Transient Noise Generation

Normal noise is generated using a MATLAB function.

By multiplying by an oversaturation factor, certain noise can be filtered out.

The array can only have a maximum value of one. This clamps the noise to a maximum value of one.

Here, the noise upper threshold is set and is applied to the input array. Noise is either 100% or 0%.

noise

fcn

Random Normal Noise

$|u|$

Sign Conditioner1

-K-

Oversaturation Control1

1

Max Gain3

> 1

Clamper1

1

Max Gain4

+
−

1

Input Array

1

Max Gain5

>= 0.6

This noise can be both positive or negative. To correct for this, the absolute value of each cell is taken.

Noise should be white, not black. This inverts the noise

+
+

1

Noisy Array

2

Mean Value

Mean Adjustment1