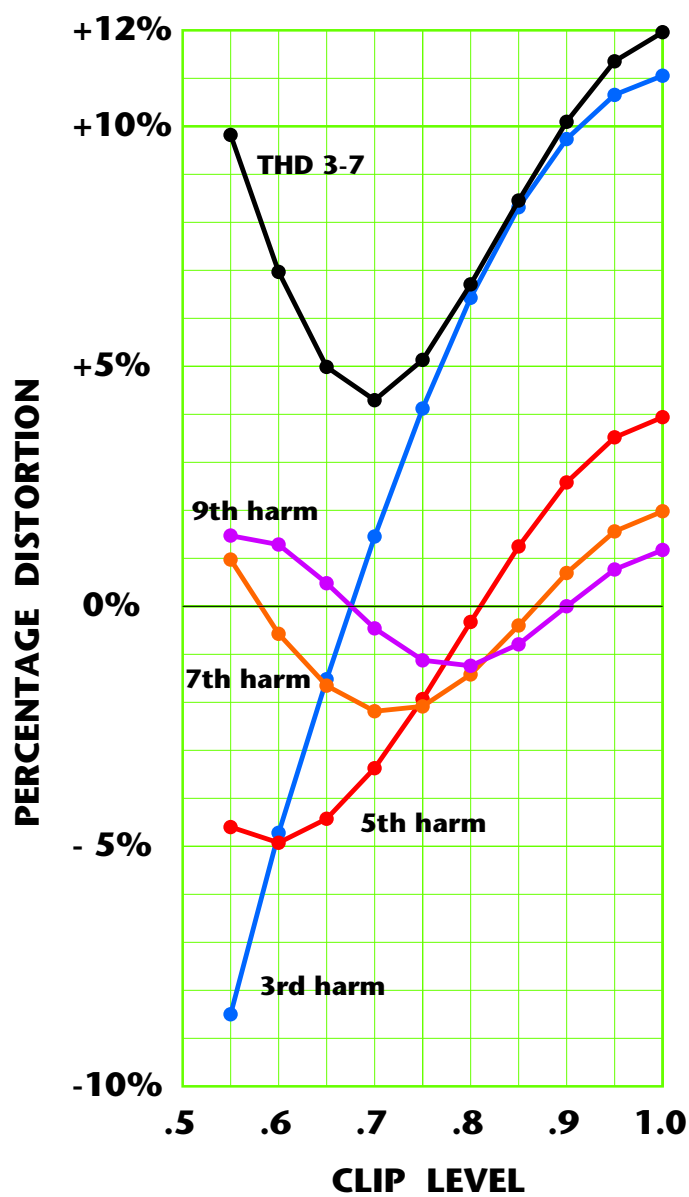
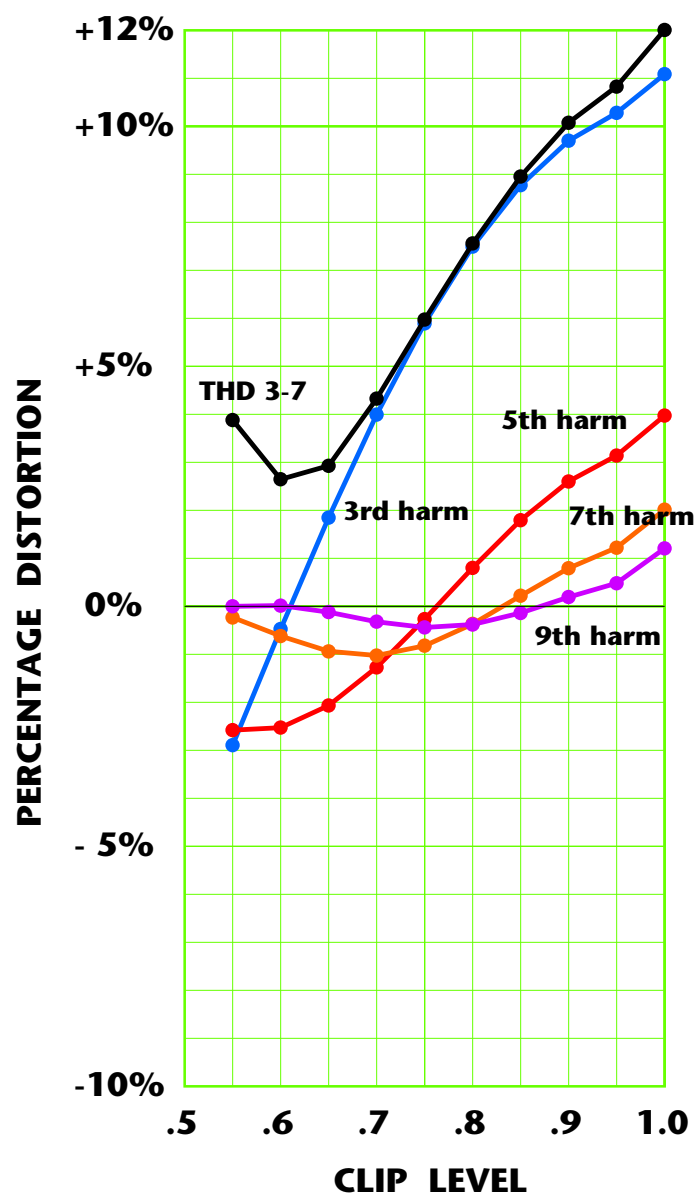


Hard



Soft



Clipping Levels vs Distortion

original triangle 18-24-8

Approximate Cosine Wave Output:

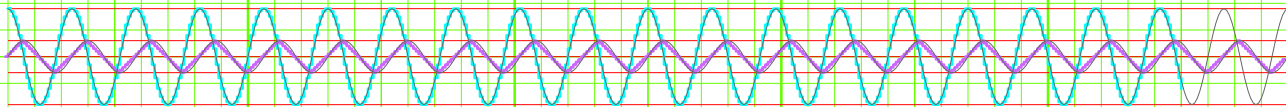
[18 17 15 12 8 3
-3 -8 -12 -15 -17 -18
-18 -17 -15 -12 -8 -3
3 8 12 15 17 18]

Approximate Internal Sine Wave:

[1 2 3 4 5 6
5 4 3 2 1 0
-1 -2 -3 -4 -5 -6
-5 -4 -3 -2 -1]

Cosine Amplitude "size" : 18
Cosine Time Period "speed" : 24
Adjusted Sin Amplitude "sinsize" : 6
Cycles Displayed : 20

Third Harmonic: -2.70493 percent.
Fifth Harmonic: 0.928262 percent.
Seventh Harmonic: -0.12121 percent.
Ninth Harmonic: 0.123277 percent.
THD 3 - 9 : 2.86499 percent.



original triangle 32-32-8

Approximate Cosine Wave Output:

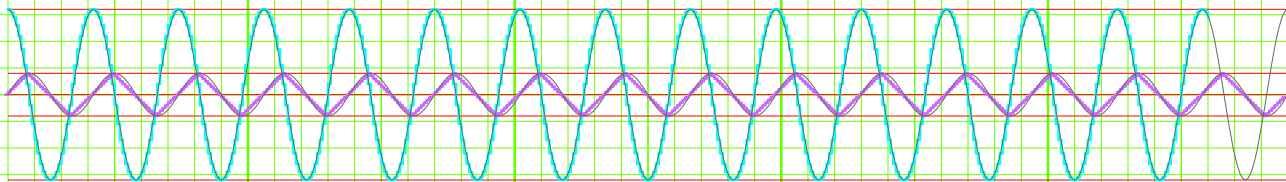
[32 31 29 26 22 17 11 4
-4 -11 -17 -22 -26 -29 -31 -32
-32 -31 -29 -26 -22 -17 -11 -4
4 11 17 22 26 29 31 32]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8
7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8
-7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 32
Cosine Time Period "speed" : 32
Adjusted Sin Amplitude "sinsize" : 8
Cycles Displayed : 15

Third Harmonic: -2.95894 percent.
Fifth Harmonic: 0.918675 percent.
Seventh Harmonic: -0.16665 percent.
Ninth Harmonic: 0.158804 percent.
THD 3 - 9 : 3.10681 percent.



original triangle 50-40-8

Approximate Cosine Wave Output:

[50 49 47 44 40 35 29 22 14 5
-5 -14 -22 -29 -35 -40 -44 -47 -49 -50
-50 -49 -47 -44 -40 -35 -29 -22 -14 -5
5 14 22 29 35 40 44 47 49 50]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10
9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -10
-9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 50

Cosine Time Period "speed" : 40

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 12

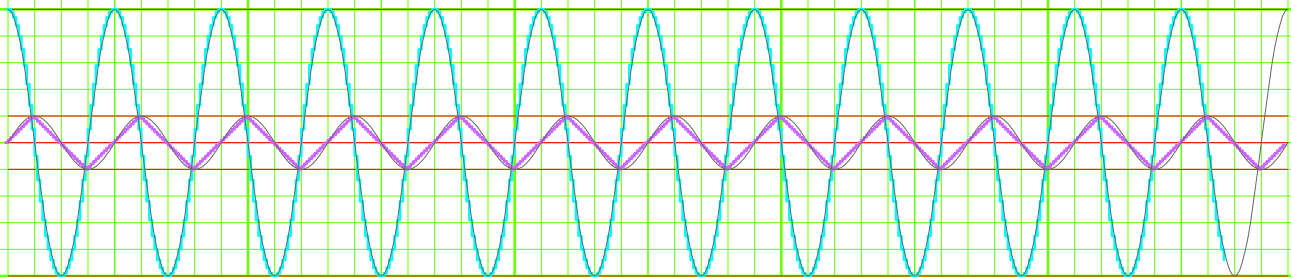
Third Harmonic: -3.11017 percent.

Fifth Harmonic: 0.903266 percent.

Seventh Harmonic: -0.193022 percent.

Ninth Harmonic: 0.163509 percent.

THD 3 - 9 : 3.24854 percent.



original triangle 72-48-8

Approximate Cosine Wave Output:

[72 71 69 66 62 57 51 44 36 27 17 6
-6 -17 -27 -36 -44 -51 -57 -62 -66 -69 -71 -72
-72 -71 -69 -66 -62 -57 -51 -44 -36 -27 -17 -6
6 17 27 36 44 51 57 62 66 69 71 72]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 12
11 10 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12
-11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 72

Cosine Time Period "speed" : 48

Adjusted Sin Amplitude "sinsize" : 12

Cycles Displayed : 10

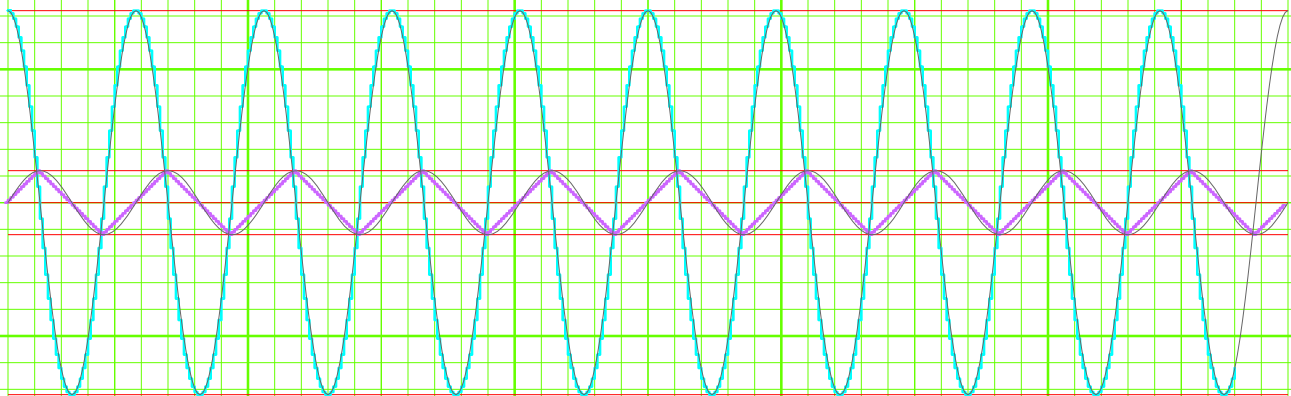
Third Harmonic: -3.21045 percent.

Fifth Harmonic: 0.890036 percent.

Seventh Harmonic: -0.210213 percent.

Ninth Harmonic: 0.16284 percent.

THD 3 - 9 : 3.34213 percent.



original triangle 98-56-8

Approximate Cosine Wave Output:

[98 97 95 92 88 83 77 70 62 53 43 32 20 7
-7 -20 -32 -43 -53 -62 -70 -77 -83 -88 -92 -95 -97 -98
-98 -97 -95 -92 -88 -83 -77 -70 -62 -53 -43 -32 -20 -7
7 20 32 43 53 62 70 77 83 88 92 95 97 98]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 12 13 14
13 12 11 10 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14
-13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 98

Cosine Time Period "speed" : 56

Adjusted Sin Amplitude "sinsize" : 14

Cycles Displayed : 8

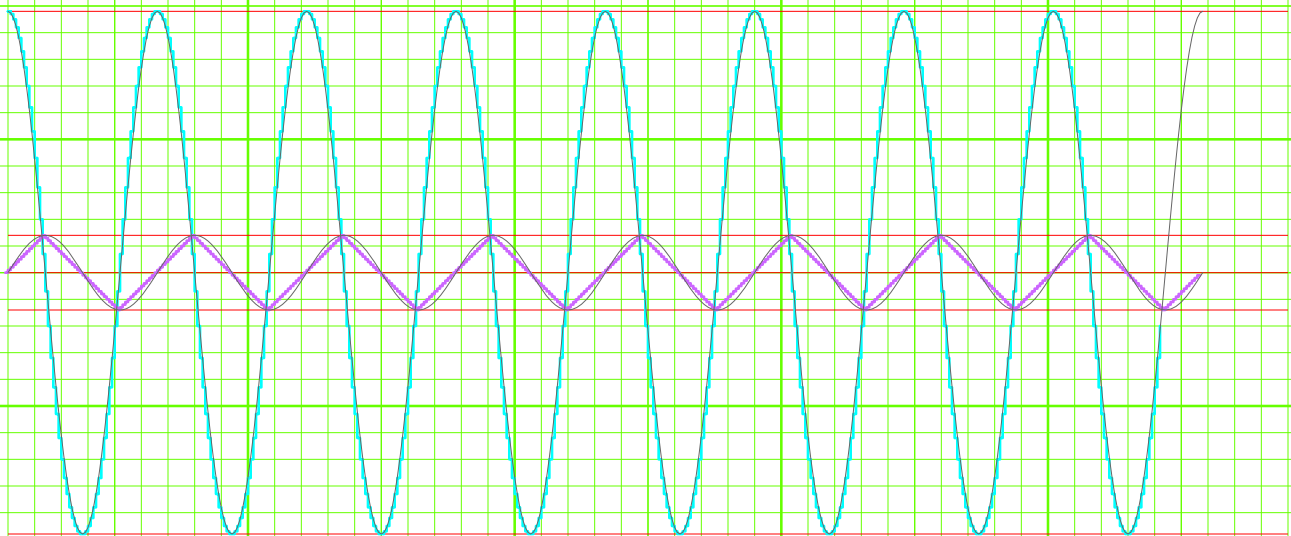
Third Harmonic: -3.28181 percent.

Fifth Harmonic: 0.879399 percent.

Seventh Harmonic: -0.222332 percent.

Ninth Harmonic: 0.161008 percent.

THD 3 - 9 : 3.40866 percent.



triangle 128-64-8 out of range

Approximate Cosine Wave Output:

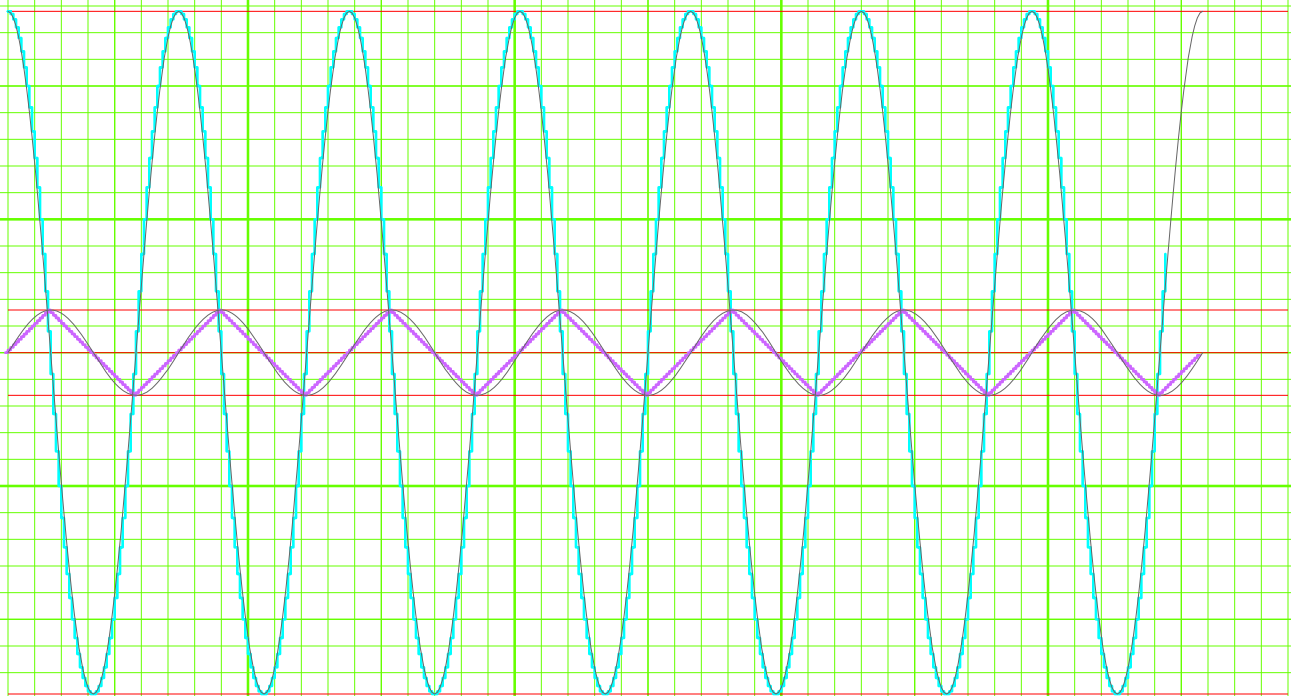
[128 127 125 122 118 113 107 100 92 83 73 62 50 37 23 8
-8 -23 -37 -50 -62 -73 -83 -92 -100 -107 -113 -118 -122 -125 -127 -128
-128 -127 -125 -122 -118 -113 -107 -100 -92 -83 -73 -62 -50 -37 -23 -8
8 23 37 50 62 73 83 92 100 107 113 118 122 125 127 128]

Approximate Internal Sine Wave:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16
-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	]

Cosine Amplitude "size" : 128
Cosine Time Period "speed" : 64
Adjusted Sin Amplitude "sinsize" : 16
Cycles Displayed : 7

Third Harmonic: -3.33515 percent.
Fifth Harmonic: 0.870829 percent.
Seventh Harmonic: -0.231315 percent.
Ninth Harmonic: 0.15913 percent.
THD 3 - 9 : 3.45838 percent.



hard clip single 56-44-8

Approximate Cosine Wave Output:

[56 55 53 50 46 41 35 28 20 12 4
-4 -12 -20 -28 -35 -41 -46 -50 -53 -55 -56
-56 -55 -53 -50 -46 -41 -35 -28 -20 -12 -4
4 12 20 28 35 41 46 50 53 55 56]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 8 8 8
8 8 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -8 -8 -8
-8 -8 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 56

Cosine Time Period "speed" : 44

Adjusted Sin Amplitude "sinsize" : 8

Cycles Displayed : 10

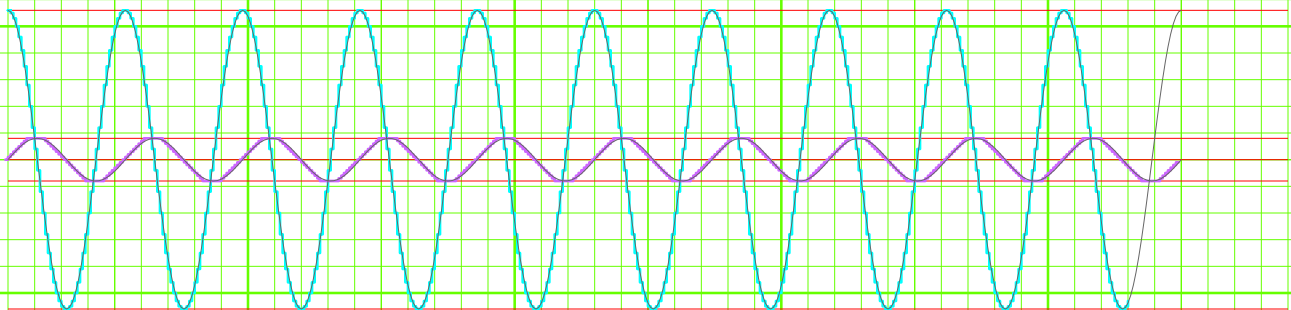
Third Harmonic: -0.56135 percent.

Fifth Harmonic: -0.334038 percent.

Seventh Harmonic: 0.372803 percent.

Ninth Harmonic: -0.0504026 percent.

THD 3 - 9 : 0.753802 percent.



soft clip single 55-44-8

Approximate Cosine Wave Output:

[55 54 52 49 45 40 34 27 20 12 4
-4 -12 -20 -27 -34 -40 -45 -49 -52 -54 -55
-55 -54 -52 -49 -45 -40 -34 -27 -20 -12 -4
4 12 20 27 34 40 45 49 52 54 55]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 7 8 8 8
8 8 7 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -7 -8 -8 -8
-8 -8 -7 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 55

Cosine Time Period "speed" : 44

Adjusted Sin Amplitude "sinsize" : 8

Cycles Displayed : 10

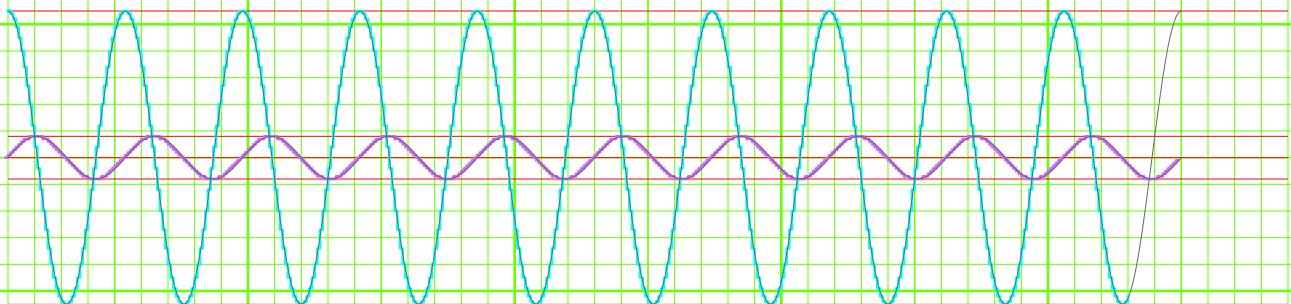
Third Harmonic: -0.382151 percent.

Fifth Harmonic: -0.0879275 percent.

Seventh Harmonic: 0.089733 percent.

Ninth Harmonic: 0.0924651 percent.

THD 3 - 9 : 0.412762 percent.



hard clip single 36-36-6

Approximate Cosine Wave Output:

[36 35 33 30 26 21 15 9 3
-3 -9 -15 -21 -26 -30 -33 -35 -36
-36 -35 -33 -30 -26 -21 -15 -9 -3
3 9 15 21 26 30 33 35 36]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 6 6 6
6 6 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -6 -6 -6
-6 -6 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 36

Cosine Time Period "speed" : 36

Adjusted Sin Amplitude "sinsize" : 6

Cycles Displayed : 13

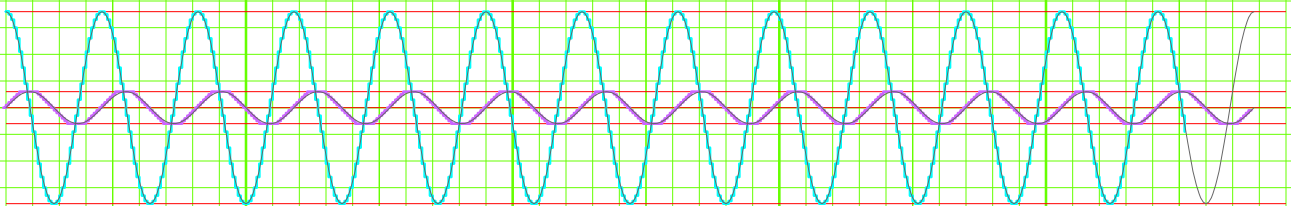
Third Harmonic: 0.728158 percent.

Fifth Harmonic: -0.584692 percent.

Seventh Harmonic: 0.339477 percent.

Ninth Harmonic: 0.0711544 percent.

THD 3 - 9 : 0.996186 percent.



soft clip single 35-36-6

Approximate Cosine Wave Output:

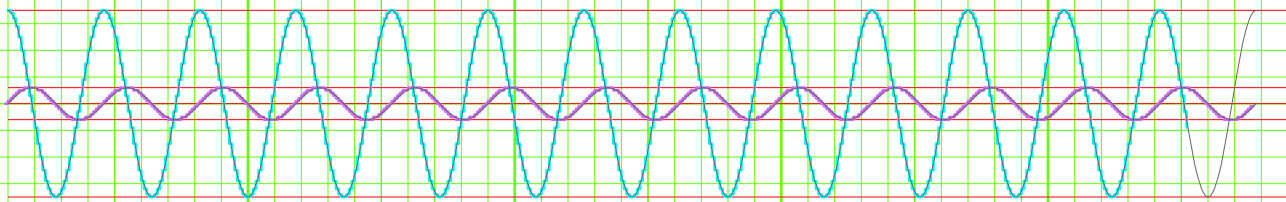
[35 34 32 29 25 20 15 9 3
-3 -9 -15 -20 -25 -29 -32 -34 -35
-35 -34 -32 -29 -25 -20 -15 -9 -3
3 9 15 20 25 29 32 34 35]

Approximate Internal Sine Wave:

[1 2 3 4 5 5 6 6 6
6 6 5 5 4 3 2 1 0
-1 -2 -3 -4 -5 -5 -6 -6 -6
-6 -6 -5 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 35
Cosine Time Period "speed" : 36
Adjusted Sin Amplitude "sinsize" : 6
Cycles Displayed : 13

Third Harmonic: 0.697833 percent.
Fifth Harmonic: -3.46874e-06 percent.
Seventh Harmonic: 9.46019e-07 percent.
Ninth Harmonic: 0.0343733 percent.
THD 3 - 9 : 0.698679 percent.



hard clip single 85-56-10

Approximate Cosine Wave Output:

[90 89 87 84 80 75 69 62 54 45 35 25 15 5
-5 -15 -25 -35 -45 -54 -62 -69 -75 -80 -84 -87 -89 -90
-90 -89 -87 -84 -80 -75 -69 -62 -54 -45 -35 -25 -15 -5
5 15 25 35 45 54 62 69 75 80 84 87 89 90]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 10 10 10 10
10 10 10 10 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -10 -10 -10 -10
-10 -10 -10 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 90

Cosine Time Period "speed" : 56

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

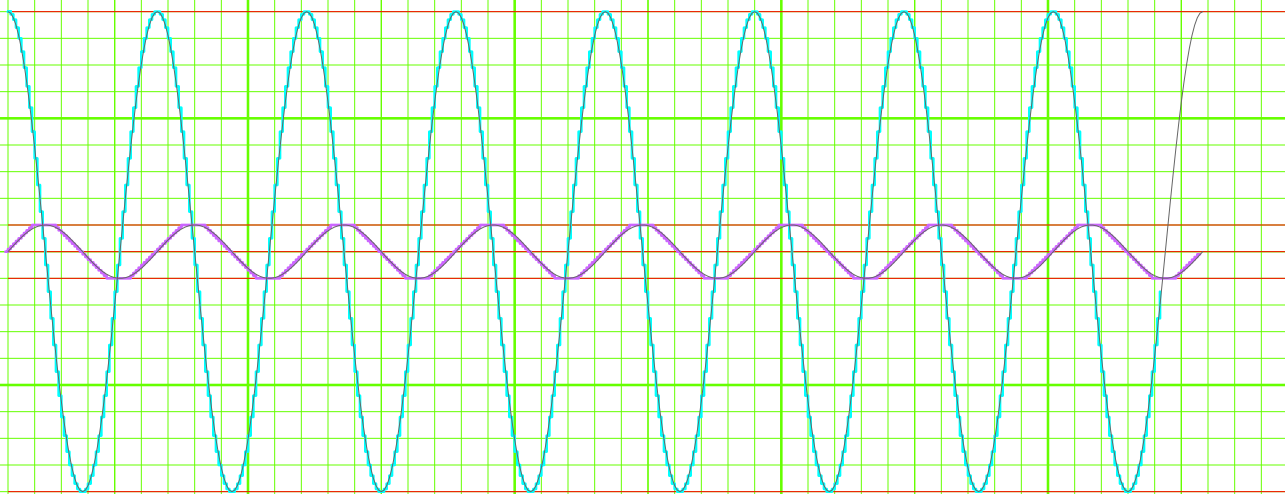
Third Harmonic: -0.450551 percent.

Fifth Harmonic: -0.438299 percent.

Seventh Harmonic: 0.368851 percent.

Ninth Harmonic: -0.0442543 percent.

THD 3 - 9 : 0.730145 percent.



soft clip single 84-56-10

Approximate Cosine Wave Output:

[89 88 86 83 79 74 68 61 53 44 35 25 15 5
-5 -15 -25 -35 -44 -53 -61 -68 -74 -79 -83 -86 -88 -89
-89 -88 -86 -83 -79 -74 -68 -61 -53 -44 -35 -25 -15 -5
5 15 25 35 44 53 61 68 74 79 83 86 88 89]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 9 10 10 10 10
10 10 10 9 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -9 -10 -10 -10 -10
-10 -10 -10 -9 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 89

Cosine Time Period "speed" : 56

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

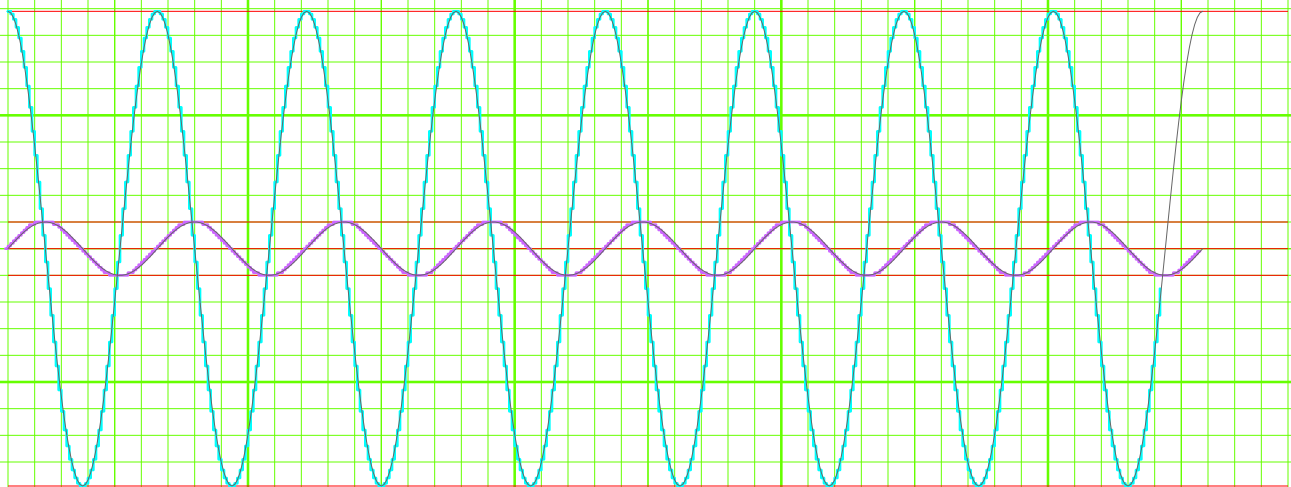
Third Harmonic: -0.363057 percent.

Fifth Harmonic: -0.263836 percent.

Seventh Harmonic: 0.184705 percent.

Ninth Harmonic: 0.0340322 percent.

THD 3 - 9 : 0.486512 percent.



hard clip single 95-60-10

Approximate Cosine Wave Output:

[100 99 97 94 90 85 79 72 64 55 45 35 25 15 5
-5 -15 -25 -35 -45 -55 -64 -72 -79 -85 -90 -94 -97 -99 -100
-100 -99 -97 -94 -90 -85 -79 -72 -64 -55 -45 -35 -25 -15 -5
5 15 25 35 45 55 64 72 79 85 90 94 97 99 100]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 10 10 10 10 10
10 10 10 10 10 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -10 -10 -10 -10 -10
-10 -10 -10 -10 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 100

Cosine Time Period "speed" : 60

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

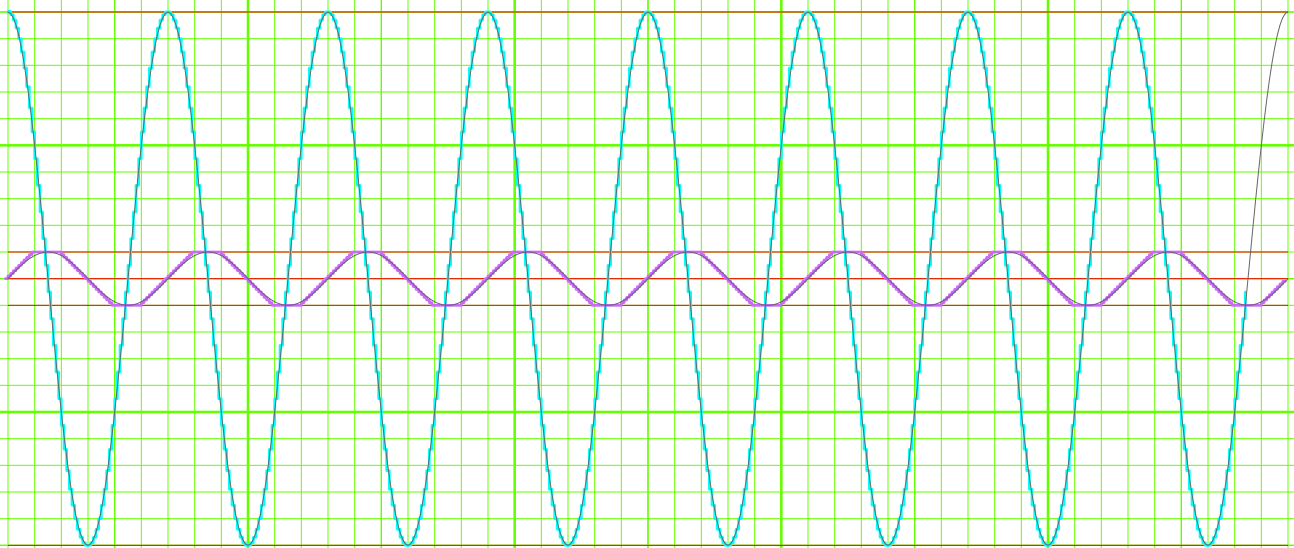
Third Harmonic: 0.442457 percent.

Fifth Harmonic: -0.673692 percent.

Seventh Harmonic: 0.328236 percent.

Ninth Harmonic: 0.0474315 percent.

THD 3 - 9 : 0.87156 percent.



soft clip single 94-60-10

Approximate Cosine Wave Output:

[99 98 96 93 89 84 78 71 63 54 45 35 25 15 5
-5 -15 -25 -35 -45 -54 -63 -71 -78 -84 -89 -93 -96 -98 -99
-99 -98 -96 -93 -89 -84 -78 -71 -63 -54 -45 -35 -25 -15 -5
5 15 25 35 45 54 63 71 78 84 89 93 96 98 99]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 9 10 10 10 10 10
10 10 10 10 9 9 8 7 6 5 4 3 2 1 0
-1 -2 -3 -4 -5 -6 -7 -8 -9 -9 -10 -10 -10 -10 -10
-10 -10 -10 -10 -9 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 99

Cosine Time Period "speed" : 60

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

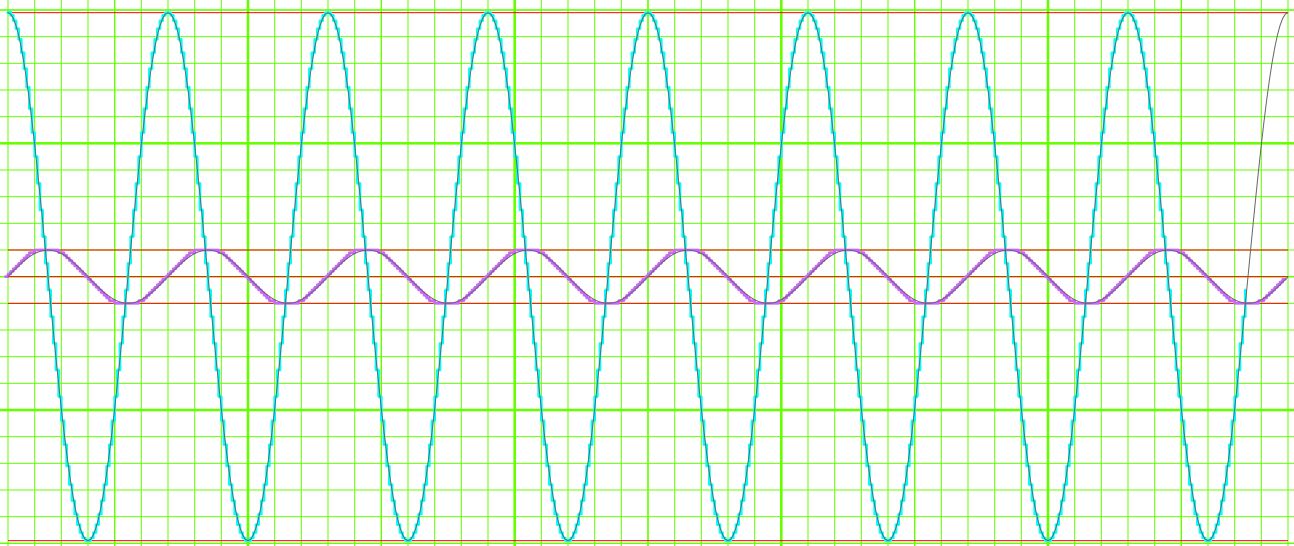
Third Harmonic: 0.436047 percent.

Fifth Harmonic: -0.459389 percent.

Seventh Harmonic: 0.187856 percent.

Ninth Harmonic: 0.037701 percent.

THD 3 - 9 : 0.66173 percent.



hard clip double 33-32-6

Approximate Cosine Wave Output:

[33 32 30 27 23 18 12 6
0 -6 -12 -18 -23 -27 -30 -32
-33 -33 -32 -30 -27 -23 -18 -12
-6 0 6 12 18 23 27 30 32 33]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 6 6
6 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -6
-6 -6 -6 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 33

Cosine Time Period "speed" : 32

Adjusted Sin Amplitude "sinsize" : 6

Cycles Displayed : 15

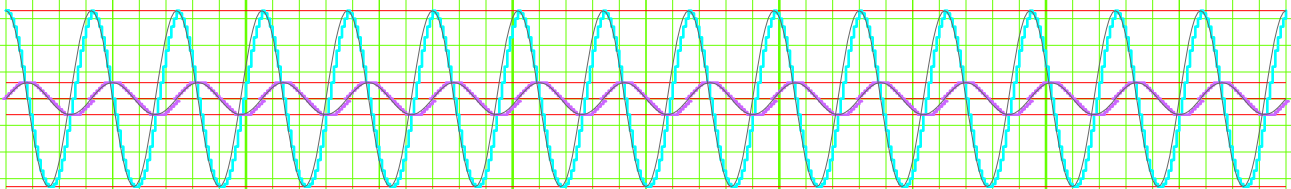
Third Harmonic: -1.4427e-05 percent.

Fifth Harmonic: -0.404095 percent.

Seventh Harmonic: 0.379712 percent.

Ninth Harmonic: -7.74133e-06 percent.

THD 3 - 9 : 0.554503 percent.



hard clip double 49-40-7

Approximate Cosine Wave Output:

[49 48 46 43 39 34 28 21 14 7
0 -7 -14 -21 -28 -34 -39 -43 -46 -48
-49 -49 -48 -46 -43 -39 -34 -28 -21 -14
-7 0 7 14 21 28 34 39 43 46 48 49]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 7 7 7
7 7 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -7 -7
-7 -7 -7 -7 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 49

Cosine Time Period "speed" : 40

Adjusted Sin Amplitude "sinsize" : 7

Cycles Displayed : 12

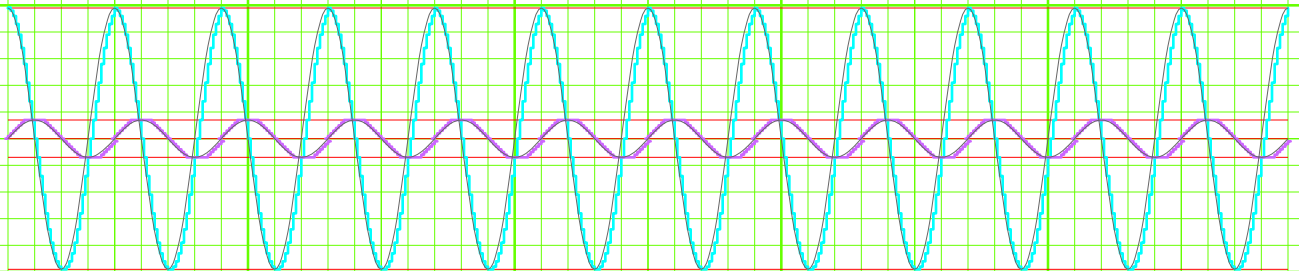
Third Harmonic: 0.62723 percent.

Fifth Harmonic: -0.616866 percent.

Seventh Harmonic: 0.337249 percent.

Ninth Harmonic: 0.0639907 percent.

THD 3 - 9 : 0.944337 percent.



soft clip double 48-40-7

Approximate Cosine Wave Output:

[48 47 45 42 38 33 27 21 14 7
0 -7 -14 -21 -27 -33 -38 -42 -45 -47
-48 -48 -47 -45 -42 -38 -33 -27 -21 -14
-7 0 7 14 21 27 33 38 42 45 47 48]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 6 7 7 7
7 7 7 6 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -6 -7 -7
-7 -7 -7 -7 -6 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 48

Cosine Time Period "speed" : 40

Adjusted Sin Amplitude "sinsize" : 7

Cycles Displayed : 12

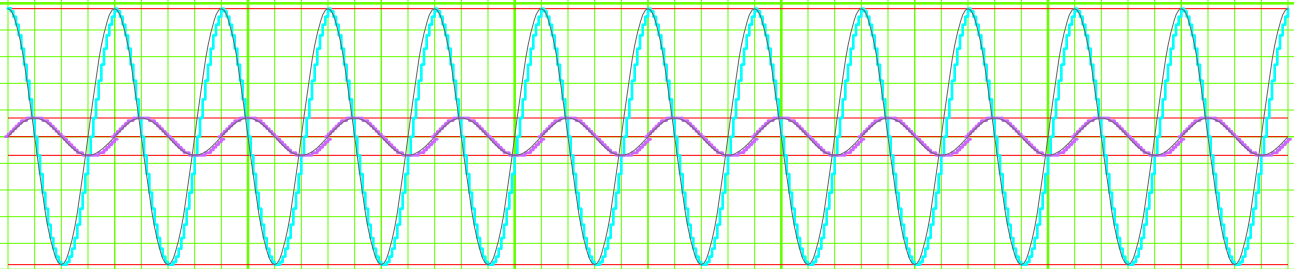
Third Harmonic: 0.608264 percent.

Fifth Harmonic: -0.183161 percent.

Seventh Harmonic: 0.072801 percent.

Ninth Harmonic: 0.0386084 percent.

THD 3 - 9 : 0.640565 percent.



hard clip double 60-44-8

Approximate Cosine Wave Output:

[60 59 57 54 50 45 39 32 24 16 8
0 -8 -16 -24 -32 -39 -45 -50 -54 -57 -59
-60 -60 -59 -57 -54 -50 -45 -39 -32 -24 -16
-8 0 8 16 24 32 39 45 50 54 57 59 60]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 8 8 8
8 8 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -8 -8
-8 -8 -8 -8 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 60

Cosine Time Period "speed" : 44

Adjusted Sin Amplitude "sinsize" : 8

Cycles Displayed : 10

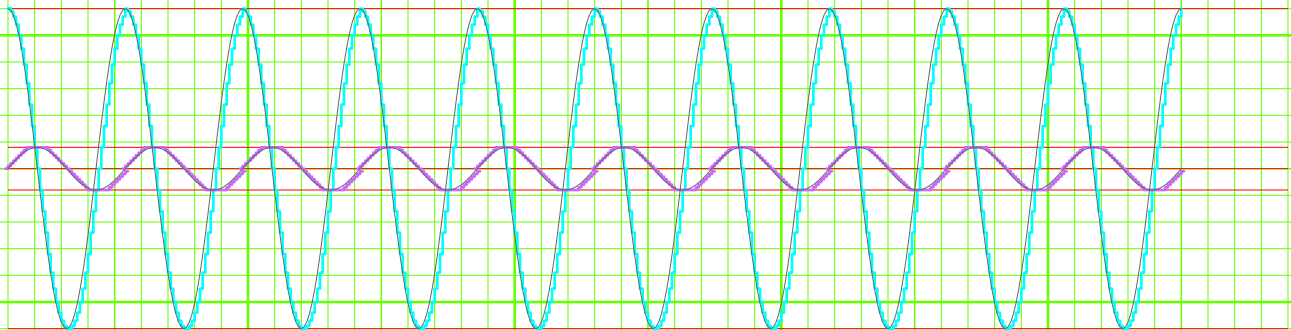
Third Harmonic: -2.83007e-07 percent.

Fifth Harmonic: -0.508279 percent.

Seventh Harmonic: 0.369531 percent.

Ninth Harmonic: 0.0 percent.

THD 3 - 9 : 0.628411 percent.



soft clip double 60-44-8

Approximate Cosine Wave Output:

[59 58 56 53 49 44 38 31 24 16 8
0 -8 -16 -24 -31 -38 -44 -49 -53 -56 -58
-59 -59 -58 -56 -53 -49 -44 -38 -31 -24 -16
-8 0 8 16 24 31 38 44 49 53 56 58 59]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 7 8 8 8
8 8 8 7 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -7 -8 -8
-8 -8 -8 -8 -7 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 59

Cosine Time Period "speed" : 44

Adjusted Sin Amplitude "sinsize" : 8

Cycles Displayed : 10

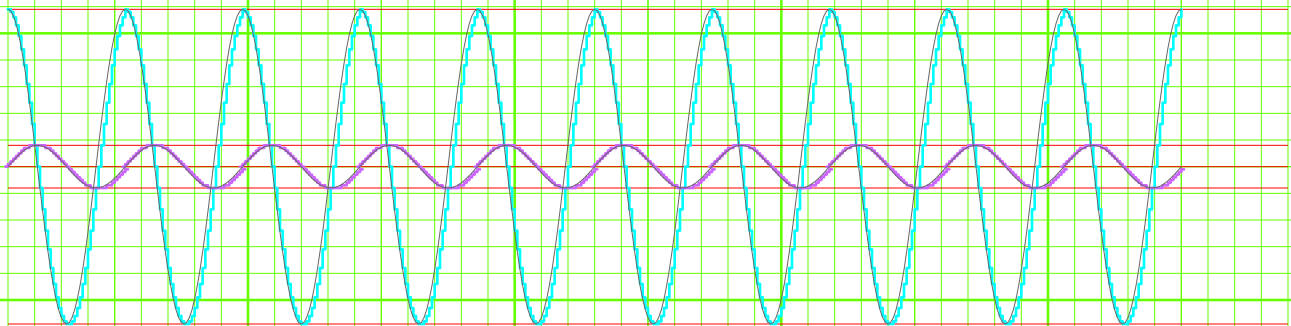
Third Harmonic: 0.0739525 percent.

Fifth Harmonic: -0.204566 percent.

Seventh Harmonic: 0.111338 percent.

Ninth Harmonic: 0.0611654 percent.

THD 3 - 9 : 0.251899 percent.



hard clip double 95-52-10

Approximate Cosine Wave Output:

[85 84 82 79 75 70 64 57 49 40 30 20 10
0 -10 -20 -30 -40 -49 -57 -64 -70 -75 -79 -82 -84
-85 -85 -84 -82 -79 -75 -70 -64 -57 -49 -40 -30 -20
-10 0 10 20 30 40 49 57 64 70 75 79 82 84 85]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 10 10 10
10 10 10 10 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -10 -10
-10 -10 -10 -10 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 85

Cosine Time Period "speed" : 52

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 9

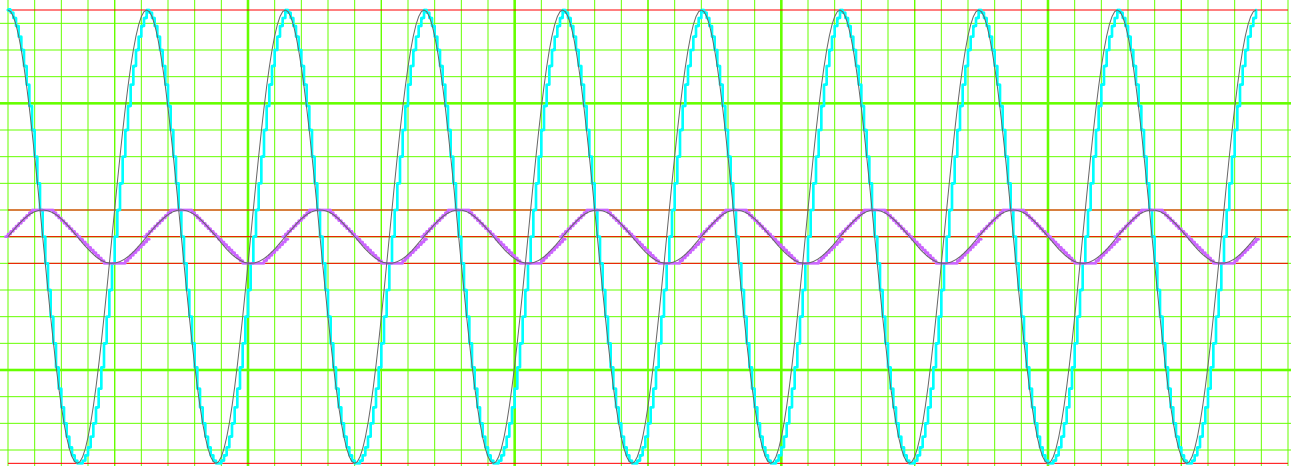
Third Harmonic: -0.904182 percent.

Fifth Harmonic: -0.280659 percent.

Seventh Harmonic: 0.355159 percent.

Ninth Harmonic: -0.0788169 percent.

THD 3 - 9 : 1.01423 percent.



hard clip double 95-56-10

Approximate Cosine Wave Output:

```
[ 95 94 92 89 85 80 74 67 59 50 40 30 20 10  
0 -10 -20 -30 -40 -50 -59 -67 -74 -80 -85 -89 -92 -94  
-95 -95 -94 -92 -89 -85 -80 -74 -67 -59 -50 -40 -30 -20  
-10 0 10 20 30 40 50 59 67 74 80 85 89 92 94 95 ]
```

Approximate Internal Sine Wave:

```
[ 1 2 3 4 5 6 7 8 9 10 10 10 10 10  
10 10 10 10 10 9 8 7 6 5 4 3 2 1  
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -10 -10 -10  
-10 -10 -10 -10 -10 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 ]
```

Cosine Amplitude "size" : 95

Cosine Time Period "speed" : 56

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

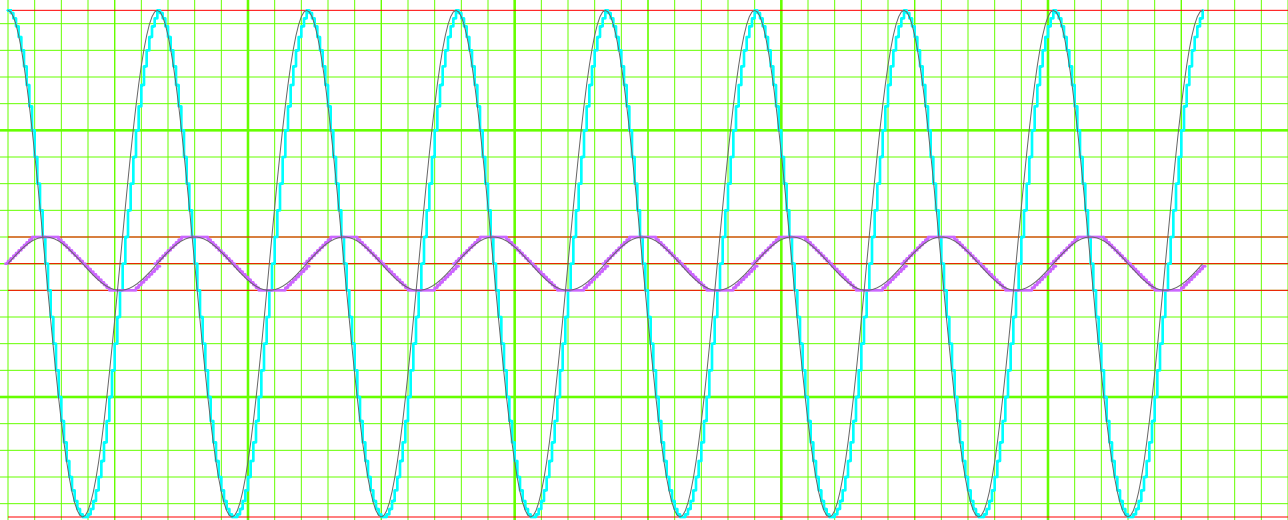
Third Harmonic: 5.63533e-07 percent.

Fifth Harmonic: -0.569413 percent.

Seventh Harmonic: 0.358443 percent.

Ninth Harmonic: 3.52208e-05 percent.

THD 3 - 9 : 0.672839 percent.



soft clip double 94-56-10

Approximate Cosine Wave Output:

[94 93 91 88 84 79 73 66 58 49 40 30 20 10
0 -10 -20 -30 -40 -49 -58 -66 -73 -79 -84 -88 -91 -93
-94 -94 -93 -91 -88 -84 -79 -73 -66 -58 -49 -40 -30 -20
-10 0 10 20 30 40 49 58 66 73 79 84 88 91 93 94]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 9 10 10 10 10
10 10 10 10 9 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -9 -10 -10 -10
-10 -10 -10 -10 -10 -9 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 94

Cosine Time Period "speed" : 56

Adjusted Sin Amplitude "sinsize" : 10

Cycles Displayed : 8

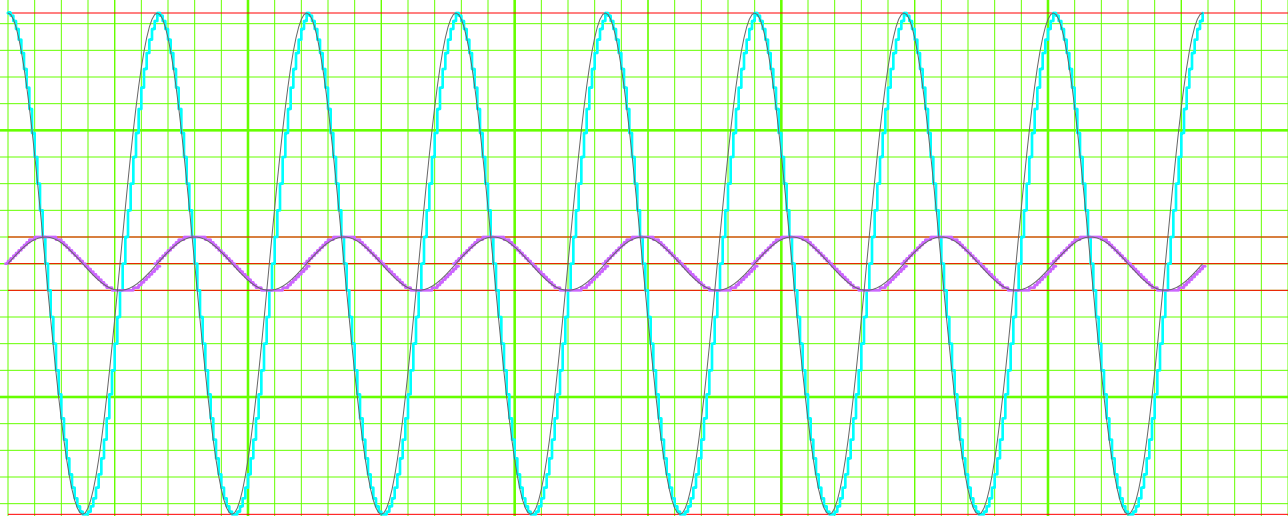
Third Harmonic: 0.0368638 percent.

Fifth Harmonic: -0.369583 percent.

Seventh Harmonic: 0.19189 percent.

Ninth Harmonic: 0.0329017 percent.

THD 3 - 9 : 0.419351 percent.



hard clip double 125-56-10

Approximate Cosine Wave Output:

[126 125 123 120 116 111 105 98 90 81 71 60 48 36 24 12
0 -12 -24 -36 -48 -60 -71 -81 -90 -98 -105 -111 -116 -120 -123 -125
-126 -126 -125 -123 -120 -116 -111 -105 -98 -90 -81 -71 -60 -48 -36 -24
-12 0 12 24 36 48 60 71 81 90 98 105 111 116 120 123 125 126]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 12 12 12 12 12
12 12 12 12 12 11 10 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -12 -12 -12
-12 -12 -12 -12 -12 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 126

Cosine Time Period "speed" : 64

Adjusted Sin Amplitude "sinsize" : 12

Cycles Displayed : 7

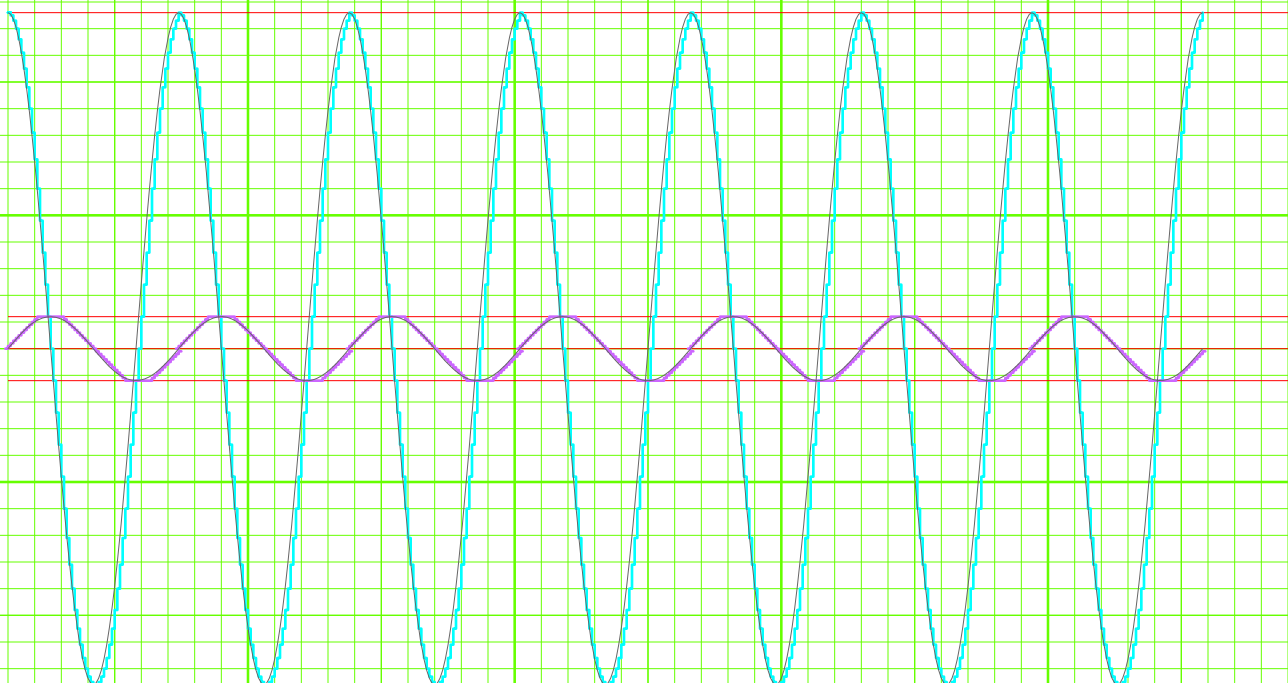
Third Harmonic: -0.755104 percent.

Fifth Harmonic: -0.381754 percent.

Seventh Harmonic: 0.358977 percent.

Ninth Harmonic: -0.071733 percent.

THD 3 - 9 : 0.921916 percent.



soft clip double 124-56-10

Approximate Cosine Wave Output:

[125 124 122 119 115 110 104 97 89 80 70 59 48 36 24 12
0 -12 -24 -36 -48 -59 -70 -80 -89 -97 -104 -110 -115 -119 -122 -124
-125 -125 -124 -122 -119 -115 -110 -104 -97 -89 -80 -70 -59 -48 -36 -24
-12 0 12 24 36 48 59 70 80 89 97 104 110 115 119 122 124 125]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 11 12 12 12 12
12 12 12 12 11 11 10 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -11 -12 -12 -12
-12 -12 -12 -12 -12 -11 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 125

Cosine Time Period "speed" : 64

Adjusted Sin Amplitude "sinsize" : 12

Cycles Displayed : 7

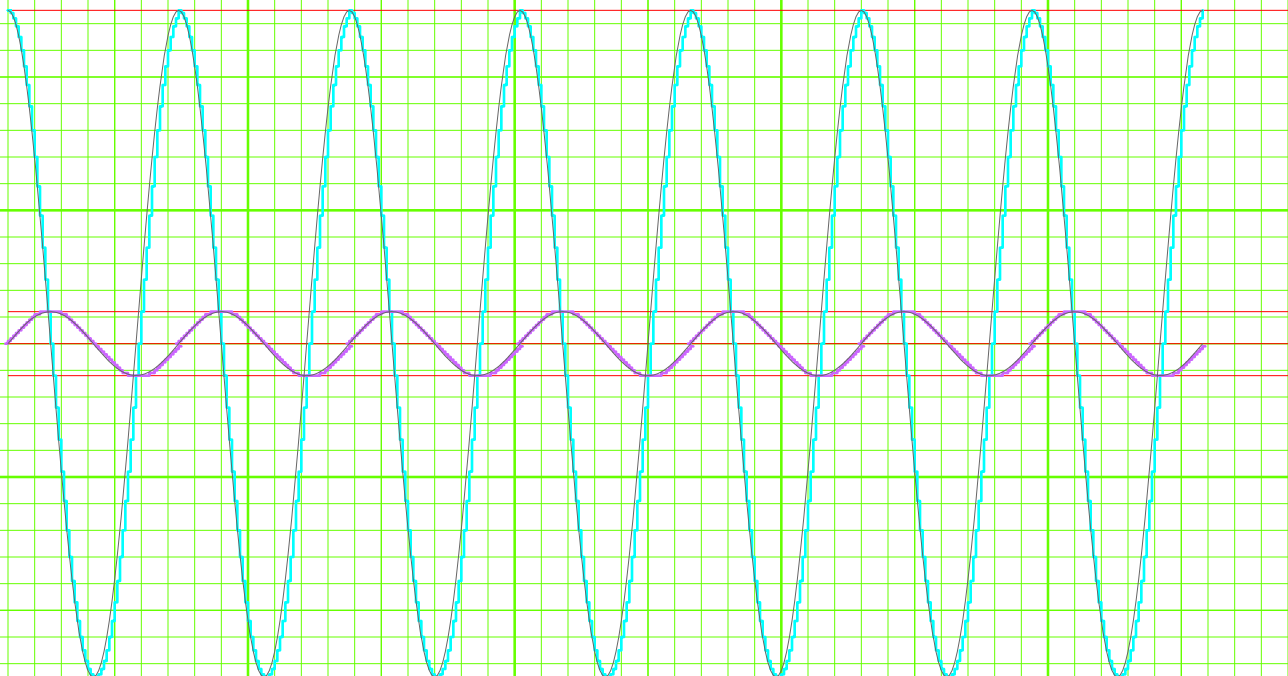
Third Harmonic: -0.674171 percent.

Fifth Harmonic: -0.273225 percent.

Seventh Harmonic: 0.225733 percent.

Ninth Harmonic: 0.00124048 percent.

THD 3 - 9 : 0.761653 percent.



hard clip double 113-56-10

Approximate Cosine Wave Output:

[138 137 135 132 128 123 117 110 102 93 83 72 60 48 36 24 12
0 -12 -24 -36 -48 -60 -72 -83 -93 -102 -110 -117 -123 -128 -132 -135 -137
-138 -138 -137 -135 -132 -128 -123 -117 -110 -102 -93 -83 -72 -60 -48 -36 -24
-12 0 12 24 36 48 60 72 83 93 102 110 117 123 128 132 135 137 138]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 12 12 12 12 12 12
12 12 12 12 12 12 11 10 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -12 -12 -12 -12
-12 -12 -12 -12 -12 -12 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 138

Cosine Time Period "speed" : 68

Adjusted Sin Amplitude "sinsize" : 12

Cycles Displayed : 7

Third Harmonic: -7.04322e-06 percent.

Fifth Harmonic: -0.609491 percent.

Seventh Harmonic: 0.349459 percent.

Ninth Harmonic: -2.92934e-05 percent.

THD 3 - 9 : 0.702568 percent.



soft clip double 112-56-10

Approximate Cosine Wave Output:

[136 135 133 130 126 121 115 108 100 91 81 70 59 48 36 24 12
0 -12 -24 -36 -48 -59 -70 -81 -91 -100 -108 -115 -121 -126 -130 -133 -135
-136 -136 -135 -133 -130 -126 -121 -115 -108 -100 -91 -81 -70 -59 -48 -36 -24
-12 0 12 24 36 48 59 70 81 91 100 108 115 121 126 130 133 135 136]

Approximate Internal Sine Wave:

[1 2 3 4 5 6 7 8 9 10 11 11 11 12 12 12 12
12 12 12 12 11 11 11 11 10 9 8 7 6 5 4 3 2 1
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -11 -11 -12 -12 -12
-12 -12 -12 -12 -12 -11 -11 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1]

Cosine Amplitude "size" : 136

Cosine Time Period "speed" : 68

Adjusted Sin Amplitude "sinsize" : 12

Cycles Displayed : 7

Third Harmonic: 0.124842 percent.

Fifth Harmonic: -0.388495 percent.

Seventh Harmonic: 0.113098 percent.

Ninth Harmonic: 0.101713 percent.

THD 3 - 9 : 0.435489 percent.

