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

Eqn Pn = wtodbm(dbmtow(spec_power(dBm(fs(RX_in[::,::,1],,,,,"Kaiser")),-4e5,-3e5)) + dbmtow(spec_power(dBm(fs(RX_in[::,::,1],,,,,"Kaiser")),3e5,4e5))) - WindowGain

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

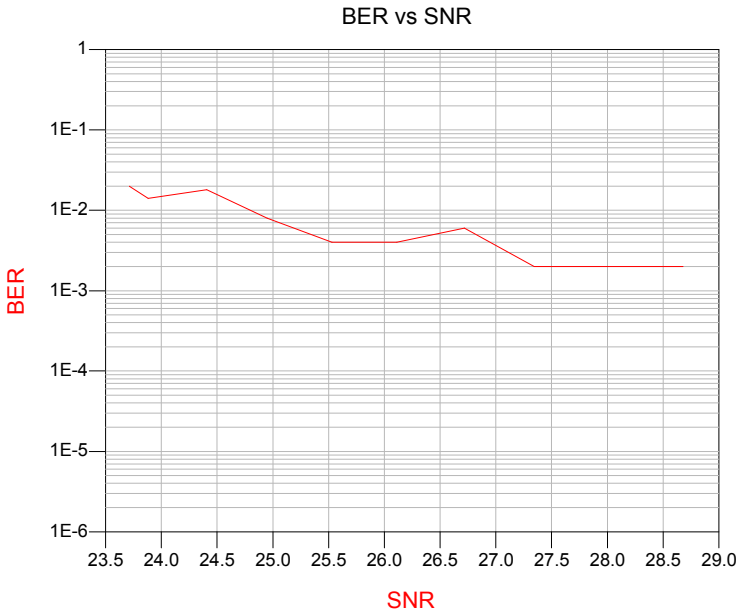
Eqn MeanPn = mean(Pn)

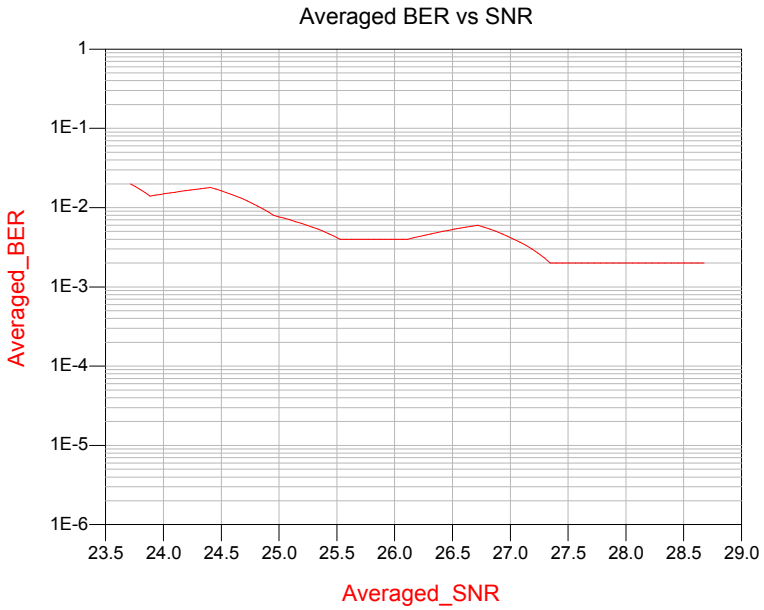
Eqn SNR = Ps - MeanPn

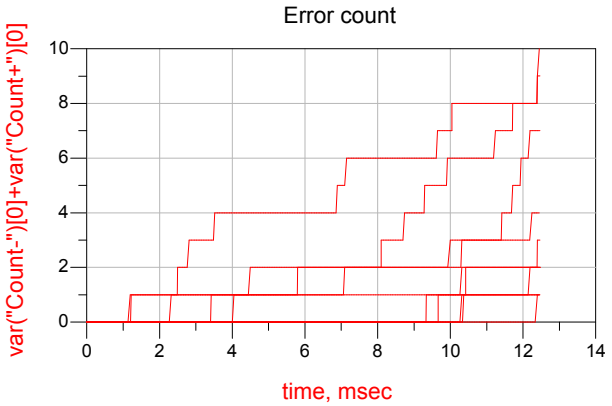
Eqn BER = real(max(var("Count-")[::,::,0])+max(var("Count+")[::,::,0])) / Bits[0,0]

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 results

R	Ps	Pn	BER	SNR	MeanPn
300.000000	-89.114864	-117.825883	0.002000	28.677821	-117.792684
312.000000	-89.794486	-117.891311	0.002000	27.998198	
324.000000	-90.448539	-118.035199	0.002000	27.344145	
336.000000	-91.073572	-117.839223	0.006000	26.719112	
348.000000	-91.679631	-117.869831	0.004000	26.113053	
360.000000	-92.263742	-117.737585	0.004000	25.528942	
372.000000	-92.841480	-117.586875	0.008000	24.951204	
384.000000	-93.385387	-117.912936	0.018000	24.407297	
396.000000	-93.908761	-117.644238	0.014000	23.883923	
400.000000	-94.078452	-117.583760	0.020000	23.714232	