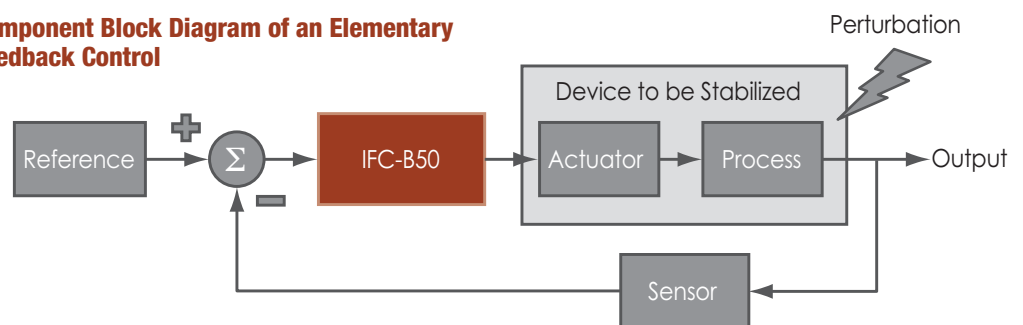


IdestaQE's integral feedback controller features a proportional (P) and integral (I) gain stage. The proportional -3 dB bandwidth extends to 10 MHz, while the low-frequency gain is more than 80 dB. The group delay through the device is less than 50 ns up to a frequency of 12 MHz. Gain settings can be changed completely independent of corner frequencies. Our purely analog device is designed for ultra-low internal noise.

Component Block Diagram of an Elementary Feedback Control

Applications

- Laser Frequency Stabilization
- Intensity Stabilization
- Laser Repetition Rate Stabilization
- CEP/ f_{ceo} Stabilization

Specifications

- -3 dB P-Gain Roll-Off Frequency: 10 MHz
- More than 80 dB Low Frequency Gain
- PI Corner Frequency as High as 1 MHz
- Group Delay < 50 ns up to 12 MHz
- Gain Flatness Better than 0.5 dB to ~8 MHz

A Detailed Datasheet is Available upon Request

Features and Benefits

- Adjustable Output Voltage Range and Output Offset Allow Seamless Connection of a Variety of Different Instruments
- A Switchable Integrator Gain Limit to Easily Find the Right Locking Point
- Error Signal Invert Switch
- Sweep Input

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