TLP/RLP434  RF ASK Low Cost Hybrid Modules for Radio Control and Telemetry applications

**TLP-434 Transmitter**

**Symbol** | **Parameter** | **Conditions** | **Min** | **Typ** | **Max** | **Unit**  
--- | --- | --- | --- | --- | --- | ---  
Vcc | Operating supply voltage | 2.0 | - | 12.0 | V  
Icc | Peak Current | - | 5 | - | mA  
Vh | Input High Voltage | Vcc-0.5 | Vcc | Vcc+0.5 | V  
Vl | Input Low Voltage | - | - | 0.3 | V  
FO | Absolute Frequency | 314.8 | 315 | 315.2 | MHz  
PO | RF Output Power | Vcc = 9V to 12V | - | 14 | - | dBm  
PO | RF Output Power | Vcc = 5V to 0V | - | 16 | - | dBm  
DR | Data Rate | External Encoding | - | 2.4K | 3K | bps  

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

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

**RLP-434 Receiver**

**Symbol** | **Parameter** | **Conditions** | **Min** | **Typ** | **Max** | **Unit**  
--- | --- | --- | --- | --- | --- | ---  
Vcc | Operating supply voltage | 4.5 | 5 | 5.5 | V  
Iot | Operating Current | - | 3.5 | 4.5 | mA  
Vdata | Data Out | Vcc-0.5 | Vcc | V |  
Vdata | Data Out | Vcc-10 uA (Low) | Vcc | 0.3 | V  

Electrical Characteristics

Characteristics | SYM | Min | Typ | Max | Unit  
--- | --- | --- | --- | --- | ---  
Operation Radio Frequency | FC | 315, 418 and 434 | MHz  
Sensitivity | Pref | -100 | -103 | -106 | dBm  
Channel Width | | +1.5 | KHz  
Receiver Turn On Time | | 5 | ms  
Noise equivalent BW | NEB | 4 | KHz  
Baseboard Data Rate | | 3 | 5 | KHz  

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