OPTICAL RECEIVER

Abstract

A receiver for a differentially phase shift keying formatted optical signal, such as an RZ-DPSK formatted optical signal. Dither control loops are provided for controlling path length in a demodulator and/or for controlling the center wavelength of an optical band pass filter. A feedback loop is provided for controlling the gain of a pre-amplifier, and a method of protecting against optical transients by disabling a pre-amplifier is also provided. A preset delay may be provided to compensate for the differential delay in paths associated with the demodulator arms. When the signal is an RZ-DPSK modulated signal, a clock for retiming data from the optical signal may be derived from a signal on the data path.

Fig. 2