Eqn Ps = spec_power(dBm(fs(SignalPower[::,::,1],,,,,"Kaiser")),-4e5,4e5) - WindowGain - 3.01

Eqn Pn = spec_power(dBm(fs(NoisePower[::,::,1],,,,,"Kaiser")),-4e5,4e5) - WindowGain - 3.01

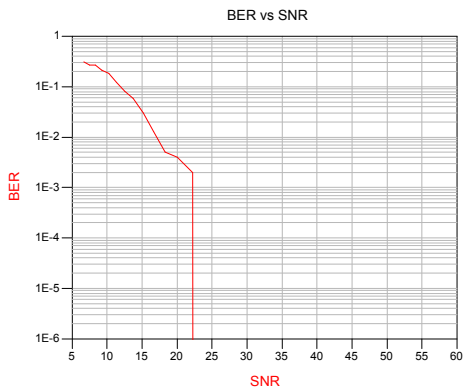
Eqn KaiserNENBW = 1.653 Eqn WindowGain = 10*log10(KaiserNENBW)

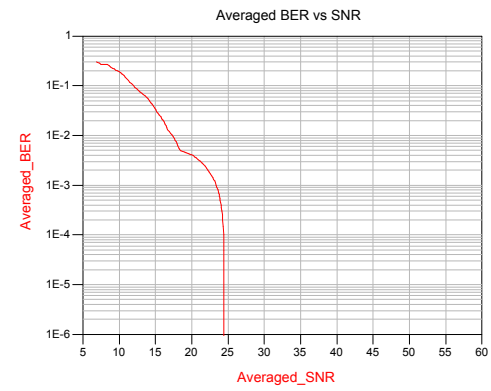
Eqn SNR = Ps - Pn

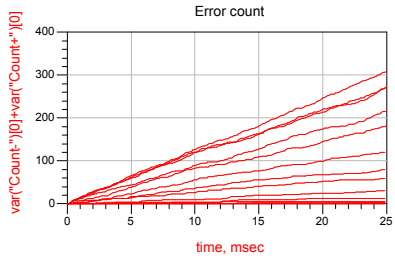
Eqn BER = real(max(var("Count-")[::,::,0])+max(var("Count+")[::,::,0])) / Bits[0,0]

Eqn Averaged_BER = interpolate("linear",BER,1,[min(R)::1::max(R)])

Eqn Averaged_SNR = interpolate("linear",SNR,1,[min(R)::1::max(R)])







Link budget simulation result

R	Ps	Pn	BER	SNR
40.000000	-54.100492	-112.409219	0.000000	58.308727
80.000000	-66.141601	-112.382322	0.000000	46.240721
120.000000	-73.185264	-112.353517	0.000000	39.168253
160.000000	-78.181722	-112.350885	0.000000	34.169163
200.000000	-82.057612	-112.501432	0.000000	30.443819
240.000000	-85.224892	-112.415236	0.000000	27.190344
280.000000	-87.901467	-112.375873	0.000000	24.474406
320.000000	-90.215675	-112.462085	0.002000	22.246409
360.000000	-92.256604	-112.334694	0.004000	20.078090
400.000000	-94.073378	-112.404232	0.005000	18.330854
440.000000	-95.711613	-112.392515	0.013000	16.680902
480.000000	-97.207226	-112.362995	0.030000	15.155769
520.000000	-98.571752	-112.319570	0.059000	13.747817
560.000000	-99.834169	-112.366844	0.081000	12.532675
600.000000	-101.007608	-112.348093	0.121000	11.340485
640.000000	-102.071463	-112.312917	0.182000	10.241454
680.000000	-103.093498	-112.346696	0.216000	9.253198
720.000000	-104.008729	-112.361462	0.270000	8.352733
760.000000	-104.898774	-112.368494	0.272000	7.469720
800.000000	-105.723671	-112.384085	0.309000	6.660414