INSTALLED EXCELLENCE
SOLUTIONS FOR AUDIO PROFESSIONALS

QUALITY, RELIABILITY, EXCELLENCE.

When the microphone is on, those are the things that matter most. Whether it's national leaders debating on the world stage, panel members conversing across a room, or an actor performing in front of a packed theater.

Since developing our first products in 1925, Shure has pursued audio perfection with an uncompromising commitment to continuously innovate and improve product performance. That has meant countless hours of engineering, testing, retooling and re-testing. All to ensure that when the most important audio moments occur, you can count on Shure to capture them – what ever the environment. From conference room to concert hall, church to house of parliament. And with DIS, Shure now serves more installed applications than ever.

INSTALLED EXCELLENCE.

Today's complex audio environments require complete technology solutions, integrating Dante™ Digital Audio Networking compatibility, adding software management capabilities, intelligent rechargeable battery options, as well as simplifying system setup and operation.

Shure stands at the forefront of this convergence of audio, video and IT, delivering innovative, technology with superior sound and functionality.

CONFERENCING AND MICROPHONE SOLUTIONS

Whether you require an easy to use out-of-the-box solution for your meeting room or a wireless microphone system for the most demanding managed AV enivronments – Shure conferencing and microphone products are the right choice, wherever leaders and speakers bring their work to life.

CENTRAVERSE™

Centraverse Installed Microphones deliver high quality plug and play, reliable audio regardless of the application.

pg 6

MICROFLEX®

The Microflex series provides a wide range of flexible microphone solutions suited for a variety of conferencing applications.

pg 8

MICROFLEX® WIRELESS

Microflex Wireless features a system of advanced conferencing products that includes audio network interfaces with analogue and digital connections, control software that enables the remote adjustment and monitoring of system settings and intelligent rechargeable transmitters and charging stations.

pg 10

DIS

DIS provides state-of-the-art installed and rental solutions to the global meeting industry. Technologies include solutions for discussion, conferencing, interpretation, and parliamentary environments.

pg 12

Audio simplicity, realised.

CENTRAVERSE™ INSTALLED SOUND MICROPHONES

From meeting rooms to houses of worship, podiums to desktops, Centraverse microphones deliver plug-and-play quality, reliable audio regardless of the application. Equipped with CommShield® technology to filter out unwanted RF interference from phones and other wireless devices, they are designed with everything needed to ensure a quick and efficient sound solution.

CVB
Boundary Condenser Microphone

- For use in desktop installed sound reinforcement applications
- Low-profile design fits seamlessly within any design aesthetic
- Available in cardioid and omnidirectional polar patterns and black or white colour options

70Hz–16kHz

CVO
Overhead Condenser Microphones

- Designed for overhead sound reinforcement applications
- Integrated wire aiming hanger for optimal placement above choirs and other ensembles with minimal effort

70Hz–16kHz
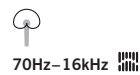
CVG12/18
Gooseneck Condenser Microphone

- Dual-section gooseneck provides full articulation and easy placement options
- Ideal for use in corporate facilities and government institutions
- CommShield Technology guards against unwanted RF interference from portable wireless devices

CVG12   CVG18

70Hz–16kHz
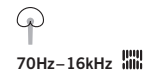
CVD
Desktop Base

- Sleek desktop base compatible with all Centraverse 305 mm (12") and 457 mm (18") gooseneck microphones
- Includes a 305 mm (12") attached cable

WITH

CommShield® Technology

All Centraverse models equipped with Commshield® RF Filtering Technology

- Guards against unwanted RF Interference from wireless devices (smartphones, etc.)
- High resistance to intense nearby radio signals

KEY:

Polar Pattern

Cardioid   SuperCardioid   OmniDirectional   BiDirectional

Frequency Response

Tailored   Flat

Delivering best-in-class performance and reliability, Centraverse microphones are designed to be low-profile and engineered for high resistance to nearby radio signals.

MICROFLEX®
MICROPHONES

Combining sleek, low-profile aesthetics and superior sound quality, Microflex microphones deliver a high standard of quality and efficiency. Each condenser microphone is engineered to withstand high usage and equipped with CommShield® Technology that guards against radio interference from phones and other wireless devices. For total flexibility across a wide variety of installed audio applications.

MX150
Subminiature Lavalier Microphone
- Professional electret condenser microphone ideal for applications requiring low-profile placement
- Uncompromising sound quality and high reliability for corporate lectures, AV teleconferencing and sound reinforcement
- Fully compatible with all Shure wireless systems

20Hz–20kHz

MX153
Earset Headworn Microphone
- Professional subminiature earset microphone ideal for applications in which improved gain before feedback over lavalier microphones is desired
- Exceptional speech clarity makes it ideal for corporate presentations, AV conferencing and live sound reinforcement

20Hz–20kHz

MX183/184/185
Lavalier Microphone
- Natural sound in a convenient low-profile form factor
- Attaches to a tie or lapel for freedom of movement in any situation involving voice reproduction
- Available in three polar patterns and compatible with all Shure wireless platforms
- MX183 OmniDirectional
- MX184 SuperCardioid
- MX185 Cardioid

50Hz–17kHz

MX202
Overhead Microphone
- Capture sound conveniently and unobtrusively from above
- Compact and flexible, with 4" (102 mm) goosenecks and versatile condenser cartridges for accurate sound reproduction in any setting
- Preamp options available
- Easy installation in ceilings or microphone stands

50Hz–17kHz

MX391/392/393
Boundary Microphone
- Slim design and superior audio reproduction for conference room solutions
- Features include programmable silent membrane switches, interchangeable cartridges, logic inputs and outputs, and LED indicators

50Hz–17kHz

MX395
Low Profile Boundary Microphone
- Table microphone ideal for environments where minimal presence is high priority
- Delivers exceptional sound pickup while barely being noticed
- Choose from a selection of colours and pickup patterns for customised table installations

50Hz–17kHz

MX396
Multi-Element Boundary Microphone
- Unique and versatile microphone for conference room installations
- Clean and simple appearance
- Available in two or three element configurations, combining the coverage of multiple microphones into one compact package

50Hz–17kHz

MX405/410/415
Modular Gooseneck Microphones
- Unsurpassed style and performance for conference rooms and similar applications
- Available with desktop or mounted bases, wired or wireless options, and interchangeable cartridges
- All models are fully compatible with the MX890 and Microflex Wireless MXW8 Desktop Bases.

50Hz–17kHz

MX412/418
Gooseneck Microphones
- Provides the added length and flexibility needed for environments such as lecterns, pulpits and courtrooms
- High-sensitivity with balanced, transformerless output for maximum resistance to electromagnetic hum and RF interference, even over long cable runs

MX412 D   MX418 S

50Hz–17kHz

MX690
Wireless Boundary Microphone
- Offers total freedom of placement with no holes to drill or cables to run for installation
- Ideal for conference and meeting spaces that require flexibility and high performance
- Compatible with Shure SLX® wireless systems, including the SLX4L receiver with logic output for applications requiring logic functionality

50Hz–17kHz

MX890
Wireless Desktop Base
- Designed for use with MX405, MX410 and MX415 Microflex® Gooseneck Microphones
- Fully compatible with SLX® wireless systems, including SLX4L wireless receiver with logic output for applications requiring logic functionality

All Microflex models equipped with Commshield® RF Filtering Technology
WITH CommShield® Technology
- Guards against unwanted RF Interference from wireless devices (smartphones, etc.)
- High resistance to intense nearby radio signals

KEY:

Polar Pattern

| Cardioid | SuperCardioid | OmniDirectional | BiDirectional |

Frequency Response

| Tailored | Flat |

Vivid, lifelike audio for conferencing
MICROFLEX™ WIRELESS SYSTEMS

Developed with contemporary working and learning spaces in mind, the Microflex wireless platform provides flexible, elegant solutions for capturing and managing clear, natural sound in AV conferencing environments. Simple to configure and completely scalable, any number of systems can be managed, monitored and controlled on site or remotely from a laptop or web browser. Making it an ideal choice for almost any environment, whether it's one room, several floors or multiple buildings.

MXW1
Hybrid Bodypack Transmitter
- Integrated omnidirectional microphone perfect for picking up speech while the bodypack is on a lanyard or tucked into a shirt pocket
- Encrypted transmission
- Input jack for connecting an ear-worn or lavalier-style microphone
- Belt clip easily attaches to clothing

MXW2
Handheld Transmitter
- Vivid, lifelike sound and intelligent wireless performance for presentation and conferencing applications
- Encrypted transmission
- Advanced rechargeability
- Lightweight, durable construction and integrated antenna
- Available with trusted Shure microphone capsules, including the legendary SM58®, SM86, Beta 58A and VP68

MXW6
Boundary Transmitter
- Low-profile design allows flexible placement on any surface in front of one or multiple speakers
- Cardioid or omnidirectional polar pattern options deliver pristine audio quality
- Encrypted transmission
- Advanced rechargeability
- Earphone output for return channel audio

MXW8
Gooseneck Base Transmitter
- Stylish, contoured design with minimal footprint plus LED options
- Encrypted transmission
- Accepts Microflex gooseneck microphones available in multiple lengths and polar patterns

MXWAPT4/APT8
Access Point Transceiver
- 4- or 8-channel wireless access point ideal for environments where low visibility is preferred
- Automated frequency coordination assigns clean frequencies to wireless microphones and manages two-way wireless transmission of encrypted audio and control signals
- Power to the unit and Dante™ digital networked audio are both supplied over a single Ethernet cable to simplify installation

MXWNCS4/NCS8
Networked Charging Station
- 4- or 8-port networked charging station designed to complement boardroom aesthetics
- Easily connects between conference room credenzas and AV rack closets over Ethernet via a single Cat5e cable
- Front panel LEDs display battery charge while remaining runtime and charge levels can be monitored from any networked computer via the control software

MXWANI4/ANI8
Audio Network Interface
- 4- or 8-channel audio network interface that enables easy out-of-the-box system setup with no additional networking hardware required
- 4-port gigabit switch with optimised port configurations
- Power over Ethernet (PoE) connection to the Access Point Transceiver
- Front-panel controls allow adjustment of input and output levels and channel muting and soloing
- Supports Dante networking of digital audio for low-latency transport and recording

MXWANI4

MXWANI8

MICROFLEX™
Wireless Control Software
- Makes managing even the most complex conferencing environments simpler than ever
- Browser-based application enables comprehensive real-time remote monitoring and control of all Microflex Wireless devices
- Monitor and adjust microphone levels, real-time battery charge status, muting preferences and more, without any extra software to install
- Allows for custom integration with Crestron®, AMX®, and other programmable touchscreen controllers, and readily interconnects with teleconferencing audio and other sound processors
- Password protectable, and accessible from any networked PC or Mac

Digital Discussion System
DDS 5900

The Digital Discussion System from DIS provides all you need for a small to medium size meeting. Elegant design, simple and intuitive to use with multiple control options. Plug and play simplicity allows users to fully focus on the event. The system consists of a central unit and single programmable multi-user type units – portable or flush mount. Standard features like 2 channel interpretation, grouping, voice activation and encryption make DDS 5900 flexible and cost effective at the same time.

CU 5905
Central Control Unit
- Powers up to 60 conference units, controls up to 250 units
- 4 selectable operation modes
- TCP/IP for external control and web browser interface
- Encrypted sound
- 2 interpretation channels, 4 group outputs
- Analogue emergency input

Web browser
Microphone Control and System Setup
- Configuration of central unit
- Microphone control
- Input/Output control
- Delegate set up
- Name & seat assignment

DC 5980 P
Portable Discussion Unit
- Compact attractive table top design
- Soft touch button technology
- Configurable: chairman, delegate, interpreter
- Exchangeable button overlay
- Lockable XLR socket for the gooseneck
- High quality loudspeaker
- Stereo headphone socket open frequency
- Includes rack mount hardware kit

DC 5900 F
Flush Mount Base Unit
- Small form factor base unit
- "Out of the box" setup and operation
- Works with both DIS and selected Shure microphones (Microflex)
- Easy to install

FP 5921/5981 F & Overlays
Front Plates
- Two different front plate options can be attached to base unit. Touch overlays are then affixed to the front plates to enable the desired functionality. No configuration needed.
- Various touch overlay options
- Loudspeaker in separate unit available

Microphones & Speaker
Accessories in order to Listen and Speak
- DIS gooseneck GM 592x
- Shure gooseneck Microflex MX4xx RLP by using adaptor AC5901
- Optional speaker LS 5900 F can be connected to DC 5900 F base unit

Further details on the digital discussion system DDS 5900 can be found in the DDS 5900 brochure

Digital Conference System
DCS 6000

Clarity, precision and reliability are absolutely essential in today's world when important information is shared and decisions made in conferences and meetings. The DCS 6000 Digital Conference System is fully digital based on innovative technology, providing crystal clear audio everywhere. Beyond a web browser interface DCS 6000 can be controlled and managed via an extensive modular software package. Attractively styled microphone units are available as portable, flush mount or customised units.

CU 6105/6110
Central Control Unit
- Controls up to 3800 conference units
- Microphone control, voting and up to 31 interpretation channels
- Use of feature licenses to unlock features
- Basic setup from CU via front buttons and display
- Web browser interface & optional SW 6000

DC 6120 P/6190 P
Conference Units without Voting Functionality
- Delegate/Chairman Unit with built-in speaker
- Lockable XLR socket to attach DIS gooseneck or shotgun microphone
- Configurable as chairman or delegate unit
- DC 6190P has 2 channel selectors with 2 stereo headphone sockets

DM 6680 P/DC 6990 P
Conference Units with Voting Functionality
- 3- or 5-button voting, secret mode, chip card reader
- Channel selector & stereo headphone socket
- DC 6990P only: 3.5" Touch screen, 2nd channel selector & headphone socket, multi-language-screen, configurable as chairman, delegate or dual delegate unit type

Flush Mount Units & Customisation
Conference Units for fixed Installations
- Chairman or delegate conference units available with integrated or separate electronics
- Voting, channel selection, chip card
- Various microphone options available
- Specific customised solutions on request

DIR 6000
Digital Wireless Infrared System
- Language distribution of up to 32 channels
- Digital infrared receivers for 4, 8 or 32 channels available
- Digital transmitter for 8 or 32 channels
- Digital radiator with 13 or 25 W output
- Various headphone options available

SW 6000/7000 & Camera Control Packages
Powerful Conference Management Tools
- Extensive modular conference management software SW 6000 for setup, control and managing professional meetings
- SW 7000 streaming and archiving software
- CP 7800 for easy control and programming of 3rd party camera presets through iPod/iPad

Further details on the digital conference system DCS 6000 can be found in the DCS 6000 brochure

SCM820 DIGITAL INTELLIMIX® AUTOMATIC MIXER

SCM MIXERS

Shure automatic mixers are the quickest, simplest and most effective way to set up a multiple-microphone room. Without clipping a syllable, they silently activate only the microphones being addressed and automatically adjust each microphone's threshold to changes in background noise. It's technology that's networkable, configurable, and as simple to operate as opening the box, plugging in, and connecting the microphones.

SCM**820**
Digital IntelliMix® Automatic Mixer

- 8-channel digital automatic mixer designed to deliver natural-sounding speech
- IntelliMix technology dramatically improves audio quality in any application where multiple microphones are required
- SCM820 Control Software provides convenient management, monitoring, and configuration support for all key system settings

- Seamless automatic mixing and reduced background noise through dynamic channel gating and attenuation
- Ethernet connectivity and versatile configuration options ensure analog and digital connectivity between devices
- DFR (Digital Feedback Reduction) adds two channels of adaptive EQ filtering to find and attenuate feedback frequencies

SCM**810**
8-Channel Automatic Microphone Mixer

- IntelliMix technology activates only microphones being addressed, minimising poor audio caused by multiple open microphones
- Designed specifically for installed sound applications

SCM**410**
4-Channel Automatic Microphone Mixer

- Automatic mixer that puts all the seamless performance of the 8-channel SCM810 into a half-rack space
- IntelliMix technology activates only microphones being addressed, minimising poor audio caused by multiple open microphones

SCM**268**
4-Channel Microphone Mixer

- Half-rack mixer designed for a wide range of small installed sound applications
- 6 transformers – including an internal low stray field toroidal power transformer – to protect against RF interference, prevent ground loops and deliver exceptionally quiet performance

SCM**262**
Stereo Microphone Mixer

- Compact, easy-to-use mixer customised for smaller installations
- Ideal for applications that require integrating microphones with stereo equipment

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IntelliMix® Technology
Seamless, powerful automixing

IntelliMix® Modes
Preset, manual & custom modes

Dual Mixer Operation
One or two independent mixes

Dante™ Digital Audio
Multichannel audio over Ethernet

Remote Control
Convenient browser-based software

Model Variations
Multiple I/O configurations

Digital Feedback Reduction
2 channels of patented Shure DFR

WIRELESS SYSTEMS FOR DEMANDING INSTALLED APPLICATIONS

Shure offers a wide range of high-class wireless systems for professional installations. Get the exact system for your individual requirement; knowing it's backed by superior sound quality, reliability and durability.

BLX-R®

BLX-R wireless systems are cost-efficient and combine easy installation, setup and operation in a rack-mountable, durable construction.

pg 18

SLX®

SLX, the out-of-the-box wireless solution for installed applications, allows for fast setup and worry-free operation at the touch of a button.

pg 18

ULX-D™

ULX-D Digital Wireless offers an expansive set of professional features for demanding installed applications.

pg 19

UHF-R®

A leading, networkable wireless technology, UHF-R helps you master the complexities of large-scale installed wireless applications.

pg 20

AXIENT®

The Shure Axient Wireless Management Network delivers ultimate control for the world's most demanding applications. It features a comprehensive suite of unprecedented technologies that underpin a range of new wireless audio capabilities.

pg 21

Wireless freedom made simple
BLX-R™ WIRELESS SYSTEMS

Easy, accessible, reliable. Shure BLX-R wireless systems combine professional quality sound with simple setup and an intuitive interface, for performance you can trust right out-of-the-box. Precision built and available in a variety of handheld, lavalier and headset configurations, it's the ideal solution for smaller installed audio applications requiring all the essentials of wireless audio.

Smart, hard-working wireless
SLX® WIRELESS SYSTEMS

Sound installations require powerful wireless tools that can be configured quickly and used confidently. SLX wireless systems exceed these demands with automatic setup features and wireless fidelity. Supporting up to 20 compatible systems across multiple UHF frequency bands, SLX features patented Audio Reference Companding for crystal-clear sound that integrates seamlessly in almost any installation environment.

Uncompromising digital wireless
ULX-D™ DIGITAL WIRELESS SYSTEMS

A breakthrough in wireless performance, ULX-D Digital Wireless incorporates a collection of technological innovations into one easy-to-use wireless system. Specifically designed for high-channel-count applications, ULX-D features Dante™ Digital Audio Networking* and enables up to 160 channels in a 72 MHz band. Offering an unparalleled mix of sound quality, RF performance, scalable hardware solutions, and intelligent battery technology that defines the next generation of digital wireless excellence.

BLX1
Bodypack Transmitter

• Rugged, yet lightweight construction
• Tactile on/off switch, adjustable gain control, easy frequency matching and LED-display power and battery status
• TQG connection for use with Shure lavalier, headset and earset

SLX1
Bodypack Transmitter

• Backlit LCD screen with sturdy beltclip
• For use in a variety of SLX Wireless systems, including lavalier and headworn

ULXD1
Bodypack Transmitter

• Durable, lightweight aluminum case
• Uncompromising audio quality and RF performance
• AES 256-bit encryption for secure transmission
• Advanced rechargeability options

ULXD4/4D/4Q
Digital Receiver

• Uncompromising wireless tailored for professional sound reinforcement
• Single, Dual and Quad channel receiver options easily scale to any size installation
• 24-bit / 48 kHz digital audio quality, efficient and intelligent RF performance, and AES 256-bit encryption

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BLX2
Handheld Transmitter

• Lightweight, rugged construction
• Quick and easy frequency matching and LED power and battery status
• Available with PG58, SM58® and BETA 58A® microphone capsules

SLX2
Handheld Transmitter

• Features timed backlit LCD display, frequency and power lockout, and mute functionality
• Interchangeable microphone capsules, including BETA 87A, BETA 87C, BETA 58A®, SM86 and the legendary SM58®

ULXD2
Handheld Transmitter

• Integrated antenna and durable, lightweight aluminum body
• Uncompromising audio quality and RF performance
• AES 256-bit encryption for secure transmission
• Advanced rechargeability options
• Interchangeable microphone capsules, including BETA 87A, BETA 87C, BETA 58A®,SM86, SM87A, KSM9, KSM9HS and the legendary SM58®

ULXD4 Digital Wireless Receiver

ULXD4D Dual Channel Digital Wireless Receiver

ULXD4Q Quad Channel Digital Wireless Receiver

* Dante™ available with ULXD4D and ULXD4Q models only

BLX4R
Single Channel Receiver

• Rugged, metal construction receiver
• Detailed audio and RF status LCD metering
• Removable antennas and microprocessor-controlled antenna diversity
• One-touch QuickScan frequency selection quickly locates the best open frequency
• Includes rack mount hardware kit

SLX4/SLX4L
Diversity Receiver

• Delivers unprecedented ease of use to wireless
• Automatic frequency selection and automatic transmitter setup
• Rack hardware and detachable antennas included for immediate installation right out of the box
• Available with logic output (model SLX4L) for use with software echo cancellation and remote battery life monitoring

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Interchangeable capsules for AXT200, MXW2, SLX2, ULX2, ULXD2 and UR2 handheld transmitters

BETA 87A	BETA 87C	BETA 58A®	SM86	SM87A	SM58®	KSM9	KSM9HS
Black Replacement Grille: RK324G	Black Replacement Grille: RK324G	Black Replacement Grille: RK323G	Black Replacement Grille: RK214G		Black Replacement Grille: RK323G	(Available in black or champagne)	(Available in black or champagne)
50Hz–20kHz	50Hz–20kHz	50Hz–16kHz	50Hz–18kHz	50Hz–20kHz	50Hz–15kHz	50Hz–20kHz	50Hz–20kHz

Cardioid SuperCardioid

UHF-R® WIRELESS SYSTEMS

Designed to help master the complexities of large-scale wireless installations, UHF-R systems deliver crystal-clear, wired-quality sound on up to 60 compatible systems per band – without audio interference or degradation. Compatible with Wireless Workbench® 6 software, and featuring fast, intuitive setup and reliability, UHF-R offers up to 2,400 selectable frequencies across an ultra-wide bandwidth, to easily identify clean channels in even the most unpredictable RF conditions.

UR1/1H
Bodypack Transmitter

· Switchable RF power (10/50mW-UR1), (250mW-UR1H) regionally dependent
· Compact bodypack constructed of lightweight metal
· Exceptionally unobtrusive and durable

UR1M
Micro-Bodypack Transmitter

· Very small form factor
· Roughly half the size of most standard bodypacks for easy, comfortable concealment
· Superior wireless audio and industry-leading tuning range

UR2
Handheld Transmitter

· Rugged, lightweight all-metal construction with antenna design that advances RF transmission reliability
· Interchangeable microphone capsules, including BETA 87A, BETA 87C, BETA 58A®, SM86, SM87A, KSM9, KSM9HS and the legendary SM58®

UR3
Plug-on Transmitter

· Superior flexibility of XLR connectivity and comprehensive function control in a single premium transmitter
· Smart, ergonomic design

UR4S+/4D+
Diversity Receiver

· Single and dual-channel options for premium wireless
· Networked Automatic Frequency Selection and Automatic Transmitter Setup for advanced control and robust flexibility across a wide range of professional uses

UR5
Portable Diversity Receiver

· The premium choice for professional sound installation applications
· Wide-band frequency tuning
· One-touch frequency scan and sync
· Multiple power and mounting options

AXIENT® WIRELESS MANAGEMENT NETWORK

From the performing arts center to large-scale corporate events, Axient confidently delivers uninterrupted premium sound in even the most limited RF environments. Axient components continously monitor, evaluate, prioritise, queue and assign compatible frequencies and are fully networkable, to enable real-time remote adjustments of all transmitter parameters. Axient receivers can automatically detect interference and move to a clear, compatible frequency in a fraction of a second.

AXT100
Axient Bodypack Transmitter

· Combines precision performance with the most advanced features
· Ultra-linear RF for more channels on air and superb audio quality
· Advanced power management provides extended, rechargeable battery life and highly accurate status metering

AXT200
Axient Handheld Frequency Diversity Transmitter

· Frequency diversity for seamless, uninterrupted audio in even the most crowded RF environments
· Advanced rechargeable power management supports extended battery life and highly accurate status metering
· Interchangeable microphone capsules, including BETA 87A, BETA 87C, BETA 58A®, SM86, SM87A, KSM9, KSM9HS and the legendary SM58®

AXT400
Axient Dual Channel Receiver

· Features the most advanced analogue and digital audio technology, and up to 228 MHz of wideband tuning
· Unrivaled RF and audio performance
· Suite of groundbreaking functionalities optimises setup efficiencies and live performance control and reliability

AXT600
Axient Spectrum Manager

· Wide-band UHF spectrum scanning, analysis and compatible frequency coordination in a single rack unit
· Sophisticated interface provides precise real-time information for allocating the best available frequency across any number of wireless channels
· Monitors and ranks a live list of backup frequencies and instantly and automatically deploys them when interference is detected

AXT610
Axient Showlink® Access Point

· Enables instantaneous remote adjustments to all transmitter settings
· Establishes a wireless network connection between linked Axient transmitters and receivers, for comprehensive real-time networked control over a wide coverage area, equivalent to the range of Axient transmitters

AXT630
Axient Antenna Distribution System

· Ultra-linear amplification and precision filtering for optimal performance in even the most difficult RF environments
· Selectable 60 MHz input filters that match the available frequency bands of Axient transmitters, providing extra protection from strong out-of-band signals and a lower overall RF noise floor

AXT900
Axient Rack Mount Charging Station

· Battery charging and storage solution with networked visibility of all battery status parameters
· Detailed status reports for up to 8 bodypack or handheld batteries, including remaining power, time to full charge, and battery health
· Status reports displayed on the front panel or in WWB6

TECHNOLOGIES
IN DETAIL

Shure products feature a variety of cutting-edge technologies providing integrated, powerful, reliable and user friendly solutions for demanding installed application.

AUDIO SYSTEM	SHURE MICROPHONES	SPEAKERS	TOUCH SCREEN AND APP CONTROLLER
1	2	360° 3	4

Digital Audio System

ATMOSPHEA

I/O FRAME

1

FRAUNHOFER ACOUSTIC APP

GIGABIT ETHERNET

CORE

I/O FRAME

AMPLIFIERS

2

3

3

4

*DIFFERENT ARRANGEMENT OF SPEAKERS POSSIBLE
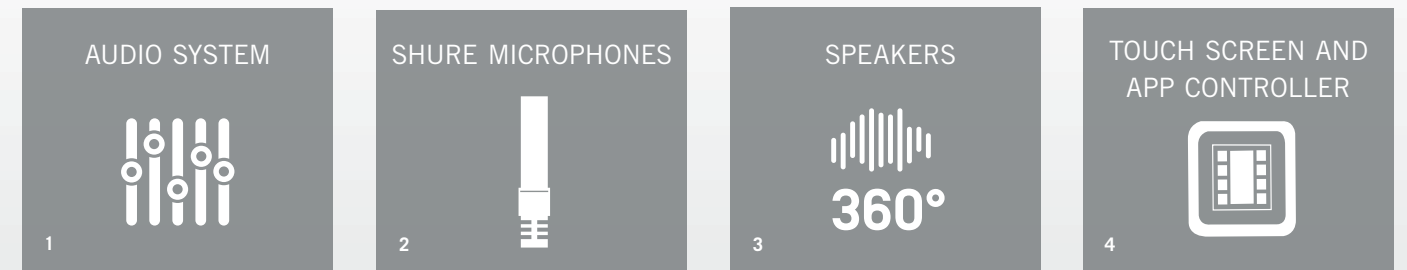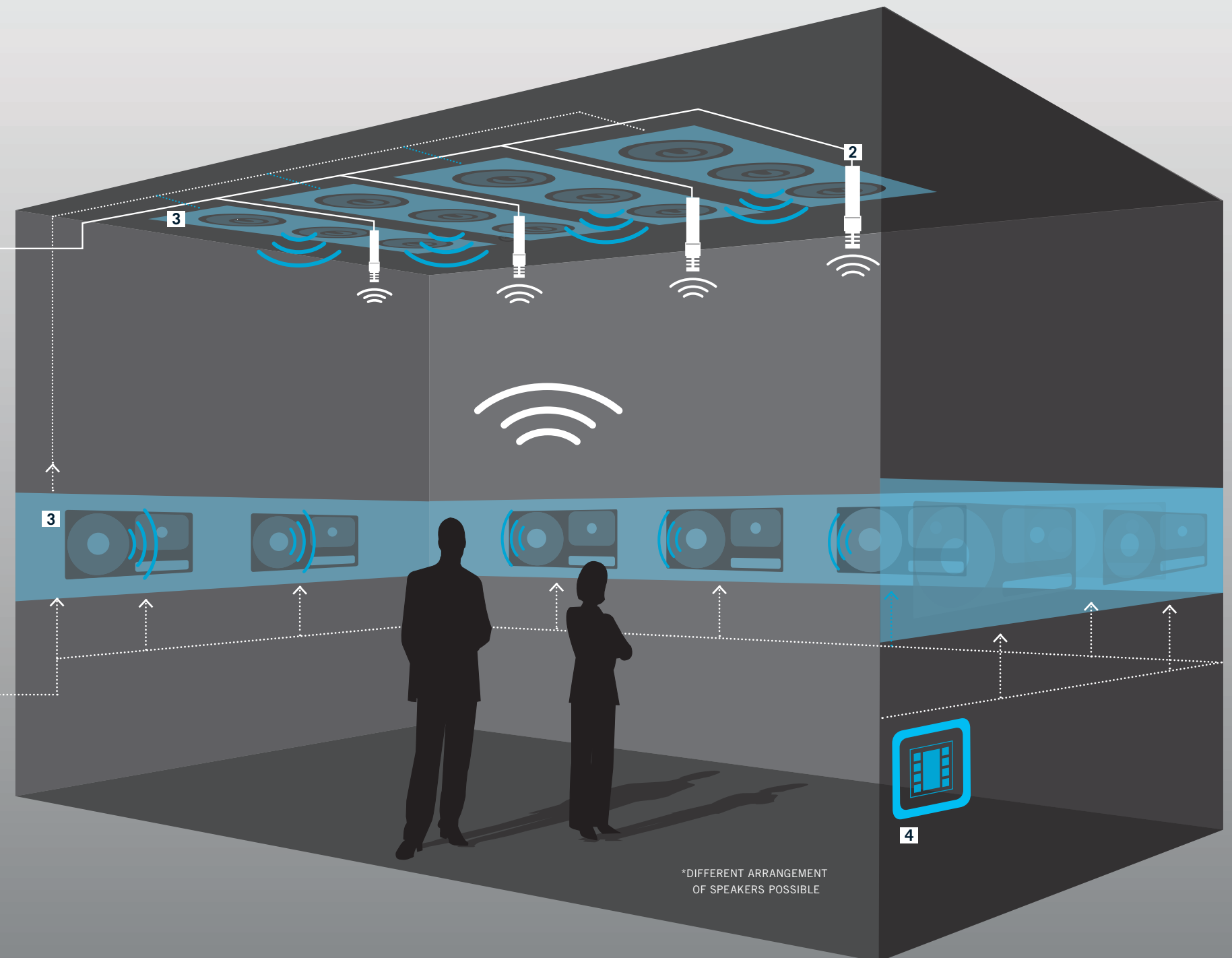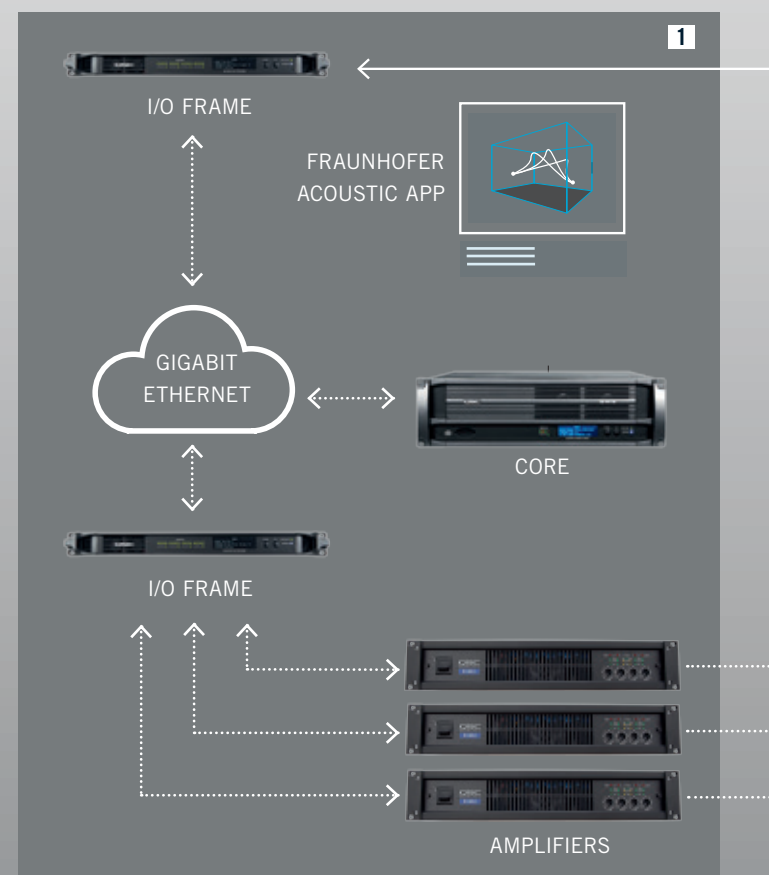
INTELLIMIX®

The patented IntelliMix® Technology is implemented in the Shure Automatic Mixers SCM410, SCM810 and SCM820. It improves audio quality in any application where multiple microphones are required.

Shure's IntelliMix technology eliminates poor audio that results from multiple open microphones by activating only one microphone for each talker. Microphones are automatically muted when they are not being addressed.

The proprietary automixing functionality considers four different aspects:

- Noise Adaptive Threshold (NAT) continually adjusts the gate threshold for opening a channel.
- Number of Open Microphones Attenuated (NOMA) determines the ideal gain attenuation for a mix output as additional channels are opened.

- Last Mic Lock-On (LMLO) keeps the most recently activated microphone open until another microphone is activated.
- MaxBus ensures that only one channel is open per sound source reducing comb filtering for clear, intelligible speech.

While the IntelliMix parameter "Gating Style" determines the way gain is applied to open channels, the parameter "Gain Scaling" determines off attenuation and its effect on the total system gain.

Key system settings can be controlled by hard- and software.

DIGITAL AUDIO NETWORKING

SCM820, ULX-D and Microflex Wireless can be connected through Dante™ Digital Audio Network. Dante™ offers a total solution for transporting audio over standard IP Ethernet networks.

Audinate's patented media networking technology called Dante is a proven standard used in thousands of installations already. Dante is more than just a collection of technical specifications for time synchronisation, quality of service (QoS) and transport packet formats. Dante is built on existing IT standards, plus Audinate has developed several feature-rich improvements to deliver a complete networking solution.

Dante offers a lot of features and benefits benefits including:
- Auto discovery of devices
- One click signal routing
- Sample accurate timing
- Multiple sample rates

- High quality, low jitter audio clocks
- Latency can be as low as 150µs
- Supports different latencies at the same time
- Glitch-free redundancy
- Network Status and Monitoring
- Supports existing switches or AVB switches

Dante is a complete, high performance digital media networking standard which allows true plug and play with label-based routing. The Dante Controller SCM820 with Dante card, ULX-D and MXW can easily be connected and controlled together.

ENCRYPTION

Wireless audio transmission in Microflex Wireless and ULX-D is protected by AES-256 encryption. The same secure standard used in international government applications.

The AES-256 Advanced Encryption Standard is a license-free algorithm for hard- and software implementation. It codes audio data in blocks of 128 bit length with an encryption key of 256 bit length.

The standard is specified as a number of repetitions of transformation rounds converting the input plaintext into the final output of ciphertext.

AES-256 is a symmetric-key algorithm which uses the same key for both encrypting and decrypting data.

Advanced Encryption guarantees unreachable privacy – for all installations where secure transmission is key. A new, unique, random encryption key is generated every time encryption is enabled.

ATMOSPHEA®

Atmosphea® is more than just a sound system technology. Signals from premium Shure microphones are fed into a digital sound system, which processes independent signals for each output following comprehensive algorithms.

The development of audio reproduction systems in recent years often focused on an increase in the number of playback channels (mono, stereo, surround 5.1 etc.).

Traditional surround sound formats are limited by the fact that the image is only truly accurate in one fixed, specific location (sweet spot). Wave field synthesis (WFS) overcomes the limitations of these traditional surround sound formats by creating an immersive soundscape. Employing wave field synthesis instead of a channel based format, a soundscape can be created that envelopes the entire listening space. The sweet spot is effectively expanded to encompass the entire audience.

Applications:
- Concert: Atmosphea can create perfect sound even in acoustically difficult environments.
- Museum: With Atmosphea 3D sound an exhibition becomes a spectacular experience
- Congress Centre: Perfect sound for presentations or events
- Show Room: With an impressive sound experience customers keep your show room in mind

WIRELESS WORKBENCH 6

The Shure Wireless Workbench Software is the ultimate wireless command centre for frequency coordination of any Shure Wireless product and networked control of Axient, UHF-R and ULX-D.

Wireless Workbench (WWB) features an advanced graphic user interface, comprehensive frequency coordination and real time monitoring during meetings.

Shure Wireless Workbench 6 software is the most comprehensive wireless system control software available. It provides a rich interface to manage every facet of performance over the network, before and during an event.

Before a meeting, Wireless Workbench 6 utilises saved scan files to provide details about the RF environment from off-site, and also includes a data base of channels based on location to help with the planning process.

Comprehensive frequency coordination uses the scan data, TV channel data base and advanced compatibility algorithms to create and assign a list of clean, viable frequencies for any number of channels in a system, plus backup frequency management.

During an event, Wireless Workbench 6 enables remote adjustments to networked hardware for instant changes to frequency, gain, RF output power and more. Configurable user alerts provide quick response options through the software to solve interference issues when detected, or for battery life and RF signal strength conditions.

EXAMPLES OF TYPICAL CONFERENCE APPLICATIONS

One size does not fit all, as all audio installations are unique.

A standard solution does not exist for any environment as the best solution will depend upon many factors.
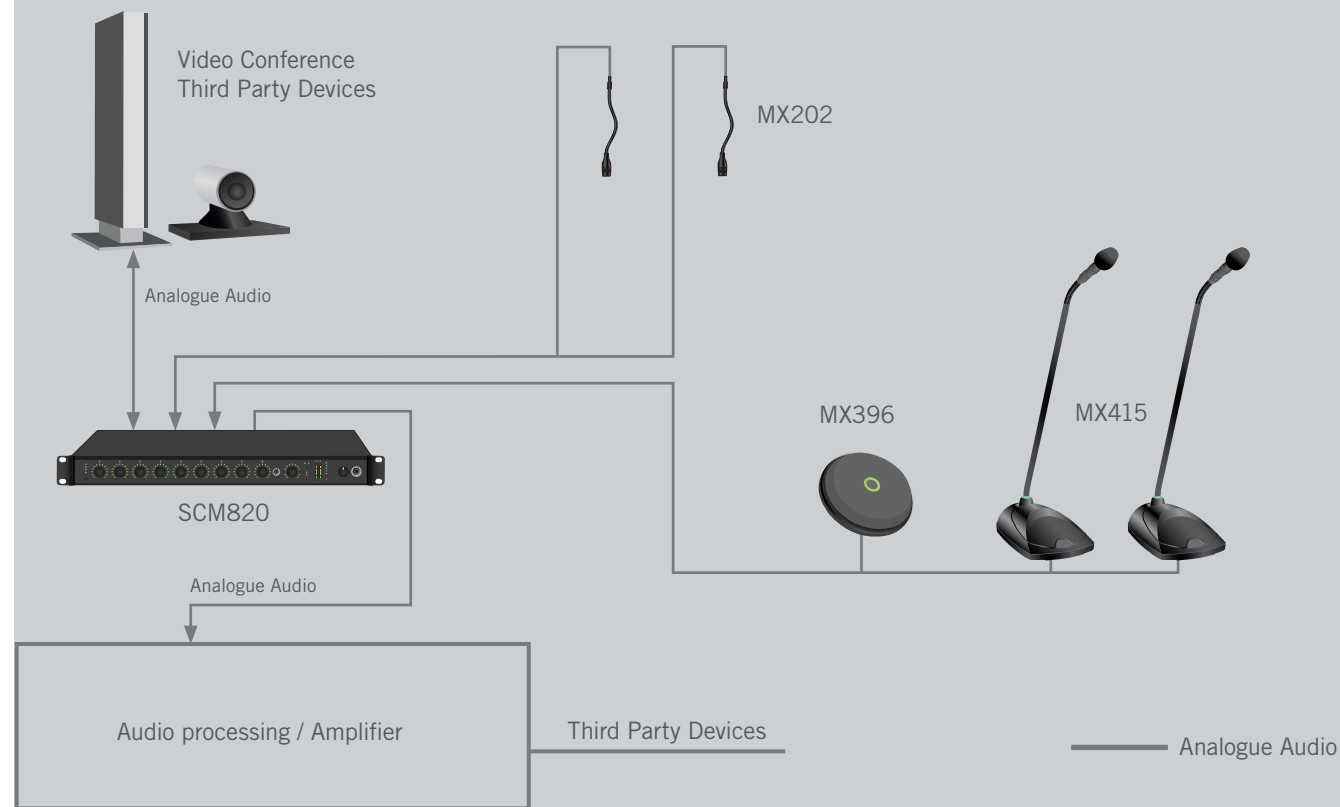
Our technical team is able to provide consultative advice and assist with each installation specification.

The following schematics are a selection of examples of installed solutions in a range of different environments using a variety of products from the Shure Installed Sound portfolio.
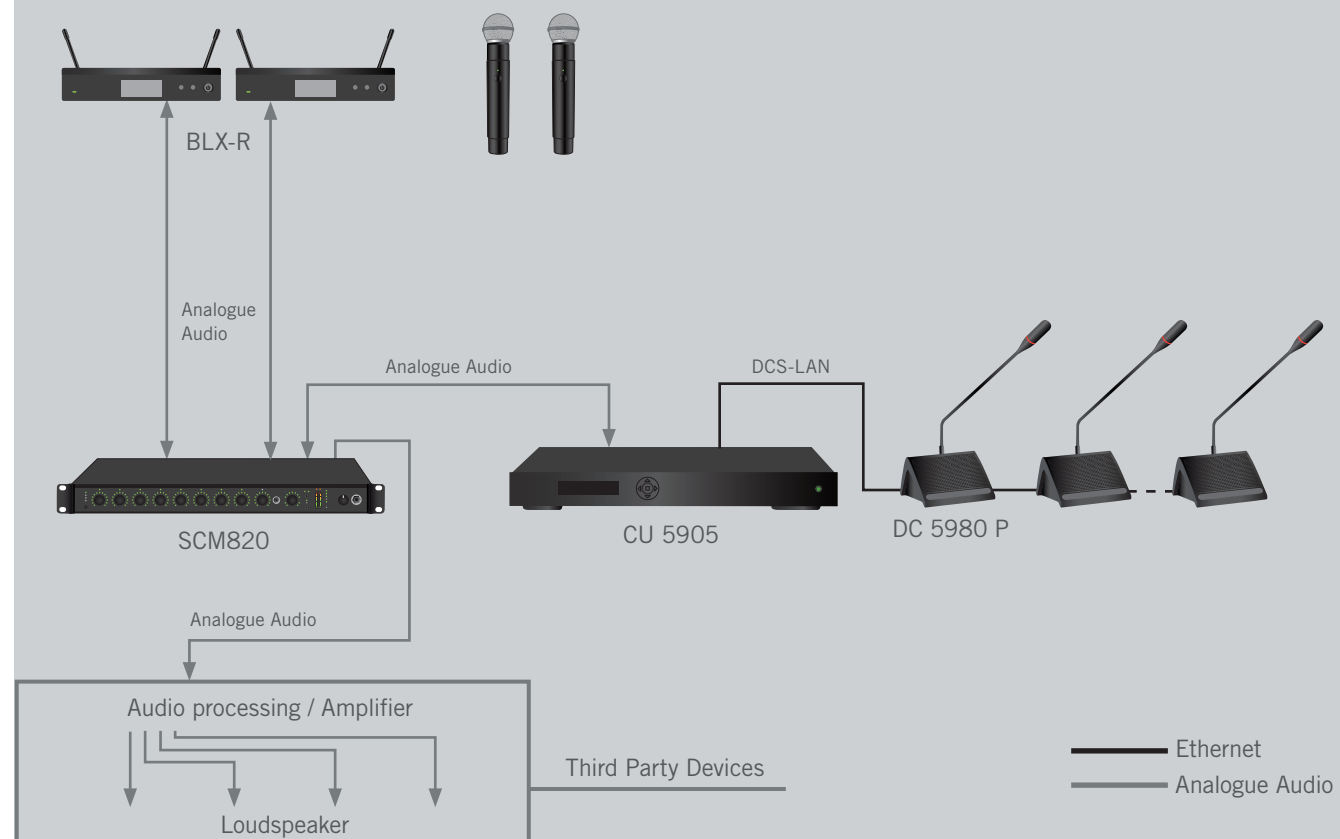
Videoconferencing

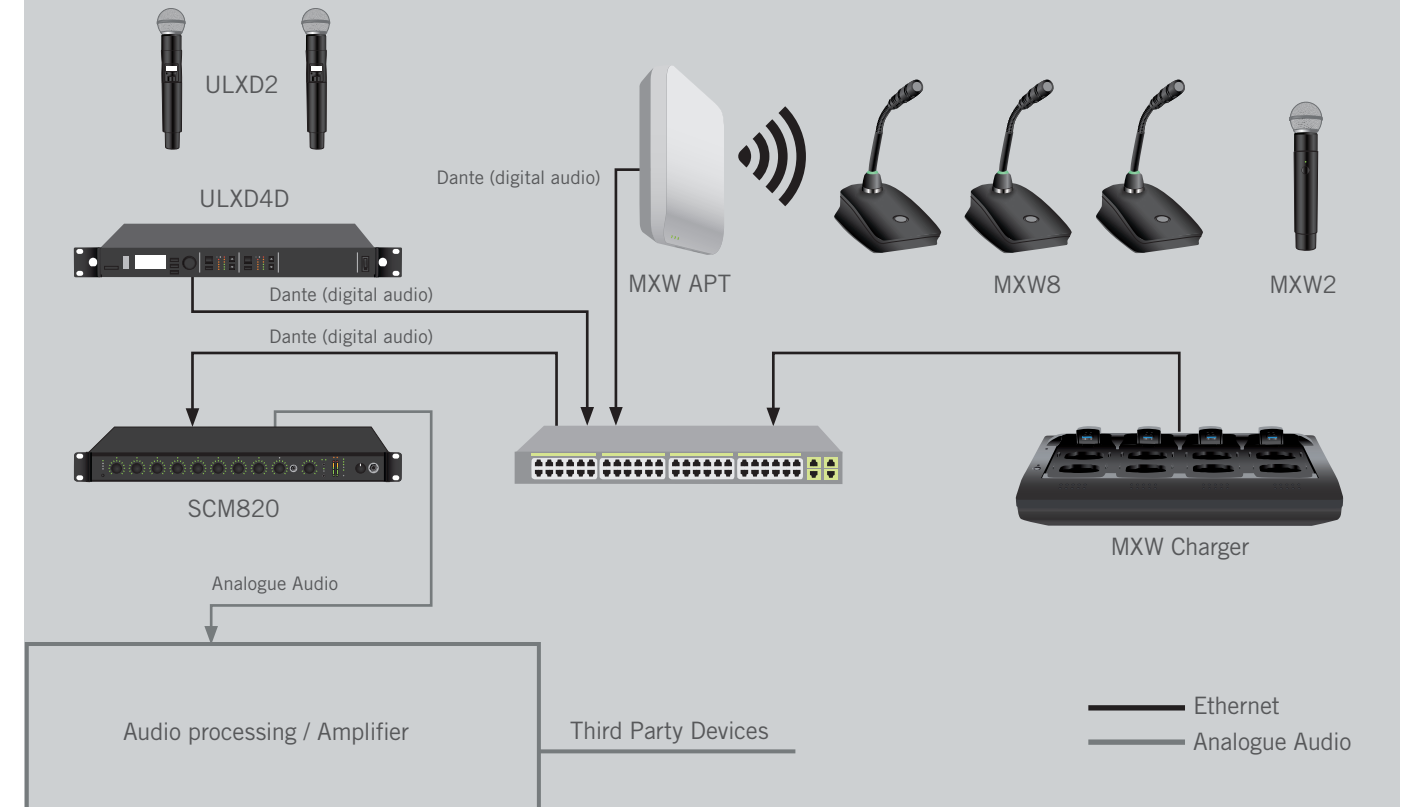Wired Microflex Microphones in combination with SCM820 Mixer and third party devices.

Video Conference
Third Party Devices

MX202

Analogue Audio

MX396

MX415

SCM820

Analogue Audio

Audio processing / Amplifier

Third Party Devices

— Analogue Audio

Discussion

DDS 5900 in combination with SCM820 Mixer, BLX-R and third party devices.

BLX-R

Analogue
Audio

Analogue Audio

DCS-LAN

SCM820

CU 5905

DC 5980 P

Analogue Audio

Audio processing / Amplifier

Third Party Devices

— Ethernet
— Analogue Audio

Loudspeaker

Presentation

Microflex Wireless in combination with SCM820 Mixer, ULX-D and third party devices.

ULXD2

ULXD4D

Dante (digital audio)

MXW APT

MXW8

MXW2

Dante (digital audio)

Dante (digital audio)

SCM820

MXW Charger

Analogue Audio

Audio processing / Amplifier

Third Party Devices

— Ethernet
— Analogue Audio

Advanced Conferencing

DCS 6000 in combination with SCM820 Mixer, ULX-D and third party devices.

ULXD2

ULXD4D

Technician PC

Chairman PC (CUA)

Interpretation

Third Party Switch

IS 6132 P

Dante

Analogue Audio

DCS-LAN

DCS-LAN

Conferencing (with voting)

SCM820

CU 6110

DC 6990 P
Chairman

DC 6990 P
Delegate

Analogue Audio

Audio processing / Amplifier

Third Party Devices

— Ethernet
— Analogue Audio

SHURE®

LEGENDARY
PERFORMANCE™
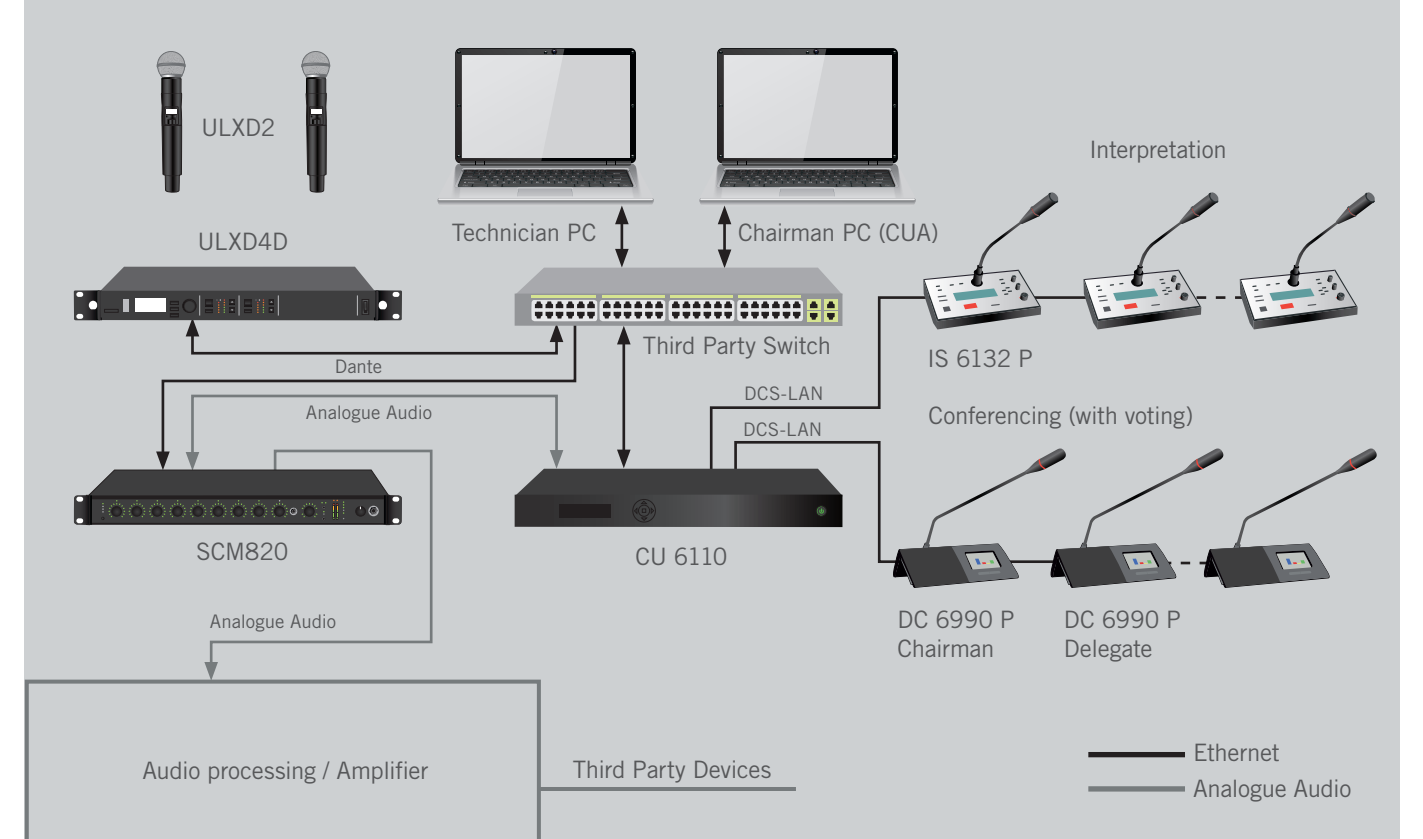
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