Gain Adjustment of Optical Receiver

To minimize these installation costs, equipment vendors incorporate automatic gain control (AGC) in their home terminals to adjust the ONTs" RF levels without the intervention of the operator"s...

Provided herein are techniques to facilitate automatic gain control for an optical receiver.

The receiver design proposed in this article incorporates two characteristic parameter adjustments, namely bandwidth and automatic gain.

The automatic gain control adapts its gain based on slight change in the input signal at the receiver front-end. This optimization technique ensures low photo-detection and amplification ...

Automatic Gain Control keeps the output of a radio receiver steady, even when the incoming signal bounces up or down. It adjusts amplifier gain on the fly, so loud signals don"t drown ...

Typically, it is advised to use automatic receiver gain adjustment, which maximizes RG while avoiding the signal overflow and clipping of the free induction decay (FID, Figure 1). The clipping leads to ...

Because both the optical gain and the output signal optical power are dependent on the power of the pump, the automatic control can be accomplished by adjusting the pump power.

Gain control is necessary to adjust the receiver sensitivity for the best reception of signals of widely varying amplitudes. A complex form of automatic gain control (agc) or instantaneous automatic gain ...

Automatic gain control plays an important role in the mobile and base station receivers by adjusting the gain of the amplifier according to the received signal strength.

Instead, receiver designers implement an adjustable gain amplifier using one or more fixed gain amplifiers and one or more variable attenuators (e.g., digital attenuators).

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