QLX-D® Digital Wireless Systems

Architect's and Engineer's Specifications

The digital wireless system shall operate in the VHF 174-216MHz, UHF TV band 470-932 MHz, ISM band 902-928 MHz, 1.5G band 1492-1525 MHz, and 1.8G band 1785-1805 MHz with the specific range being dependent on the user's locale. The system shall include the option of changing the operating frequency in order to avoid RF interference. Preconfigured group, channel and frequency setups shall be available to ensure that multiple systems in use do not interfere with one another.

All transmitters shall be powered by either a Shure SB900 or SB900A Lithium Ion Battery or 2 AA batteries and shall have a power on/off switch. When operated with the Shure SB900 or SB900A Battery the system shall display remaining run time in hours and minutes (accurate to within 15 minutes). The bodypack will have an LED indicating that power is on. Available transmitters shall include: a body pack for use with lapel or headset microphones, guitars, basses, and other electric instruments, and a handheld microphone for vocals.

The transmitter front end shall optimize itself for standard inputs without requiring transmitter gain adjustments thus allowing all gain changes to be made at the receiver, which provides a 60dB range of system gain. Overall system signal to noise ratio shall be >120dB.

The system shall be capable of AES-256 encryption that is conforming to the US Government National Institute of Standards and Technology (NIST) publication FIPS-197.

The system shall use technology such as Shure's advanced digital predictive diversity to optimize RF stability.

The receiver shall include an RF level meter, an audio level meter, and a Networking Interface connector for computer control and monitoring.

The system shall be the Shure QLX-D Wireless.