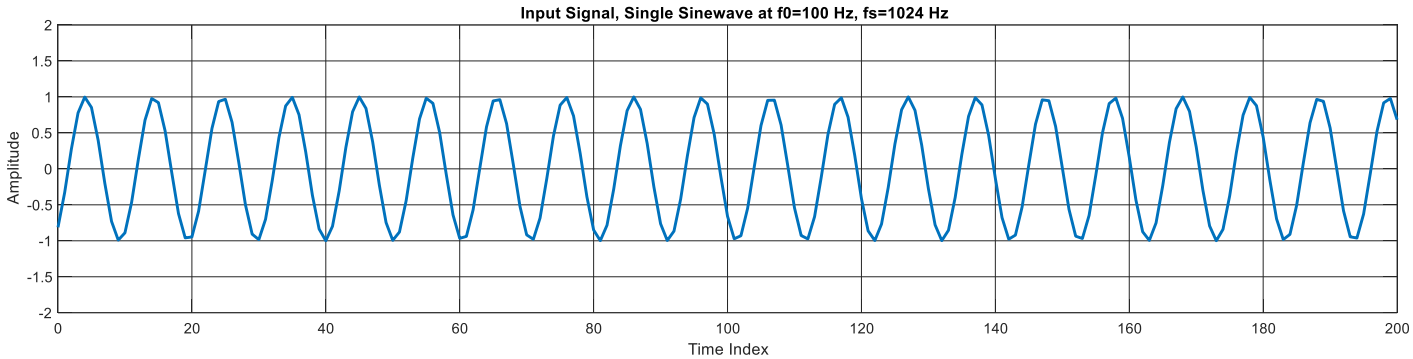
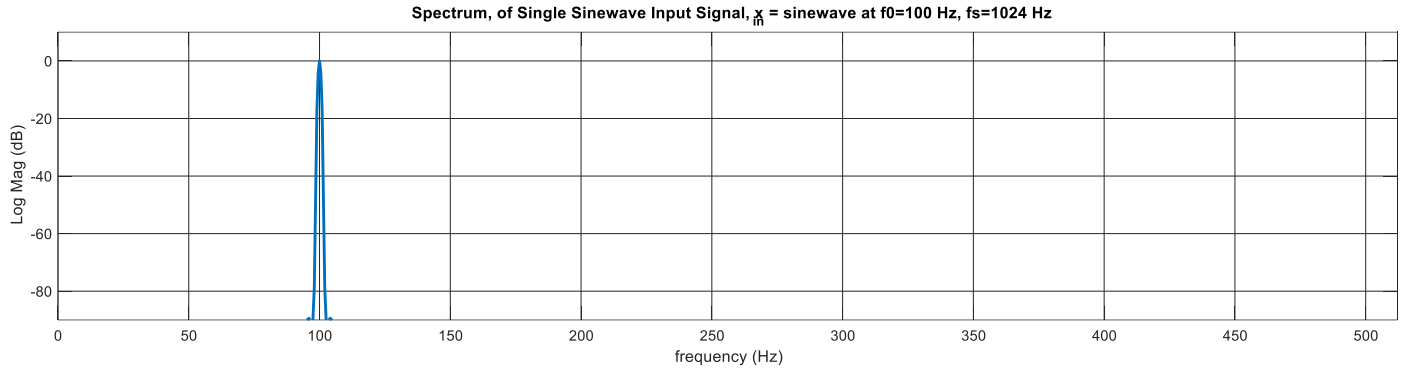
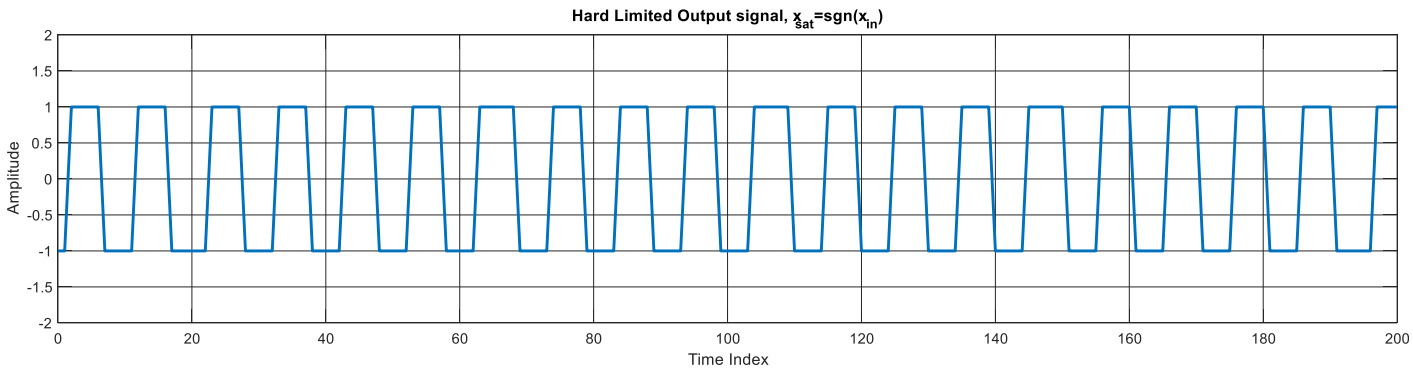
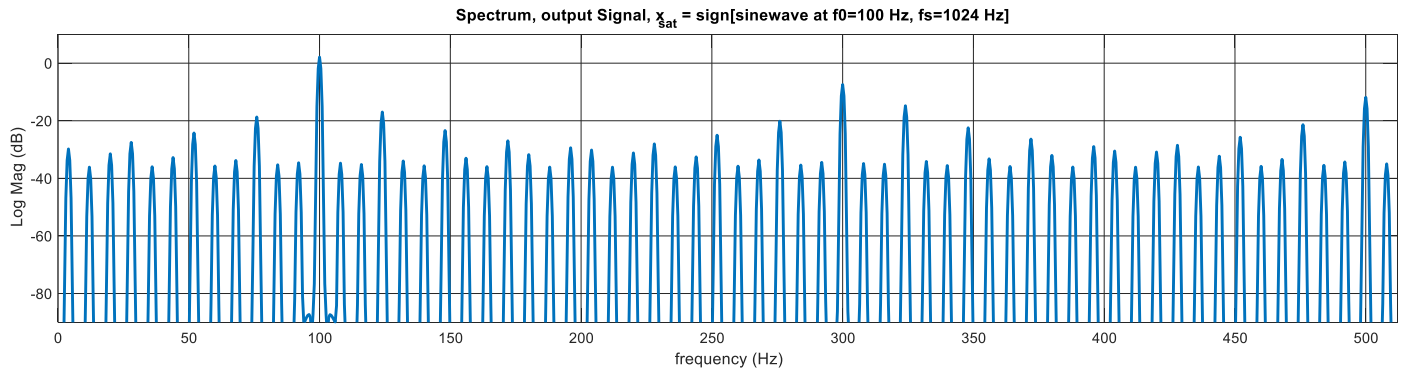
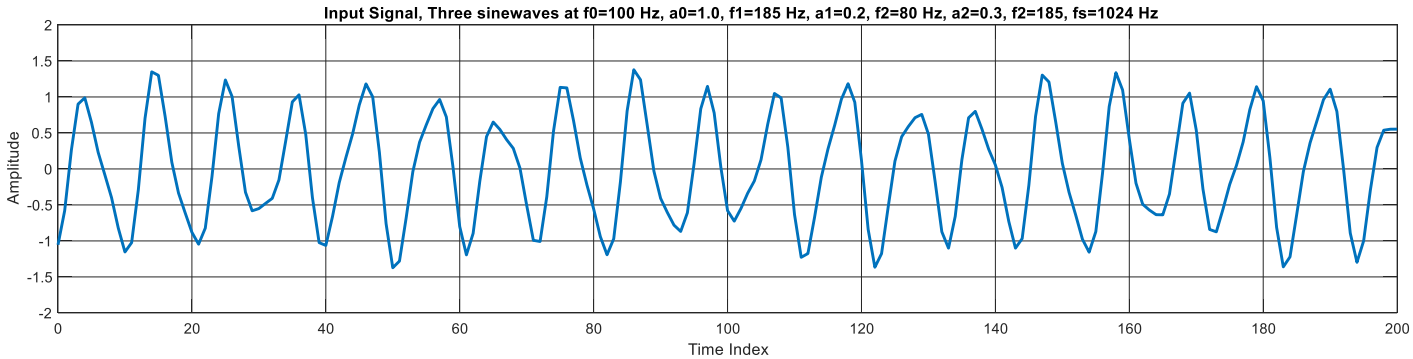
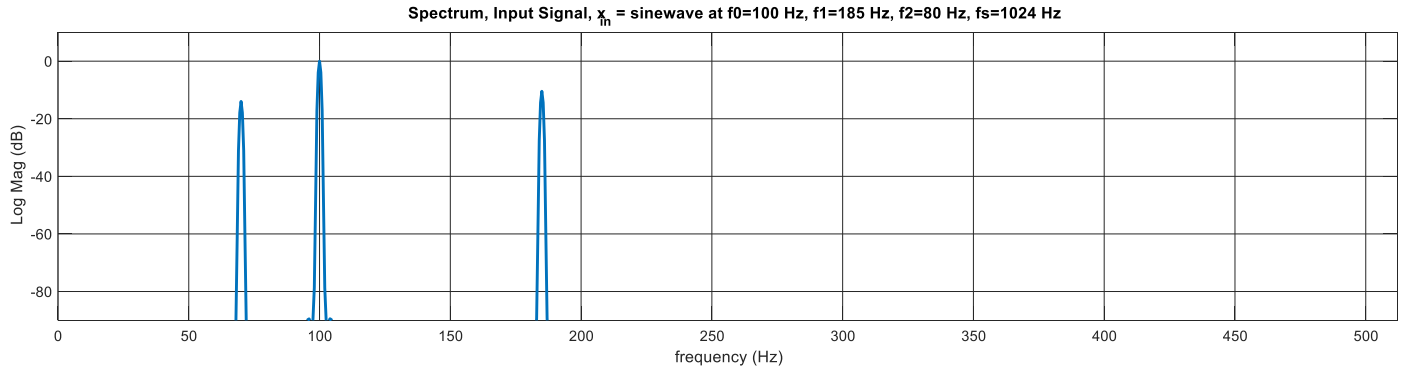

Input Signal, Single Sinewave at f0=100 Hz, fs=1024 Hz
Amplitude
Time Index
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
20
40
60
80
100
120
140
160
180
200

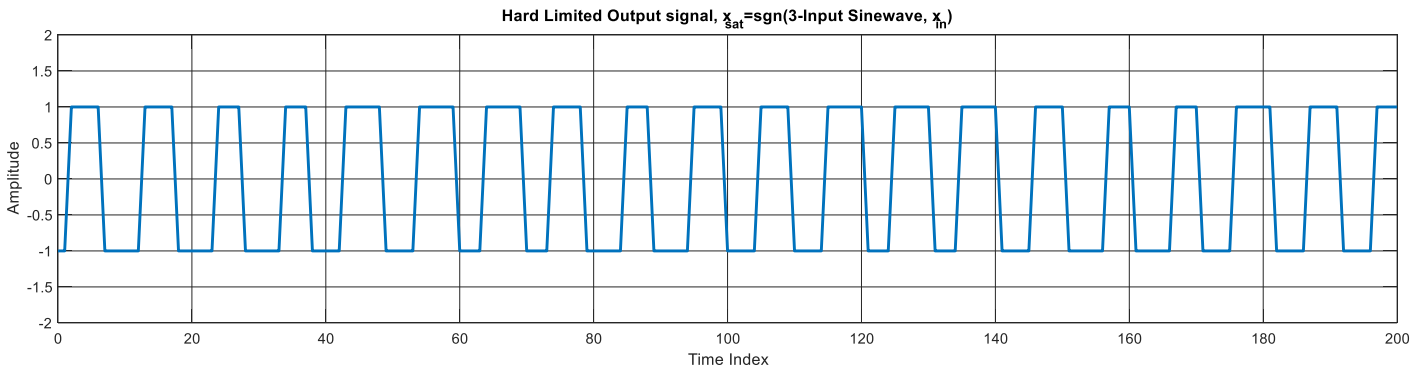

Spectrum, of Single Sinewave Input Signal, x_in = sinewave at f0=100 Hz, fs=1024 Hz
Log Mag (dB)
frequency (Hz)
0
-20
-40
-60
-80
0
50
100
150
200
250
300
350
400
450
500

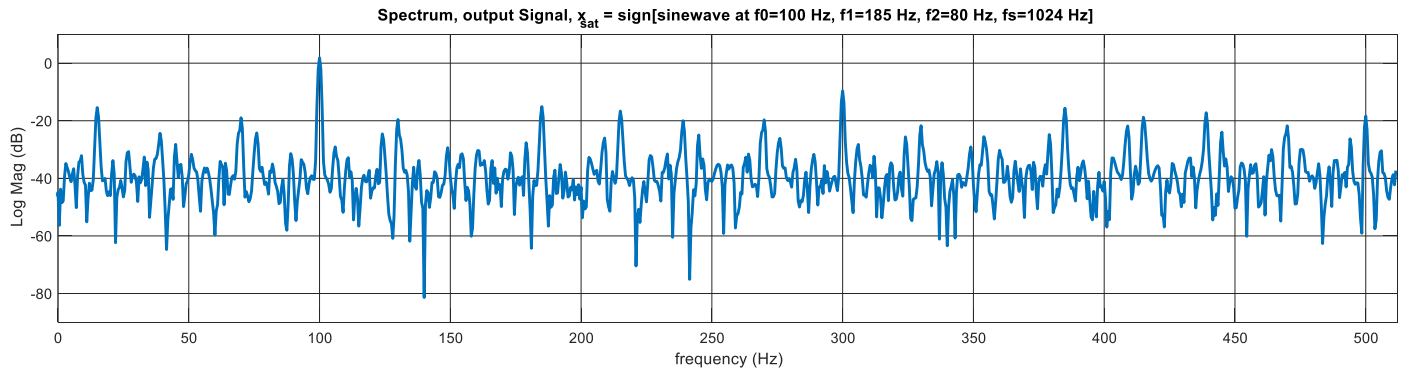

Hard Limited Output signal, x_{sat}=sgn(x_{in})
Amplitude
Time Index
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
20
40
60
80
100
120
140
160
180
200


Spectrum, output Signal, x_{sat} = sign[sinewave at f0=100 Hz, fs=1024 Hz]
Log Mag (dB)
frequency (Hz)
0
-20
-40
-60
-80
0
50
100
150
200
250
300
350
400
450
500


Input Signal, Three sinewaves at f0=100 Hz, a0=1.0, f1=185 Hz, a1=0.2, f2=80 Hz, a2=0.3, f2=185, fs=1024 Hz
Amplitude
Time Index
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
20
40
60
80
100
120
140
160
180
200


Spectrum, Input Signal, x_{in} = sinewave at f0=100 Hz, f1=185 Hz, f2=80 Hz, fs=1024 Hz
Log Mag (dB)
frequency (Hz)
0
-20
-40
-60
-80
0
50
100
150
200
250
300
350
400
450
500


Hard Limited Output signal, x_{sat}=sgn(3-Input Sinewave, x_{in})
Amplitude
Time Index
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
20
40
60
80
100
120
140
160
180
200


Spectrum, output Signal, x_{sat} = sign[sinewave at f0=100 Hz, f1=185 Hz, f2=80 Hz, fs=1024 Hz]
Log Mag (dB)
frequency (Hz)
0
-20
-40
-60
-80
0
50
100
150
200
250
300
350
400
450
500