Trans-Impedance Amplifier

Introduction

This super-block compresses the function of the following blocks:

- Ideal Amplifier;
- White Noise
- Add;
- Pulse Shaper;

This compression allows for a cleaner code.

Input Parameters

- ElectricalNoiseSpectralDensity
- RollOffFactor
- ImpulseResponseTimeLength
- ImpulseResponseLength
- PassiveFilterMode
- SeeBeginningOfImpulseResponse

Functional Description

The input signal is amplified, has white noise, with a user defined spectral density, added to it and is fed through a filter block. A diagram of the blocks that constitute this super-block, with the corresponding relations is presented in Figure 1.

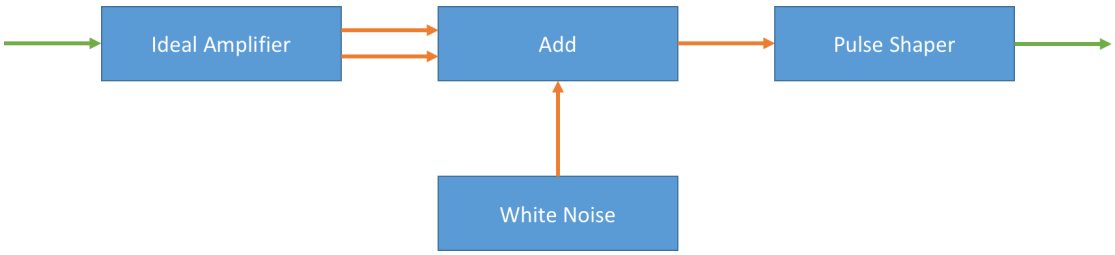

Figure 1: Trans-Amplifier Block Diagram.

Inputs

Number: 1
Type: Real, Complex or Complex_XY signal (ContinuousTimeContinuousAmplitude)

Outputs

Number: 1
Type: Real, Complex or Complex_XY signal (ContinuousTimeContinuousAmplitude)