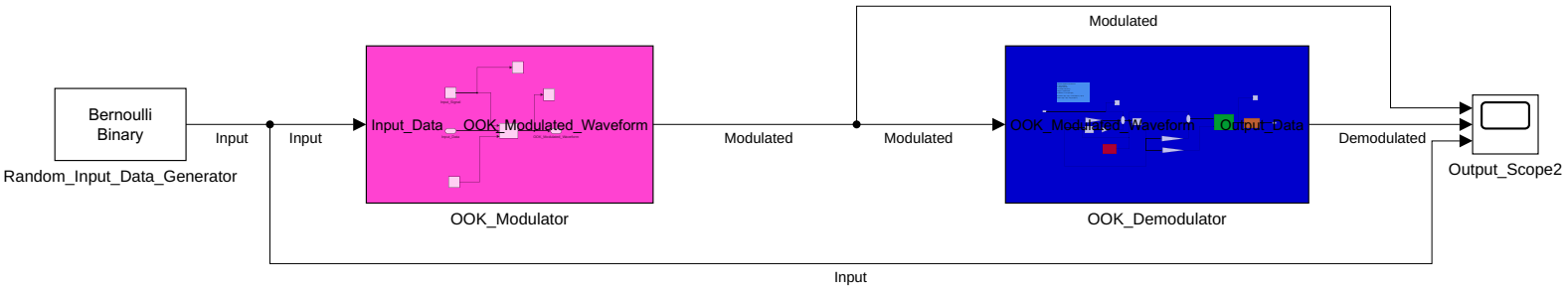
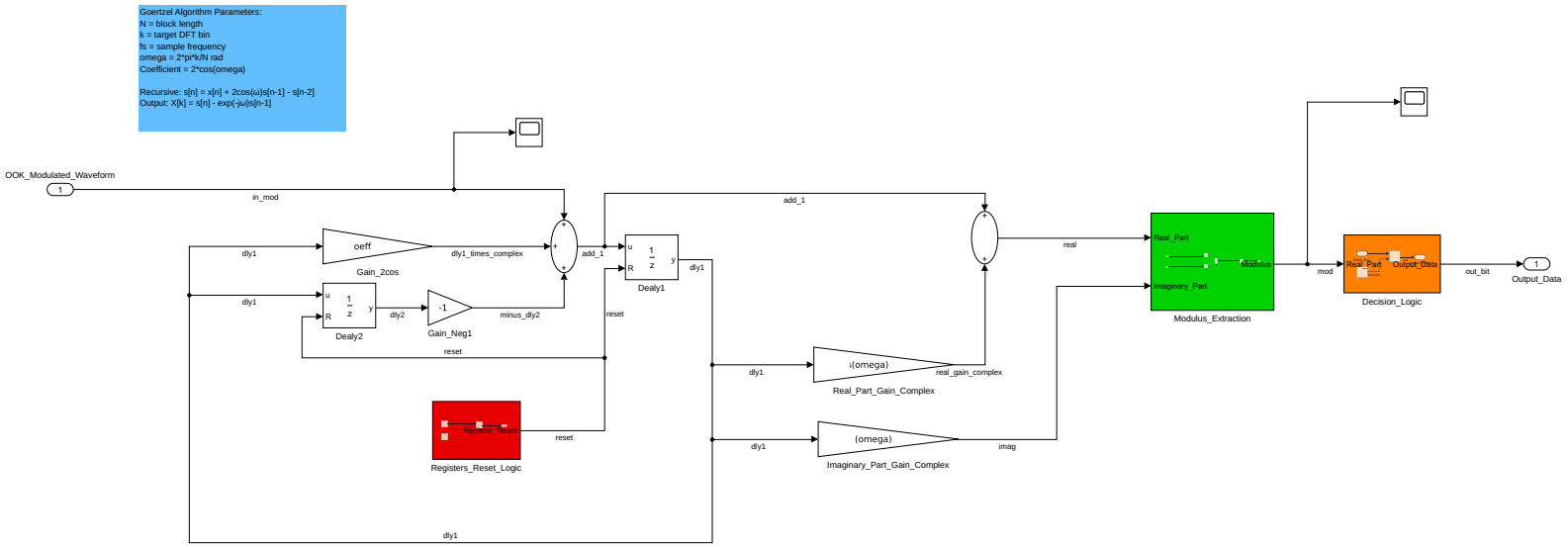
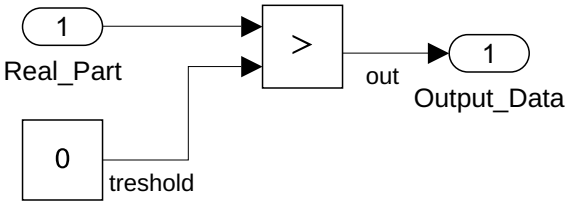
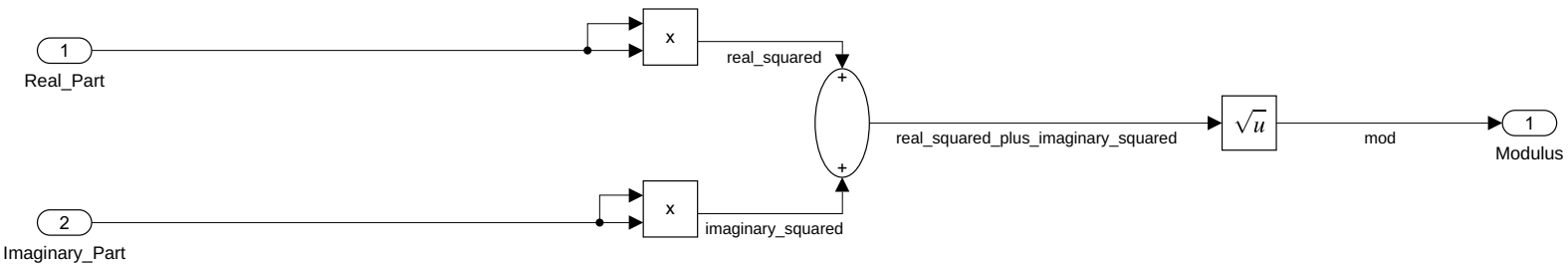
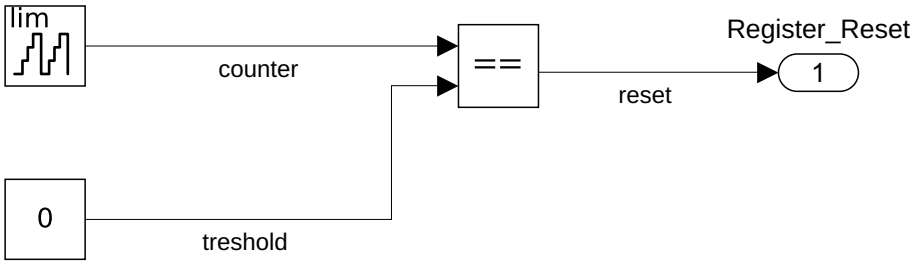
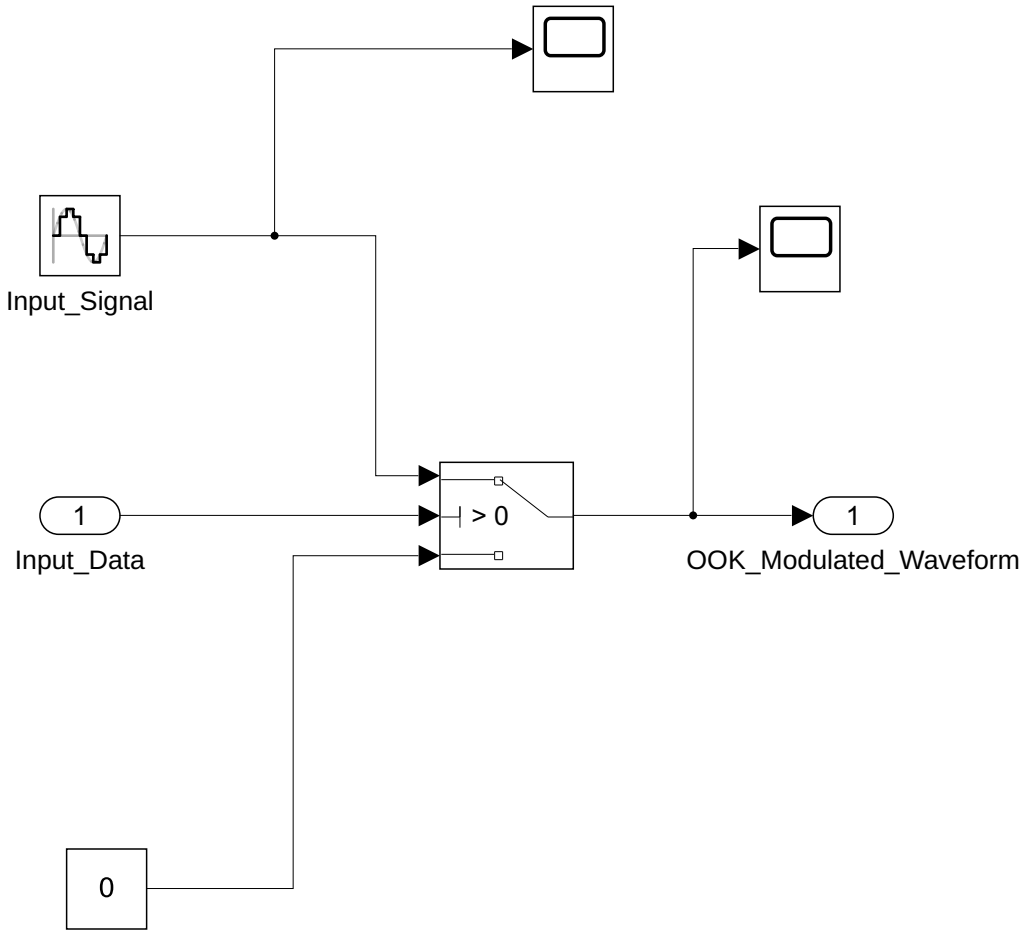

Bernoulli
Binary
Random_Input_Data_Generator
Input
Input
Input_Data
OOK_Modulated_Waveform
OOK_Modulator
Modulated
Modulated
Modulated
OOK_Modulated_Waveform
Output_Data
OOK_Demodulator
Demodulated
Output_Scope2
Input

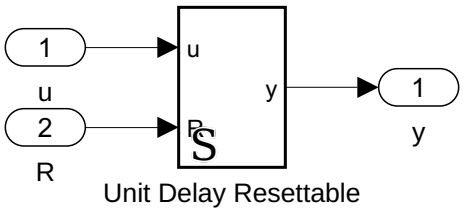

Goertzel Algorithm Parameters:
N = block length
k = target DFT bin
fs = sample frequency
omega = 2*pi*k/N rad
Coefficient = 2*cos(omega)
Recursive: s[n] = x[n] + 2cos(ω)s[n-1] - s[n-2]
Output: X[k] = s[n] - exp(-jω)s[n-1]
OOK_Modulated_Waveform
1
in_mod
oeff
Gain_2cos
dly1
dly1_times_complex
add_1
Dealy1
dly1
Dealy2
dly2
-1
Gain_Neg1
minus_dly2
reset
Registers_Reset
Registers_Reset_Logic
(omega)
Real_Part_Gain_Complex
real_gain_complex
Imaginary_Part_Gain_Complex
imag
real
Real_Part
Imaginary_Part
Modulus
Modulus_Extraction
mod
Real_Part
Output_Data
Decision_Logic
out_bit
Output_Data


1
Real_Part
>
out
1
Output_Data
0
treshold

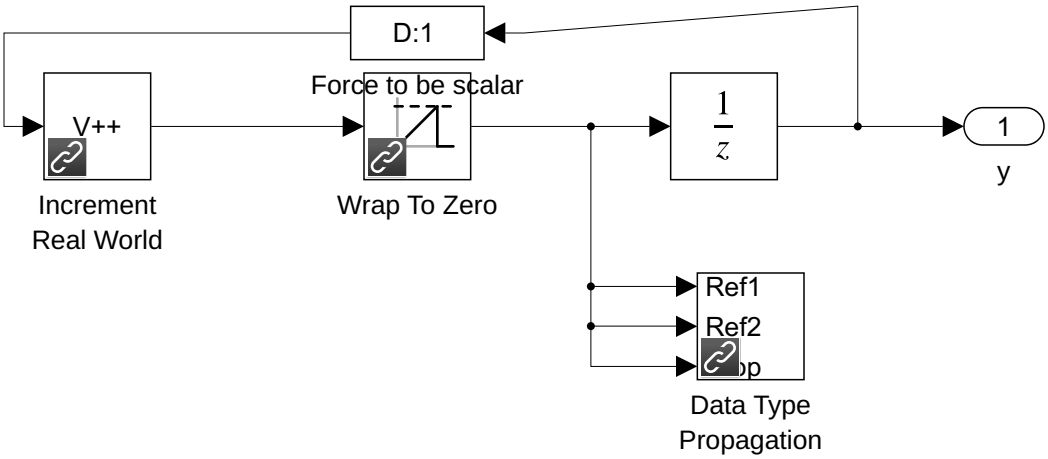

1
Real_Part
2
Imaginary_Part
x
x
real_squared
imaginary_squared
+
+
real_squared_plus_imaginary_squared
$\sqrt{u}$
mod
1
Modulus


lim
counter
==
Register_Reset
1
reset
0
treshold


Input_Signal
1
Input_Data
> 0
0
1
OOK_Modulated_Waveform



Unit Delay Resettable


D:1
Force to be scalar
V++
Increment
Real World
Wrap To Zero
1
z
1
y
Ref1
Ref2
Data Type
Propagation

Sample Times for 'goertzel_algorithm5'

Color	Annotation	Description	Value
	FiM	Fixed in Minor Step	[0,1]
	D1	Discrete 1	1.0000e-06
	D2	Discrete 2	1.0000e-03
	D3	Discrete 3	1
	Inf	Constant	Inf
	M	Multirate	N/A