



Handheld Transmitter

TECHNICAL DATA



Digital Hybrid Wireless®

Digital Hybrid Wireless® is a revolutionary design that combines digital audio with an analog FM radio link to provide both outstanding audio quality and exemplary, noise-free RF performance. Using a patented algorithm to encode 24-bit digital audio information in the transmitter into an analog format, the encoded signal is then transmitted over an analog FM wireless link. At the receiver, the signal is then decoded to restore the original digital audio. This process eliminates compandor artifacts and produces an audio frequency response flat to 20 kHz.

(US Patent 7,225,135)

- 25 or 100 kHz tuning steps for up to 3072 selectable frequencies across a 76 MHz tuning range
- Digital Hybrid Wireless® Technology
- Standard thread-on capsules
- Membrane switch and LCD interface
- AA battery power
- Selectable RF power at 50 and 100 mW
- Talkback feature
- IR (Infrared) Port for fast setup

The HHa Digital Hybrid Wireless handheld transmitter represents an elegant solution for a variety of wireless microphone applications including live performance, broadcast, AV rental and houses of worship. The HHa incorporates many advanced features to provide high-quality speech and vocal reinforcement. Along with providing peerless audio quality with wide frequency response and dynamic range in native 400 Series mode, the technology used in the HHa includes compatibility modes for Lectrosonics 200 Series, 100 Series and IFB receivers, and some systems from other top manufacturers. (Contact Lectrosonics for details.)

Interchangeable Capsules

Lectrosonics offers the HHC cardioid condenser capsule. Thread-on capsules from other manufacturers using a 1.25" opening and 28 thread pitch can also be used, including those from manufacturers such as EV, Shure®, Heil Sound™, Earthworks®, Telefunken® and others.*



* Shure, Earthworks and Telefunken are registered trademarks of their respective companies and have no association with Lectrosonics. Heil Sound is a trademark of Heil Sound Ltd.



Selectable RF Transmission Power

The HHa transmitter allows the user to select from among two power settings[†] depending on the needs of the situation. The lower RF power setting uses slightly less current, thus battery life is enhanced. The higher power setting provides greater range and resistance to dropouts. Selecting the RF power is accomplished using the control menu.

IR Sync

The HHa is equipped with an IR port for use with receivers. Settings, such as frequency stored in the receiver will be sent to the transmitter via the IR port.



Mute and Talkback Functions

The button on the back of transmitter below the head can be used to actuate an audio mute condition. This button can also be disabled using the control panel inside the battery compartment. An alternative function that can be actuated by this button is a talkback function. In this state, the transmitter sends a signal to the Venue receiver when the button is pushed - the receiver then switches the audio to a second output which can be routed differently.

This function can be used for talkback, cueing or other purposes depending on the application.

This functionality requires a Venue receiver with firmware version 5.2 or later.

Specifications

Operating Frequencies:[†]

Band A1:	470.100 - 537.575
Band B1:	537.600 - 614.375
Band 606:	606.000 - 631.500
Band C1:	614.400 - 691.175

Frequency selection steps:

Selectable; 100 kHz or 25 kHz

RF Power output:

Selectable at 50 or 100 mW

Pilot tone:

25 to 32 kHz frequency (400 Series only); 5 kHz deviation

Frequency stability:

± 0.002%

Deviation:

± 75 kHz (max)

Spurious radiation:

90 dB below carrier

Operating temperature range:

-20° C to +50° C

Input compressor:

Dual envelope compressor, >30 dB range

Gain control range:

45 dB; semi-log menu-driven control; 1 dB steps

Modulation indicators:

Dual bicolor LEDs indicate modulation of -20, -10, 0 and +10 dB referenced to full modulation, LCD bar-graph indicator

Frequency response

40 Hz to 20 kHz (+/- 1dB)

Low frequency roll-off:

-3 dB @35, 50 and 70 Hz; selectable; 36 dB/octave

Controls:

External:

Programmable mute/talkback button

Battery compartment:

Power, mute disable, menu/select, back and up/down arrow buttons for menu selection and settings.

Battery:

2x AA with polarity protection and battery ejector

Battery life:

At 100mW: 5.5 hours (Duracell Quantum alkaline) (The HH transmits battery status to Lectrosonics Digital Hybrid Wireless® receivers.)

Capsule Interface:

1.25" opening and 28 thread pitch
Power available: 5V, 25 mA max
Input impedance: 1000 Ohms

Weight:

12.1 oz. with batteries and HHC capsule

Dimensions:

9.5" long x 1.97" diameter at largest point

Emission Designer: 180KF3E

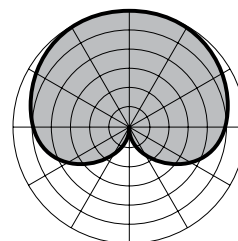
Specifications subject to change without notice.

[†] Not all frequency bands available in all countries. Consult your local representative or contact Lectrosonics for more information.

Consumer Alert for US Users - FCC Order DA 10-92

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50 milliwatts); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change. For more information, call the FCC at 1-888- CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at www.fcc.gov/cgb/wirelessmicrophones. To operate wireless microphone systems at power greater than 50mW, you must qualify as a Part 74 user and be licensed. If you qualify and wish to apply for a license go to: <http://www.fcc.gov/Forms/Form601/601.html>

Lectrosonics HHC Electret Capsule - Cardioid Pattern



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