

### Digital Camera Hop Transmitter DCHT, DCHT/E01



The DCHT, DCHT/E01 transmitter is designed for use in film and television production to provide a wireless link from a bag or cart system to cameras and recorders. The transmitter will accept mic or line level analog signals or AES digital signals from a mixer and transmit the signals to the receiver in a pure digital format. The digital architecture is a fourth generation design with specially developed, high efficiency digital circuitry for extended operating time on two AA batteries.

The transmitter can tune in coarse or fine steps across the UHF television band from 470.100 to 607.950 MHz (E01 frequency range is 470.100 to 614.375 MHz), with a selectable output power of 10, 25 or 50 mW. The pure digital architecture enables AES 256-CTR encryption for high level security applications.

Studio quality, stereo audio performance is assured by high quality components in the preamp, wide range input gain adjustment and DSP-controlled limiting. Input connections and settings are included for any lavalier microphone, dynamic microphones and line level inputs. Input gain is adjustable over a 51 dB range in 1 dB steps to allow an exact match to the input signal level, maximizing the dynamic range and signal to noise ratio.

- Tunes across entire UHF frequency range
- 256-bit encryption - AES 256-CTR
- Selectable RF power at 10, 25 and 50 mW
- AES and analog mic and line level inputs
- USB port for firmware updates
- Wide range input gain adjustment
- Compatible with Duet M2R receiver
- DSP-controlled input limiter
- Two AA battery power
- Solid machined aluminum housing
- Optional powering from external DC
- 2-way IR (infrared) port for fast setup

The top panel contains the antenna jack, two audio input level LEDs (one per audio channel), the programmable function switch and the audio input jack. The red/green LEDs provide audio level indications from -20 dB to the onset of limiting for each channel for accurate input gain adjustment. The programmable switch can be configured as a mute switch, a power on/off switch, or be bypassed.

The 6-pin input jack accepts two mic or line level analog signals or AES digital signals from external sources via a variety of adapter cables. Analog inputs can be linked for the same gain when used with a stereo source, or operate independently with individual settings.



The housing is constructed of solid machined aluminum for lasting ruggedness. The exterior is finished with an ultra hard, dark electroless nickel finish.



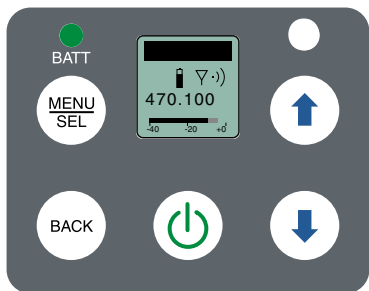
The transmitter is supplied with a stainless, spring wire belt clip that is secure, but easily detached and re-attached without tools. A spring-loaded belt clip is available as an option. The battery door is machined aluminum, hinged to the housing to prevent it being lost. The battery door latches securely to prevent being opened inadvertently, and will not pop open even if the unit is dropped.



Firmware updates are made via the USB port on the side panel of the housing. The procedure is very simple using a menu item on the transmitter and a standard micro USB cable.



Setup and adjustment is enabled through a backlit LCD, membrane switches and an intuitive menu structure. Input gain is adjustable over a wide range in 1 dB steps to optimize modulation and limiting for maximum signal to noise ratio and minimum distortion.



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## Optional Battery Eliminator

The transmitter can be powered by external DC using the optional LTBATELIM power supply adapter. The battery door is replaced by the adapter with a simple procedure. The adapter provides a locking coaxial connector and a variety of power cords and connectors are available.



## Specifications

Operating Frequencies:

DCHT	470.100 - 607.950 MHz
DCHT/E01	470.100 - 614.375 MHz

**NOTE: It's the user's responsibility to select the approved frequencies for the region where the transmitter is operating**

Frequency Selection Steps: 25 kHz or 100 kHz

RF Power Output: Selectable; 10, 25 or 50 mW

Frequency Stability:  $\pm 0.002\%$

Spurious Radiation:

DCHT	Compliant ETSI EN 300 422-1 v1.4.2
DCHT/E01	Compliant ETSI EN 300 422-1 v2.1.2

Digital Modulation: 8PSK

Encryption: AES 256-CTR (per FIPS 197 and FIPS 140-2)

Equivalent Input Noise:  $-128$  dBV

Input Types:

- Analog; mic and line level
- AES digital

Input Level (analog)

- Mic: Nominal 2 mV to 300 mV, before limiting  
Greater than 1V maximum, with limiting
- Line: +24 dBu before limiting

Input Impedance:

- Mic: 300 or 4.5 k ohm; selectable
- Line: greater than 100 k ohm

Input Limiter:

Dual envelope type; 30 dB range

Gain Control Range:

51 dB in 1 dB steps; digital control

Modulation Indicators:

- Bicolor LED indicates modulation of  $-20$  and  $0$  dB referenced to full modulation
- LCD bar graph

Frequency Response:

15 Hz – 11.3 kHz, +0, -3 dB

Controls:

- Top panel toggle switch; programmable as **power**, **mute** or **none** (off) function
- Side panel membrane switches with LCD interface for power on/off and all setup and configuration controls

Audio Input Jack:

Switchcraft 6-pin locking (TA6F)

Antenna:

Galvanized steel, flexible wire, SMA connector

Battery:

Two AA Duracell Quantum recommended

Battery Life:

5 hours; Duracell Quantum alkaline

Weight:

- 5.75 ozs. (163 grams); w/ belt clip and lithium AA batteries
- 6.40 ozs. (181 grams); w/ belt clip and Duracell Quantum AA batteries

Overall dimensions:

3.45 x 2.44 x .742 in. (88 x 62 x 19 mm)

Emission Designator:

200KG7E

Specifications subject to change without notice