Eqn PsRect = spec_power(dBm(fs(RX_in[::,::,1])),-1e5,1e5)

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

R	Ps	PsRect	Pn	PnRect
40.000	-54.111	-54.112	-117.053	-109.334
80.000	-66.152	-66.154	-117.618	-116.264
120.000	-73.194	-73.195	-118.032	-117.463
160.000	-78.192	-78.194	-117.703	-117.586
200.000	-82.065	-82.068	-118.042	-117.881
240.000	-85.235	-85.237	-117.828	-117.860
280.000	-87.897	-87.912	-117.819	-117.783
320.000	-90.222	-90.229	-117.693	-117.732

Kaiser windowing rises the spec_power() returned value of about 2.18dB, which has to be substracted to achieve the correct power value. Note that Kaiser window averages the noise power.