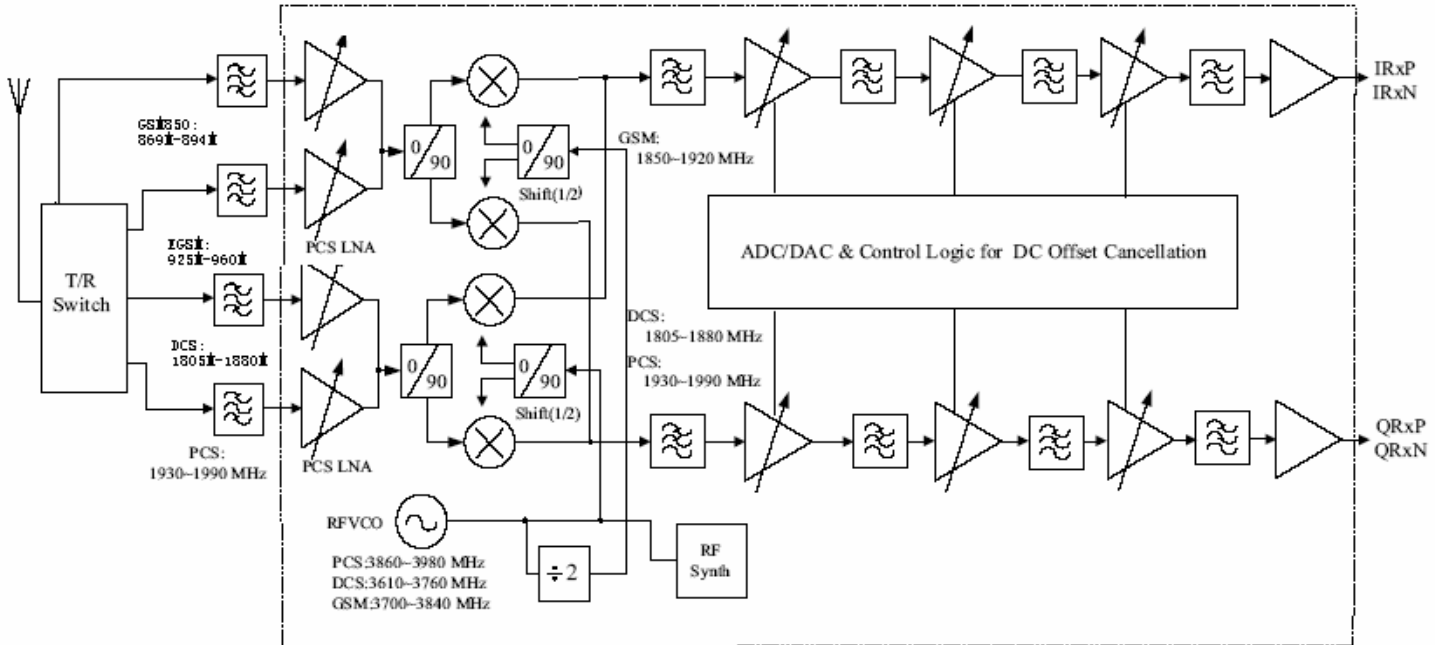


一、 Receiver operation

The frequency ranges of the synthesizer for RX mode are

RX mode	GSM850	869M -894M
	PCS	1930M-1990M



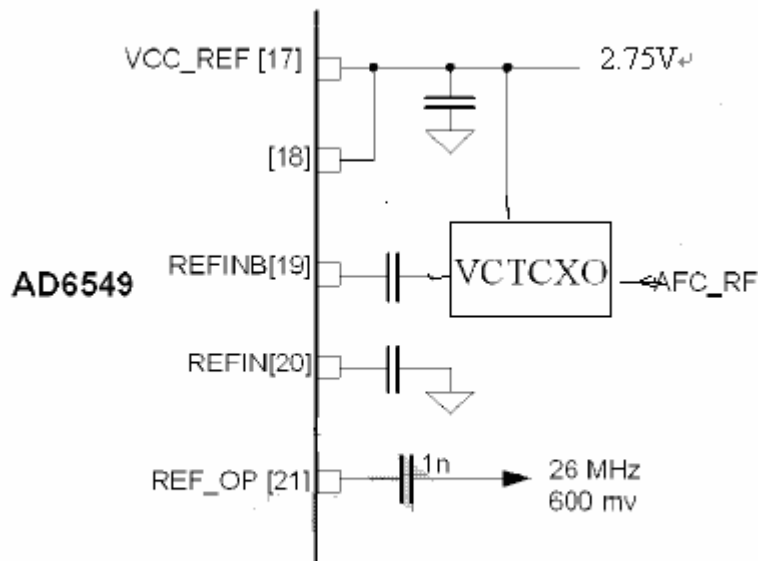
The Receiver structure in SKY77547 is a very-low IF solution. More than 100DB gain, more than 110DB control range. And by the way, all of the DC-offset canceling processes are done within chip. we do not have to care about that.

The LNA amplifies the RF signal after passing the T/R switch and RF SAW filter and before it enters the down-converter section. The RF signal is mixed with a local oscillator(LO) signal to generate the baseband signal.

Four LPFs are used in the baseband signal processing for reduce block signals. The first LPF employs two external capacitors, and we can check whether the front-end (LNA+MIXer) is functionally well or not by probing these two capacitors to see if there is any baseband signal(<200kHz).

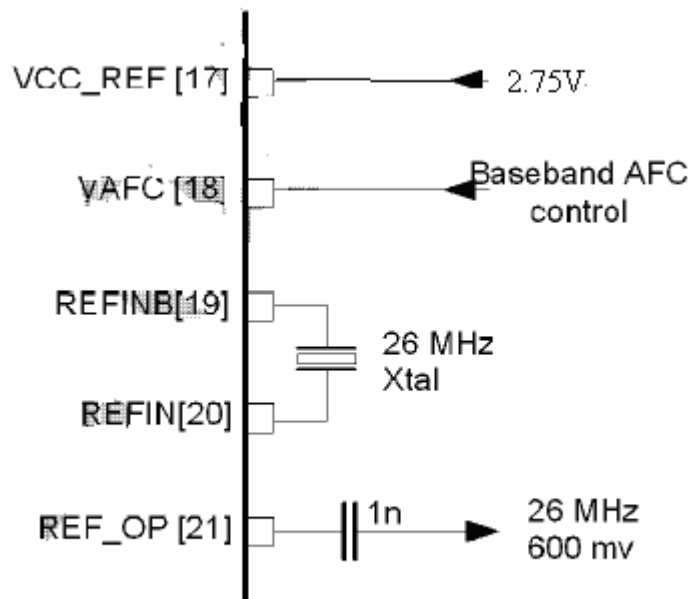
After three stages of DC-offset canceling,the signal(I+/I-/Q+/Q-) then output to the baseband IC for further processing.

The 26MHz reference frequency is provided by an external VCTCXO module ,supplied to the REFINB pin .The REFIN pin must be AC grounded via a inf capacitor .In this case temperature and frequency stability are provided by the VTCXO module .



ADS6549 simplified Reference Connections

The AD6548 requires only an external low cost crystal as the frequency reference. The circuitry to oscillate the crystal and tune its frequency is fully integrated. For good noise immunity the oscillator is a balanced implementation requiring the crystal to be connected across 2 pins. There is a programmable capacitor array included for coarse tuning of fixed offsets, and an integrated varactor for dynamic control. The oscillator is designed for use with a 26MHz crystal.



AD6548 Crystal Oscillator External Connections.

三、RF Specification Requirement

1、TX Average carrier power

POWER LEVEL(GSM900)	max	Range	
	dBm	normal	ultimate
5	33	+/-2 dB*)	+/-2.5 dB*)
6	31	+/-3 dB	+/-3 dB
7	29	+/-3 dB)	+/-4 dB*)
8	27	+/-3 dB	+/-4 dB
9	25	+/-3 dB	+/-4 dB
10	23	+/-3 dB	+/-4 dB
11	21	+/-3 dB	+/-4 dB
12	19	+/-3 dB	+/-4 dB
13	17	+/-3 dB	+/-4 dB
14	15	+/-3 dB	+/-4 dB
15	13	+/-3 dB	+/-4 dB
16	11	+/-5 dB	+/-6 dB
17	9	+/-5 dB	+/-6 dB
18	7	+/-5 dB	+/-6 dB
19	5	+/-5 dB	+/-6 dB

POWER LEVEL(DCS 1800)	max	Range	
	dBm	normal	ultimate
0	30	+/-2 dB*)	+/-2.5dB*)
1	28	+/-3 dB	+/-4 dB
2	26	+/-3 dB	+/-4 dB
3	24	+/-3 dB*)	+/-4 dB*)
4	22	+/-3 dB	+/-4 dB
5	20	+/-3 dB	+/-4 dB
6	18	+/-3 dB	+/-4 dB
7	16	+/-3 dB	+/-4 dB
8	14	+/-3 dB	+/-4 dB
9	12	+/-4 dB	+/-5 dB
10	10	+/-4 dB	+/-5 dB
11	8	+/-4 dB	+/-5 dB
12	6	+/-4 dB	+/-5 dB
13	4	+/-4 dB	+/-5 dB
14	2	+/-5 dB	+/-6 dB
15	0	+/-5 dB	+/-6 dB

2、 Frequency Error: 0.1ppm

3、 Phase Error

(a): Peak Phase Error :20 degree

(b): RMS Phase Error :5 degree

4、 ORFS(Ouput Radio Frequency Spectrum) :

400KHz:-60dB

600KHz~1.8MHz:-60dB

5、 Switching Spectrum

400KHz:-19dBm@GSM PCL5

400KHz:-22dBm@DCS PCL0

6、 Rx Sensitivity

-102dBm@RBERII=2.4%