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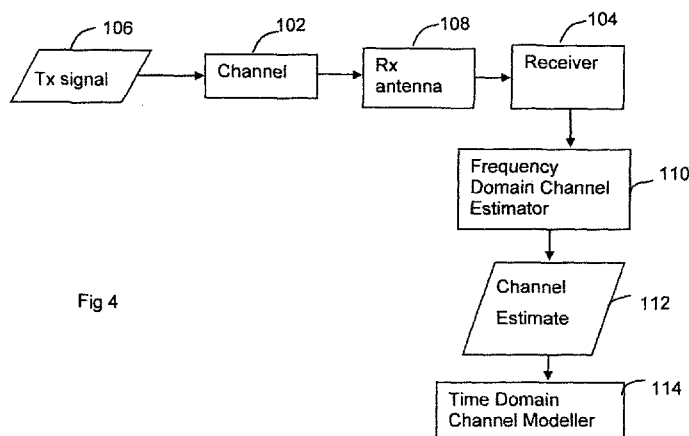


Fig 4

(57) Abstract: Described herein is a method and system for estimating a time-varying multipath communication channel (102). The system comprises a receiver (104) for receiving a signal comprising a data packet transmitted over the multipath communication channel (102). The system also comprises a frequency-domain channel estimator (110) that generates a frequency-domain channel estimate (112) based on the received signal. The system further comprises a time-domain channel modeller (114) that receives the frequency-domain channel estimate (112) and generates an estimate of parameters in a time-domain model of the multipath communication channel (102). The model characterises the multipath communication channel (102) as a delay line with a plurality of taps, each tap having tap parameters defining a delay, a Doppler and a gain for the tap. The tap parameters are constant over the data packet.