

**SHURE**<sup>®</sup>

Microflex<sup>®</sup> Microphones

Microflex<sup>®</sup> Microphones



More Ways To Work The Room.

# Now More Flexible Than Ever.



a.

b.

c.

**a.** MX412S/C (shown), S, or N\* 12 - inch with mute switch and LED indicator

**b.** MX412/C (shown 12-inch), S, or N\* MX418/C, S or N\* 18 - inch version

**c.** MX412SE/C (shown 12-inch with side exit cable), S, or N\* MX418SE/C, S, or N\* 18-inch version

\* C=Cardioid Polar Pattern, S=Supercardioid Polar Pattern, N=No Capsule Version.

## Microflex® Gooseneck Microphones.

Beyond the fully adjustable goosenecks of the Microflex Gooseneck line lies a new level of flexibility — the Microflex interchangeable condenser microphone cartridge. Designed for easy replacement and available in cardioid and supercardioid polar patterns, the interchangeable cartridges offer wide frequency response and accurate sound reproduction for a broad variety of applications, including houses of worship, courtrooms and conference centers.

Microflex Gooseneck microphones are available in four models with a variety of heights and mounting styles to choose from. The condenser cartridges fit every model in the Microflex product line for enhanced convenience and consistent sound. And every Microflex Gooseneck features high sensitivity and balanced, transformerless output.

Each Microflex Gooseneck microphone comes with a complete installation kit, including:

- Shock Mount
- Snap-fit Foam Windscreen
- Locking Flange Mount
- Threaded Flange Mount (for side exit models)
- Shock Mount Adapter (for side exit models)

Microflex Gooseneck microphones not only sound good, they look good — enhancing the professional appearance of any installation. Check out Microflex Gooseneck solutions today.

Foam Ball Windscreen  
Added Wind Resistance  
A99WS  
(optional)

Snap-fit Foam Windscreen  
(included)

Locking Metal Windscreen  
A412MWS  
(optional)

A400SM Shock Mount,  
Flush  
(included)

A400XLR  
XLR Shock Mount  
Insert (optional)

Locking Flange Mount  
(included)

Shock Mount Adapter  
(included with side exit models)

Threaded Flange Mount  
(included with side exit models)

A412B Microphone Base



# A Small Performer That



MX202B/C (shown), S, or N\*; Black, In-line Preamp

MX202BP/C, S, or N\*; Black, Plate-Mount Preamp

MX202W/C, S, or N\*; White, In-line Preamp

MX202WP/C, S, or N\*; White, Plate-Mount Preamp

\* C=Cardioid Polar Pattern, S=Supercardioid Polar Pattern, N=No Capsule Version.

# Really Performs.

## Microflex® Overhead Microphones.

Available in black or white finishes, and with in-line or plate-mount preamps, Microflex Overhead condenser microphones capture Shure-quality sound in a compact, adjustable package. Each model features one of two interchangeable condenser microphone cartridges attached to a flexible, four-inch gooseneck with a 30-foot (9.1m) non-twist cable. The preamp options available offer easy installation in ceilings or microphone stands, and when combined with the high sensitivity cartridge's wide frequency response, these microphones provide accurate sound reproduction for sound reinforcement or recording.

The Microflex Overheads feature interchangeable cardioid and supercardioid condenser cartridges that fit every model in the Microflex product line for enhanced convenience and consistent sound.

Microflex Overhead microphones come complete with these accessories:

- Snap-fit Foam Windscreen
- Stand Adapter (MX202B versions only)  
(for in-line preamp models)
- Preamp Mounting Hardware  
(for in-line preamp models)

Audition the Microflex Overhead microphones and you'll understand what we mean when we say "good sound comes in small packages."

Black Snap-fit Foam  
Windscreen



White Snap-fit Foam  
Windscreen



Plate-Mount Preamp  
(paintable white finish)



In-Line Preamp  
(black finish)



In-Line Preamp  
(white finish)



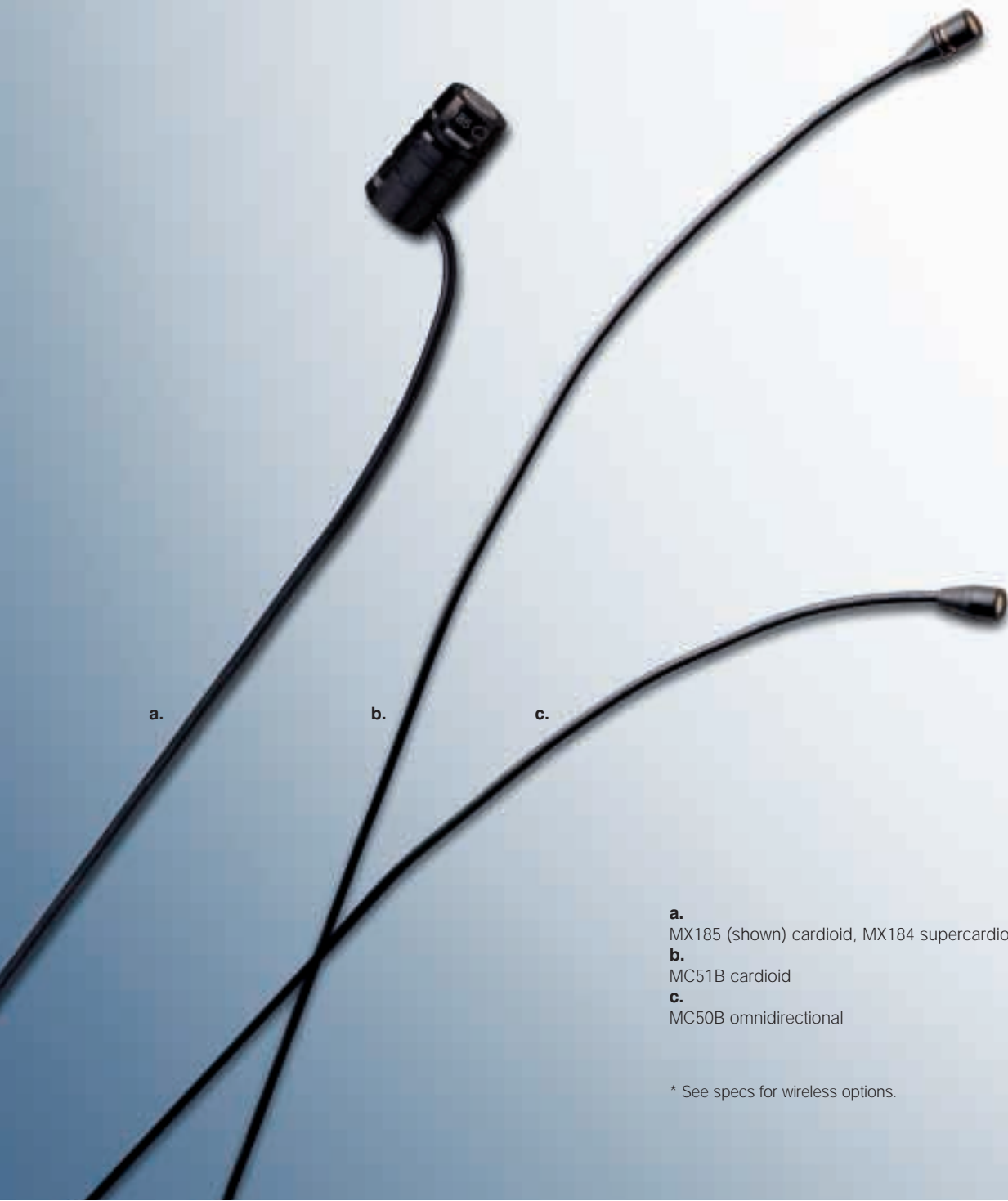
Stand Adapter  
(MX202B only)



Preamp Mounting Clamps



# Looks Great. Sounds Better.



a.

b.

c.

**a.**  
MX185 (shown) cardioid, MX184 supercardioid, MX183 omnidirectional\*

**b.**  
MC51B cardioid

**c.**  
MC50B omnidirectional

\* See specs for wireless options.



## Microflex® Lavaliers.

Microflex Lavalier microphones bring a new level of sophistication to personal voice reproduction. Like all Microflex family microphones, Lavaliers use Shure's interchangeable condenser cartridges (excluding MC50 and MC51 models), available in cardioid, supercardioid or omnidirectional polar patterns.

For the ultimate in small size, Microflex now includes two subminiature lavalier microphone models, the MC51 cardioid and the MC50 omnidirectional. All Microflex lavalier microphones offer a complete set of mounting accessories.

Each Microflex Lavalier microphone comes with an in-line phantom-powered preamp (MX183, MX184 or MX185) or a battery-powered preamp (MX183BP, MX184BP or MX185BP). Battery-powered versions feature a silent mute switch.

Microflex Lavaliers are completely compatible with all Shure Wireless transmitters, and their high sensitivity and wide frequency response guarantee great sound for your important presentations. Plus, each Microflex Lavalier features the same Shure-quality sound that has become an industry standard.

Single Clothing Clip,  
Rotating  
RK183T1



Dual Clothing Clip  
RK183T2



Black Snap-Fit  
Foam Windscreen  
RK183WS



Belt Clip Preamp  
RK183PK

Battery Preamp  
MX1BP (not shown)



Dual Clothing Clip



Rotating Clothing Clip



Pin Clip



Windscreen



Magnet Clip



# The Boundary Microphone That



MX692  
Wireless Boundary Microphone  
Compatible with UC, UHF, and UP Series wireless.



# Knows No Bounds.

## Microflex® Boundary Microphones.

With three types to choose from, Microflex Boundary microphones are the high-quality solution for a range of applications, such as altars, boardrooms and distance learning centers. Equipped with features like programmable, silent membrane switches, logic inputs and outputs, and LED indicators, Microflex Boundary mics are the right choice for any conference room installation. Available in cardioid, supercardioid and omnidirectional polar patterns, the Microflex cartridges give you superior Shure-quality sound options.

Microflex Boundary microphones have an attractive, low-profile, professional appearance. The wireless MX692 seamlessly integrates into modern installations for maximum freedom of placement. The MX392 and MX393 each come with an easy-to-use paint mask for your custom-color installations. The MX391 miniature boundary microphone comes in black or white, with or without preamp, and has an optional battery-powered preamp MX1BP.

Find out why we call our Microflex Boundary microphones "the smart choice" for just about every application. Take a listen today.

MX392/C, S or O\* (shown)  
MX393/C, S or O\* (detachable cable)



MX391/C, S, O\*  
Miniature boundary microphone



Battery-Powered Preamp  
(MX391BP only)



In-line Preamp  
(MX391 only)



\* C=Cardioid Polar Pattern,  
S=Supercardioid Polar Pattern,  
O=Omnidirectional Polar Pattern.

Portable, Programmable,



MX412D/C, S, or N\* (shown)

MX418D/C, S or N\*

\* C=Cardioid Polar Pattern, S=Supercardioid Polar Pattern, N=No Capsule Version.

# Performer.

## Microflex® Desktop Microphones.

The Shure MX412D and MX418D Desktop Microphones are the first products to combine a high-performance, miniature condenser gooseneck microphone with a functional desktop base. With built-in programmable switching capability, their silent membrane switches can be programmed for a variety of functions, including push-to-talk, push-to-mute or push on/push off modes.

Shure's interchangeable condenser cartridges give you still more flexibility, with a choice of cardioid or supercardioid polar patterns. And each cartridge delivers the sound quality you expect from the world leader in microphone technology.

Another Shure MX412D and MX418D exclusive: Custom cable with logic input and output conductors (unterminated) that allow you to interface your microphone with other external equipment, such as automatic microphone mixers, loudspeaker muting relays or video camera switchers. Which makes the MX412D or MX418D the ideal microphone for a wide range of applications, including boardrooms, courtrooms, classrooms and distance learning.

The Shure A412B microphone base features the same portability and professional, low-profile appearance as the MX412D and MX418D, with the flexibility to let you choose which Microflex gooseneck microphone you want to use on any given assignment.

See how impressive a desktop microphone can look and sound.

# International Acclaim

Microflex systems are the preferred spec for sound contractors around the world, affording maximum flexibility for the globe's most architecturally distinguished – and acoustically challenging – buildings.

## Meeting Rooms.

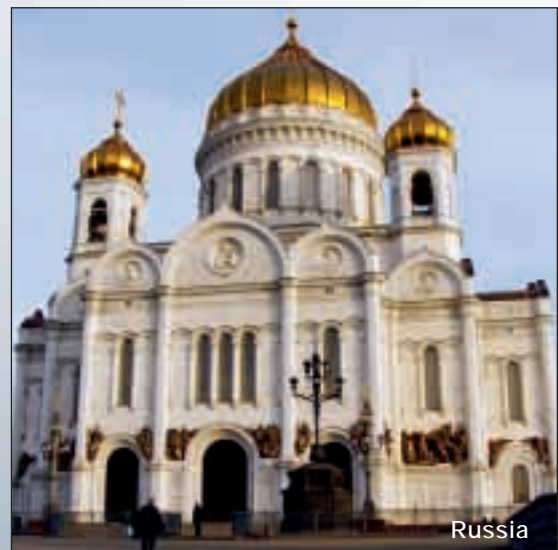
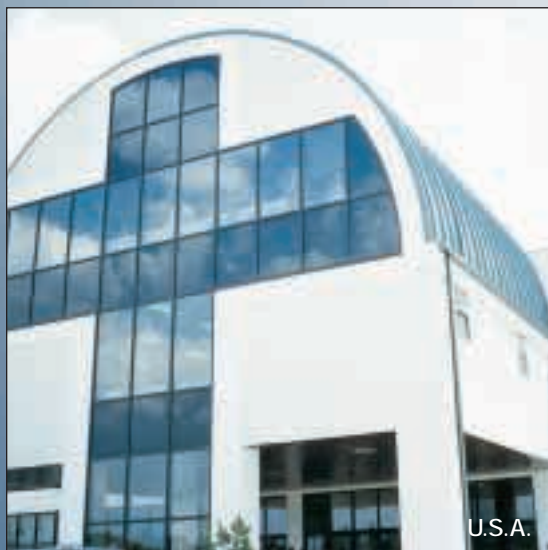
Microflex desktop gooseneck mics provide an integrated gooseneck and base for almost any size conference table.

- Ultra-consistent polar patterns for great gain-before-feedback
- Full low-frequency response for the most natural sound
- Snap-fit windscreen doesn't get lost
- Included shock mount for ultimate mechanical isolation
- Optional metal windscreen for potential rough-handling installs
- Full-featured programmable desktop model

## Singing Groups.

Perfect for overhead stages or singing groups, Microflex overhead microphones are great for situations requiring natural ensemble pickup from a distance.

- Small gooseneck section means they're the easiest overhead to aim
- Non-twist cable means they stay aimed
- Ultra-high RF resistance – no annoying RF artifacts



## Big Presentations.

Microflex omnidirectional subminiature lavaliers are ideal for drama and theatre presentations because of their low-handling noise and multiple mounting options, while cardioid subminiature lavaliers deliver great gain-before-feedback for corporate presentations.

- Best sounding, most natural lavalier microphones available
- Snap-fit windscreen never gets lost
- Rotatable tie-clip delivers ultimate user flexibility
- Omnidirectional for lowest handling noise and “forgiving” mic placement
- Cardioid for most natural overall performance
- Supercardioid for most gain-before-feedback



## Video Conferences.

Boundary microphones deliver maximum sound with minimum visibility. For corporate installations, they have programmable switches and all essential control options for use with echo cancellers, automatic mixers, as well as camera switchers.

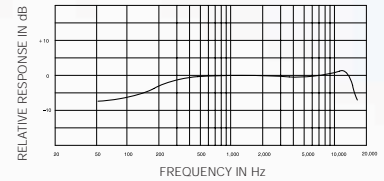
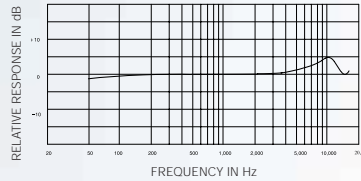
- Available with logic-control of external devices
- Clear status LED to communicate on/off
- Full-frequency natural sound





# MICROFLEX®

## SPECIFICATIONS



### GOOSENECK MICROPHONES.

Frequency Response .....50 to 17,000 Hz

Output Impedance ...Rated at 150Ω (180Ω actual)

#### Sensitivity

@ 1 kHz re: 1 V/Pascal

Cardioid: -33.5 dB

Supercardioid: -32.5 dB

Omnidirectional: -28.0 dB

Maximum SPL (1 kHz at 1% THD, 1 kΩ load)

Cardioid: 123.0 dB

Supercardioid: 122.0 dB

Omnidirectional: 117.5 dB

#### Equivalent Output Noise (A-weighted)

Cardioid: 29.0 dB

Supercardioid: 28.0 dB

Omnidirectional: 23.5 dB

Dynamic Range .....94.0 dB

Power Requirements .....

.....11 to 52 Vdc Phantom Power

#### Additional Accessories

Shock Mount .....A400SM

XLR Shock Mount Insert .....A400XLR

Shock Mount with XLR Insert ....A400SMXLR

Portable Desktop Base .....A412B

25 ft. (7.6 m) Cable .....C25E, C25J

Stand Adapter .....A57F

Shock Mount Stand Adapter.....A53M

#### Dimensions & Shipping Weight

MX412 Overall Length: 16.88 in. (428.74 mm)

MX418 Overall Length: 22.50 in. (571.50 mm)

MX412S Overall Length: 18.43 in. (468.11 mm)

MX418S Overall Length: 23.92 in. (607.64 mm)

MX412SE Cable Length: 10 ft. (3 m)

MX418SE Overall Length: 20.08 in. (509.25mm)

Shock Mount Diameter: 1.70 in. (43.18 mm)

Shock Mount Depth: 1.44 in. (36.40 mm)

Shipping Weight: Approx. 1.25 lbs. (566.9 g)

### OVERHEAD MICROPHONES.

Frequency Response .....50 to 17,000 Hz

Output Impedance .....

.....Rated at 150Ω (180Ω actual)

#### Sensitivity

@ 1 kHz re: 1 V/Pascal

Cardioid: -33.5 dB

Supercardioid: -32.5 dB

Omnidirectional: -28.0 dB

Maximum SPL (1 kHz at 1% THD, 1 kΩ load)

Cardioid: 123.0 dB

Supercardioid: 122.0 dB

Omnidirectional: 117.5 dB

#### Equivalent Output Noise (A-weighted)

Cardioid: 29.0 dB

Supercardioid: 28.0 dB

Omnidirectional: 23.5 dB

Dynamic Range .....94.0 dB

Power Requirements .....

.....11 to 52 Vdc Phantom Power

#### Dimensions & Shipping Weight

Gooseneck Length: 5.69 in. (144.5 mm)

Cable Length: 30 ft. (9.1 m)

Shipping Weight: 0.89 lbs. (403.6 g)

### BOUNDARY MICROPHONES.

@ 48 V Phantom Power

Frequency Response .....50 to 17,000 Hz

Output Impedance Rated at 150Ω (180Ω actual)

Open Circuit Sensitivity @ 1 KHz re: 1 V/Pascal

Cardioid: -27.5 dB

(MX391BP/C: -46.5 dB)

Supercardioid: -26.5 dB

(MX391BP/S: -45.5 dB)

Omnidirectional: -22.0 dB

(MX391BP/O: -41.0 dB)

Maximum SPL (1 kHz at 1% THD, 1 kΩ load)

Cardioid: 117.0 dB

(MX391BP/C: 133.5 dB)

Supercardioid: 116.0 dB

(MX391BP/S: 132.5 dB)

Omnidirectional: 111.5 dB

(MX391BP/O: 128.0 dB)

#### Equivalent Output Noise (A-weighted, max.)

Cardioid: 23.0 dB SPL

(MX391BP/C: 27.0 dB SPL)

Supercardioid: 22.0 dB SPL

(MX391BP/S: 26.0 dB SPL)

Omnidirectional: 17.5 dB SPL

(MX391BP/O: 21.5 dB SPL)

Dynamic Range .....

.....94.0 dB (MX391BP: 106.5 dB)

#### Power Requirements

11 to 52 Vdc Phantom Power or 9V Alkaline

Battery (MX391BP)

Battery Life (MX391BP) .....600 hours

Switch Attenuation .....50.0 dB minimum

Logic Connections (voltages re: LOGIC GROUND)

#### • SWITCH OUT:

—Active Low (0.5 V maximum at 20 mA)

—TTL compatible

#### • LED IN:

—Active Low (0.5 V or less will activate LED)

—TTL compatible

#### Dimensions & Shipping Weight

##### MX392 and MX393:

Maximum Width: 3 in. (76.2 mm)

Maximum Length: 4.26 in. (108.2 mm)

Maximum Height: 1.62 in. (30.4 mm)

Cable Length: 12 ft. (3.7 m)

Shipping Weight: 1.38 lbs. (625.9 g)

##### MX391:

Maximum Width: 2.088 in. (5.304 cm)

Maximum Length: 3.126 in. (7.940 cm)

Maximum Height: .750 in. (1.905 cm)

Cable Length: 12 ft. (3.7 m)

Shipping Weight: 1.04 lbs. (472 g)

##### MX692 Wireless:

Frequency Response .....50 to 17,000 Hz

Polar Pattern .....Cardioid (supplied)

Current Drain .....62 ± 10 mA, typical

(V<sub>ss</sub> = 6.0 to 9.6 VDC)

Battery Life .....7 hours (based on alkaline battery)

Dynamic range .....> 100 dB minimum, A-weighted

Gain Adjustment Range.....-6 to 34 dBs

Modulation .....+/-45 kHz deviation

#### Polarity

Positive pressure on the diaphragm produces a positive voltage on pin 2 of the XLR output of the UC4 receiver.

Transducer Type.....Electret condenser

Power Requirements.....9V alkaline battery

#### Temperature Range

Operating: (20° to 120° F)

Storage: (-20° to 165° F)

#### RF Carrier Frequency Range

692-716 MHz (UB)

782-806 MHz (UA)

#### Working Ranges

75 m (250 ft.) typical

250 m (800 ft.) line-of-sight

Note: actual working range depends on RF signal absorption, reflection, and interference

Minimum Distance Between Transmitters 3 m (1 ft.)

#### RF Power Output

50 mW Max (conducted)

30 mW Typical (radiated)

#### Dimensions and Shipping Weight

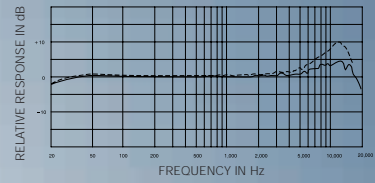
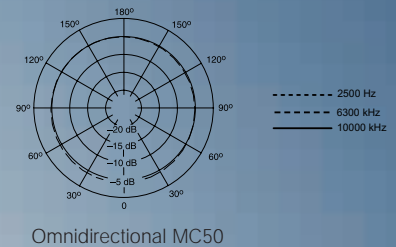
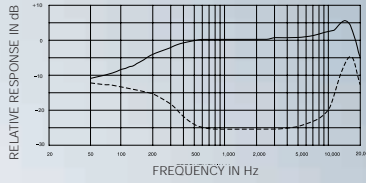
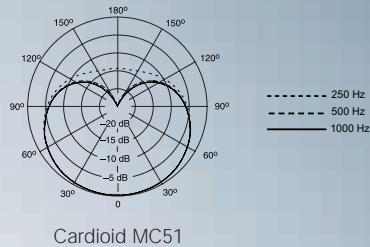
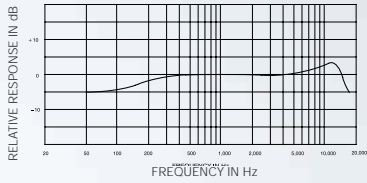
Maximum Width: 3.6 in. (91.4 mm)

Maximum Length: 5.2 in. (132.1 mm)

Maximum Height: 1.8 in. (45.7 mm)

Shipping Weight: 1.05 lbs. (476 g)





## DESKTOP MICROPHONES.

@ 48 V Phantom Power

**Frequency Response** .....50 to 17,000 Hz

**Output Impedance** Rated at 150Ω (180Ω actual)

**Sensitivity**

@ 1 kHz re: 1 V/Pascal

Cardioid: -33.5 dB

Supercardioid: -32.5 dB

Omnidirectional: -28.0 dB

**Maximum SPL (1 kHz at 1% THD, 1 kΩ load)**

Cardioid: 123.0 dB

Supercardioid: 122.0 dB

Omnidirectional: 117.5 dB

**Equivalent Output Noise (A-weighted)**

Cardioid: 29.0 dB

Supercardioid: 28.0 dB

Omnidirectional: 23.5 dB

**Dynamic Range** .....94.0 dB

**Power Requirements** .....

.....11 to 52 Vdc Phantom Power

**Logic Connections** (voltages re: LOGIC GROUND)

• SWITCH OUT:

—Active Low (0.5 V maximum at 20 mA)

—TTL compatible

• LED IN:

—Active Low (0.5 V or less will activate LED)

—TTL compatible

**Dimensions & Shipping Weight**

Base Length: 6<sup>3</sup>/<sub>8</sub> in. (161.9 mm)

Base Width: 4<sup>9</sup>/<sub>16</sub> in. (102.1 mm)

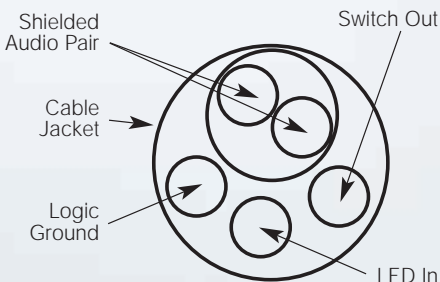
Base Height: 2<sup>1</sup>/<sub>32</sub> in. (50.8 mm)

Cable Length: 10 ft. (3 m)

Shipping Weight: 2.77 lbs. (1.26 kg)

A412B Shipping Weight: 2.03 lbs. (920 g)

Cable Construction for MX392 and MX412D



## LAVALIERS.

**Frequency Response** .....50 to 17,000 Hz

**Output Impedance** .....Rated at 150Ω

**Open Circuit Sensitivity @ 1kHz re: 1 V/Pascal**

MX185: -33.5 dB    MX185BP: -52.5 dB

MX184: -32.5 dB    MX184BP: -51.5 dB

MX183: -28.0 dB    MX183BP: -47.0 dB

**Maximum SPL (1 kHz at 1% THD, 1 kΩ load)**

MX185: 123.0 dB    MX185BP: 139.5 dB

MX184: 122.0 dB    MX184BP: 138.5 dB

MX183: 117.5 dB    MX183BP: 134.0 dB

**Equivalent Output Noise (A-weighted)**

MX185: 29.0 dB    MX185BP: 33.0 dB

MX184: 28.0 dB    MX184BP: 32.0 dB

MX183: 23.5 dB    MX183BP: 27.5 dB

**Dynamic Range** .....94.0 dB

**Power Requirements** .....

.....11 to 52 Vdc Phantom Power

or.....9V Alkaline Battery (BP versions)

Battery Life (BP Versions).....600 Hours

**Current Drain** .....2 mA (0.8 mA for BP versions)

**Lavalier Cable**

Shielded 4 ft. (1.2 m) cable terminated with a miniature Switchcraft TA4F 4-pin connector.

**MX1BP Cable**

Shielded 12 ft. (3.6 m) cable terminated with a 3-pin male XLR connector.

**Dimensions & Shipping Weight**

Lavalier Cable Length: 4 ft. (1.2 m)

Microphone: 0.46 in. (12 mm) x 0.85 in. (22 mm)

Shipping Weight: 0.87 lbs. (394.6 g)

**Additional Accessories**

Extension cable TA4F to TA4M 15' .....C128

**Wireless Versions**

WL183

WL184

WL185

## SUBMINIATURE LAVALIERS.

MC50

**Frequency Response** .....20 to 20,000 Hz

**Output Impedance** ...136Ω actual (rated at150Ω)

**Output Level** .....-41.0 dBV/Pa (1 Pa = 94 dB SPL)

**Maximum SPL**...138 dB at 1% THD/1k ohm load

**Dynamic Range**.....108.0 dB

**Output Noise (equivalent SPL, A-weighted)**.....

.....30 dB typical

**Power Requirements**.....11 to 52 Vdc

**Packaged Weight**.....305g (10.76 oz.)

**Actual Size**.....1.37cm x .58cm

**Wireless Versions**

WL50B

WL50T

WL50W

MC51

**Frequency Response** .....20 to 20,000 Hz

**Output Impedance** ...136Ω actual (rated at150Ω)

**Output Level** .....-46.0 dBV/Pa (1 Pa = 94 dB SPL)

**Maximum SPL**...143 dB at 1% THD/1k ohm load

**Dynamic Range**.....108.0 dB

**Output Noise (equivalent SPL, A-weighted)**.....

.....35 dB typical

**Power Requirements**.....11 to 52 Vdc

**Packaged Weight**.....305g (10.76 oz.)

**Actual Size**.....1.18cm x .58cm

**Wireless Versions**

WL51B

WL51W



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