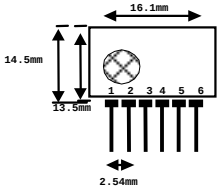
TLP/RLP434 RF ASK Low Cost Hybrid Modules for Radio Control and Telemetry applications

Easy-Link Wireless

TLP-434 Transmitter



pin 1 : Vcc
pin 2 : Vcc
pin 3 : Gnd
pin 4 : Gnd
pin 5 : RF Output
pin 6 : Digital Data Input

Frequency 315, 418 and 433.92MHz

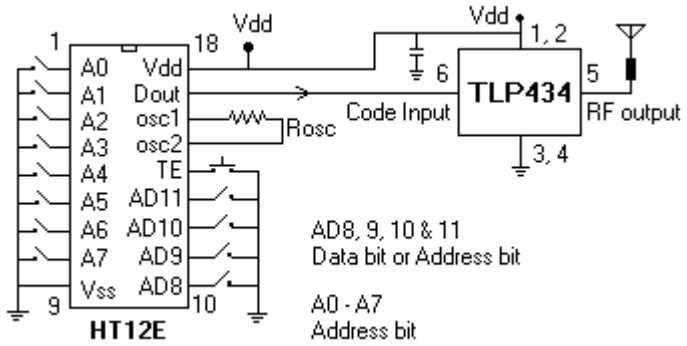
Modulation : ASK
Operation Voltage : 2 - 12 VDC
RF Output Power max : 8mW

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	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
	Relative To 433.92MHz			+/-150	+/-200	KHz
PO	RF Output Power- 50ohm	Vcc = 9V to 12V	-	14	-	dBm
		Vcc = 5V to 6V	-	16	-	dBm
DR	Data Rate	External Encoding	-	2.4K	3K	bps

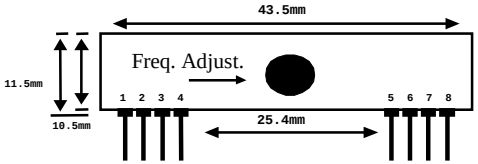
Notes : (Case Temperature = 25°C +- 2°C , Test Load Impedance = 50 ohm)

Application Circuit I:

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



RLP-434 Receiver



pin 1 : Gnd
pin 2 : Digital Data Output
pin 3 : Linear Output
pin 4 : Vcc
pin 5 : Vcc
pin 6 : Gnd
pin 7 : Gnd
pin 8 : Antenna (About 30 - 35 cm)

Frequency 315, 418 and 433.92MHz

Modulation : ASK
Supply Voltage : 4.5 - 5.5 VDC
Output : Digital & Linear
Sensitivity : 3uVrms

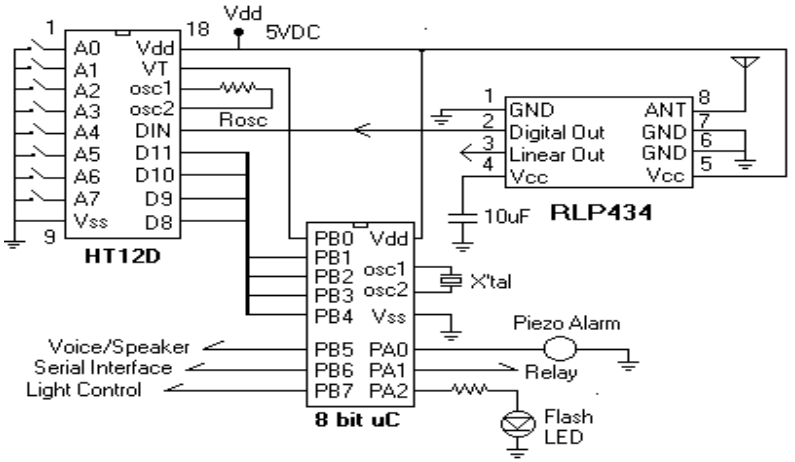
Symbol	Parameter	Conditions	Min	Typ	Max	
Vcc	Operating supply voltage		4.5	5	5.5	V
Itot	Operating Current		-	3.5	4.5	mA
Vdata	Data Out	Idata = +200 uA (High)	Vcc-0.5	-	Vcc	V
		Idata = -10 uA (Low)	-	-	0.3	V

Electrical Characteristics

Characteristics	SYM	Min	Typ	Max	Unit
Operation Radio Frequency	FC	315, 418 and 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.



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