		
Equivalent Self-Noise Levels	≤19 dBA	≤21 dBA	≤34 dBA
At Distances	10 m	100 m	1000 m
Maximum Acoustic Pressure	114 dB SPL		
Total Harmonic Distortion	<1% at 84 dB SPL		
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz		
Supply Voltage	8-15 V DC		
Current Drain (max.)	110 mA		
Operating Temperature	-20 to +60 °C (-4 to +140 °F)		
Storage Temperature	-20 to +60 °C (-4 to +140 °F)		
Humidity - 1000 hours	Up to 95% RH at 40 °C		
MTBF	>100,000 hours		
Microphone Head Material	Delrin		
Dimensions D/L	10/70 mm		
Weight	5 g		
Optical Cable Length	10 m		

APPLICATIONS

- ▶ Extremely low level noise monitoring
- ▶ Long range peer-to-peer monitoring
- ▶ 'No interference' signal monitoring
- ▶ Oil and gas detection sites
- ▶ High voltage electrical utilities
- ▶ Highly explosive areas
- ▶ High RFI and EMI areas
- ▶ Aerospace measurements
- ▶ Petrochemical facilities



OPTIMIC™ 2190 System Kit

Complete, versatile, cost-effective solution

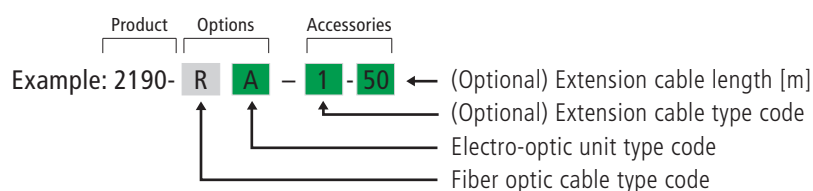
Optoacoustics' OPTIMIC 2190 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optical unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

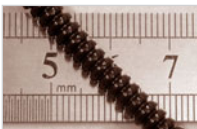


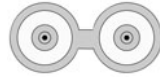
Optoacoustics EOU 100 electro-optical unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-1000 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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OPTIMIC™ 2200

Ruggedized Fiber Optic Microphone for Extremely Demanding Applications

Fiber optic microphone for indoor and outdoor acoustic monitoring with extended frequency range response, high SNR over long distances and at extreme temperatures. Ideal for industrial use, placement in heavy machinery, or where the microphone requires very robust housing and fiber cables.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Extended frequency response
- ▶ High SNR over long distances
- ▶ Noise levels lower than best electret microphones
- ▶ Suitable for use at extreme temperatures
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	10-15,000 Hz
Conformity 10 - 1,000 Hz	±0.5 dB
Conformity 1,000 - 15,000 Hz	±3.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤19 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Equivalent Vibration Sensitivity	Max. 45 dB SPL/g at 1 kHz
Supply Voltage	8-15 V DC
Current Drain (max.)	110 mA
Operating Temperature	-50 to +120 °C (-58 to +248 °F)
Storage Temperature	-50 to +120 °C (-58 to +248 °F)
Humidity - 1000 hours	Up to 95% RH at 40 °C
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Dimensions D/L	10/70 mm
Weight	5 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Extreme environments requiring high fidelity monitoring
- ▶ Extremely low noise level monitoring
- ▶ Highly explosive areas
- ▶ Close-proximity machine monitoring
- ▶ Oil and gas detection sites
- ▶ High RFI and EMI areas
- ▶ High voltage electrical utilities
- ▶ Petrochemical facilities



OPTIMIC™ 2200 System Kit

Complete, versatile,
cost-effective solution

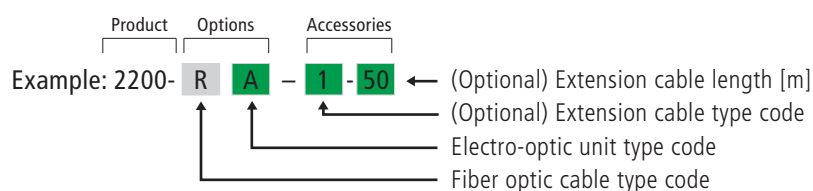
Optoacoustics' OPTIMIC 2200 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.

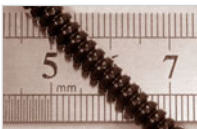


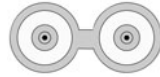
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type	
Item	Black Polyamide Ø 5.1 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	R	A	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				

* Extension cables listed here are not suitable for operation at extreme temperatures.



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SOUND SOLUTIONS FROM LIGHT TECHNOLOGY



OPTIMIC™ 4110

Fiber Optic Microphone for Monitoring Very Weak Signals

Ultra-low noise fiber optic microphone designed for monitoring very weak acoustic signals in selected frequency bandwidths. Ideal for photoacoustic spectroscopy as well as monitoring applications using software or hardware to detect faint signals.

FEATURES

- ▶ Small, lightweight MEMS design
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Extremely low noise, band-limited frequency range
- ▶ Customizable by application
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional	
Resonance Model Options	Model A	Model B
Frequency Response (Resonance)	1.65 kHz	10.5 kHz
Conformity -3.0 dB	1.40 - 1.80 kHz	10.0 - 11.0 kHz
Conformity -10.0 dB	0.9 - 2.10 kHz	9.0 - 12.0 kHz
Sensitivity	500 V/Pa $\pm$ 10%	
Equivalent Self-Noise	$\leq$ 5 dBA ($<$ -3 dB SPL/ $\sqrt{\text{Hz}}$)	
Maximum Linear Acoustic Pressure	54 dB SPL	
Total Harmonic Distortion	$<$ 1% at 54 dB SPL	
Equivalent Vibration Sensitivity	Max. 30 dB SPL/g at Resonance	
Supply Voltage	8-15 V DC	
Current Drain (max.)	$<$ 110 mA	
Operating Temperature	-20 to +60 °C (-4 to +140 °F)	
Storage Temperature	-20 to +60 °C (-4 to +140 °F)	
Humidity - 1000 hours	Up to 95% RH at 40 °C	
MTBF	$>$ 100,000 hours	
Microphone Head	Polycarbonate	
Dimensions D/L	6/33 mm	
Weight	1.5 g	
Optical Cable Length	10 m	

APPLICATIONS

- ▶ Photoacoustic spectroscopy
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High voltage electrical utilities
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ EMC test labs



OPTIMIC™ 4110 System Kit

Complete, versatile,
cost-effective solution

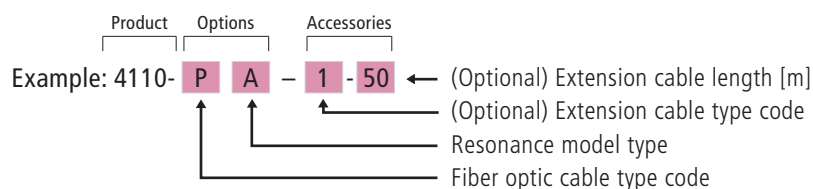
Optoacoustics' OPTIMIC 4110 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



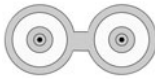
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel
Code	P	F	A
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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SOUND SOLUTIONS FROM LIGHT TECHNOLOGY



OPTIMIC™ 4120

Waterproof Fiber Optic Microphone for Remote Monitoring

Fully sealed fiber optic microphone for remote monitoring applications. Designed specifically for use in seawater, wet or extremely humid environments.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor
- ▶ Waterproof and submersible to depths of 15 meters
- ▶ Customizable by application
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Exceptionally low sensitivity to vibration
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-10,000 Hz
Conformity 30 - 1,000 Hz	±3.0 dB
Conformity 1,000 - 7,000 Hz	±10.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Supply Voltage	8-15 V DC
Current Drain	80 mA ±10%
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Water Resistant	Up to 15 m
MTBF	>100,000 hours
Microphone Head	
Material	Polycarbonate
Maximum Diameter	27 mm
Maximum Length	12 mm
Weight	6 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Water area or portside monitoring
- ▶ Extremely humid environments
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High voltage electrical utilities
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Petrochemical facilities



OPTIMIC™ 4120 System Kit

Complete, versatile,
cost-effective solution

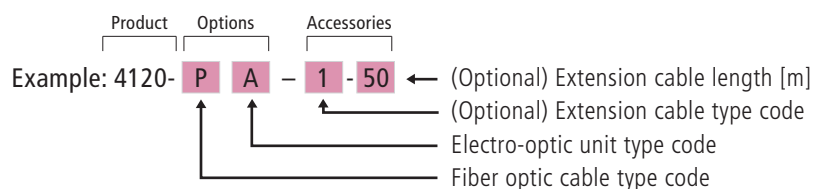
Optoacoustics' OPTIMIC 4120 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



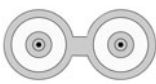
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type	
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B
				

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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OPTIMIC™ 4122

Waterproof Fiber Optic Microphone for Remote Monitoring

Fully sealed fiber optic microphone for remote monitoring applications. Designed specifically for use in seawater, wet or extremely humid environments.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor
- ▶ Waterproof and submersible to depths of 15 meters
- ▶ Customizable by application
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Mil Std Hermetic duplex connector
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-10,000 Hz
Conformity 30 - 1,000 Hz	±3.0 dB
Conformity 1,000 - 10,000 Hz	±10.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114dB SPL
Total Harmonic Distortion	<1% at 114 dB SPL
Supply Voltage	24 V DC
Current Drain	80 mA ±10%
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Water Resistant	Up to 15 m
MTBF	>100,000 hours
Microphone Head	
Material	Aluminium Alloy
Maximum Diameter	25 mm
Maximum Length	65 mm
Weight	32 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Water area or portside monitoring
- ▶ Extreme sports monitoring
- ▶ Extremely humid environments
- ▶ Ocean shipping containers
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High voltage electrical utilities
- ▶ High RFI or EMI areas
- ▶ Petrochemical facilities



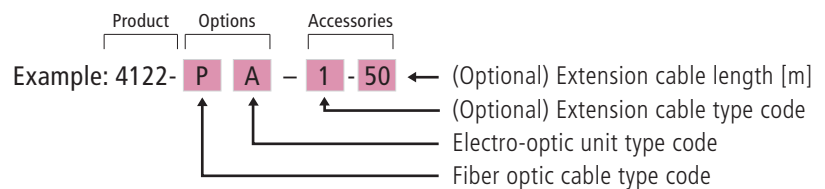
OPTIMIC™ 4122 System Kit

Complete, versatile,
cost-effective solution

Optoacoustics' OPTIMIC 4122 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized storage case.

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type		
Item	Outdoor, Milspec Ø 5 mm	EOU 200 Single Channel	EOU 400 Dual Channel Industrial	EOU 2500 Multichannel Rack-mount
Code	P	A	E	J
				

Accessories	Extension Cable Type (Specify length from 10-100 m)	
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm
Code	1	2
		



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

Optoacoustics is a leading manufacturer of high performance, optical fiber-based sound and vibration sensors. Each of our products combines the natural intelligence of optics and acoustics to meet technical performance demands which cannot be addressed by conventional sensing solutions. Optoacoustics' pioneering technology is protected by over 20 international patents.

HEADQUARTERS

17 Hata'asia Street
60212 Or-Yehuda
Israel

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DS-4122-1 1010



OPTIMIC™ 4130

Fiber Optic Contact Microphone

Contact fiber optic microphone designed for structure-borne monitoring in the audio range.

FEATURES

- ▶ Robust design suited to medical applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Excellent for monitoring structure-borne sounds
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Available in two frequency response ranges
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Device Type	Contact microphone	
Model Options	Model A	Model B
Frequency Response	10-200 Hz	10-5,000 Hz
Conformity	±3.0 dB	±10.0 dB
Sensitivity at 1 mg (RMS)	10 mV	10 mV
Equivalent Self-Noise	≤2 µg	≤5 µg
Maximum acceleration	0.3 g	0.3 g
Supply Voltage	8-15 V DC	
Current Drain (max.)	80 mA	
Operating Temperature	-20 to +60 °C (-4 to +140 °F)	
Storage Temperature	-20 to +60 °C (-4 to +140 °F)	
Water Resistant	Up to 10 m	
MTBF	>100,000 hours	
Microphone Head		
Material	Polycarbonate	
Diameter	36 mm	
Weight	18 g	
Optical Cable Length	10 m	

APPLICATIONS

- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ Heart monitoring (Model A)
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ Homeland security



OPTIMIC™ 4130 System Kit

Complete, versatile,
cost-effective solution

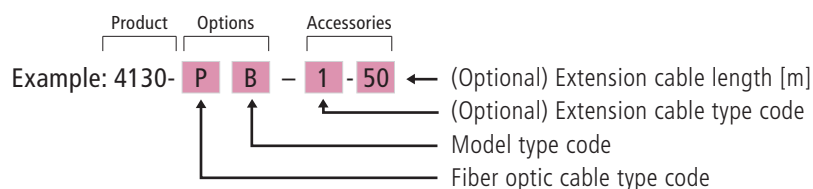
Optoacoustics' OPTIMIC 4130 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



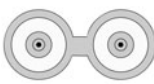
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type		Electro-Optic Unit Type
Item	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 200 Single Channel
Code	P	F	B
			

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



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DS-4130-1 1009



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

EOU 100



Single Channel EOU 100 is extremely compact. It features a pair of ST fiber optic connectors; a 3.5 mm socket for analog output; green LED voltage indicator. Unit uses external DC power only.

EOU 200 / 250 / 275



Single Channel EOU 200 features two analog outputs (one with volume control for headphones, another with fixed gain for monitor equipment); one pair of ST fiber optic connectors; two 3.5 mm sockets (one for analog output, another for headphones); green/red LED voltage indicator. **EOU 250** adds a DSP for up to 22 dB of real-time ambient noise removal (three levels: low, mid, high). **EOU 275** includes DSP as well as 16-bit uncompressed SD Flash memory card recorder.

EOU 300 / 350 / 375



Dual Channel EOU 300 supports monitoring with two sensors simultaneously. It features two pairs of ST fiber optic connectors; two 3.5 mm stereo sockets (one for analog output, another for headphones); dual volume control knobs; green/red LED voltage indicator. **EOU 350** adds a DSP for up to 22 dB of real-time ambient noise removal (three levels: low, mid, high). **EOU 375** includes DSP as well as 16-bit uncompressed SD Flash memory card recorder.

Indoor EOU Models - OPTIMIC FAMILY

Single and Dual Channel; DSP-Based and Built-In Flash Recorder Options

Our compact indoor electro-optical unit (EOU) series provides regular analog signals for high performance recording, monitoring and analyzing equipment. Optoacoustics manufactures a complete line to suit every application.

Each of our EOU units is designed to drive its designated OPTIMIC fiber optic microphones at consistent, peak performance.

INDOOR EOU SERIES TECHNICAL SPECIFICATIONS

EOU Model	100	200	250/275	300	350/375
Signal Output [V p-p]	5	5 / 9	5 / 9	5 / 9	5 / 9
Battery Type	None	9V	9V	4 x AA	4 x AA
Power Supply [V]	8-15	8-15	8-15	8-15	8-15
Power Consumption [mA]	80	70	120	130	130
Power Supply Connector	3.5 mm	3.5 mm	3.5 mm	3.5 mm	3.5 mm
Headphone Output	None	Mono	Mono	Stereo	Stereo
Line Output	Yes	Yes	Yes	Yes	Yes
Adjustable Gain Range [dB]	None	45	45	45	45
DSP Latency, 16 kHz Sampling	None	None	32 msec	None	32 msec
Flash Recorder Built-In	None	None	on 275	None	on 375
Micro SD Flash Sampling Rate	N/A	N/A	44.1 kHz	N/A	44.1 kHz
Operating Temperature	-20 to +60 °C (-4 to +140 °F)				
EOU Box					
Material	Zinc Alloy	Anodized Aluminum			
Weight [g]	75	210	230	330	330
Dimensions [mm]	W 45	W 67	W 67	W 86	W 86
	D 65	D 110	D 110	D 175	D 175
	H 16	H 27	H 27	H 28	H 28
Optical Connector Type	ST	ST	ST	ST	ST
Line Out Connector	3.5 mm	3.5 mm	3.5 mm	3.5 mm	3.5 mm
Audio Out Connector	BNC	BNC	BNC	BNC	BNC

EOU 400



Dual Axis EOU 400 can monitor up to two sensors simultaneously. It features two analog outputs; two pairs of ST-style fiber optic connectors; screw terminals for power input, test points and analog outputs; a green/red LED optical line condition indicator. Mountable with external DC power supply.

EOU 500



Single Axis EOU 500 with liquid crystal display for real-time readout of data, supports monitoring up to two sensors simultaneously. It features one analog output; one pair of ST-style fiber optic connectors; screw terminals for power input, test points and analog outputs; a green/red LED optical line condition indicator. Mountable with external DC power supply.

EOU 2100



Six Channel EOU 2100, 19-inch 3U rack-mountable, supports monitoring up to 12 sensors simultaneously. For each channel the unit features one analog (BNC) output connector, one pair of ST-style fiber optic connectors, a +20 dB gain toggle switch, a green/red LED optical line condition indicator, and test point and trimmer to enable channel-level sensor tuning for optimal operation. Internal AC/DC power supply.

Industrial EOU Models - FOSA FAMILY

Single and Dual Axis; Bench and Standard Rack Mountable Models

Our mountable industrial electro-optical unit (EOU) series provides regular analog signals for high performance monitoring and analyzing equipment. Optoacoustics manufactures a model to suit every application.

Each of our EOU units is designed to drive its designated FOSA fiber optic accelerometers at consistent, peak performance.

INDUSTRIAL EOU SERIES TECHNICAL SPECIFICATIONS

EOU Model	400	500	2100
Signal Output [V p-p]	9/16	9	9/16
Supply Voltage [V]	12	12	100/220
Current Drain (max) [mA]	200	200	100
Power Supply Connector	Screw	Screw	Mains Plug
Line Out Connector	Screw	Screw	BNC
Optical Connector Type	ST	ST	ST
Adjustable Gain Range [dB]	None	None	+20 dB
Display Type	None	LCD	None
Channel-Level Test Points	Yes	Yes	Yes
Channel-Level Trimmers	Yes	Yes	Yes
Operating Temperature	-20 to +60 °C (-4 to +140 °F)		
EOU Box			
Material	Polycarbonate	Metal	
Weight [g]	150	200	4500
Dimensions [mm]	W 112	W 100	W 19 in
	D 65	D 110	D 9.5 in
	H 70	H 70	H 3U