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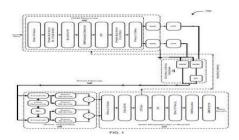
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## (54) Title of the invention: ADAPTIVE CHANNEL PARAMETERS OF A PHOTONIC NETWORK

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## (57) Abstract:

The present disclosure relates to improving spectral efficiency of a channel in a photonic network. A receiver continuously monitors the channel to determine a signal to noise ratio (SNR) information. Based on the received SNR information a transmitter in real time adjusts a combination of one or more parameters such as cyclic prefix length, a number of subcarriers and a modulation order of the channel. The disclosure facilitates effective utilization of the network bandwidth thereby improving spectral efficiency of the network.



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