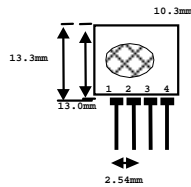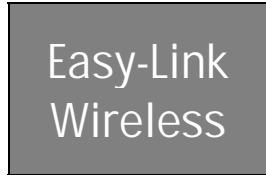# TLP434A & RLP434A  RF ASK Hybrid Modules for Radio Control ( New Version )

## TLP434A  Ultra Small Transmitter
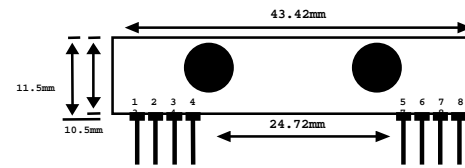
**Easy-Link Wireless**

10.3mm
13.3mm
13.0mm
2.54mm
1 2 3 4

pin 1 : GND
pin 2 : Data In
pin 3 : Vcc
pin 4 : Antenna ( RF output )

**Frequency  315, 418 and 433.92 Mhz**

**Modulation : ASK**
**Operation Voltage : 2 - 12 VDC**

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|--------|-----------|------------|-----|-----|-----|------|
| Vcc | Operating supply voltage | | 2.0 | - | 12.0 | V |
| Icc 1 | Peak Current (2V) | | - | - | 1.64 | mA |
| Icc 2 | Peak Current (12V) | | - | - | 19.4 | mA |
| Vh | Input High Voltage | Idata= 100uA (High) | Vcc-0.5 | Vcc | Vcc+0.5 | V |
| Vl | Input Low Voltage | Idata= 0 uA (Low) | - | - | 0.3 | V |
| FO | Absolute Frequency | 315Mhz module | 314.8 | 315 | 315.2 | MHz |
| PO | RF Output Power- 50ohm | Vcc =  9V-12V | - | 16 | - | dBm |
| | | Vcc = 5V-6V | - | 14 | - | dBm |
| DR | Data Rate | External Encoding | 512 | 4.8K | 200K | bps |

Notes : ( Case Temperature = 25°C +- 2°C , Test Load Impedance = 50 ohm )

### Application Circuit :
Typical Key-chain Transmitter using HT12E-18DIP, a Binary 12 bit Encoder from Holtek Semiconductor Inc.



## RLP434A  SAW Based Receiver

43.42mm
11.5mm
10.5mm
24.72mm
1 2 3 4          5 6 7 8

pin 1 : Gnd
pin 2 : Digital Data Output
pin 3 : Linear Output /Test
pin 4 : Vcc
pin 5 : Vcc
pin 6 : Gnd
pin 7 : Gnd
pin 8 : Antenna
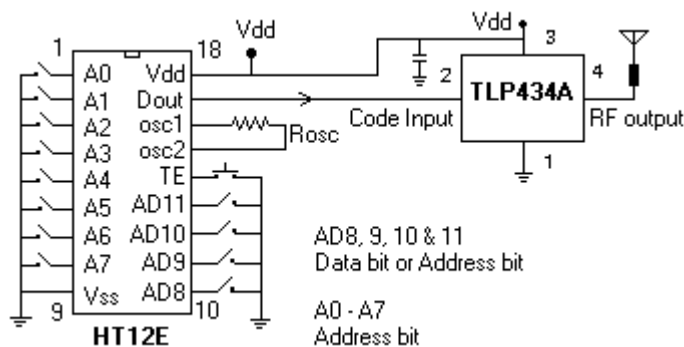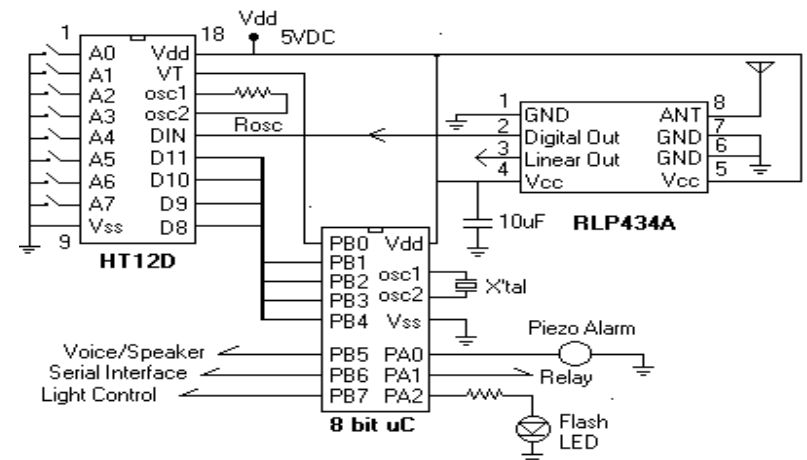
**Frequency  315, 418 and 433.92 Mhz**

**Modulation : ASK**
**Supply Voltage : 3.3 - 6.0 VDC**
**Output : Digital & Linear**

| Symbol | Parameter | Conditions | Min | Typ | Max | |
|--------|-----------|------------|-----|-----|-----|---|
| Vcc | Operating supply voltage | | 3.3 | 5.0V | 6.0 | V |
| Itot | Operating Current | | - | 4.5 | | mA |
| Vdata | Data Out | Idata = +200 uA ( High ) | Vcc-0.5 | - | Vcc | V |
| | | Idata = -10 uA ( Low ) | - | - | 0.3 | V |

Electrical Characteristics

| Characteristics | SYM | Min | Typ | Max | Unit |
|-----------------|-----|-----|-----|-----|------|
| Operation Radio Frequency | FC | | 315, 418 and 433.92 | | MHz |
| Sensitivity | Pref | | -110 | | dBm |
| Channel Width | | | +-500 | | Khz |
| Noise Equivalent BW | | | 4 | | Khz |
| Receiver Turn On Time | | | 5 | | ms |
| Operation Temperature | Top | -20 | - | 80 | C |
| Baseboard Data Rate | | | 4.8 | | KHz |

### Application Circuit :
Typical RF Receiver using HT12D-18DIP, a Binary 12 bit Decoder with 8 bit uC HT48RXX from Holtek Semiconductor Inc.



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**LAIPAC TECH**