

CHANNEL QUALITY REPORTING METHOD AND ARRANGEMENT IN A TELECOMMUNICATION SYSTEM

Abstract

When a high SIR can be achieved for downlink data transmission, for example in a MIMO system, or when higher order modulation, such as 64 QAM, can be used, it is desired to measure the instantaneous downlink channel quality indicator (CQI), and report the measured CQI to the network using the same number of bits as when a lower SIR can be achieved. In order to do this, a true CQI is derived based upon at least one network controlled parameter and a measured channel quality parameter; and the true CQI value is scaled to a new CQI value such that the new CQI will fall within a specified range of CQI values; so that the new CQI achieved by scaling the derived CQI value can be reported with every CQI value over the entire reporting range requiring the same number of bits.

Figure 1a