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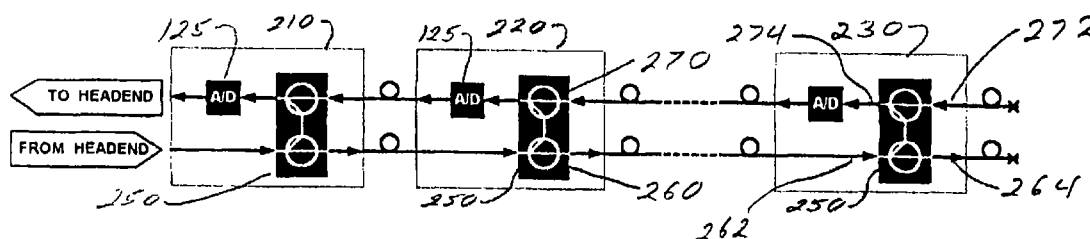
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(54) Title: FIBER PROTECTION AND NON-INTRUSIVE EXPANSION METHODS AND APPARATUS



(57) Abstract: Systems and methods are described for communications networks. An apparatus includes a communications link having a splitter-combiner communicatively coupled to a headend, the splitter-combiner including: a signal splitter communicatively coupled to a headend input and communicatively coupled to a downstream output; and a signal combiner communicatively coupled to the signal splitter, communicatively coupled to an upstream input, and communicatively coupled to a headend output. The systems and methods provide advantages because a communication network can be protected, at least in-part, against passive equipment (e.g., optical fiber) failure, active equipment (e.g., data drop/add device) failure and/or equipped for non-intrusive expansion of the network.

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