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ACTION

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(54) Title: METHOD AND APPARATUS FOR COMPENSATING A PHOTO-DETECTOR

(57) Abstract: The method and apparatus for compensating a photo-detector allows both regulation and monitoring of the photo-detector to be performed with a common digital controller. The controller accepts input of monitored operational parameters including received signal strength and temperature. The controller provides as an output a bias control signal which regulates a positive the positive or negative side bias voltage power supply for the photo-detector. The controller maintains the bias voltage to the photo-detector at levels which optimize the gain and signal-to-noise ratios for the photo-detector thereby facilitating the decoding of the received signal over a broad range of signal strengths and temperatures. The controller includes a corresponding digital signal strength and temperature compensators the outputs of which summed with a summer to provide the bias control signal. The digital signal strength compensator also provides as an output a monitor signal a level of which corresponds to the actual signal strength received by the photo-detector after compensation for the variable gain of the photo-detector resulting from the bias voltage level. A transceiver as well as methods and means for monitoring a photo-detector are also disclosed.