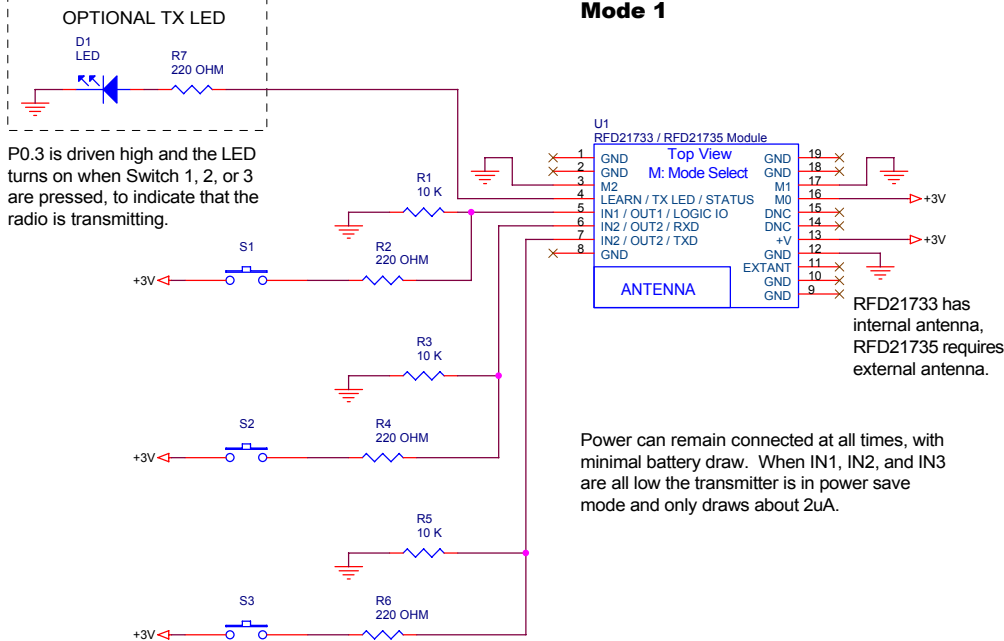


If not used, leave P0.3 unconnected.

3 Input Switch Transmitter

Mode 1



P0.3 is driven high and the LED turns on when Switch 1, 2, or 3 are pressed, to indicate that the radio is transmitting.

Power can remain connected at all times, with minimal battery draw. When IN1, IN2, and IN3 are all low the transmitter is in power save mode and only draws about 2uA.

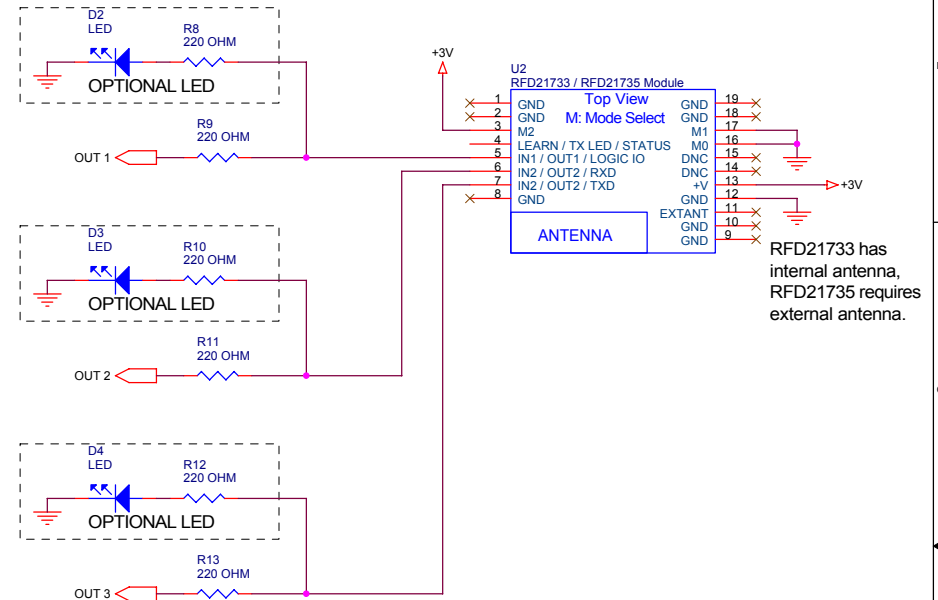
When Switch 1 is pressed, P0.4 (IN1) is driven high the radio will transmit. When Switch 2 is pressed, P0.5 (IN2) is driven high the radio will transmit. When Switch 3 is pressed, P0.6 (IN3) is driven high the radio will transmit.

In this mode P0.4, P0.5, P0.6 are always inputs, however the series resistors to between the inputs and the switches are used for safety, just in case there was a mode misconfiguration during testing time that causes any of those pins to be configured as an output instead. The resistors are recommended. If you choose to remove them, you can connect all three inputs directly to +3V driving sources such as a switch to +3V or a driving IC etc. If you choose to use less than 3 inputs, pull the unused ones to ground.

+3V supply can be between +1.9V and +3.6V

3 Output Switch Receiver With 500ms Hang Time

Mode 4



RFD21733 has internal antenna, RFD21735 requires external antenna.

When Switch 1 is pressed, P0.4 (OUT1) will output a high for the same duration the switch is pressed. When Switch 2 is pressed, P0.5 (OUT2) will output a high for the same duration the switch is pressed. When Switch 3 is pressed, P0.6 (OUT3) will output a high for the same duration the switch is pressed.

Any combination of the buttons can be pressed at the same time. When the last button is released, that output will have a 500 millisecond hang time. The purpose for the 500 millisecond hang time is when the receiver is used to drive relays for door openers or similar applications, it prevents the relay from middering and provides a clean switch.

The optional LEDs are for testing and can be removed.

+3V supply can be between +1.9V and +3.6V

Patents Pending

RFDP8 8-Mode Chart for RFD21733 / RFD21735
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Mode	Description	Mode Select Inputs			IN 3	IN 2	IN 1	Learn / Status
		2	1	0				
0	Active RFID Transmitter	0	0	0				
1	3 Input Switch Logic Transmitter	0	0	1	IN 3	IN 2	IN 1	TX LED
2	Serial UART Transceiver, 9600, N, 8, 1	0	1	0	TXD IN	RXD OUT	LOGIC I/O	X
3	Serial UART Transceiver, 9600, N, 8, 1	0	1	1	TXD IN	RXD OUT	LOGIC I/O	ESN LEARN Network
4	3 Output Switch Logic Receiver - 500ms	1	0	0	OUT 3	OUT 2	OUT 1	X
5	3 Output Switch Logic Receiver - 500ms	1	0	1	OUT 3	OUT 2	OUT 1	ESN LEARN Network
6	3 Output Switch Logic Receiver - 20ms	1	1	0	OUT 3	OUT 2	OUT 1	X
7	3 Output Switch Logic Receiver - 20ms	1	1	1	OUT 3	OUT 2	OUT 1	ESN LEARN Network
RFD21733 / RFD21735 Pin Number:		3	17	16	7	6	5	4

Please contact RF Digital anytime for application support questions at support@rfdigital.com

3 SWITCH TX TO 3 SWITCH RX 500MS

Description:

3 logic input switch transmitter sends the status of its 3 inputs to the 3 output logic switch receiver which outputs those states on its 3 outputs. When the 3 switches are used one at a time there is a 500 millisecond output hang time.

RFD76008 Application

For Part Number:
RFD21733 / RFD21735

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