



Figure 6.11: Flowchart for DFC processing.

Measuring the IF SNR

DFC, squelch, and AGC require that the received signal level or the IF SNR be known. There are several ways of measuring the signal level or measuring the IF SNR. Typical squelch circuits measure the IF SNR indirectly by measuring the decrease in baseband noise power above audio frequencies as the IF SNR increases (see Chapter 2). Cellular radio systems use the envelope of received signal to measure the received signal strength [70]. Systems that use SSB modulation [1,24] use a pilot carrier to estimate the signal magnitude and phase.

A measurement of the signal level is not required for DFC, simply a “fade/no-fade” indication. Therefore DFC should be insensitive to small errors in the estimate of the