Microflex[®] Microphones



THERE'S NEVER BEEN A MORE FLEXIBLE CHOICE.



MICROFLEX® MICROPHONES: WORK A ROOM IN MORE WAYS THAN EVER.

Combining sleek, low profile aesthetics and a complete selection of microphones and mounting options, Microflex microphones include the highest standard of quality and efficiency for installed audio applications.

Get the exact fit for your professional installation; knowing it's backed by the superior sound quality, reliability, and durability you only get from Shure.



MX415, MX410 and MX405 with MX890 Wireless Desktop Base



MX405 (with MX400SMP), MX410 (with MX400DP), MX415 without base



 SLX4
 SLX4L

 Standard wireless receiver.
 Wireless receiver with logic output

THE NEW HEIGHT OF FLEXIBILITY.

MX405/MX410/MX415

Modular Gooseneck Microphones

Flexible in more ways than one, Microflex Modular 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 conferencing installation. Fully compatible with SLX[®] wireless systems, including the SLX4L wireless receiver with logic output for applications requiring logic functionality.

- Available in 5 inch (12.7 cm), 10 inch (25.4 cm) and 15 inch (38.1 cm) lengths
- · Cardioid and supercardioid polar patterns
- Bi-color status indicator (standard models) or single color light ring ("R" models)
- Programmable mute switch (desktop models only)
- · Logic input/output for remote LED and mute control dependant on base option
- · Surface-mount and wired or wireless desktop base options
- MX890 Wireless Desktop Base compatible with SLX4 and SLX4L Wireless Receivers

Available Models

MX405 C/S 5 inch (12.7 cm), includes surface mount preamp MX405R N 5 inch (12.7 cm), includes surface mount preamp MX405LP C/S 5 inch (12.7 cm), less preamp MX405RLP N 5 inch (12.7 cm), less preamp MX410 C/S 10 inch (25.4 cm), includes surface mount preamp **MX410R N** 10 inch (25.4 cm), includes surface mount preamp MX410LP C/S 10 inch (25.4 cm), less preamp MX410RLP N 10 inch (25.4 cm), less preamp MX415 C/S 15 inch (38.1 cm), includes surface mount preamp MX415R N 15 inch (38.1 cm), includes surface mount preamp MX415LP C/S 15 inch (38.1 cm), less preamp MX415RLP N 15 inch (38.1 cm), less preamp Mounting Options MX400DP

Desktop Base MX890 Wireless Desktop Base MX400SMP Surface-mount Preamp Available Models C = Cardioid, S = Supercardioid, N = No Cartridge



UNMATCHED FLEXIBILITY. UNBENDING PERFORMANCE.

MX412/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 heights 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.

- Available in 12 inch (30.5 cm) and 18 inch (45.7 cm) lengths
- · Interchangeable cartridges provide the right polar pattern for every application
- · Locking flange mount for permanently securing microphone to surfaces
- Snap-fit foam windscreen
- · Shock mount provides over 20 dB isolation from surface vibration noise
- · Models available with attached preamp, in-line preamp, or desktop base

Available Models

MX412 C/S/N 12 inch (30.5 cm), Attached Preamp MX412S C/S/N 12 inch (30.5 cm), Attached Preamp, Mute Switch MX412SE C/S/N 12 inch (30.5 cm), In-Line Preamp, 10 foot (3.0 m) Side-Exit Cable MX412D C/S/N 12 inch (30.5 cm), Desktop Base with 10 foot (3.0 m) Cable MX418 C/S/N 18 inch (45.7 cm), Attached Preamp MX418S C/S/N 18 inch (45.7 cm), Attached Preamp, Mute Switch MX418SE C/S/N 18 inch (45.7 cm), In-Line Preamp, 10 foot (3.0 m) Side-Exit Cable MX418D C/S/N 18 inch (45.7 cm), Desktop Base with 10 foot (3.0 m) Cable Available Models C = Cardioid, S = Supercardioid, N = No Cartridge





MX412D

MX412S

COMMSHIELD® TECHNOLOGY IMPROVES RF RESISTANCE.

All Microflex[®] models offer CommShield Technology, which guards against unwanted radio interference from consumer wireless devices such as cell phones and PDA's. Shure engaged their development teams to redesign Microflex microphones to be highly resistant to radio frequency interference such as might be experienced with GSM cell phone technology and to implement design techniques such as multilayer circuit boards, improved grounding techniques, tighter enclosures for improved shielding, and improved microphone cable and audio connectors. The combination of improved techniques is utilized to deliver Microflex microphones that are highly resistant to intense nearby radio signals.











Side view



Low Profile Boundary Microphone

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.

- Only 1.25 inch (3.175 cm) in diameter
- Cardioid, omni and bidirectional polar patterns
- Wide dynamic range and smooth frequency response
- Available in black, white and aluminum
- Bi-color status indicator (select models)
- TTL Logic LED input and TTL Logic switch ouput

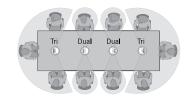
Available Models MX395B C/O/BI Black MX395AL C/O/BI Aluminum MX395W O White MX395B O/C/BI-LED Black, with bi-color status indicator Available Models C = Cardioid, 0 = 0mni, BI = Bidirectional

ONE MICROPHONE THAT PERFORMS LIKE MANY.





Side view

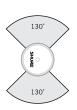


Example of Boardroom Table Mic Placement Coverage

MX**396** Multi Element Boundary Microphone

The Microflex Multi-Element Boundary microphone delivers 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.

- Multiple coverage patterns (see diagram below)
- Individual audio output for each element
- Bi-color status indicator
- Programmable mute switch
- TTL Logic LED input and TTL Logic switch ouput







MX396 C-DOAL Dual-Element Configuration MX396 C-TRI Tri-Element Configuration





End-of-Table Coverage (Tri)

Center-of-Table Coverage (Tri)



COMPACT, CLEAR, AND CONNECTED. MX391/MX392/MX393

Wired Boundary Microphones

With slim design and superior audio reproduction, Microflex Boundary microphones are the ideal conference room solution. Features include 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.

- Cardioid, supercardioid and omnidirectional polar patterns
- Select models available in black or white
- Programmable, silent
 membrane switch
- TTL Logic LED input and TTL Logic switch ouput (MX392 only)
- LED indicator (MX392, MX393)

Available Models
MX391 C/S/O
Black Attached cable w/ 4-pin mini connector, Preamplifier
MX391W C/S/O
White Attached cable w/ 4-pin mini connector, Preamplifier
MX392 C/S/O
Surface-mount microphone, Attached unterminated cable
MX393 C/S/O
Surface-mount microphone, Mini 3-pin connector cable
C = Cardioid, S = Supercardioid, O = Omni





WIRELESS. LIMITLESS.

MX690 Wireless Boundary Microphone

The Microflex Wireless Boundary microphone offers total freedom of placement with no holes to drill or cables to run for installation. It is 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 output for applications requiring logic functionality.

MX690

Wireless Boundary Mic, Cardioid

- Sleek, low profile design
- Frequency agile, microprocessor controlled transmitter
- Bi-color status indicator
- IR link to SLX receiver for automatic frequency synchronization
- Programmable mute function
- · Battery level indicator
- Operates on two AA batteries
- TTL Logic transmitter status and TTL Logic battery level signal when used with SLX4L wireless receiver

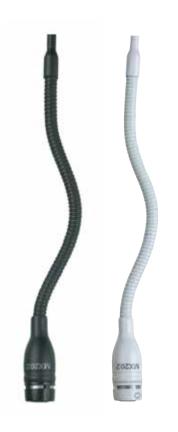






Front view

Side view



A MICROPHONE THAT GOES ABOVE AND BEYOND.

MX202

Overhead Microphones

Microflex® Overhead microphones capture sound from speakers, choirs, and stages conveniently and unobtrusively from above. Compact and flexible, each feature a four-inch gooseneck and versatile condenser cartridges for accurate sound reproduction in any setting. The available preamp options offer easy installation in ceilings or microphone stands, and provide accurate, reliable sound reproduction.

- · Cardioid and supercardioid polar patterns
- Interchangeable condenser cartridges
- Inline or plate mount preamp
- · Optional desk stand also available

Available Models

MX202B C/S/N
Black In-line preamplifier, stand adapter
MX202W C/S/N
White In-line preamplifier, stand adapter
MX202BP C/S/N
Black Plate-mounted preamplifier
MX202WP C/S/N
White Plate-mounted preamplifier
Mounting Options
A202BB
Microphone Desk/Table Stand

Available Models C = Cardioid, S = Supercardioid, N = No Cartridge

FREEDOM TO MOVE, FREEDOM TO HEAR.

MX183/MX184/MX185/MC50/MC51 **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 a wide array of sizes, including two subminiature microphone models, and are compatible with all Shure wireless platforms.

- · Cardioid, supercardioid and omnidirectional polar patterns
- Phantom-powered preamp
- · Exceptionally low handling noise
- Includes tie clip, dual tie clip and snap-fit windscreen

Available Models MX180/N No Cartridge MX183 Omnidirectional MX184 Supercardioid MX185 Cardioid MC50B Subminiature Omnidirectional MC51B Subminiature Cardioid



THE SOUND HEARD AROUND THE WORLD.

Shure has long been the global leader in providing audio solutions for all types of commercial installations. Whether in churches, schools, boardrooms, or courtrooms, you'll find Microflex microphones providing superior audio and Shure's world-class service and support.



Proven reliable in installations worldwide, Microflex microphones are well suited to meet the diverse audio requirements of any House of Worship. Ideal for choirs, lecterns, and altars, all Microflex products are both attractive and inconspicuous and deliver the superior sound quality you can expect from Shure.



Utilized for everything from auditoriums to band rooms, Microflex microphones have delivered exceptional audio quality to the hallowed halls of academia for years. By providing the educational institutions of the world with exceptional quality products, Shure tirelessly commits themselves to delivering unparalleled service and support.



Microflex microphones provide solutions for meeting rooms, video conferences, large presentations or any other situation the business world throws at you. Gooseneck mics meet the needs of any size conference table while low-profile boundary mics are discreet and unobtrusive yet provide crystal clear audio. Additionally, CommShield[™] technology guards against unwanted interference.



Microflex microphones have adorned the podiums and committee rooms of government institutions around the world. From lavaliers to overheads to goosenecks, Shure audio products deliver exceptional sound and afford maximum flexibility in even the most acoustically challenging environments.

SPECIFICATIONS Subject to change

	MX400 Gooseneck Microphones	MX200 Overhead Microphones	MICROFLEX Lavalier Microphones	MX395/396 Boundary Microphones	MX391/392/393 Boundary Microphones	MX690/890 Boundary Microphones
Туре	Condenser (electret bias)	Condenser (electret bias)	Condenser (electret bias)	Condenser (electret bias)	Condenser (electret bias)	Condenser (electret bias)
Frequency Response	50–17000 Hz	50–17000 Hz	MX185/184/183: 50–17000 Hz MC50/51: 20–20000 Hz	50–17000 Hz	50–17000 Hz	50–17000 Hz
Output Impedance	EIA Rated at 150 (170 actual, MX405/410/415) (180 actual, MX412/418)	180 Ω actual (EIA rated at 150 Ω)	MX185/184/183: EIA rated at 150 Ω (170 Ω actual) MC50/51: EIA rated at 150 Ω (136 Ω actual)	EIA Rated at 150 Ω (170 Ω actual)	EIA Rated at 150 Ω (180 Ω actual)	
Sensitivity (at 1 kHz, open circuit voltage)	Cardioid: -35 dBV/Pa (17.8 mV) Supercardioid: -33.5 dBV/Pa (21.1 mV) Omnidirectional: -27.5 dBV/Pa (42.2 mV) 1 Pascal=94 dB SP L	Cardioid: -35.0 dBV/Pa (17.8 mV) Supercardioid: -33.5 dBV/Pa (21.1 mV) Omnidirectional: -27.5 dBV/Pa (42.2 mV) All values -12 dB at 0 gain *1 Pascal = 94 dB SP	MX183: -27.5 dB V/Pa (42.2 mV) MX184: -33.5 dBV/Pa (21.1 mV) MX185: -35.0 dB V/Pa (17. 8 mV) MC50: -41.0 dBV/Pa (8.9 mV) MC51: -46.0 dBV/Pa (5.0 mV) All settings -12 dB at 0 gain *1 Pascal = 94 dB SPL	MX395 Cardioid:34 dBV/ Pa (20 mV) MX395 Omnidirectional: 29 dBV/Pa (35.5 mV) MX395 Bidirectional:35 dBV/Pa (17.8 mV) MX396:35 dBV/Pa (18 mV)	MX391 Cardioid -29.6 dBW/Pa (33.5 mV) MX391 Supercardioid -28.3 dBW/Pa (38.5 mV) MX391 Omnidirectional -21.5 dBW/Pa (81.4 mV) MX392/393 Cardioid: -27.5 dBW/Pa (42.2 mV) MX392/393 Supercardioid: -26.5 dBW/Pa (47.3 mV) MX392/393 Omnidirectional: -22.0 dBW/Pa (79.4 mV) *1 Pascal = 94 dB SPL	-33 dBV/Pa (33 mV) 1 Pascal=94 dB SPL
Maximum SPL (1 kHz at 1% THD, 1 k load)	MX405/410/415: Cardioid with MX400SMP: 121.1 dB Cardioid with MX400DP: 122 dB Supercardioid: with MX400SMP: 119.7 dB Supercardioid: with MX400DP: 120.5 dB MX412/418: Cardioid: 124.2 dB Supercardioid: 122.7 dB Omnidirectional: 116.7 dB	Cardioid: 124.2 dB Supercardioid: 122.7 dB Omnidirectional: 116.7 dB	MX183: 132.8 dB MX184: 138.8 dB MX185: 140.3 dB MC50: 137 dB MC51: 142 dB All settings +6 dB at 0 gain	MX395 Cardioid: 120 dB MX395 Ormidirectional: 115 dB MX395 Bidirectional: 121 dB MX396: 122 dB	Cardioid: 118.8 dB Supercardioid: 117.5 dB Ornnidirectional: 110.7 dB	For complete specifications on the MX690 and MX890 wireless transmitters, please visit www.shure.com.
Equivalent Output Noise (A-weighted)	Cardioid: 28 dB SPL Supercardioid: 26.5 dB SP L Omnidirectional: 20.5 dB SPL	Cardioid: 28.0 dB SPL Supercardioid: 26.5 dB SPL Omnidirectional: 20.5 dB SPL	MX183: 23.7 dB SPL MX184: 29.7 dB SPL MX185: 31.2 dB SPL MC50: 31 dB MC51: 36 dB SPL	MX395 Cardioid: 29 dB SPL MX395 Omnidirectional: 23 dB SPL MX395 Bidirectional: 27 dB SPL MX396: 30 dB SPL	Cardioid: 22.6 dB SPL Supercardioid: 21.3 dB SPL Omnidirectional: 14.5 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	Cardioid: 66.0 dB Supercardioid: 67.5 dB Omnidirectional: 73.5 dB	MX183: 70.3 dB MX184: 64.3 dB MX185: 62.8 dB MC50: 63 dB MC51: 58 dB	MX395 Cardioid: 65 dB MX395 Omnidirectional: 72 dB MX395 Bidirectional: 67 dB MX396: 64 dB	Cardioid: 71.4 dB Supercardioid: 72.7 dB Omnidirectional: 79.5 dB	
Dynamic Range (1 k load at 1 kHz)	MX405/410/415: Cardioid with MX400SMP: 93.1 dB Cardioid with MX400DP 94 dB Supercardioid with MX400SMP: 93.2 dB Supercardioid with MX400DP: 94 dB MX412/418: 96.2 dB 100 dB at 0 gain	96.2 dB (100 dB at 0 gain)	MX185/184/183: 109.1 dB MC50/51: 106.0 dB 100 dB at 0 gain	MX395 Cardioid: 91 dB MX395 Omnidirectional: 92 dB MX395 Bidirectional: 95 dB MX396: 92 dB	96.2 dB	100 dB minimum
Power Requirements	MX405/410/415: 48–52 Vdc phantom, 8.0 mA MX412/418: 11–52 Vdc phantom, 8.0 mA	11 to 52 Vdc phantom, 2.0 mA	11–52 Vdc phantom, 2.0 mA or 9V battery 0.8mA	MX395: 11–52 Vdc phantom, 2.0 mA MX395-LED: 48–52 Vdc phantom, 8.0 mA MX396: MX396/C-DUAL: 48–52 Vdc phantom, 10.0 mA MX396/C-TRI: 48–52 Vdc phantom, 12.0 mA	11–52 Vdc phantom, 2.0 mA	3V (2 AA alkaline or rechargeable batteries)



LEGENDARY PERFORMANCE™ United States, Canada, Latin America, Caribbean: Shure Incorporated 5800 West Touhy Avenue Niles, IL 60714-4608 USA

Phone: 847-600-2000 Fax: 847-600-1212 (USA) Fax: 847-600-6446 Email: info@shure.com Europe, Middle East, Africa: Shure Europe GmbH Wannenäckerstr. 28, 74078 Heilbronn, Germany

Phone: 49-7131-72140 Fax: 49-7131-721414 Email: info@shure.de

Asia, Pacific:

Shure Asia Limited 22/F, 625 King's Road North Point, Island East Hong Kong

Phone: 852-2893-4290 Fax: 852-2893-4055 Email: info@shure.com.hk

©2011 Shure Incorporated

AL1564B