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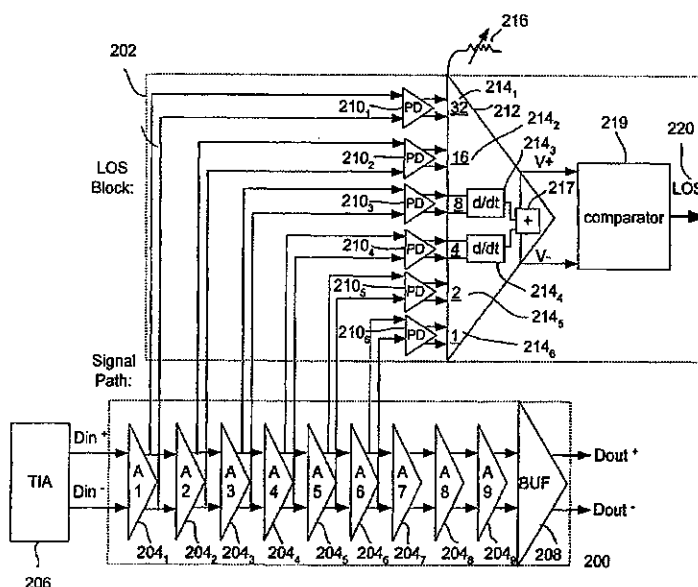
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(54) Title: A MULTI-INPUT VARIABLE GAIN AMPLIFIER



(57) Abstract: A limiting amplifier (LIA), used for example in high speed optical communication systems, includes a loss of signal (LOS) feature that may provide improved optical receiver performance and includes wide range user programmable thresholds for generating analog loss of signal (LOS) alarms. In particular, multiple sampling points within the limiting amplifier may be used. These samples may be differentially amplified with weighted gains and then combined and compared to a threshold value to generate an LOS alarm signal.

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