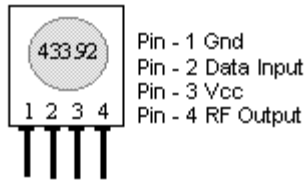


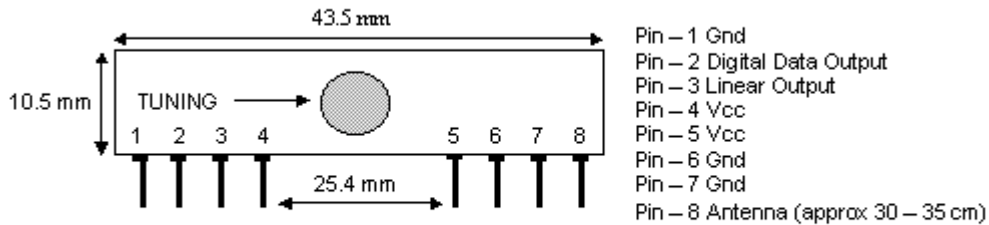
TWS-434A RF Transmitter



**Frequency:** 433.92MHz  
**Modulation:** AM  
**Operating Voltage:** 2 - 12 VDC

Symbol	Parameter	Condition	Min	Typ	Max	Unit
Vcc	Supply Voltage		2.0	-	12.0	V
I <sub>p</sub>	Peak Current	2V / 12V	-	1.64 / 19.4	-	mA
V <sub>h</sub>	Input High Voltage	I <sub>data</sub> = 100uA (High)	V <sub>cc</sub> -0.5	V <sub>cc</sub>	V <sub>cc</sub> +0.5	V
V <sub>l</sub>	Input Low Voltage	I <sub>data</sub> = 0 uA (Low)	-	-	0.3	V
F <sub>o</sub>	Operating Frequency		433.90	433.92	433.94	MHz
T <sub>r</sub> / T <sub>f</sub>	Modulation Rise / Fall Time	External Coding	-	-	100 / 100	uS
P <sub>o</sub>	RF Output Power – Into 50Ω	V <sub>cc</sub> = 9 to 12 V V <sub>cc</sub> = 5 to 6V	-	16 14	-	dBm
D <sub>r</sub>	Data Rate	External Coding	-	2.4K	3K	Bps

RWS-434 RF Receiver



**Frequency:** 433.92MHz  
**Modulation:** AM  
**Operating Voltage:** 4.5 - 5.5 VDC  
**Output:** Digital & Linear

Symbol	Parameter	Condition	Min	Typ	Max	Unit
Vcc	Supply Voltage		4.5	5	5.5	V
I <sub>t</sub>	Operating Current		-	3.5	4.5	mA
	Channel Width	+ / - 500				kHz
R <sub>d</sub>	Data Rate				3k	Bps
V <sub>dat</sub>	Data Out	I <sub>data</sub> = +200 uA (High)	V <sub>cc</sub> -0.5	-	V <sub>cc</sub>	V
		I <sub>data</sub> = -10 uA (Low)	-	-	0.3	V

4

3

2

1

D

D

C

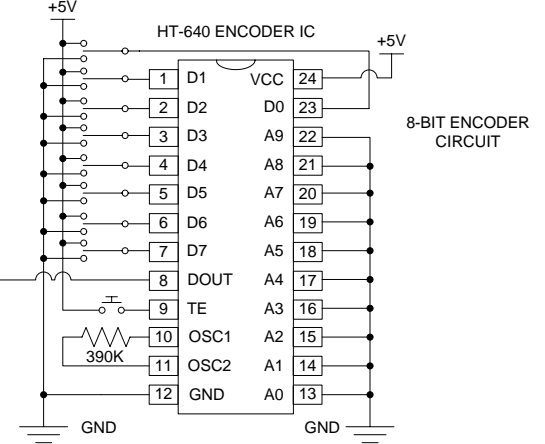
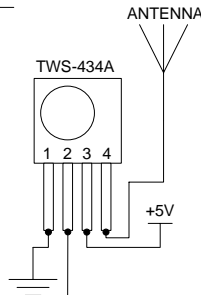
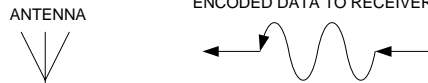
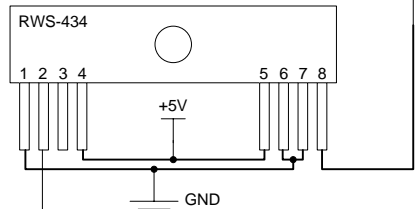
C

B

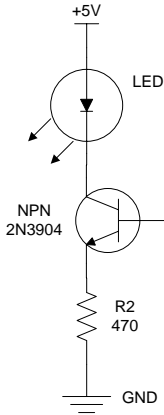
B

A

A

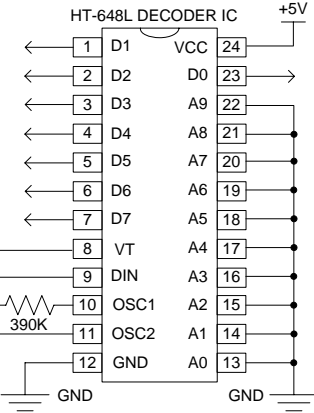


SAMPLE VALID TRANSMIT CIRCUIT

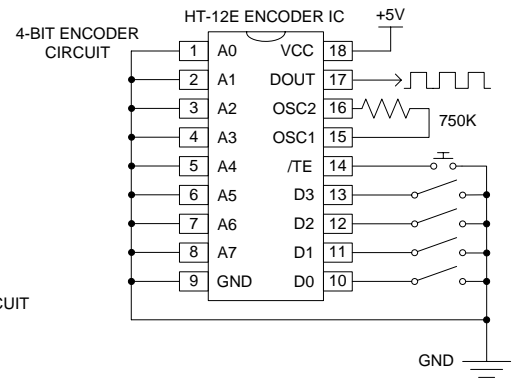
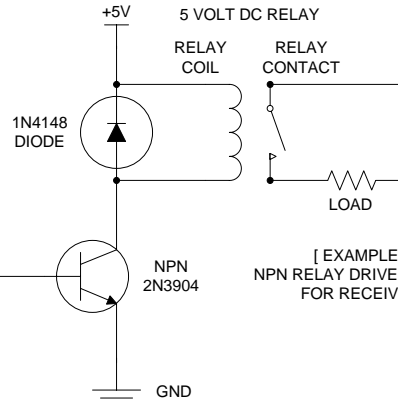


NOTE: For whip antenna - center conductor of coax cable connects to antenna pin of module. Braided shield connects to circuit ground

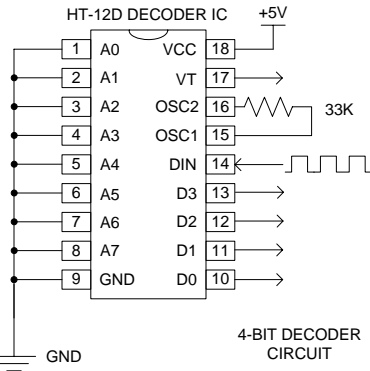
8-BIT DECODER CIRCUIT



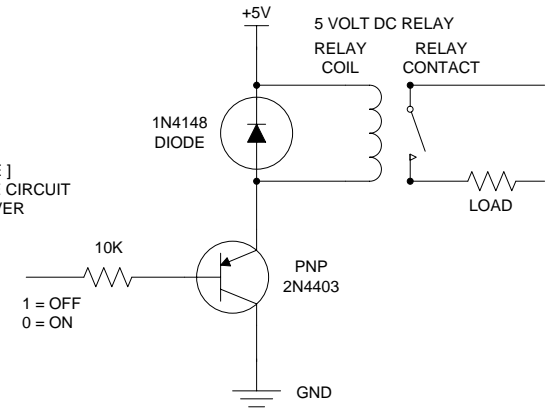
DUPLICATE DRIVE CIRCUIT FOR EACH CONTROL OUTPUT AS REQUIRED



4-BIT DECODER CIRCUIT



[EXAMPLE] PNP RELAY DRIVE CIRCUIT FOR RECEIVER



4-BIT & 8-BIT RF REMOTE CONTROL TX / RX / DRIVE CIRCUITS

DRAWN	REYNOLDS ELECTRONICS	SIZE	FSCM NO	DWG NO	1	REV	A
ISSUED		SCALE	1 : 1	SHEET	2 OF 5		