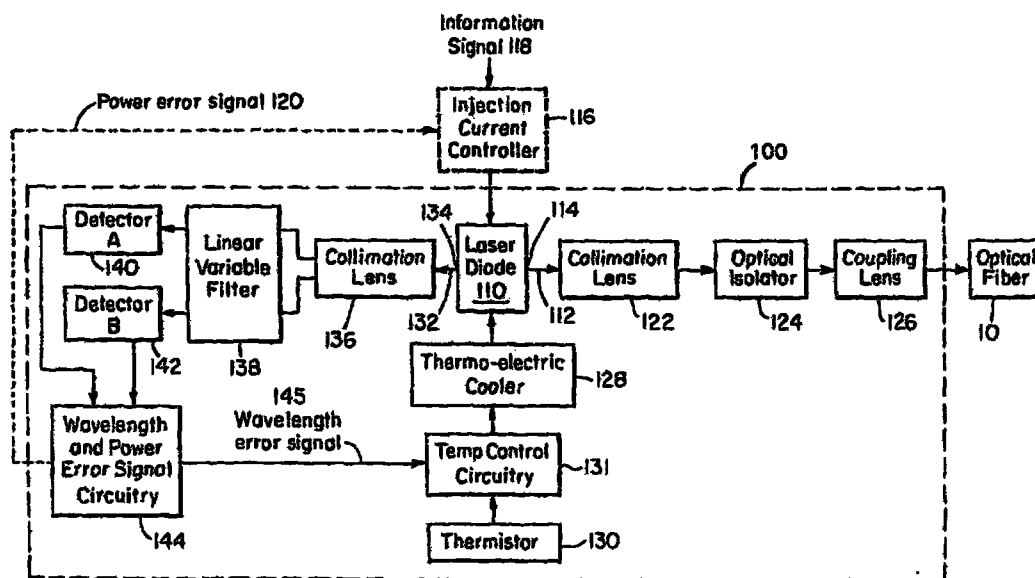




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(54) Title: SPATIALLY VARIABLE FILTER LASER WAVELENGTH MONITORING/CONTROL



(57) Abstract

A feedback controlled laser diode communication device is disclosed that, as is common, has a laser diode that is modulated in response to an input signal to generate an optical signal, encoding the input signal. Spatially variable passband filter material, however, is arranged to receive at least a portion of the optical signal generated by the laser diode, preferably from the rear facet, and at least one detector is used to detect the thus filtered optical signal. Control circuitry then controls a wavelength of the laser diode based upon the response of the detector(s) to thus provide feedback control. As such, the device is particularly applicable to maintaining the tight channel spacings found in wavelength division multiplexed systems.