

Shure Architectural Specifications for Microflex Wireless Systems

Microflex Wireless System Overview

The wireless microphone system shall consist of 2-channel, 4-channel and 8-channel Access Point Transceivers, Rechargeable Boundary, Gooseneck, Handheld and Bodypack microphone designs, 2, channel, 4-channel and 8-channel Networked Charging Stations, and 4-channel and 8-channel Audio Network Interfaces. Gooseneck and Boundary microphones shall be available in black and white housing. The system shall support up to 40/80 (depending on country) microphones on-air in standard density (SD) mode and up to 80/160 microphones on air (depending on country) in high density mode (HD) in a single room. The system frequency response shall support microphone capsule frequency response from 50Hz to 20kHz.

There shall be a browser-based user interface capable of over-the-air control of the wireless microphones including battery life display in hours and minutes for microphones while charging or on-air. The system shall be Ethernet based to support up to 300-foot shielded CAT5e cable lengths between the room and the equipment rack.

Microflex Wireless Access Point Transceivers

The Microflex Wireless Access Point Transceiver (APT) shall support 2 channels or 4 channels or 8 channels of AES256 encrypted wireless microphone reception. The APT shall transmit AES256 encrypted Return Audio to its linked microphones.

Pair-a-Spare: The user interface shall allow two microphones to be linked to each available audio channel in a given access-point. Only one of those can be active and passing audio through the linked audio channel at any given time. The active microphone shall be the one that establishes a link first (powering ON or removal from charger). The second linked microphone shall be excluded from passing audio to the same audio channel until the first linked (active) microphone is switched off or inserted into the NCS charger.

The APT shall be powered over Ethernet (PoE), and allow remote webserver access and Dante digital audio over Ethernet.

The APT shall be plenum rated (UL2043) to allow installations in plenum areas above dropped ceilings. The APT shall include a mounting plate for installing on a standard electrical box or directly to a wall/ceiling surface. The APT shall include a detachable paintable cover to optimally blend with the wall or ceiling color.

Microflex Wireless Rechargeable Microphones

Microflex Wireless rechargeable microphones shall transmit AES256 encrypted audio to their associated Access Point up to 50m (160 ft.) working range. The microphones shall have a smart-charging battery capable of 9 hours of run-time for Gooseneck, Boundary and Bodypack microphones and 15 hours for Handheld microphones. The microphones shall transmit time-to-full & time-to-empty data in hours and minutes for viewing in the webserver interface, as well as battery cycle count and battery health percentage. The microphones shall feature field-replaceable batteries. The microphones shall be capable of being "always on" and charged using standard USB power (from a laptop or accessory USB power supply).

Each microphone type (Boundary, Gooseneck, Bodypack and Handheld) shall have a user programmable button (Push-to-Talk, Push-to-Mute, Toggle or Disabled),

with user-programmable initial states (Active, Muted, Standby or Off). Button function, initial states and mute status shall be changeable while on-air via browser-based webserver user interface. Microphones shall be capable of single-button linking to their associated Access Point Transceiver.

The rechargeable microphones shall be immune from induced RF noise from nearby cell phones, laptops, or PDAs.

Microflex Wireless Network Charging Stations

The system shall include a 2-channel Network Charging Station (NCS) capable of charging up to 2 Handheld/Bodypack/Boundary Microphones. The system shall include a 4-channel Network Charging Station (NCS) capable of charging up to 4 Handheld/Bodypack/Boundary Microphones or up to 2 Gooseneck Microphones. The system shall include an 8-channel Network Charging Station (NCS) capable of charging up to 8 Handheld/Bodypack/Boundary Microphones or up to 4 Gooseneck Microphones. The NCS shall have a link button for quick linking of Microphones to their respective Access Point Transceiver. The NCS shall have an RJ45 jack for network communication of charge status. The NCS shall have a 5-segment LED display per charging bay showing the percent charge complete.

Microflex Wireless Audio Network Interfaces

The system shall include a 4-channel Audio Network Interface (ANI) featuring 4 analog line/aux/mic block connector outputs, and 1 analog line/aux block connector input. The system shall include an 8-channel Audio Network Interface (ANI) featuring 8 analog line/aux/mic block connector outputs, and 2 analog line/aux block connector inputs. The ANI shall feature front panel gain & level control of each input and output, as well as mute and solo-to-headphone functionality. The ANI shall be capable of receiving and transmitting Dante digital networked audio. The ANI shall feature a built-in 4-port gigabit Ethernet switch, with one port providing power over Ethernet (PoE) for an Access Point Transceiver. The ANI shall feature a browser-based webserver interface for access and control over the network.

The Wireless System shall be the Shure Microflex Wireless System.