

The SL6609 direct conversion paging receiver has been superseded with the improved performance SL6609A. The new SL6609A is 100% pin compatible with the SL6609.

The main improvements to the SL6609A are:

1. Improved RF mixer noise figure allowing better IP3 and Adjacent Channel Rejection for the same Sensitivity.
2. Improved internal VR Voltage Reference (pin 6) amplifier stability.

If an SL6609 is replaced with an SL6609A in the standard application circuit shown in Fig.1, then a 1dB increase in Sensitivity will typically be observed.

If the RF amplifier gain is reduced, by decreasing the value of R13 as described in the adjustment procedure below, then a Sensitivity of -126 dBm at 1200bps should be achieved with IP3 and Adjacent Channel Rejection figures as below :

58 dB IP3 (5 dB improvement on SL6609 figure)

72 dB Adjacent Channel Rejection (3 dB improvement)

SL6609A Optimum Adjustment Procedure Referring to Fig.1

1. The RF INPUT should be checked for a good 50ohm match.
2. Apply an RF signal of -73 dBm, offset from the local oscillator by the deviation frequency, to the RF INPUT.
3. Reduce the value of R13 until the level measured at pin 1 (TPX) is $120\text{mV} \pm 10\text{mV}$ peak to peak, measured with a high impedance 10:1 scope probe.
4. Check for good quadrature between the two test points pin 1 (TPX) and pin 7 (TPY) and an amplitude imbalance of less than 10%. If the amplitude balance between the two pins requires correction, then the value of C5 should be slightly increased and the value of C2 slightly decreased.

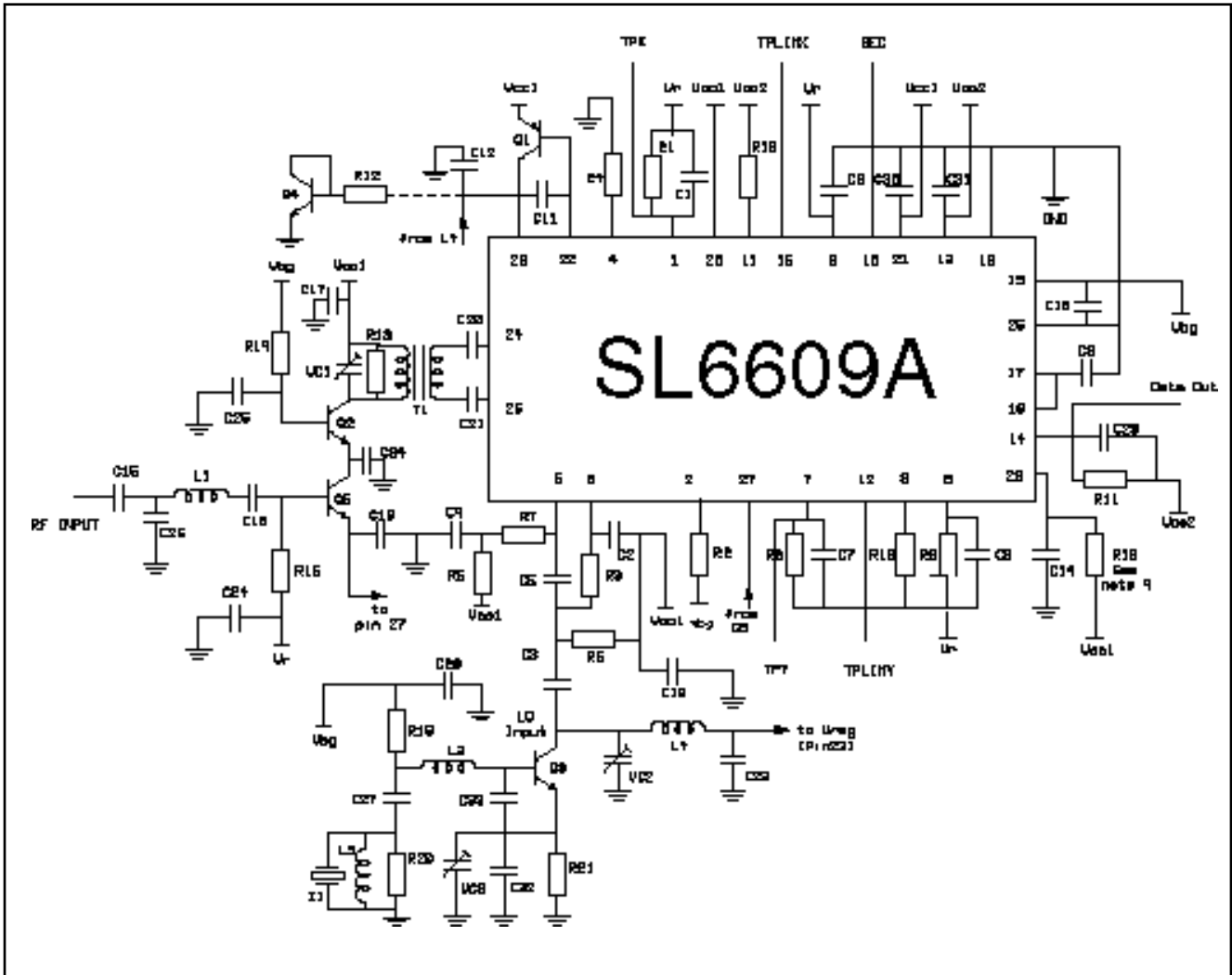


Fig.1 Application circuit board



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