

ABSTRACT

FREQUENCY MODULATION RECEIVER IN  
PARTICULAR FOR AN RDS APPLICATION

There is described an FM receiver (29) including: an antenna (2) able to receive a high frequency signal from a transmitter; a high frequency stage (3); an oscillator (5); a mixer unit (30) able to provide a signal (S6) at an intermediate frequency ( $f_{IF}$ ); an FM demodulation stage (8); and an automatic frequency control  
5 stage (36) able to control the oscillator, so as to keep said intermediate frequency ( $f_{IF}$ ) of said signal (S6) constant. This receiver further includes a locked loop (32) arranged to enslave said intermediate frequency ( $f_{IF}$ ) from a pilot frequency ( $f_p$ ) present in the demodulated signal. One advantage of such a locked loop is that the intermediate frequency is enslaved so that the aliasing phenomenon does not prevent  
10 demodulation of the signals containing the RDS data.

Figure 4