

ABSTRACT:

FM receiver with dynamic intermediate frequency (IF) filter tuning.

FM receiver with a modulation signal-dependent intermediate frequency (IF) filter tuning, comprising a radio frequency (RF) section, a tunable mixer stage for a down-conversion of a desired RF FM reception signal to an intermediate frequency (IF) FM signal, an IF section comprising a tunable IF filter, an FM demodulator for
5 demodulating the baseband modulation signal of the IF FM signal, which demodulator is coupled to a baseband signal processing device, and an IF tuning control loop *via* which the FM demodulator is coupled to a tuning control input of the IF filter for an instantaneous tuning control of the IF filter by means of the baseband modulation signal. In order to enhance the tuning behaviour, the FM receiver comprises a first
10 amplifier-limiter arranged in the IF tuning control loop between an output of the FM demodulator and the tuning control input of the IF filter, the gain of said first amplifier-limiter gradually decreasing at an increasing input signal amplitude and supplying an output signal whose amplitude increases monotonically to a limiting value for a continuous and gradual limitation of the tuning control signal in the IF tuning control
15 loop at an increasing output signal amplitude of the FM demodulator.

Fig. 1.

This Sheet Has Been Replaced

