

# The Revolutionary New Standard In Audio Transmission

The Xwire X905 20-Bit Digital UHF Wireless System is a secure, frequency agile Quadiversity<sup>™</sup> (four antenna, two receiver sections) system operating in the UHF band between 905 and 925 MHz. Up to five systems can be operated simultaneously in any single installation. A new standard in audio quality and RF performance for musical, audio and speech professionals, the X905 provides major sonic advancements for the distribution of sound and is compatible with sound reinforcement, recording and instrument amplification systems. Combining digital audio transmission technology invented by Xwire with the latest in 900 mHz (UHF) advancements, the X905 offers better than CD quality audio transmission, and scanner-proof security, all with the reliability of a direct wire connection making it the perfect choice for all of your audio transmission needs.

#### Exclusive Xwire Digital Format Ensures Secure Transmission With Optional Encryption Available

The X905 system is inherently scanner-proof and offers a reasonable level of security from eaves-dropping. The only reasonable threat to a secure transmission is another X905 receiver picking up your transmission. This is why we offer made-to-order encrypted systems. An X905 system and additional components can be ordered with a unique proprietary encryption scheme rendering the audio transmission 'invisible' not only to radio frequency (RF) scanning devices, but other X905 equipment as well. An X905 encrypted system is your best defense when the desired audio transmission is for you and your intended audiences' ears only.

## Exclusive Xwire Quadiversity<sup>™</sup> and Two Step Error Detection and Correction Circuitry

Micro-processor controlled Quadiversity<sup>™</sup> (two diversity receiver sections, four antenna) constantly monitors the incoming data stream across four internally mounted "patch" antenna digitally selecting the correct data stream from both receiver sections. Vastly superior to the "Magic Square" employed by CD technology, Xwire's proprietary two-step digital error detection and correction scheme musically repairs any missing or incorrect data before it goes to the DAC. The result is the entire elimination of interference, drop-outs, and the fades and 'hash' associated with analog wireless.

# 20-Bit Ultra-Linear Digital Converters

The smooth frequency response, warm low end, and crystal clear highs of the X905 will please even the most jaded professional. No cable noise, no line loss, and no analog wireless 'hiss'. Just pure tone as it was meant to be. Clean, clear and punchy.

# **Entirely Eliminate Tonal Coloration**

Today's analog wireless units treat your audio signal with compression and expansion (compander) ICs in order to squeeze sound into the available radio frequency bandwidth. The side effects often include poor transient response, noise-floor modulation (breathing), and other tonal colorations. Free from compander ICs, the X905 offers the ability to capture your sound directly from the source without excess cable, and distribute it to professional sound, recording and amplification systems with no alteration of frequency content or dynamic range.

## **Frequency Agility**

The X905 has convenient front panel access to the channel selection feature on both the transmitter and receiver allowing you to sellect from one of five operating frequencies between 905 and 925 MHz. With multi-channel performance, the X905 offers up to five systems in simultaneous operation.

## Eleven Hours of Full Power Performance

Xwire transmitters utilize a switching power supply to offer 11 hours of full power performance from alkaline batteries. There is no decay in the systems performance as the batteries drain.

# Convenient Display of All Performance Parameters

At a glance, the backlit LCD on the X905's receiver conveniently shows all performance parameters including: seven-segment dB meter, battery life (displayed in one hour increments, accurate to within 20 minutes), current RF channel selection (1-5) and data accuracy (in percentages) on both the A and B internal receivers. The transmitter's five LEDs shows which operating channel is currently selected.

## Light-weight Composite Chassis

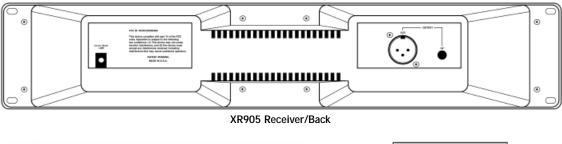
The durable, three pound composite chassis of the X905 will stand the rigors of the road without weighing down your rack.

- 20-bit Ultra-Linear AD DA Conversion
- Greater than 120dB Dynamic Range
- Frequency Agile
- Exclusive Xwire Quadiversity<sup>™</sup> Receiver
- Scanner-proof Security For eavesdrop-free peace of mind. \*Optional Encryption Available.
- Limited 5 Year Warranty For quality assurance.
- Made in U.S.A.

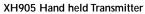
# X905

# 20-BIT DIGITAL-900 MHZ (UHF) TRANSMISSION SYSTEM









# SYSTEM COMPONENTS

XT905/L Belt-Pack Digital Transmitter with either detachable lavalier or headset microphone, and four Alkaline AA batteries.

**XT905/G Belt-Pack Digital Transmitter** with detachable instrument cable, and four Alkaline AA batteries.

**XH905 Handheld Digital Transmitter** with optional Audix OM3, OM5, OM6 and OM7 capsules, and four Alkaline AA batteries. Also available with the EV ND/757A capsule.

and a

XR905 Quadiversity<sup>™</sup> Digital Receiver with UL & CSA approved 12VAC Wall Pack Transformer, and four internally mounted antenna in a two rack space chasis.

# ARCHITECTS' & ENGINEERS' SPECIFICATIONS

The wireless microphone system shall be a frequency agile, four antenna dual diversity, digital system which operates in the UHF band between 905 MHz and 925 MHz. Handheld transmitters shall include an integral dynamic microphone. Belt-pack systems shall include either a lavalier or headset microphone depending on the application.

All transmitters shall be micro-processor controlled and utilize 20-Bit analog to digital conversion of input signals, operate on four (4) AA Alkaline batteries and shall have a power on/off switch, channel selector switch and five (5) LED channel indication.

The receiver shall utilize 20-bit digital to analog conversion for the best possible signal-to-noise ratio, and shall be compatible with the standard 19" full rack space format. It shall utilize a digital microprocessor network to adjust channel selection, detect and correct digital data errors, and control a front panel LCD display which shows audio level, channel selection, data percentages and remaining transmitter battery strength. It shall utilize two (2) receiver sections and four (4) internally mounted antenna operating in dual diversity to eliminate dropouts and interference.

The Xwire X905 Digital UHF Wireless microphone system is specified.





XT905I Body Pack Transmitter

# X905

20-BIT DIGITAL-900 MHZ (UHF) TRANSMISSION SYSTEM

# SPECIFICATIONS

# **OVERALL SYSTEM**

Transmission Format: Xwire proprietary digital audio transmission Frequency Response: 10 Hz - 20 kHz Audio Dynamic Range: Greater than 120 dB Distortion: .2% THD RF Carrier Frequency: 902 MHz to 928 MHz, FSK Number of Selectable Frequencies: Five RF Output Power: .5mw Transmission Range: 300 feet line-of-sight, 100 to 150 feet adverse conditions FCC Approval: Part 15 approved, no user license required

# XT905 (BODYPACK), XH905 (HANDHELD) TRANSMITTER

A/D Conversion: 20-bit Linear, 64 times over sampling Input Impedance: 1 M $\Omega$  (bodypack transmitter) Connectors: 1/4" Unbalanced Or Miniature XLR; XH905: None Internal Shielding: Two 'Aluminized' chambers yield 90dB rejection Controls: Power On/Off, Channel Select Bodypack Dimensions: 2.5" W x 4.25" D x 1" H Handheld Dimensions: 7.33" L x 4.95" Max Diameter (w/o capsule) Battery Life: Switching power supply, 11 Hours (4x AA alkaline) Weight: 8.4 oz. (with 4 AA batteries installed)

# XR905 QUADIVERSITY™ RECEIVER

D/A Conversion: 20-bit Linear Output: +/- 3.5V (Unbalanced:  $1.6 k\Omega$ , Balanced:  $150\Omega$ ) Connectors: 1/4" Unbalanced, XLR Tranformerless Balanced Internal Shielding: 25 'Aluminized' chambers yield 90dB rejection Back-lit LCD: Battery Life, Data Received, Channel Number, Audio dB Meter Controls: Power On/Off, Channel Select Dimensions: 19" W x 8" D x 3.5" H (2 RU) Power Requirements: 12V AC/DC Weight: 3lbs.

