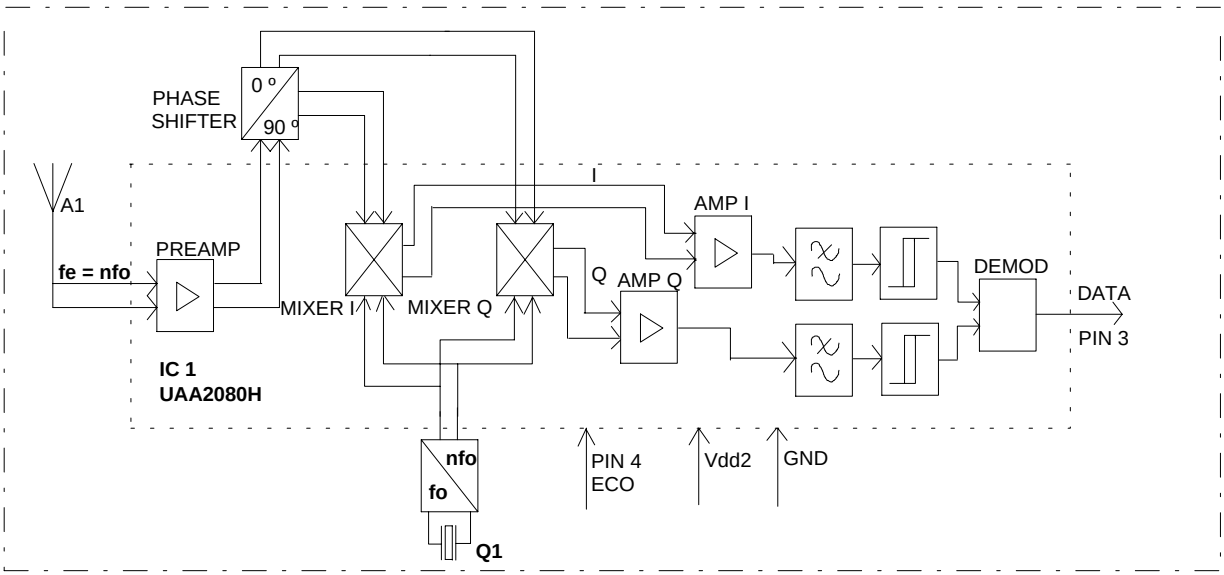
4.1.2. RF-Block Diagram



The radio signal received over antenna (A1) is amplified internally in IC1 (differential input) and is split thereafter in a phase shifter into two signals 90° apart from each other.

Both the signals are mixed in two identical mixers in IC1 with a local oscillator, which lies with Direct Conversion principle directly on the reception frequency (n*fo = fe).

The quartz Q1 oscillates at a lower frequency. The output signal of the quartz is multiplied by n in relation to the Reception Frequency (see chapter 4.2.2 Oscillator).

Both the signals (I and Q) gained after the mixing, are in AF range and are still phase shifted by 90°. They are filtered within IC1 (necessary gap from neighbouring channels), amplified further, limited and lead to a quadrature demodulator. The output signal at pin3 corresponds to the digital DFSK-POCSAG signal which is lead to the Digital Part for further processing.

The DC-IC is switched off through the Economizer Signal (ECO) in certain time intervals in order to save battery power.