

Operational Description

The H25RCT1 is a 900 MHz, low power, handheld, remote control transmitter used for law enforcement applications. The transmitter employs digital modulation (FSK) on one of eight user-selected channels in the 902-928 MHz range.

The H25RCT1 has a power output of less than 1mW to an integral quarter wave rubber antenna built into the housing that meets the requirements of Part 15.203. The transmitter is based on the LINX HP Series-II / III Module.

Several activation commands are supported such as VIDEO ON and VIDEO OFF. The commands are coded by a data encryption device with 8 user selectable address bits. Unit power is controlled with an external switch. RF is transmitted only during the actual command switch actuation. Transmissions are manual and cease immediately when the actuation of the switch ceases.

The H25RCT1 is a portable hand held device; DC powered by a single 9V battery, which is regulated to 5.0VDC with a micropower regulator. All critical circuits are regulated.

Intended Use

This device is intended to be used by government law enforcement entities for short-term undercover surveillance operations.

Specifications

Controls:	Power ON/OFF, COMMAND 1 ON/OFF, COMMAND 2 ON/OFF
Antenna:	Linear Quarter Wave Whip
Power Output:	< 1 mW
Duty Cycle	100% when TX
Modulation	Frequency Shift Keyed FM (Narrowband FSK)
Data Rate:	40 Kbps
AGC Range	45 dB
Spurious Radiation	Less than -50 dBc:
Frequencies:	8 Channels User Selectable 903.37, 906.37, 907.87, 909.37, 912.37, 915.37, 919.87, 921.37
Address Bits	8, User selectable
Battery:	9 VDC
Battery Life:	3 Hours Minimum
Dimensions:	2.5" X 5.0" X 0.75"
Weight:	5 oz including battery

Description of Circuitry

The RCT-1 uses a Holtek data encoder IC in conjunction with a LINX HP- SERIES-II transmitter module. The RF module is shielded. All critical circuits are regulated with a National LP2985 - 5V micropower voltage regulator.