AM-1 Real-time Steering Array Microphone System

Real-time Steering Array Microphone System

The system shall consist of a microphone, a controller and a power supply.

The microphone shall incorporate eight unidirectional condenser elements arranged in a linear array and enclosed in a metal housing of 19” long by 2.6” deep and .8” high. The microphone case shall house Digital Signal Processing which controls the microphone’s sound source sensing and directional characteristics. The microphone array shall provide a pickup pattern of approximately 50 degrees Horizontal by 90 degrees Vertical (from boundary surface to above the mic). The array shall detect any sound source in a programmed area of acceptance and steer the pattern immediately towards that source based on first arrival of signal. The acceptance angle may be adjusted between 180 degrees and any angle down to 30 degrees within the 180 degree arc. The microphone shall feature a touch-sensitive MUTE on/off button with an LED indicator which shall turn Blue when the microphone is active. The microphone shall incorporate a 3 meter shielded twisted-pair cable terminated in an XLR male connector. The microphone shall be available in either a black or white finish. The microphone may be placed on a lectern or table and is equipped with rubber isolation pads to reduce transmission of vibration from the mounting surface. The microphone shall be capable of being mounted to a wall or ceiling by an optional mounting adapter (WB-AM1BWC AM or WB-AM1WWC AM). The microphone shall be the TOA AM-1MB (Black) or AM-1MW (white) Array Microphone.

The Controller shall be housed in a metal case measuring 4.1” Wide x 1.9” High x 8.7” Depth. It shall incorporate additional signal processing for the microphone, including Digital to Analog conversion and a pre-amplifier. The input to the controller shall be a balanced female XLR. The cable distance between the microphone and controller shall not be more than 260' using low- capacitance shielded twisted pair digital audio cable. A signal present indicator shall light when the input signal exceeds -20dB.Electronically balanced analog audio is output via a male XLR connector. The analog output shall be capable of providing a +4dB professional level, -10 dB consumer level and -50 dB microphone level, selectable by a switch on the controller. A volume control on the front panel shall control output level from the controller. 24bit AES/EBU digital output via an XLR male connector is available for connection to a digital mixer or signal processor. An RJ-45 connector shall provide the connection from the controller to a PC or wireless Ethernet gateway. The controller shall have a power on/off switch with an LED indicator, as well as an LED MUTE status indicator. The system shall be powered by the included power supply (TOA model AD-246)

The controller shall be the TOA AM-1C Array Microphone Controller.

The System Controller parameters shall be accessible from any PC or device using an onboard web browser interface, or through an Apple iPad or iPad Mini (available as a free application from the Apple App store). System parameters shall include, but not be limited to, width and depth of the area of acceptance, distance compensation, level, mute on/off, mute disable, and three presets. Additionally, the Apple app shall provide real-time control and visual feedback of microphone parameters and status.

The AM-1 Real-time Steering Array Microphone System shall be available as a complete set. The System shall be the TOA AM-1BSET (black microphone) or the AM-1WSET (white microphone).

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