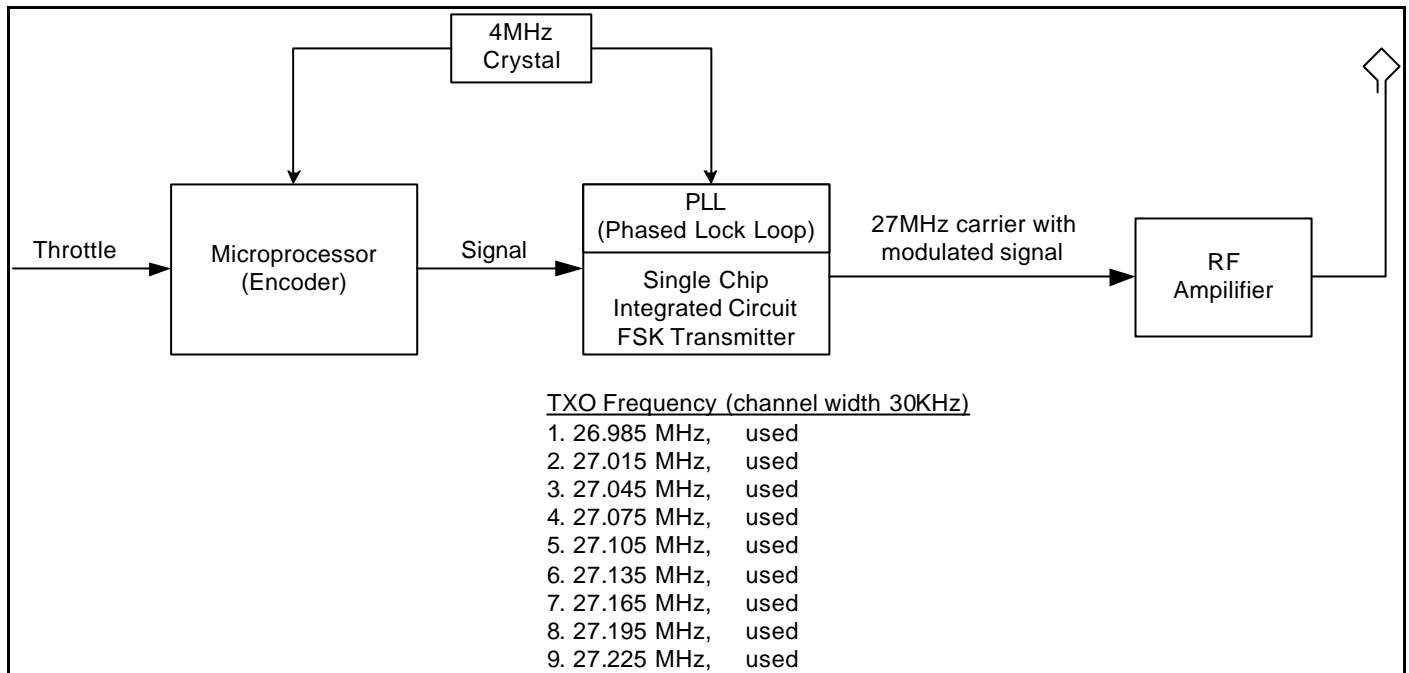
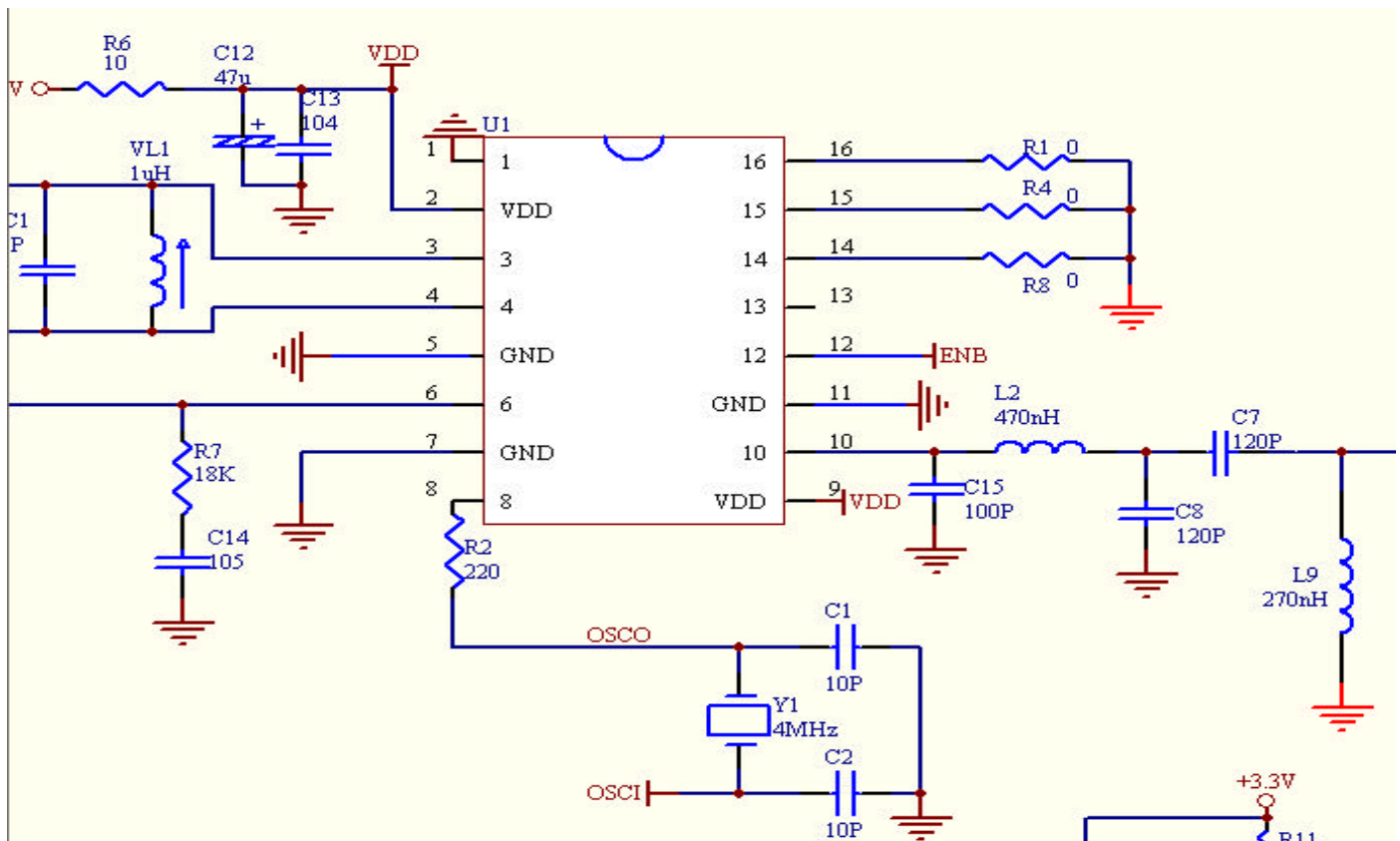


EL035RF Ultralite, 27MHz Transmitter Operation Description

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The Radio Frequency of the transmitter is based a low cost single-chip Integrated Circuit (**U1**) to establish a 27MHz frequency-agile RF link. It can generate 27MHz FSK carrier frequency via its internal Phased-Lock Loop frequency divider and external components crystal (**Y1**, shared with Microprocessor), Resistor (**R2**), capacitors (**C1**, **C2**). The carrier frequency (*TXO Frequency*) can be selectable from 26.985 MHz to 27.225MHz with typical channel spacing of 30KHz via input pins of 13, 14, 15 and 16 (**U1**).



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The diagram shows a 74VHC00 NAND gate (U2) configured as an inverter. The input pin 1 is connected to a +3.3V supply through a 47K resistor (R11) and to ground through a 10K resistor (VR1). A push-button switch (S1) is connected between the input pin and ground. The output pin 20 is connected to an LED (D2, RED) through a 100 ohm resistor (R12). The LED's anode is connected to the output pin, and its cathode is connected to ground. The gate's VDD (pin 16) is connected to +3.3V, and its VSS (pin 5) is connected to ground. Other pins are connected to ground or VDD as specified in the table below.

Pin	Function	Connection
1	Input	+3.3V via R11 (47K), VR1 (10K) to ground, and switch S1 to ground
2	Input	Connected to pin 1
3	Input	Connected to pin 1
4	Input	Connected to pin 1
5	VSS	Ground
6	Input	Connected to pin 1
7	Input	Ground
8	Input	Ground
9	Input	Ground
10	Input	Ground
11	Input	Ground
12	Input	Ground
13	Input	Ground
14	ENB	Ground
15	DATA	Ground
16	VDD	+3.3V
17	OSCI	Ground
18	Input	Connected to pin 1
19	Input	Connected to pin 1
20	Output	LED (D2) via R12 (100 ohms) to +3.3V, and cathode to ground