

SECTOR-PRO

VER. OIR. SENTIR...

EQUIPAMIENTO TECNICO

SALAS PEQUEÑAS

1.- VIDEO PROYECTORES

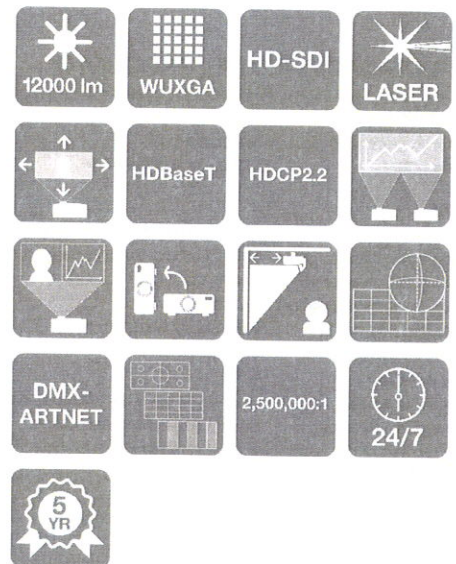
EPSON 12 K EB-L1505UH. (12.000 lumens)***

***** MEJORA**

EB-L1505UH



FICHA TÉCNICA



Potente proyector láser 3LCD WUXGA de 12.000 lúmenes que ofrece un brillo y una nitidez de imagen excepcionales, un rendimiento de larga duración y un mantenimiento reducido.

El proyector láser EB-L1505UH ofrece un potente rendimiento WUXGA de 12.000 lúmenes con colores brillantes y vivos, es perfecto para usarse en salas grandes y auditorios, y una vez instalado, no tendrás que preocuparte de nada más. Dado que su instalación se adapta a cualquier situación y no requiere un mantenimiento alto, este proyector mejorado con tecnología 4K constituye una solución perfecta para los espacios que exijan un rendimiento y una resistencia superiores.

Imágenes con precisión láser

Asegúrate de que tus presentaciones, imágenes y vídeos causan un gran impacto con la proyección vívida y nítida de este proyector láser 3LCD. Está diseñado para usarse en salas de gran tamaño, las imágenes de alta resolución WUXGA que proyecta son vivas y brillantes, incluso a plena luz del día, mientras que la tecnología de rueda de fósforo inorgánica proporciona una luz superior y resistencia al calor para ofrecer una excelente fiabilidad que dura hasta 83.000 horas¹.

Mejora 4K

Para una experiencia de visualización de un nivel superior, el proyector cuenta con mejora de 4K que confiere una nitidez y una claridad excepcionales a las imágenes, y garantiza que el texto de las presentaciones se lea a la perfección.

Colocación flexible

Gracias a una nueva gama de lentes motorizadas, que incluyen opcionalmente lentes de distancia ultracorta (UST por sus siglas en inglés), el proyector se beneficia de una auténtica flexibilidad de instalación de 360°, lo que permite su colocación casi en cualquier lugar sin que se pierda brillo ni se distorsione la imagen. El proyector también dispone de una cámara incorporada para garantizar la precisión en la calibración y la captura de imágenes con fines diagnósticos (puede desactivarse por completo para evitar el acceso remoto).

Nuevo software versátil

Todos los modelos de la serie EB-L1000 pueden aprovechar las ventajas del software Epson Professional Projector Tool gratuito a partir de diciembre de 2017. Permite configurar instalaciones de varios proyectores de inmediato, con facilidad y rapidez, así como utilizar técnicas avanzadas como la asignación de proyección y la combinación de bordes.

CARACTERÍSTICAS PRINCIPALES

- **Tecnología de fuente de luz láser**
Brillo y colores excepcionales, y una vez instalado, no tendrás que preocuparte de nada más.
- **Imágenes en alta definición (HD) con tecnología de mejora 4K**
Nitidez excepcional, claridad y detalle para conseguir imágenes claras y texto legible
- **Nuevo software versátil**
Configura varios proyectores y utiliza técnicas de proyección avanzada
- **Instalación flexible 360°**
Flexibilidad total sin distorsión ni pérdida de luminosidad
- **Mayor tranquilidad**
El producto incluye una garantía de 5 años, 20.000 horas.



EPSON[®]
EXCEED YOUR VISION

ESPECIFICACIONES DEL PRODUCTO

TECNOLOGÍA

Sistema de proyección	Tecnología 3LCD
Pantalla LCD	1,03 pulgada con C2 Fine

IMAGEN

Emisión de luz en color	12.000 Lumen - 8.400 Lumen (económico) de conformidad con IDMS15.4
Emisión de luz blanca	12.000 Lumen - 8.400 Lumen (económico) de conformidad con ISO 21118:2012
Emisión de luz en color vertical	12.000 lm
Emisión de luz blanca vertical	12.000 lm
Resolución	WUXGA, 1920 x 1200, 16:10
Relación de contraste	2.500.000 : 1
Native Contrast	2.000 : 1
Corrección keystone	Manual vertical: ± 45 °, Manual horizontal ± 30 °
Reproducción del color	Hasta 1.070 millones de colores

ASPECTO

Relación proyección	1,57 - 2,56:1
Zoom	Motorizado, Factor: 1 - 1,6
Lens position memory	10 positions
Tamaño de la imagen	60 pulgadas - 500 pulgadas
Distancia proyector objetivo gran angular	2 m - 17,2 m
Distancia proyector tele	3,3 m - 27,8 m
Distancia de proyección gran angular/teleobjetivo	1,99 m - 27,77 m
Lente de proyección número F	1,8 - 2,5
Distancia focal	36 mm - 57,35 mm
Foco	Motorizado

CONECTIVIDAD

Interfaces	Entrada de audio Stereo mini-jack (3x), Salida de audio Stereo mini-jack, HD-BaseT, Entrada BNC, Entrada HDMI, Entrada DVI, Salida VGA, Entrada VGA, Interfaz Ethernet (100 Base-TX/10 Base-T), RS-232C, USB 2.0 Tipo B (Sólo Servicio), HD-SDI, LAN inalámbrica b/g/n (2,4 GHz) (opcional)
Aplicación Epson iProjection	Ad-Hoc / Infraestructura

FUNCIONES AVANZADAS

Seguridad	Protección Kensington, Barra de seguridad, Bloqueo de unidad LAN inalámbrica, Seguridad de LAN inalámbrica, Protección por contraseña
Características	4K mejora, Negro profundo, Calibración automática, Logo de usuario personalizable, Interpolación de fotogramas, Cámara integrada para la calibración y la captura de imágenes, Memoria de posición de la lente
Modos de color	Cine, Dinámico, Presentación, DICOM SIM, Multi Projection, BT709

GENERAL

Consumo de energía	908 vatio, 597 vatio (económico), 0,3 vatio (Standby), On mode power consumption as defined in JBMS-84 833 vatio
Dimensiones del producto	586 x 492 x 211 mm (ancho x profundidad x altura)

OTROS

Garantía	60 meses Reparación en taller o 20.000 h Ampliación de garantía opcional disponible
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INFORMACIÓN LOGÍSTICA

Código SKU	V11H910140
Código de barras	8715946647005
País de origen	China

Epson Ibérica, S.A.U.
Tel.: 93 582 15 00
Tel.: 902 49 59 69 (Preventa)
Fax: 93 582 15 55
www.epson.es

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08195 Sant Cugat del Vallès (Barcelona)

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EB-L1505UH

INCLUYE

- Mando a distancia incl. pilas
- Guía rápida
- Cable de alimentación y señal (3 m)
- Cable VGA
- Cubierta de cable
- Manual en CD

ACCESORIOS OPCIONALES

- Air Filter - ELPAF51
V13H134A51
- 3D Polarizer - ELPLP01
V12H618A01
- Ceiling Mount - ELPMB47 Low EB-G7000/L1000
V12H802010
- Ceiling Mount - ELPMB48 High EB-G7000/L1000
V12H803010
- HDBaseT Transmitter - ELPHD01
V12H547040
- Stacking Frame - ELPMB50 - L1000 Series (Premium)
V12H003B50
- Wireless LAN Adapter - ELPAP10
V12H731P01

LENTES OPCIONALES

- Lens - ELPLL08 - Long throw - G7000/L1000 series
V12H004L08
- Lens - ELPLM10 - Mid throw 3 - G7000/L1000 series
V12H004M0A
- Lens - ELPLM11 - Mid throw 4 - G7000/L1000 series
V12H004M0B
- Lens - ELPLM15 - Mid Throw L1500/L1700 Series
V12H004M0F
- Lens - ELPLU03 - G7000 & L1000 Series ST off axis 1
V12H004U03
- Lens - ELPLU04 - G7000 & L1000 Series ST off axis 2
V12H004U04
- Lens - ELPLW05 - G7000 & L1000 Series wide zoom 1
V12H004W05
- Lens - ELPLW06 - L1500U/1505U wide zoom 2
V12H004W06
- Lens - ELPLX02 - UST Lens L1500/1700 Series
V12H004X02

1. - Vida útil de láser de hasta 83.000 horas en modo personalizado.

EPSON®

2. MONITORES DE VIDEO

- **SANSUNG PLASMAS KV6300FLAT SMART 4K VHD TV 60"**

SANSUNG

J6300F Flat Smart Full HD TV



PLASMAS 40", 43", 55" y 60"

3. MONITOR DE AUDIO

- LACOSUTICS XT 115 HIQ
- TRUBOSOUND TMW 112



115XT HiQ

COAXIAL STAGE MONITOR

The 115XT HiQ is the high-end model within the L-ACOUSTICS® XT coaxial series, designed for stage monitor and distributed FOH applications. It operates as an active 2-way enclosure, over a frequency bandwidth from 50 Hz to 20 kHz which can be lowered to 32 Hz with the addition of the SB18 subwoofer.

The 115XT HiQ enclosure contains a 3" diaphragm compression driver loaded onto a constant directivity conical waveguide united in a coaxial configuration with a 15" low frequency transducer. Integrated into a compact low profile bass-reflex tuned enclosure this coaxial transducer arrangement produces a 50° axi-symmetric directivity output along with a smooth tonal response free of any secondary lobes over the entire frequency range, resulting in exceptional immunity to feedback especially in monitoring situations.

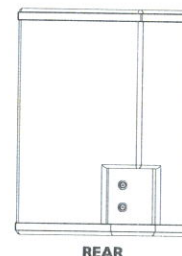
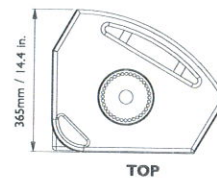
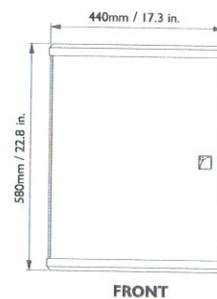
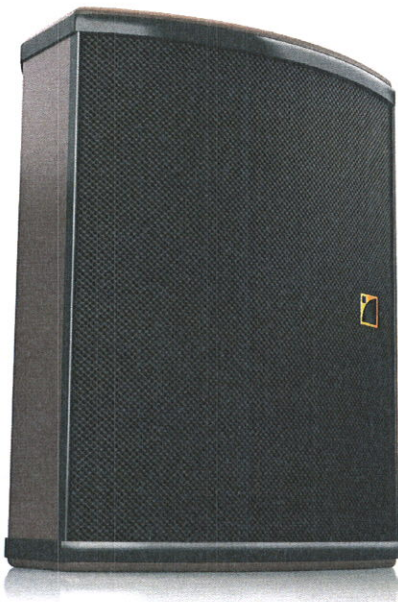
Made of high-grade Baltic birch plywood, the wedge-shaped cabinet design makes the 115XT HiQ perfectly suited to short or long throw monitoring use with two fixed angle settings of 30° and 60° from vertical. The 115XT HiQ can also be pole-mounted using the integrated socket or flown using the complementary ETR15 bracket or XTLIFTBAR accessory.

The control and amplification of the 115XT HiQ is managed by the L-ACOUSTICS® LA8 platform. The active DSP filtering encompasses advanced crossover functions, system EQ, HF and LF transducer time alignment, and dual protection of the transducers (PEAK and RMS). The L-ACOUSTICS® LA8 amplified controller offers the following drive modes:

- "FULL RANGE" mode for 115XT HiQ standalone use at nominal bandwidth ([HIQ_FR], [HIQ_FI] and [HIQ_MO] presets)
- "HIGH-PASS" mode with 100 Hz high-pass filter to possibly associate the complementary SB18 subwoofer ([HIQ_FR_100], [HIQ_FI_100] and [HIQ_MO_100] presets)

For each mode a distinction is drawn between [FRONT], [FILL] and [MONITOR] presets as they respectively match front of house, distributed applications and half-space loading operating conditions.

The performances of the 115XT HiQ enclosure depend upon the choice of preset and physical system configuration.



Usable bandwidth (-10dB)	50 Hz - 20 kHz ([HIQ_FR] preset)
Nominal directivity (-6dB)	50° Axi-symmetric
Maximum SPL¹	139.5 dB ([HIQ_MO] preset) 136.5 dB ([HIQ_FI] preset)
RMS handling capacity	LF : 450 W HF : 125 W ([HIQ_FI] preset)
Components	LF: 1 x 15" neodymium transducer HF: 1 x 3" diaphragm compression driver Nominal impedance: 2 x 8 ohms
Physical data	H x W x D: 365 x 580 x 440 mm - 14.4 x 22.8 x 17.3 in Wedge angle: 30° or 60° from vertical Weight (net): 28.5 kg - 62.8 lbs. Connectors: 2 x 4-point Speakon® Material: 18, 24 and 30 mm Baltic birch plywood Finish: Grey-brown RAL 8019® Front: polyester-powder coated steel grill, acoustically transparent Airnet® cloth Rigging: integrated handles and pole mount socket, optional ETR15 bracket and XTLIFTBAR accessory

¹ Peak level measured at 1m under half-space (MO) or free field (FI) conditions using 10 dB crest factor pink noise with specified preset and corresponding EQ settings.

TMW-112 passive / bi-amped floor monitor

Features

- Unique 12" coaxial driver
- Neodymium magnet
- Low profile enclosure
- 35° wedge angle
- Small footprint
- Switchable passive/active
- NL4 connectors
- Pole mount socket
- TourTough finish

Applications

- Vocal monitoring
- Drum fills
- Stage monitoring

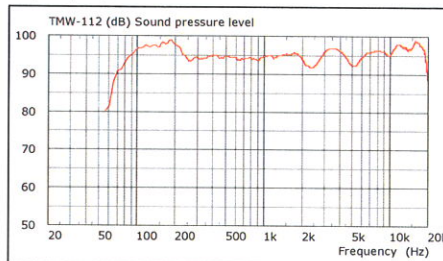


The TMW-112 is a compact switchable passive / biamped floor monitor consisting of a coaxial 12" HF/LF combination driver in a reflex-loaded enclosure.

The co-axial drive unit is matched with an exponential horn flare for improved acoustic loading and controlled coverage. Both HF and LF coils utilise the same neodymium magnet assembly, which gives better efficiency and reduced weight. This allows the creation of a low profile monitor wedge with a minimal footprint which, combined with a 35° projection angle, is ideal as a vocal monitor on smaller stages where space is limited. The lightweight birch plywood cabinet is equipped with two flush recessed handles, and Speakon NL4 connectors are provided at each side for tidy inter-connects. The cabinet is finished in a durable textured TourTough black polyurethane coating and includes a curved profile perforated steel grille backed with reticulated foam and supported by a steel reinforcing strip positioned across the front of the drive unit. A pole mount socket is provided for use on speaker poles or tripods.

TMW
series

Frequency Response

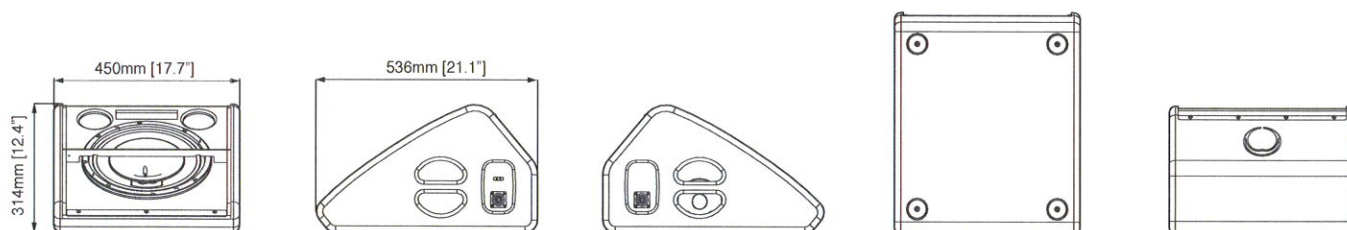


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TMW-112 passive / bi-amped floor monitor

DIMENSIONS (HxWxD)	314mm x 450mm x 536mm (12.4" x 17.7" x 21.1")
NET WEIGHT	19kg (41.8lbs)
COMPONENTS	1 x coaxial 12" (305mm) LF driver / HF compression driver
FREQUENCY RESPONSE	75Hz – 18kHz \pm 3dB, 60Hz – 20kHz \pm 10dB
NOMINAL DISPERSION	60°H x 40°V @ -6dB points
POWER HANDLING	LF: 350 watts r.m.s., 700 watts program HF: 80 watts r.m.s., 160 watts program Passive: 500 watts r.m.s., 1000 watts program
SENSITIVITY	95dB 1 watt @ 1 metre
IMPEDANCE	LF: 8 ohms, HF: 8 ohms, passive: 8 ohms
MAXIMUM SPL	122dB continuous, 128dB peak
CROSSOVER	Passive crossover network at 1k3Hz, switchable active/passive
CONSTRUCTION	15mm (5/8") birch plywood, finished in black textured polyurethane. Two recessed carrying handles Pole mount socket
GRILLE	Black powder coated perforated steel backed with foam
CONNECTORS	2 x Speakon NL4 wired: pin 1+: LF positive, pin1-: LF negative, pin2+: HF positive, pin 2-: HF negative
SPARES AND ACCESSORIES	LS-1227 12" (305mm) coaxial HF/LF loudspeaker RD-1227/RD-1533 Replacement diaphragm MG-TMW112 Metal grille
MORE INFO	More information can be found on our website: www.turbosound.com



Limited Warranty

Every Turbosound loudspeaker product is warranted to the original end-user purchaser and all subsequent owners for a period of two (2) years for loudspeaker products, or one (1) year for electronics products, from the original date of purchase. Warranty coverage includes defects in materials and workmanship. It does not include:

- damage caused by accident, misuse, abuse, neglect or modification by any other person other than an authorised Turbosound representative,
- damage caused by overdriving, use with unsuitable amplifiers or amplifier failure,
- damage caused by failure to operate the product in accordance with the instructions contained in the user's manual,
- damage occurring during shipment in transit,
- claims based upon any misrepresentations by the seller,
- products which do not have the original components as specified in the product engineering information,
- products on which the serial number has been removed or defaced.

Should any fault develop with a component of your Turbosound system, please return the product, freight pre-paid, in its original packing carton, along with proof of purchase such as the original bill of sale, and a description of the suspected fault, to your local authorised Turbosound representative. The product serial number must be quoted in all correspondence relating to the claim. Insurance is recommended as Turbosound or its representatives are not liable for loss or damage in transit.

4. MICROFONOS DE ATRIL

- **SHURE MX SERIES FLEXO**



MICROFLEX MICROPHONES

THERE'S NEVER BEEN A MORE FLEXIBLE CHOICE.

Work a room in more ways than ever with Shure Microflex microphones. Combining sleek, low profile aesthetics and a complete selection of microphones and mounting options, the Microflex line offers the highest standard of quality and efficiency for installed audio applications.

Microflex Gooseneck Microphones

- 12 cm (5"), 25 cm (10"), 30 cm (12"), 38 cm, (15") and 45 cm (18") models fit a wide variety of applications from the podium to the conference table
- Interchangeable condenser cartridges with superior audio quality

Microflex Boundary Microphones

- Multi-element, low-profile, or wireless microphone styles available
- Extremely versatile range of placement options for easy configuration and installation

Microflex Overhead Microphones

- Compact and adjustable 10 cm (4") gooseneck
- Interchangeable condenser cartridges for accurate sound reproduction in any setting

Microflex Lavalier and Earset Microphones

- For applications requiring low-profile discreet placement
- Use in wired or wireless applications

APPLICATIONS

Conference Rooms

Seminars

Houses of Worship

Theaters

Lecterns

PRODUCT HIGHLIGHTS

Wide selection for customized installations

Wired or wireless models available

Superior audio quality

CommShield™ Technology for improved RF resistance

Sleek, low-profile designs

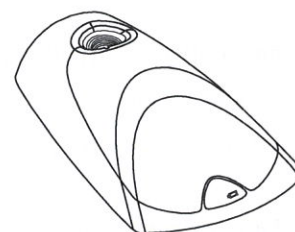
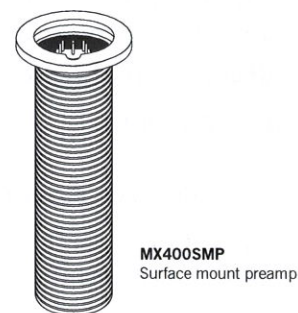
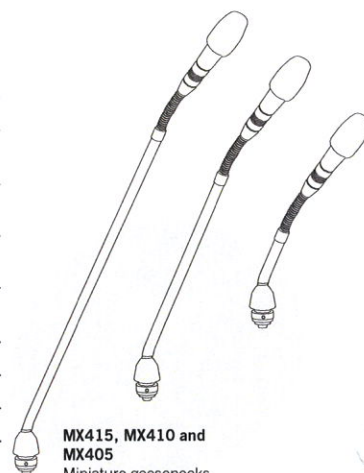
MX405, MX410 and MX415 Miniature Gooseneck Microphones

Flexible in more ways than one, Microflex Miniature Gooseneck Microphones deliver unsurpassed style and performance for conference rooms and similar applications. Offering desktop or mounted bases, wired or wireless options, and even interchangeable cartridges, it's easy to get the perfect fit for your application. Fully compatible with SLX® Wireless Systems, Microflex Wireless Systems and ULX-D Systems.

Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	MX405/C, MX410/C, MX415/C: Cardioid MX405/S, MX410/S, MX415/S: Supercardioid
Output Impedance	EIA rated at 150 Ω (170 Ω actual)
Output Configuration	Active balanced
Sensitivity at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL	Cardioid: -35 dBV/Pa (18 mV) Supercardioid: -34 dBV/Pa (21 mV)
Maximum SPL 1 kHz at 1% THD, 1 kΩ load	Cardioid: 121 dB Supercardioid: 120 dB
Equivalent Output Noise A-weighted	Cardioid: 28 dB SPL Supercardioid: 27 dB SPL
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	Cardioid: 66 dB Supercardioid: 67 dB
Dynamic Range 1 kΩ load at 1 kHz	93 dB
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum
Preamplifier Output Clipping Level 1% THD	-8 dBV (0.4 V)
Polarity	3-Pin XLR: Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector. 5-Pin XLR: Positive sound pressure on diaphragm produces positive voltage on pin 4 relative to pin 2 of output XLR connector.
Weight	MX405: 54 g MX410: 68 g MX415: 70 g MX400DP: 516 g MX400SMP (w/ Kit): 125 g
Logic Connections	LED IN: Active low (≤1.0 V), TTL compatible. Absolute maximum voltage: -0.7 V to 50 V. LOGIC OUT: Active low (≤1.0 V), sinks up to 20 mA, TTL compatible. Absolute maximum voltage: -0.7 V to 50 V (up to 50 V through 3 kΩ).
Mute Switch Attenuation	-50 dB minimum
Cable	MX400DP: 6 m attached cable with shielded audio pair terminated at a 3-pin male XLR and three unterminated conductors for logic control
Environmental Conditions	Operating temperature: -18 – 57 °C Storage temperature: -29 – 74 °C Relative humidity: 0 – 95%
Power Requirements	48 – 52 Vdc phantom, 8.0 mA

*for detailed dimensions please reference MX405/410/415 user guide



Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, S = Supercardioid, N = No Cartridge

MX405/C, MX405/S	127 mm (5 inch) gooseneck, bi-color status indicator, includes surface mount preamp
MX405R/N	127 mm (5 inch) gooseneck, light ring, includes surface mount preamp
MX410/C, MX410/S	254 mm (10 inch) gooseneck, bi-color status indicator, includes surface mount preamp
MX410R/N	254 mm (10 inch) gooseneck, light ring, includes surface mount preamp
MX415/C, MX415/S	381 mm (15 inch) gooseneck, bi-color status indicator, includes surface mount preamp
MX415R/N	381 mm (15 inch) gooseneck, light ring, includes surface mount preamp
MX405LP/C, MX405LP/S	127 mm (5 inch) gooseneck, bi-color status indicator, less preamp
MX405RLP/N	127 mm (5 inch) gooseneck, light ring, less preamp
MX410LP/C, MX410LP/S	254 mm (10 inch) gooseneck, cardioid, bi-color status indicator, less preamp
MX410RLP/N	254 mm (10 inch) gooseneck, light ring, less preamp
MX410LPDF/C, MX410LPDF/S	254 mm (10 inch) gooseneck, bi-color status indicator, less preamp, dualflex
MX410RLPDF/C, MX410RLPDF/S	254 mm (10 inch) gooseneck, light ring, less preamp, dualflex
MX410RLPDF/N	254 mm (10 inch) gooseneck, light ring, less preamp, dualflex
MX415LP/C, MX415LP/S	381 mm (15 inch) gooseneck, cardioid, bi-color status indicator, less preamp
MX415RLP/N	381 mm (15 inch) gooseneck, light ring, less preamp
MX415LPDF/C, MX415LPDF/S	381 mm (15 inch) gooseneck, bi-color status indicator, less preamp, dualflex
MX415RLPDF/C, MX415RLPDF/S	381 mm (15 inch) gooseneck, light ring, less preamp, dualflex
MX415RLPDF/N	381 mm (15 inch) gooseneck, light ring, less preamp, dualflex

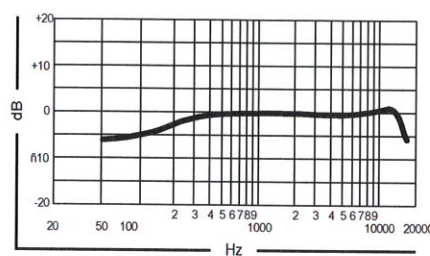
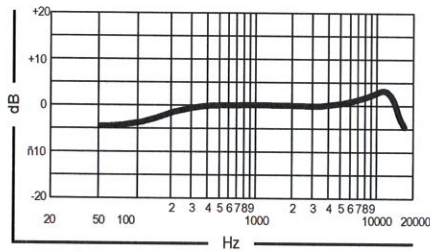
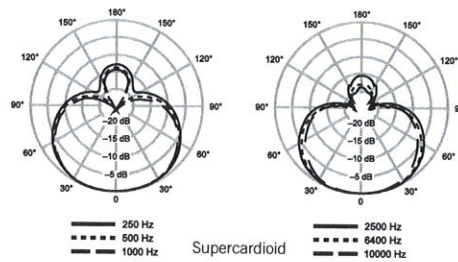
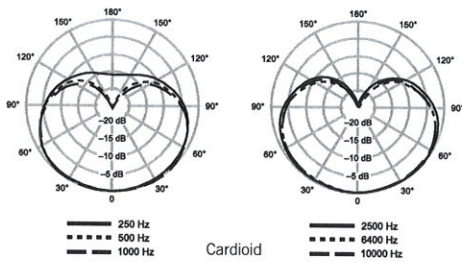
MX405, MX410 and MX415 Miniature Gooseneck Microphones

Optional Accessories and Replacement Parts

MX400SMP	Surface mount preamp	R185B	Black cardioid cartridge for all Microflex models	A412MWS	Metal locking windscreen
MX400DP	Wired desktop base. Includes 6.1 m attached cable	R184B	Black supercardioid cartridge for all Microflex models	95A2487	Tapered windscreen
MX890	Wireless desktop base, compatible with SLX Wireless Systems	R183B	Black Omnidirectional cartridge for all Microflex models		

Furnished Accessories

Models with included Preamp	All Models
MX400SMP Surface mount preamp	RK513WS Snap-fit foam windscreen (4 pcs.)
65A405 Rubber isolation rings	
65A2190 Wing nut	
95A2529 5-pin XLR-F	
65A2166 Cap	



Architectural Specifications

MX405/C – The microphone shall be an electret condenser 127 mm gooseneck microphone (5") with cardioid polar pattern, black finish, and logic controlled bi-color status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 18 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX405/S – The microphone shall be an electret condenser 127 mm gooseneck microphone (5") with supercardioid polar pattern, black finish, and logic controlled bi-color status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX405R/N – The microphone shall be an electret condenser 127 mm gooseneck microphone (5") with no included cartridge, black finish, and logic controlled, up- per red light ring status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX410/C – The microphone shall be an electret condenser 254 mm gooseneck microphone (10") with cardioid polar pattern, black finish, and logic controlled bi-color status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 18 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX410/S – The microphone shall be an electret condenser 254 mm gooseneck microphone (10") with supercardioid polar pattern, black finish, and logic controlled bi-color status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX410R/N – The microphone shall be an electret condenser 254 mm gooseneck microphone (10") with no included cartridge, black finish, and logic controlled, up- per red light ring status indicator. The microphone shall be mounted in the included MX400SMP preamp. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

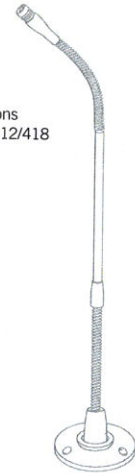
MX412 and MX418 Standard Gooseneck Microphones

Microflex Standard Gooseneck Microphones provide the added length and flexibility needed for speakers in environments like lecterns, pulpits, and courtrooms. Available in four models with a variety of lengths and mounting styles to choose from, Microflex Gooseneck microphones feature high sensitivity and balanced, transformerless output for maximum resistance to electromagnetic hum and RF interference, even over long cable runs.

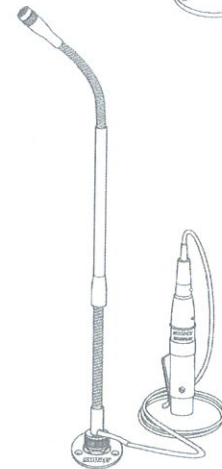
Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	MX412/C, MX418/C: Cardioid MX412/S, MX418/S: Supercardioid Omnidirectional cartridge available separately
Output Impedance	EIA rated at 150 Ω (170 Ω actual)
Sensitivity at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL	Cardioid: -35 dBV/Pa (17.8 mV) Supercardioid: -33.5 dBV/Pa (21.1 mV) Omnidirectional: -27.5 (42.2 mV)
Maximum SPL 1 kHz at 1% THD, 1 kΩ load	Cardioid: 124.2 dB Supercardioid: 122.7 dB Omnidirectional: 116.7 dB
Equivalent Output Noise A-weighted	Cardioid: 28 dB SPL Supercardioid: 26.5 dB SPL Omnidirectional: 20.5 dB SPL
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	Cardioid: 66 dB Supercardioid: 67.5 dB Omnidirectional: 73.5 dB
Dynamic Range 1 kΩ load at 1 kHz	96.2 dB 100 dB at 0 gain (internal modification)
Common Mode Rejection	45 dB minimum (10 Hz – 100 kHz)
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector.
Mute Switch Attenuation	-50 dB minimum
Cable	MX412D and MX418D: The 3 m attached custom cable contains a shielded audio pair and three unshielded conductors for logic control. Overall diameter = 4 mm
Environmental Conditions	Operating temperature range: -18° – 57° C Relative humidity: 0 – 95%
Power Requirements	11 – 52 Vdc phantom, 8.0 mA

*for detailed dimensions please reference MX412/418 user guides



MX418
Gooseneck with attached preamp and shockmount



MX418SE
Gooseneck with in-line preamp and side exit cable



MX412D
Gooseneck with attached desktop base

Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, S = Supercardioid, N = No Cartridge

MX412/C, MX412/S, MX412/N	305 mm (12 inch) gooseneck, attached XLR preamp, shock mount, flange mount, snap-fit foam windscreen
MX418/C, MX418/S, MX418/N	457 mm (18 inch) gooseneck, attached XLR preamp, shock mount, flange mount, snap-fit foam windscreen
MX412S/C, MX412S/S, MX412S/N	305 mm (12 inch) gooseneck, attached XLR preamp, Shock Mount, flange mount, snap-fit foam windscreen, mute switch, LED Indicator
MX418S/C, MX418S/S, MX418S/N	457 mm (18 inch) gooseneck, attached XLR preamp, shock mount, flange mount, snap-fit foam windscreen, mute switch, LED indicator
MX412SE/C, MX412SE/S, MX412SE/N	305 mm (12 inch) gooseneck, in-line preamp, shock mount, flange mount, 3 m side-exit (or bottom-exit) cable, snap-fit foam windscreen
MX418SE/C, MX418SE/S, MX418SE/N	457 mm (18 inch) gooseneck, in-line preamp, shock mount, flange mount, 3 m side-exit (or bottom-exit) cable, snap-fit foam windscreen
MX412D/C, MX412D/S, MX412D/N	305 mm (12 inch) gooseneck, desktop base with 3 m cable, logic functions, programmable switch and LED indicator, snap-fit foam windscreen
MX418D/C, MX418D/S, MX418D/N	457 mm (18 inch) gooseneck, desktop base with 3 m cable, logic functions, programmable switch and LED indicator, snap-fit foam windscreen

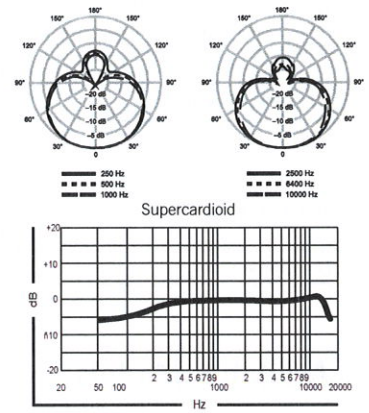
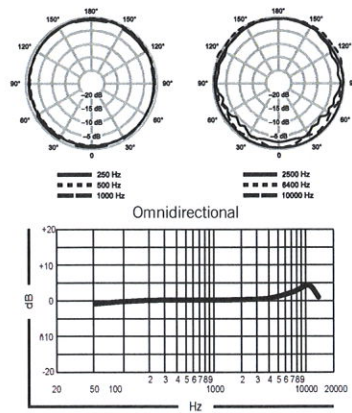
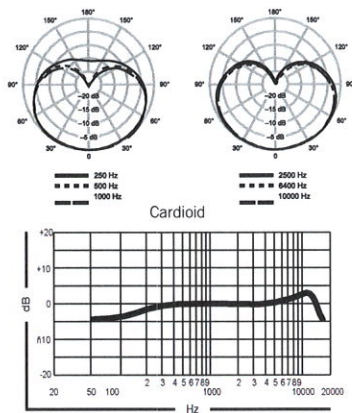
MX412 and MX418 Standard Gooseneck Microphones

Furnished Accessories

MX412, MX418, MX412S, MX418S Models		MX412SE, MX418SE Models		MX412D, MX418D Models	
65B8264	Flange	A12C	Flange and nut	RK412WS	Snap-fit foam windscreen (1 furnished, 4 in replacement pack)
65B8265	Retainer	80A476	Clamp		
80A439	Isolation ring	A400SM	Shock mount		
RK412WS	Snap-fit foam windscreen (1 furnished, 4 in replacement pack)	RK412WS	Snap-fit foam windscreen (1 furnished, 4 in replacement pack)		
A400SM	Shock mount	31B1762A	Shock mount adapter		
80A67	Hex wrench #4				

Optional Accessories and Replacement Parts

A99WS	Foam ball windscreen	R183B	Black omnidirectional cartridge for all Microflex models	A412MWS	Metal locking windscreen
RK100PK	Replacement in-line preamplifier (SE models)	R184B	Black supercardioid cartridge for all Microflex models	A412B	Desktop base
C130	Custom logic cable (specify length)	R185B	Black cardioid cartridge for all Microflex models	A57F	Stand adapter



MX396 Multi-Element Boundary Microphones

Microflex Multi-Element Boundary Microphones deliver a unique and versatile tool for conference room installations. Clean and simple in appearance, Multi-Element Boundary mics come in two or three element configurations, combining the coverage of multiple microphones into one small, compact package.

Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Output Impedance	EIA rated at 150 Ω (170 Ω actual)
Output Configuration	Active balanced
Sensitivity at 1 kHz, open circuit voltage; 1 Pa = 94 dB SPL	-35 dBV/Pa (18 mV)
Maximum SPL 1 kHz at 1% THD, 1 kΩ load	122 dB
Equivalent Output Noise A-weighted	28 dB SPL
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	66 dB
Dynamic Range 1 kΩ load at 1 kHz	94 dB
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)
Weight	Net: 587 g Packaged: 816 g
Logic Connections	LED IN: Active low (≤ 1.0 V), sinks up to 20 mA, TTL compatible. Absolute maximum voltage: -0.7 V to 50 V (up to 50 V through 3 kΩ). LOGIC OUT: Active low (≤ 1.0 V), sinks up to 20 mA, TTL compatible. Absolute maximum voltage: -0.7 V to 50 V (up to 50 V through 3 kΩ).
Mute Switch Attenuation	-50 dB minimum
Cable	6 m attached unterminated cable with three shielded audio pairs and three shielded conductors for logic control.
Environmental Conditions	Operating temperature: -18 – 57 °C Storage temperature: -29 – 74 °C Relative humidity: 0 – 95%
Power Requirements	MX396/C-DUAL: 48 – 52 Vdc phantom, 10.0 mA MX396/C-TRI: 48 – 52 Vdc phantom, 12.0 mA

Available Models

MX396/C-DUAL	Dual-Element 0-180 degrees, back or bottom exit cable, mute output, LED input
MX396/C-TRI	Tri-Element 90-0-90 mic, adjustable to 120-120-120 degrees, back or bottom exit cable, mute output, LED input

Furnished Accessories and Replacement Parts

65A2190	Fastening wingnut	R185B	Cardioid replacement cartridge (x 1)
31A2165	Fastening tube	65A405	Rubber isolation rings

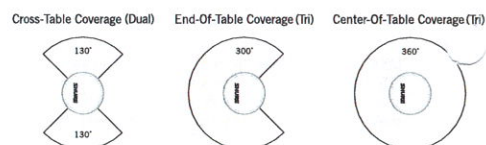
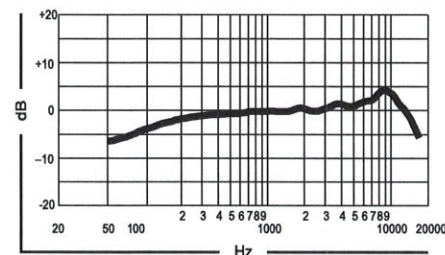
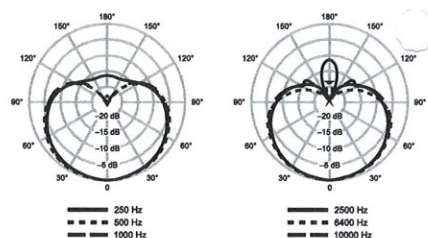
Architectural Specifications

MX396/C-Dual – The microphone shall be a surface mounted, black electret condenser microphone with two cardioid polar pattern elements, each with individual channel output. The microphone shall include a logic enabled, bi-color status indicator and programmable mute switch. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency range shall be 50 Hz to 17 kHz and the sensitivity of each individual element, 18 mV/Pa.

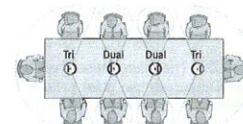
MX396/C-Tri – The microphone shall be a surface mounted, black electret condenser microphone with three cardioid polar pattern elements, each with individual channel output. The microphone shall include a logic enabled, bi-color status indicator and programmable mute switch. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency range shall be 50 Hz to 17 kHz and the sensitivity of each individual element, 18 mV/Pa.



MX396 Multi-Element boundary microphone



Example of Boardroom Table Mic Placement Coverage

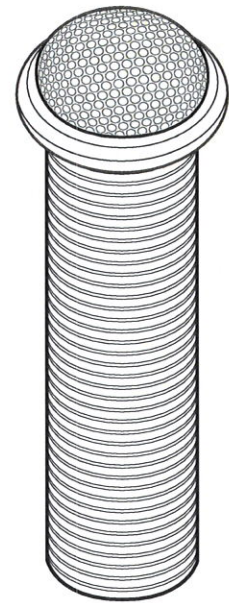


MX395 Low Profile Boundary Microphones

The Microflex Low Profile Boundary Microphone is an ideal table microphone when minimal presence is of high priority. Perfect for meeting rooms, these microphones deliver exceptional sound pickup while barely being noticed. Choose from a selection of colors and pickup patterns for customized table and ceiling installations.

Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	MX395/O: Omnidirectional MX395/C: Cardioid MX395/BI: Bidirectional
Output Impedance	EIA rated at 150 Ω (170 Ω actual)
Output Configuration	Active balanced
Sensitivity at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL	Cardioid: -35 dBV/Pa (18 mV) Omnidirectional: -28 dBV/Pa (42 mV) Bidirectional: -37 dBV/Pa (14 mV)
Maximum SPL 1 kHz at 1% THD, 1 kΩ load	Cardioid: 121 dB Omnidirectional: 114 dB Bidirectional: 123 dB
Equivalent Output Noise A-weighted	Cardioid: 28 dB SPL Omnidirectional: 21 dB SPL Bidirectional: 29 dB
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	Cardioid: 66 dB Omnidirectional: 73 dB Bidirectional: 65 dB
Dynamic Range 1 kΩ load at 1 kHz	Cardioid: 93 dB Omnidirectional: 93 dB Bidirectional: 94 dB
Common Mode Rejection	45 dB minimum 10 Hz to 100 kHz
Preamplifier Output Clipping Level 1% THD	-8 dBV (0.4 V)
Polarity	3-pin XLR: Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector. 5-pin XLR: Positive sound pressure on diaphragm produces positive voltage on pin 4 relative to pin 2 of output XLR connector.
Weight	Net: 136 g; Packaged: 374 g
Logic Connections	LED IN: Active low (≤ 1.0 V), TTL compatible. Absolute maximum voltage: -0.7 V to 50 V.
Environmental Conditions	Operating temperature: -18 – 57 °C Storage temperature: -29 – 74 °C Relative humidity: 0 – 95%
Power Requirements	MX395: 11 – 52 Vdc phantom, 2.0 mA MX395-LED: 48 – 52 Vdc phantom, 8.0 mA



MX395
Low Profile
Boundary Mic

Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, O = Omnidirectional, BI = Bidirectional

MX395B/C, MX395B/BI, MX395B/O	Black, 3-pin XLR
MX395AL/C, MX395AL/BI, MX395AL/O	Aluminum, 3-pin XLR
MX395W/C, MX395W/BI, MX395W/O	White, 3-pin XLR
MX395B/C-LED, MX395B/BI-LED, MX395B/O-LED	Black, 5-pin XLR, LED, bi-color status indicator
MX395AL/C-LED, MX395AL/BI-LED, MX395AL/O-LED	Aluminum, 5-pin XLR, LED, bi-color status indicator
MX395W/C-LED, MX395W/BI-LED, MX395W/O-LED	White, 5-pin XLR, LED, bi-color status indicator

MX395 Low Profile Boundary Microphones

Furnished Accessories

65A405	Rubber isolation rings
95A1118 (LED Models only)	5-pin XLR-female connector
65A2190	Wing nut

Architectural Specifications

MX395AL/C – The microphone shall be a surface mounted, aluminum finish, electret condenser microphone with low-cut switch and cardioid polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395AL/C-LED - The microphone shall be a surface mounted, aluminum, electret condenser microphone with low-cut switch and cardioid polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395B/C – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and cardioid polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395B/C-LED – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and cardioid polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395W/C - The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and cardioid polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395W/C-LED - The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and cardioid polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 18 mV/Pa.

MX395AL/O – The microphone shall be a surface mounted, aluminum finish, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17kHz and the sensitivity 42 mV/Pa.

MX395AL/O-LED - The microphone shall be a surface mounted, aluminum, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 42 mV/Pa.

MX395B/O – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17kHz and the sensitivity 42 mV/Pa.

MX395B/O-LED – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 42 mV/Pa.

MX395W/O – The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17kHz and the sensitivity 42 mV/Pa.

MX395W/O-LED - The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and omnidirectional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 42 mV/Pa.

MX395AL/BI – The microphone shall be a surface mounted, aluminum finish, electret condenser microphone with low-cut switch and bi-directional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17kHz and the sensitivity 14 mV/Pa.

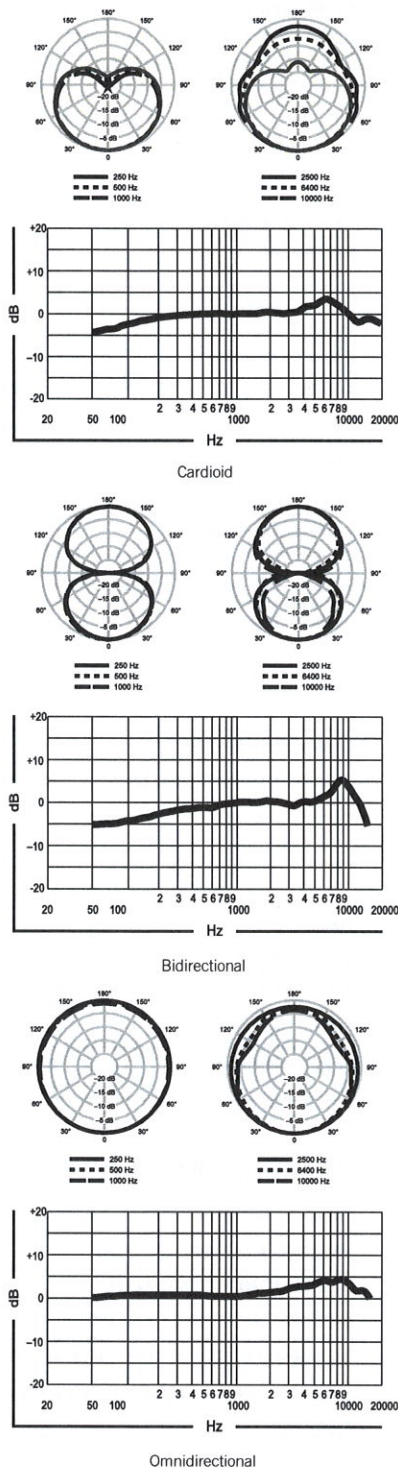
MX395AL/BI-LED - The microphone shall be a surface mounted, aluminum, electret condenser microphone with low-cut switch and bi-directional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 14 mV/Pa.

MX395B/BI – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and bi-directional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 14 mV/Pa.

MX395B/BI-LED – The microphone shall be a surface mounted, black, electret condenser microphone with low-cut switch and bi-directional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 14 mV/Pa.

MX395W/BI - The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and bi-directional polar pattern. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17kHz and the sensitivity 14 mV/Pa.

MX395W/BI-LED – The microphone shall be a surface mounted, white, electret condenser microphone with low-cut switch and bi-directional polar pattern. The microphone shall include a logic controlled, bi-color status indicator. The visible diameter and height of the microphone above the mounting surface shall be 32 mm and 24 mm. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response range shall be 50 Hz to 17 kHz and the sensitivity 14 mV/Pa.

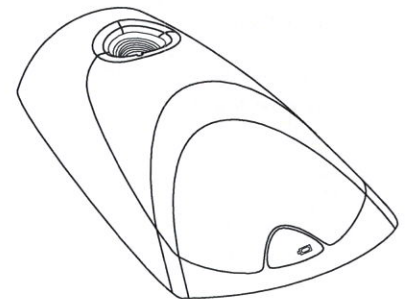
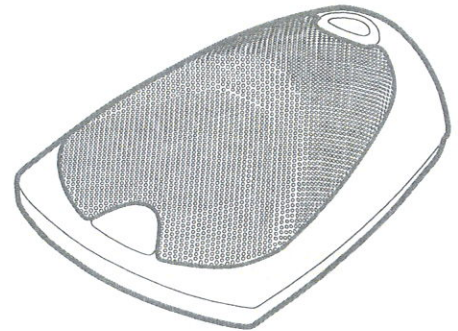


MX690 Wireless Boundary and MX890 Wireless Desktop Base

The Microflex Wireless Boundary Microphone as well as the Wireless Desktop Base offer total freedom of placement with no holes to drill or cables to run for installation. They are the perfect solution for conference and meeting spaces where users demand flexibility and high performance. Compatible with Shure SLX Wireless Systems, including the SLX4L receiver with logic signal output for applications requiring logic functionality.

Specifications

MX690 Microphone Specifications	
Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	Cardioid
Sensitivity at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL	-33 dBV/Pa (22 mV)
Dynamic Range	96 dB 1 kΩ load at 1 kHz
Common Mode Rejection	45 dB minimum 10 Hz to 100 kHz
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector or tip of 1/4" phone plug (both on SLX4 or SLX4L wireless receiver).
MX690 and MX890 Transmitter Specifications	
RF Power	10 mW
Operating Range	30 m Note: Actual range depends on RF signal absorption, reflection, and interference
Frequency Stability	±10 ppm
Maximum Frequency Deviation	45 kHz
Oscillator Type	Phase-locked loop (PLL) controlled synthesizer
Power Requirements	3 V (2 AA alkaline or rechargeable batteries)
Battery Life	≥8 hours (alkaline)
Power Consumption	130 mA, ± 15 mA
Operating Temperature Range	-18 – 57 °C Note: Battery may limit this range
Dimensions (H x W x L)	43 mm x 87 mm x 148 mm
Weight	MX690 Net: 318 g MX890 Net: 312 g Packaged: 516 g Packaged: 530 g
MX690 Net: 318 g (11,2 oz)	



MX890
Wireless Desktop Base

Available Models

MX690	Wireless boundary microphone, cardioid, mute switch
MX890	Wireless desktop base for MX405 and MX410 models, mute switch

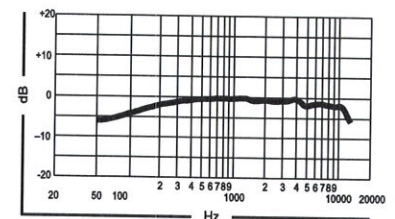
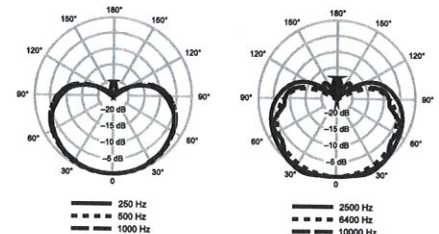
Optional Accessories

SLX4	Wireless diversity receiver	SLX4L	Wireless diversity receiver with logic output
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Architectural Specifications

MX690 – The microphone shall be a surface mounted, black condenser microphone with a cardioid polar pattern. The microphone shall include a bi-color LED status indicator and a programmable mute switch. The microphone shall have an integrated wireless transmitter for audio signals with switchable carrier frequencies as well as preprogrammed groups up to 12 compatible channels. An infrared signal shall be used to synchronize the frequency between transmitter and receiver. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency range shall be 50 Hz to 17 kHz and the sensitivity shall be 22 mV/Pa.

MX890 – The wireless desk stand shall be a transmitter base for audio signals with switchable carrier frequencies as well as preprogrammed groups with up to 12 compatible channels. An infrared signal shall be used to synchronize the frequency between transmitter and receiver. The wireless desktop base shall be used with the MX405 and MX410 series gooseneck microphones and shall feature a programmable mute switch.



MX202 Overhead Microphones

Easily hung from ceilings, Microflex Overhead Microphones capture sound from speakers, choirs, stages, and more conveniently and unobtrusively from above. Compact and flexible, overhead microphones each feature a 10 cm (4") gooseneck, multiple preamp options for easy installation into ceilings or microphone stands, and versatile condenser cartridges for accurate sound reproduction in any setting.

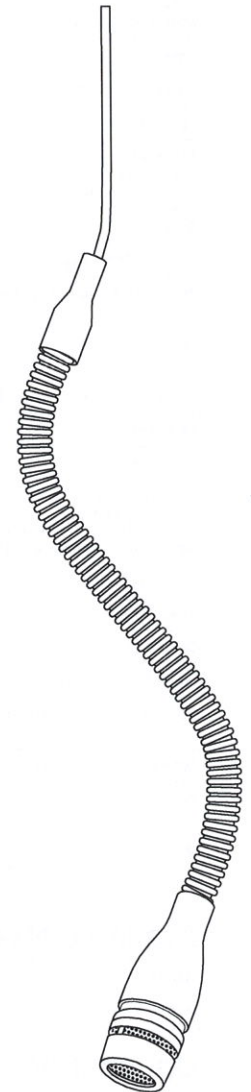
Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	MX202/C: Cardioid MX202/O: Omnidirectional MX202/S: Supercardioid
Output Impedance	150 Ω rated at EIA (180 Ω actual)
Sensitivity (at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL)	Cardioid: -35.0 dBV/Pa (17.8 mV) Supercardioid: -33.5 dBV/Pa (21.1 mV) Omnidirectional: -27.5 dBV/Pa (42.2 mV)
Maximum SPL (1 kHz at 1% THD, 1 kΩ load; All values +6 dB at 0 gain)	Cardioid: 124.2 dB Supercardioid: 122.7 dB Omnidirectional: 116.7 dB
Equivalent Output Noise A-weighted	Cardioid: 28.0 dB SPL Supercardioid: 26.5 dB SPL Omnidirectional: 20.5 dB SPL
Signal to Noise Ratio (referenced at 94 dB SPL)	Cardioid: 66.0 dB Supercardioid: 67.5 dB Omnidirectional: 73.5 dB
Dynamic Range 1 kΩ load at 1 kHz	96.2 dB 100 dB at 0 gain (internal modification)
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output connector.
Power Requirements	11 – 52 Vdc phantom, 2.0 mA
Environmental Requirements	Operating temperature range: -18° C – 57° C Relative humidity: 0 – 95%

Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, S = Supercardioid, N = No Cartridge

MX202B/C, MX202B/S, MX202B/N	Black mini-condenser microphone; includes cable, in-line preamplifier, and stand adapter
MX202W/C, MX202W/S, MX202W/N	White mini-condenser microphone; includes cable, in-line preamplifier, and stand adapter
MX202BP/C, MX202BP/S, MX202BP/N	Black mini-condenser microphone; includes cable and plate-mounted preamplifier
MX202WP/C, MX202WP/S, MX202WP/N	White mini-condenser microphone; includes cable and plate-mounted preamplifier



MX202
Overhead Microphone

MX202 Overhead Microphones

Furnished Accessories

RK183WS (Black) 95B2064 (White)	Black snap-fit foam windscreen White snap-fit foam windscreen	65B1752	Stand adapter (MX202B)
RK202PK	Preamplifier kit, plate mounted, White (MX202BP & MX202WP)	RK100PK/ RK100PKW	In-line preamplifier (MX202W & MX202B)
80A476	Clamp (MX202B & MX202WP)	80B489	Hang clip

Optional Accessories and Replacement Parts

A202BB	Desk stand	R183B (Black) R183W (White)	Omnidirectional cartridge for all Microflex models
80A479	Strain relief (MX202BP & MX202WP)	R184B (Black) R184W (White)	Supercardioid cartridge for all Microflex models
A57F	Stativ adapter (MX202B)	R185B (Black) R185W (White)	Cardioid cartridge for all Microflex models

Architectural Specifications

MX202B/C – The microphone shall be an electret condenser overhead microphone with a cardioid polar pattern, 10 cm gooseneck, in-line preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 17.8 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202B/S – The microphone shall be an electret condenser overhead microphone with a supercardioid polar pattern, 10 cm gooseneck, in-line preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21.1 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202B/N – The microphone shall be an electret condenser overhead microphone with no included cartridge, 10 cm gooseneck, in-line preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202W/C – The microphone shall be an electret condenser overhead microphone with a cardioid polar pattern, 10 cm gooseneck, in-line preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 17.8 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202W/S – The microphone shall be an electret condenser overhead microphone with a supercardioid polar pattern, 10 cm gooseneck, in-line preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21.1 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202W/N – The microphone shall be an electret condenser overhead microphone with no included cartridge, 10 cm gooseneck, in-line preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202BP/C – The microphone shall be an electret condenser overhead microphone with a cardioid polar pattern, 10 cm gooseneck, a plate-mounted preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 17.8 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

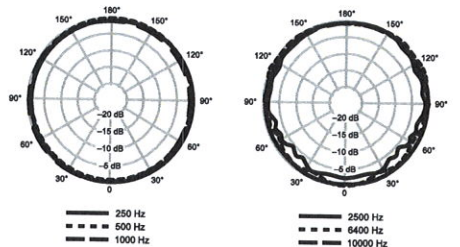
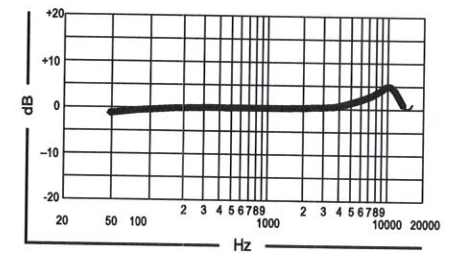
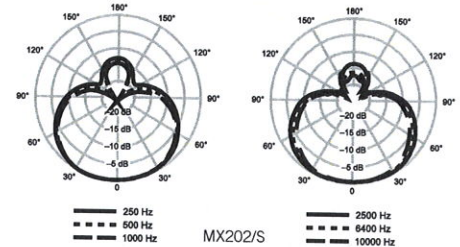
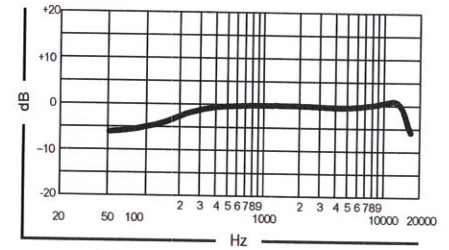
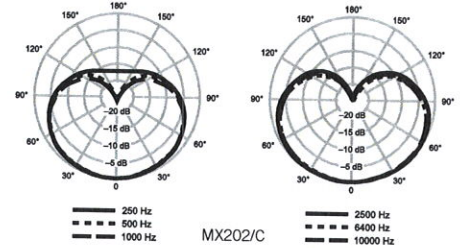
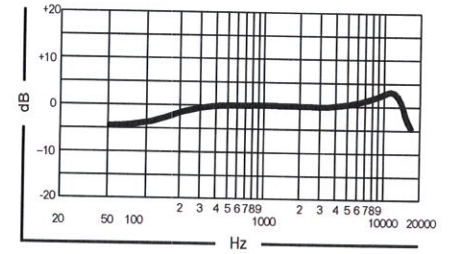
MX202BP/S – The microphone shall be an electret condenser overhead microphone with a supercardioid polar pattern, 10 cm gooseneck, a plate-mounted preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21.1 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202BP/N – The microphone shall be an electret condenser overhead microphone with no included cartridge, 10 cm gooseneck, a plate-mounted preamplifier, and black finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202WP/C – The microphone shall be an electret condenser overhead microphone with a cardioid polar pattern, 10 cm gooseneck, a plate-mounted preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 17.8 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202WP/S – The microphone shall be an electret condenser overhead microphone with a supercardioid polar pattern, 10 cm gooseneck, a plate-mounted preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21.1 mV/Pa. The microphone shall offer the option to interchange cartridges with diverse polar pattern.

MX202WP/N – The microphone shall be an electret condenser overhead microphone with no included cartridge, 10 cm gooseneck, a plate-mounted preamplifier, and white finish. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The microphone shall offer the option to interchange cartridges with diverse polar pattern.



MX391, MX392, MX393 Boundary Microphones

With slim design and superior audio reproduction, Microflex Boundary Microphones are the ideal conference room solution. Equipped with features like programmable, silent membrane switches, interchangeable cartridges, logic inputs and outputs, and LED indicators, Microflex Boundary microphones provide high-quality sound for a wide range of applications.

Specifications

Type	Condenser (electret bias)	
Frequency Response	50 Hz – 17 kHz	
Polar Pattern	MX391/C, MX392/C, MX393/C: Cardioid MX391/S, MX392/S, MX393/S: Supercardioid MX391/O, MX392/O, MX393/O: Omnidirectional	
Output Impedance	EIA rated at 150 Ω (180 Ω actual)	
Logic Connections (MX392 Only)	LED IN: Active low (≤ 1.0 V), TTL compatible. Absolute maximum voltage: -0.7 V to 50 V. SWITCH OUT: Active low (≤ 0.5 V), sinks up to 20 mA, TTL compatible. Absolute maximum voltage: -0.7 V to 50 V (up to 50 V through 3 kΩ).	
Environmental Conditions	Operating temperature range: -18° C – 57° C Relative Humidity: 0 – 95%	
Power Requirements	11 – 52 Vdc phantom, 2.0 mA	
	MX391	MX392/MX393
Sensitivity (at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL); All settings -12 dB at 0 gain (internal modification)	Cardioid -29.5 dB (33.5 mV) Supercardioid -28.3 dB (38.5 mV) Omnidirectional -21.8 dB (81.4 mV)	Cardioid: -27.5 dBV/Pa (42.2 mV) Supercardioid: -26.5 dBV/Pa (47.3 mV) Omnidirectional: -22.0 dBV/Pa (79.4 mV)
Maximum SPL 1 kHz at 1% THD, 1 kΩ load; All settings +6 dB at 0 gain (internal modification)	Cardioid: 118.8 dB Supercardioid: 117.5 dB Omnidirectional: 110.7 dB	Cardioid: 117.0 dB Supercardioid: 116.0 dB Omnidirectional: 111.5 dB
Equivalent Output Noise A-weighted	Cardioid: 22.6 dB SPL Supercardioid: 21.3 dB SPL Omnidirectional: 14.5 dB SPL	Cardioid: 23.0 dB Supercardioid: 22.0 dB Omnidirectional: 17.5 dB
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	Cardioid: 71.4 dB Supercardioid: 72.7 dB Omnidirectional: 79.5 dB	Cardioid: 71.0 dB Supercardioid: 72.0 dB Omnidirectional: 76.5 dB
Dynamic Range 1 kΩ load at 1 kHz	96.2 dB	94.0 dB
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum, 10 Hz to 100 kHz	45 dB minimum, 10 Hz to 100 kHz
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)	-6 dBV (0.5 V)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of the preamplifier XLR output	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output connector (MX393) or red wire relative to black wire (MX392).



MX391
Boundary microphone



MX392/ MX393
Boundary microphone

Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, O = Omnidirectional, S = Supercardioid

MX391/C, MX391/S, MX391/O	Black surface-mount microphone, attached 3.7 m cable terminated, 4-pin mini connector, separate preamplifier
MX391W/C, MX391W/S, MX391W/O	White surface-mount microphone, attached 3.7 m cable terminated, 4-pin mini connector, separate preamplifier
MX392/C, MX392/S, MX392/O	Surface-mount microphone, programmable membrane on/off switch, logic input/output terminals, on/off indicator LED, screw terminal connections, attached 3.7 m unterminated cable
MX393/C, MX393/S, MX393/O	Surface-mount microphone, programmable membrane on/off switch, on/off indicator LED, miniature three pin connector, and detachable 3.7 m cable.

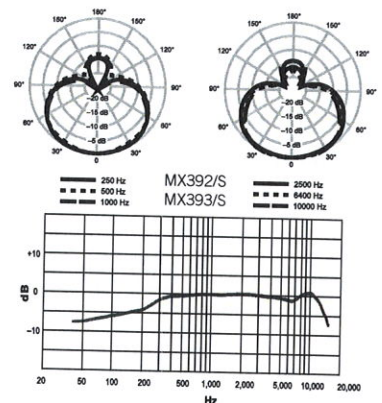
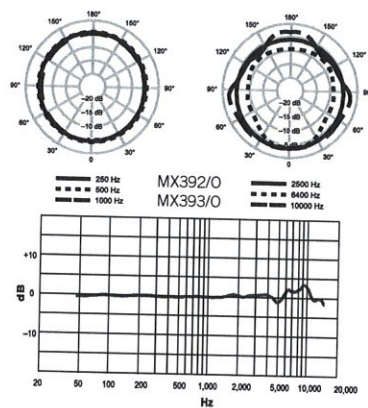
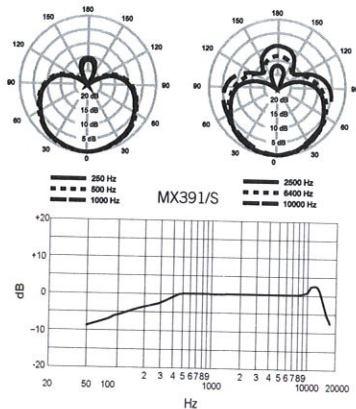
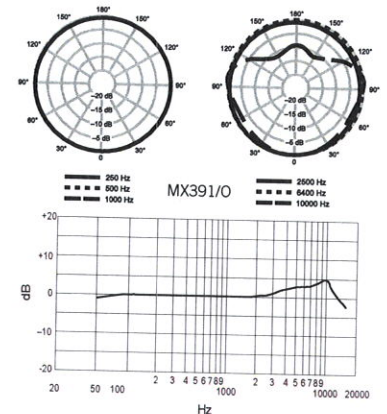
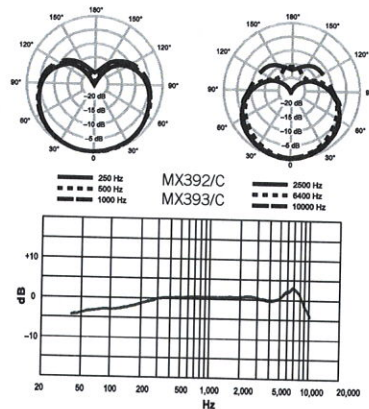
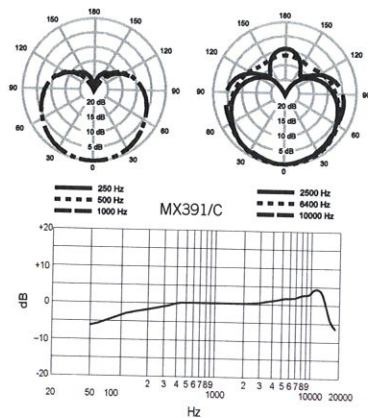
MX391, MX392, MX393 Boundary Microphones

Furnished Accessories

95B2313	Zipper bag	80A541	Switch paint mask (MX392/MX393)
80C514	Paint mask (MX392/MX393)	36A664	Paint plug (MX392/MX393)
RK100PK	In-line preamp (MX391/MX391W)		

Optional Accessories and Replacement Parts

R183B	Omnidirectional cartridge for all Microflex models	C129	3,7 m cable 3-pin miniature connector (TA3F) to male XLR (MX393)
R184B	Supercardioid cartridge for all Microflex models	C130	Custom-logic cable with threaded adapter
R185B	Cardioid cartridge for all Microflex models	15A525	Custom logic cable (specify length)



MX391, MX392, MX393 Boundary Microphones

Architectural Specifications

MX391/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 33.5 mV/Pa.

MX391/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 38.5 mV/Pa.

MX391/O – The microphone shall be a surface mounted, black electret condenser microphone with an omnidirectional polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 81.4 mV/Pa.

MX391W/C – The microphone shall be a surface mounted, white electret condenser microphone with a cardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 33.5 mV/Pa.

MX391W/S – The microphone shall be a surface mounted, white electret condenser microphone with a supercardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 38.5 mV/Pa.

MX391W/O – The microphone shall be a surface mounted, white electret condenser microphone with an omnidirectional polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 81.4 mV/Pa.

MX392/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 42.2 mV/Pa.

MX392/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 47.3 mV/Pa.

MX392/O – The microphone shall be a surface mounted, black electret condenser microphone with an omnidirectional polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 79.4 mV/Pa.

MX393/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3.7 m cable, connected to the microphone through a TA3F connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 42.2 mV/Pa.

MX393/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3.7 m cable, connected to the microphone through a TA3F connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 47.3 mV/Pa.

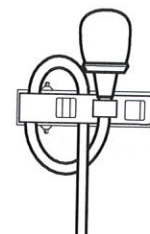
MX393/O – The microphone shall be a surface mounted, black electret condenser microphone with an omnidirectional polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3.7 m (12") cable, connected to the microphone through a TA3 connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 79.4 mV/Pa.

MX150 Subminiature Condenser Lavalier Microphone

The Shure Microflex MX150 is a professional subminiature electret condenser lavalier microphone ideal for use in speech and other applications requiring low profile, discreet placement. Available with cardioid or omnidirectional patterns, the MX150 provides uncompromised sound quality and high reliability with minimal visibility for use in television broadcasting, corporate and educational lectures, A/V teleconferencing, and sound reinforcement.

Features

- Available in cardioid or omnidirectional polar patterns and TQG/TA4F (for use in Shure bodypacks) or wired XLR variations
- CommShield® technology guards against interference from cellular RF devices and digital bodypack transmitters
- Matte black, sleek, low-profile, design for inconspicuous placement
- Multi-position tie clip allows for a variety of placement options and features an integrated cable management system for convenient cable dress with minimized handling noise.
- Kevlar-reinforced soft-flex cable design further reduces handling noise while providing superior flexibility for routing and placement
- User-changeable equalization caps for response shaping (omnidirectional only)
- Snap-fit, concise windscreen provides protection from plosives and wind noise with minimal visibility
- Legendary Shure quality, ruggedness, and reliability



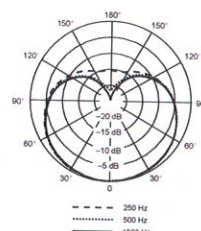
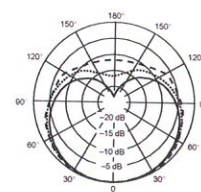
MX150 with tie clip and windscreen

Available Models

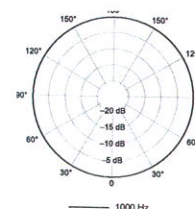
MX150B/O-TQG	Microflex subminiature condenser lavalier microphone, omnidirectional, TQG connector
MX150B/C-TQG	Microflex subminiature condenser lavalier microphone, cardioid, TQG connector
MX150B/O-XLR	Microflex subminiature condenser lavalier microphone, omnidirectional, XLR connector
MX150B/C-XLR	Microflex subminiature condenser lavalier microphone, cardioid, XLR connector

Specifications

	MX150/C	MX150/O
Transducer Type	Electret condenser	Electret condenser
Polar Pattern	Cardioid	Omnidirectional
Frequency Response	20 – 20 kHz	20 – 20 kHz
Output Impedance	TQG: N/A, XLR: 165.5 Ω	TQG: N/A, XLR: 165.0 Ω
Sensitivity open circuit voltage, @ 1 kHz, typical	TQG: -51.0 dBV/Pa (3.0 mV) XLR: -39.0 dBV/Pa (11.0 mV)	TQG: -46.5 dBV/Pa (4.5 mV) XLR: -34.5 dBV/Pa (19.0 mV)
Maximum SPL 1 kHz at 1% THD, 2500 Ω Load	TQG: 147.5 dB SPL XLR: 134.5 dB SPL	TQG: 143.0 dB SPL XLR: 130 dB SPL
Signal-to-Noise Ratio	TQG: 57.5 dB XLR: 57.0 dB	TQG: 60.0 dB XLR: 59.5 dB
Clipping Level 1 kHz at 1% THD, 2500 Ω Load	TQG: 2.0 dBV XLR: 1.0 dBV	TQG: 2.0 dBV XLR: 1.0 dBV
Common Mode Rejection 20 Hz – 20 kHz	TQG: N/A XLR: ≥60 dB	TQG: N/A XLR: ≥60 dB
Dynamic Range @ 1 kHz, 2500 Ω Load	TQG: 111.0 dB SPL XLR: 97.5 dB SPL	TQG: 109.0 dB SPL XLR: 95.5 dB SPL
Self Noise equivalent SPL, A-weighted, typical	TQG: 36.5 dB XLR: 37.0 dB	TQG: 34.0 dB XLR: 34.5 dB
Operating Temperature Range	-18°C to 57°C	-18°C to 57°C
Polarity	TQG: Positive pressure on diaphragm produces positive voltage on pin 3 with respect to pin 1 XLR: Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3	
Power Requirements	TQG: 5 V DC (0.04 – 0.18 mA) XLR: 11-52 V DC phantom power (IEC-61938), < 2.2 mA	TQG: 5 V DC (0.04 – 0.18 mA) XLR: 11-52 V DC phantom power (IEC-61938), < 2.2 mA
Cable Length	1.52 m	1.52 m
Weight	TQG: 21 g XLR: 121 g	TQG: 21 g XLR: 121 g



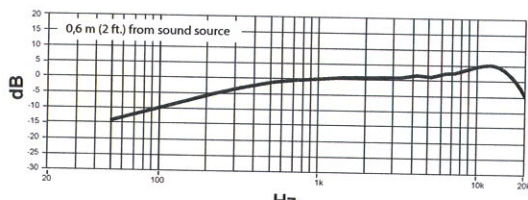
MX150/C Polar Pattern



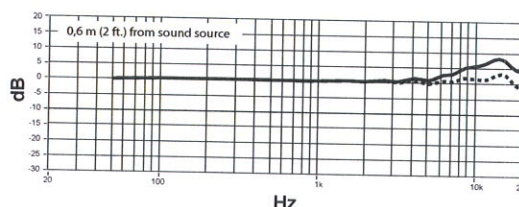
MX150/O Polar Pattern

Accessories

WA150	Storage pouch for MX150
WA330	TQG/TA4F 4 pin connector
RK100PK	XLR preamp



MX150/C Frequency Response



MX150/O Frequency Response

Boost Cap
Normal Cap

MX153 Earset Headworn Microphone

The Shure Microflex MX153 is a professional subminiature earset microphone ideal for speech and other applications requiring low-profile discreet placement where improved gain before feedback over lavalier microphones is desired. Delivering exceptional speech clarity, the MX153 is ideal for corporate and educational presentations, AV conferencing and live sound reinforcement. Available in three color options and direct TA4F connectivity to Shure bodypacks, the MX153 provides outstanding clarity in an extremely comfortable, over the ear design.

Features

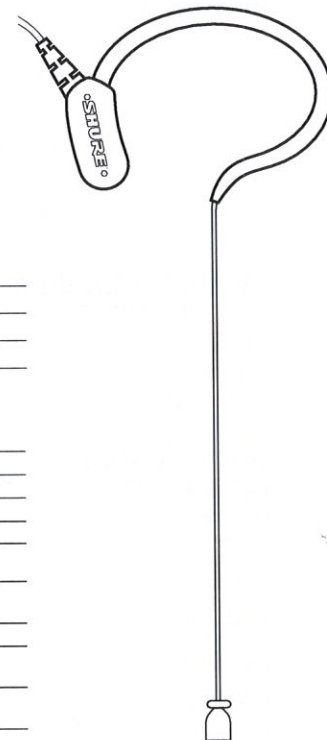
- Subminiature, omnidirectional cartridge offers superior speech clarity and enhanced plosive protection with no proximity effect
- Terminated with TQG/TA4F connector for direct connectivity to Shure wireless bodypack transmitters
- Ultra-lightweight, comfortable, flexible design is stable and easy to place over either ear
- CommShield® technology guards against interference from cellular RF devices and digital bodypack transmitters
- Kevlar reinforced, attached soft-flex cable
- Matte black, tan, and cocoa color options available
- Includes protective storage pouch, 3 windscreens, and collar clip

Available Models

MX153B/O-TQG	Microflex earset headworn condenser microphone, omnidirectional, TQG connector, black
MX153T/O-TQG	Microflex earset headworn condenser microphone, omnidirectional, TQG connector, tan
MX153C/O-TQG	Microflex earset headworn condenser microphone, omnidirectional, TQG connector, cocoa

Specifications

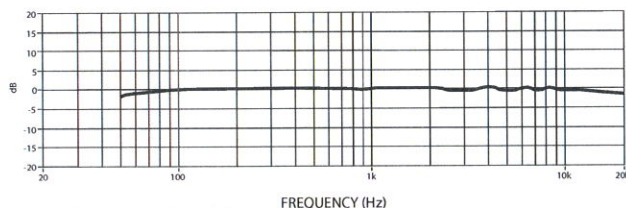
	MX153
Transducer Type	Electret condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz – 20 kHz
Output Impedance	N/A
Sensitivity open circuit voltage, @ 1 kHz, typical	-41 dBV/Pa (9 mV)
Maximum SPL 1 kHz at 1% THD	2500 Ω load: 107 dB SPL 1000 Ω load: 107 dB SPL
Signal-to-Noise Ratio	60 dB
Dynamic Range @ 1 kHz	2500 Ω load: 73 dB 1000 Ω load: 73 dB
Common Mode Rejection 20 Hz – 20 kHz	N/A
Self Noise equivalent SPL, A-weighted, typical	34 dB
Operating Temperature Range	-18°C – 57°C
Polarity	Positive pressure on diaphragm produces negative voltage on pin 3 with respect to pin 1
Power Requirements	+1.5 V DC (500 μA maximum)
Weight	19.8 g



MX153 Earset Headworn Microphone

Accessories

WA150	Storage pouch for MX150
WA330	TQG/TA4F 4 pin connector
RK100PK	XLR preamp

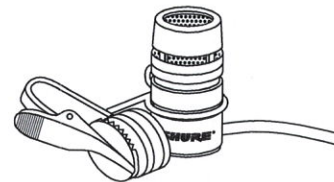


MX183, MX184, MX185 Lavalier Microphones

Attached to a tie or lapel, Microflex Lavalier Microphones offer freedom of movement to any situation involving voice reproduction. As stylish as they are convenient, Lavaliers are available in different directional patterns, come with multiple clip options, and are compatible with all Shure wireless platforms.

Specifications

Type	Condenser (electret bias)
Frequency Response	50 Hz – 17 kHz
Polar Pattern	MX183: Omnidirectional MX184: Supercardioid MX185: Cardioid
Output Impedance	EIA rated at 150 Ω (170 Ω actual)
Sensitivity (at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL; all settings -12 dB at 0 gain)	MX183: -27.5 dB (42.2 mV) MX184: -33.5 dB (21.1 mV) MX185: -35.4 dB (17.0 mV)
Maximum SPL (1 kHz at 1% THD, 1 k Ω load; all settings +6 dB at 0 gain)	MX183: 116.7 dB MX184: 122.7 dB MX185: 124.2 dB
Equivalent Output Noise A-weighted	MX183: 20.5 dB MX184: 26.5 dB MX185: 28.0 dB
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	MX183: 73.5 dB MX184: 67.5 dB MX185: 66.0 dB
Dynamic Range 1 k Ω load at 1 kHz	96.2 dB 100 dB at 0 gain (internal modification)
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector.
Environmental Conditions	Operating temperature range: -18°– 57° C Storage temperature range: -29° – 74° C
Power Requirements	11 – 52 Vdc phantom, 2.0 mA
Cable	Shielded 1.2 m cable terminated with a 4-pin female mini connector (TA4F)



MX183/ MX184/ MX185
Lavalier microphone

Available Models

MX183	Omnidirectional, includes belt-clip preamp, rotatable tie clip, dual tie clip, snap-fit windscreen
MX184	Supercardioid, includes belt-clip preamp, rotatable tie clip, dual tie clip, snap-fit windscreen
MX185	Cardioid, includes belt-clip preamp, rotatable tie clip, dual tie clip, snap-fit windscreen

MX183, MX184, MX185 Lavalier Microphones

Furnished Accessories

26A13	Zipper bag	RK183T1	Tie clip
RK261BWS	Foam windscreen	RK183T2	Dual tie clip
RK183WS	Snap-fit windscreen	RK100PK	In-line preamp
80A67	Hex wrench #4		

Optional Accessories and Replacement Parts

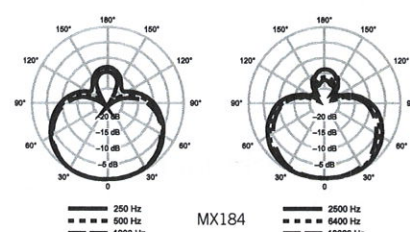
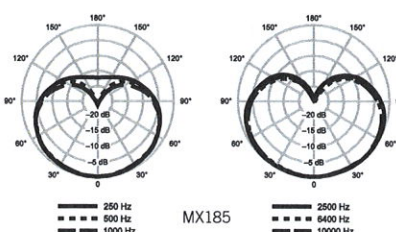
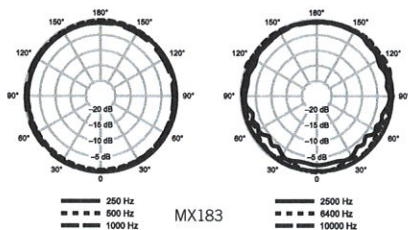
R183B	Omnidirectional cartridge for all Microflex models	R184B	Supercardioid cartridge for all Microflex models	R185B	Cardioid cartridge for all Microflex models
MX1BP	Battery powered preamp	53A2133A	Belt clip for in-line preamp	WA333	4-pin female mini connector (TA4F)
C133	Replacement cable, Microphone to preamp				

Architectural Specifications

MX183 – The microphone shall be black electret condenser lavalier microphone with an omnidirectional polar pattern, in-line belt-clip preamp, and 1.2 m cable that terminates with a 4-pin miniature (TA4F) connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 42.4 mV/Pa.

MX184 – The microphone shall be a black electret condenser lavalier microphone with a supercardioid polar pattern, in-line belt-clip preamp, and 1.2 m cable that terminates with a 4-pin miniature (TA4F) connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 21.1 mV/Pa.

MX185 – The microphone shall be a black electret condenser lavalier microphone with a cardioid polar pattern, in-line belt-clip preamp, and 1.2 m cable that terminates with a 4-pin miniature (TA4F) connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 17.0 mV/Pa.



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