

MSRFIF VDD Output

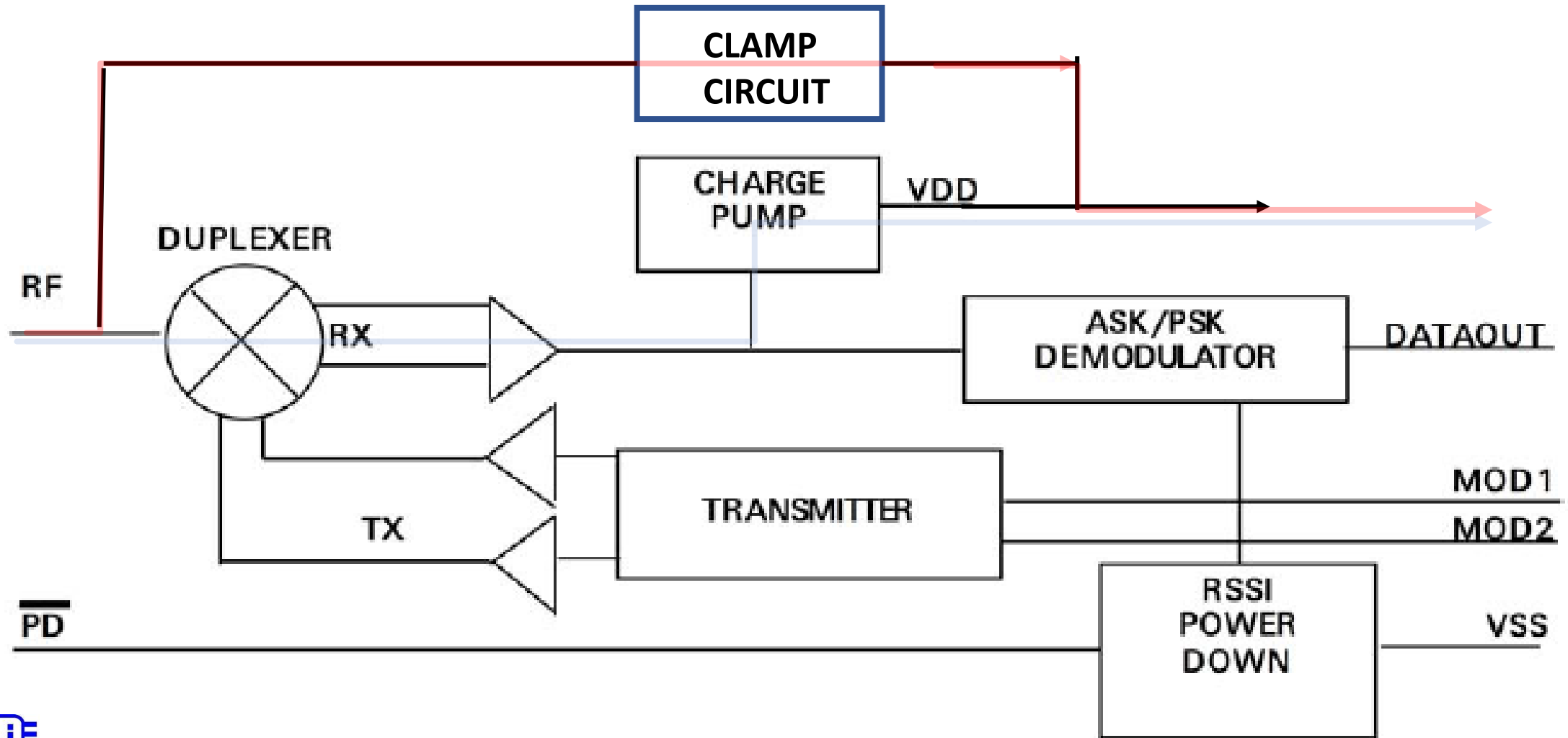
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MSRFIF VDD output paths

- There are 2 independent paths from the RF input to the VDD output (see slide 2)
- The path is determined by the amplitude of the RF input pin
 - Clamp Circuit
 - RF input > 8.5Vpp
 - Charge Pump
 - RF input < 3.7Vpp

MSRFIF – RF input to VDD output paths



MSRFIF RF Input Frequency and Amplitude

RF input amplitudes to guarantee that the VDD output is between 2.4V and 4V for each path

Paths	Min RF input Frequency	Max RF input Frequency	Min RF input amplitude	Max RF input amplitude	MSRFIF Power
Clamp Circuit	50 Hz	500 kHz	8.5Vpp	12.5Vpp	> 5 mW
Charge Pump	500 kHz	1 MHz	3Vpp	3.5Vpp	< 50 uW
	1 MHz	3 MHz	1.7Vpp	2.8Vpp	
	3 MHz	25 MHz	1.7Vpp	2.3Vpp	
	25 MHz	40 MHz	1.7Vpp	2.6Vpp	
	40 MHz	50 MHz	2Vpp	2.7Vpp	
	50 MHz	60 MHz	2.5Vpp	3.2Vpp	
	80 MHz	-	3Vpp	3.7V	