

FIGURES FOR APPENDICES

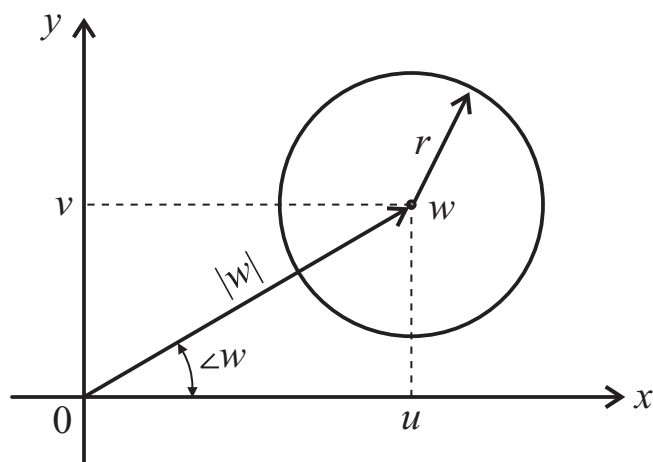


Figure C-1 Circle representation in the complex z -plane.

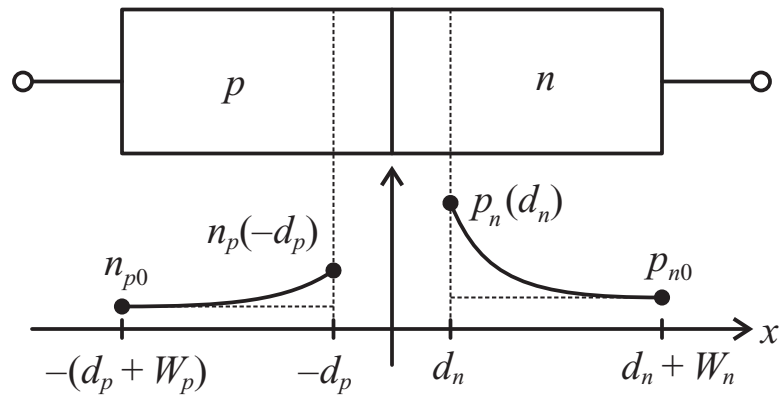
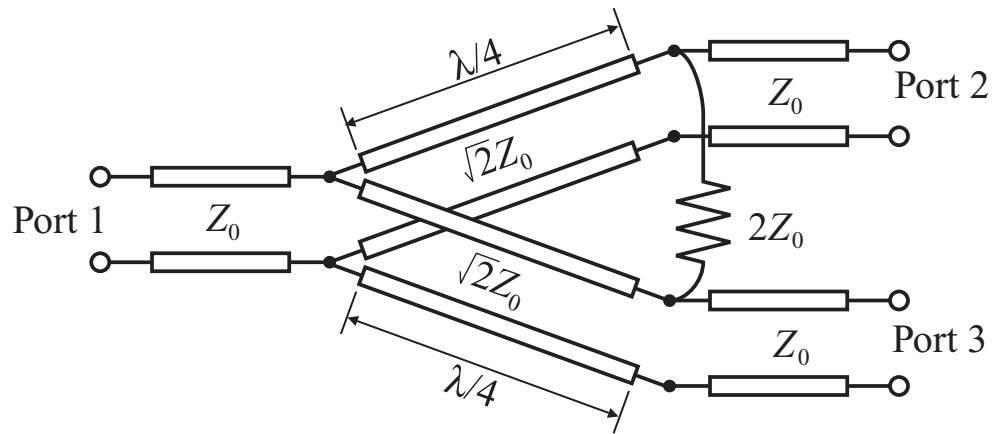
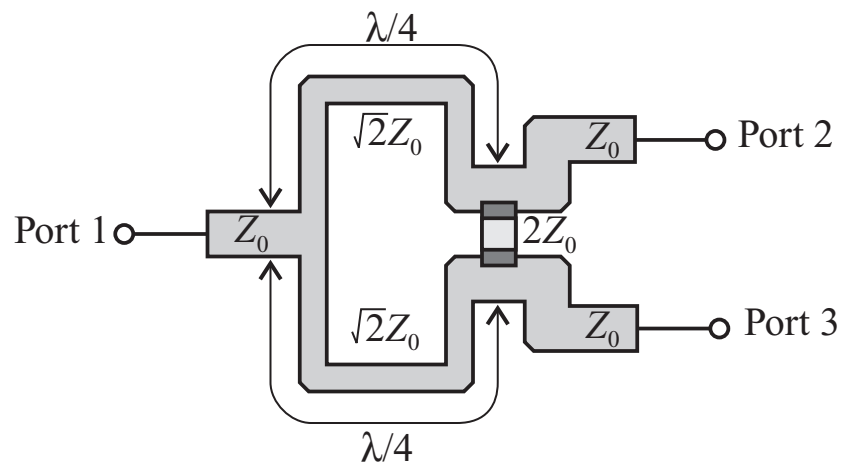


Figure F-1 pn -junction under forward bias.



(a) Transmission line model



(b) Microstrip line realization

Figure G-1 3 dB Wilkinson power divider.

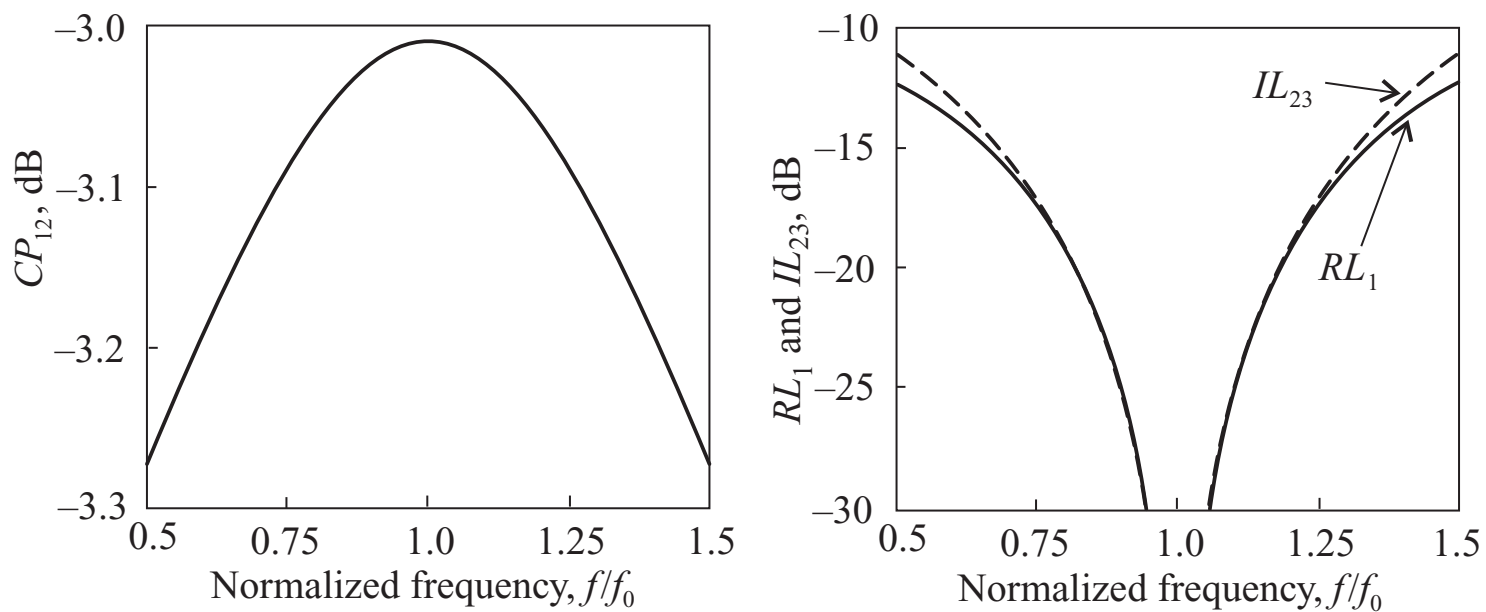


Figure G-2 Frequency response of Wilkinson power divider.

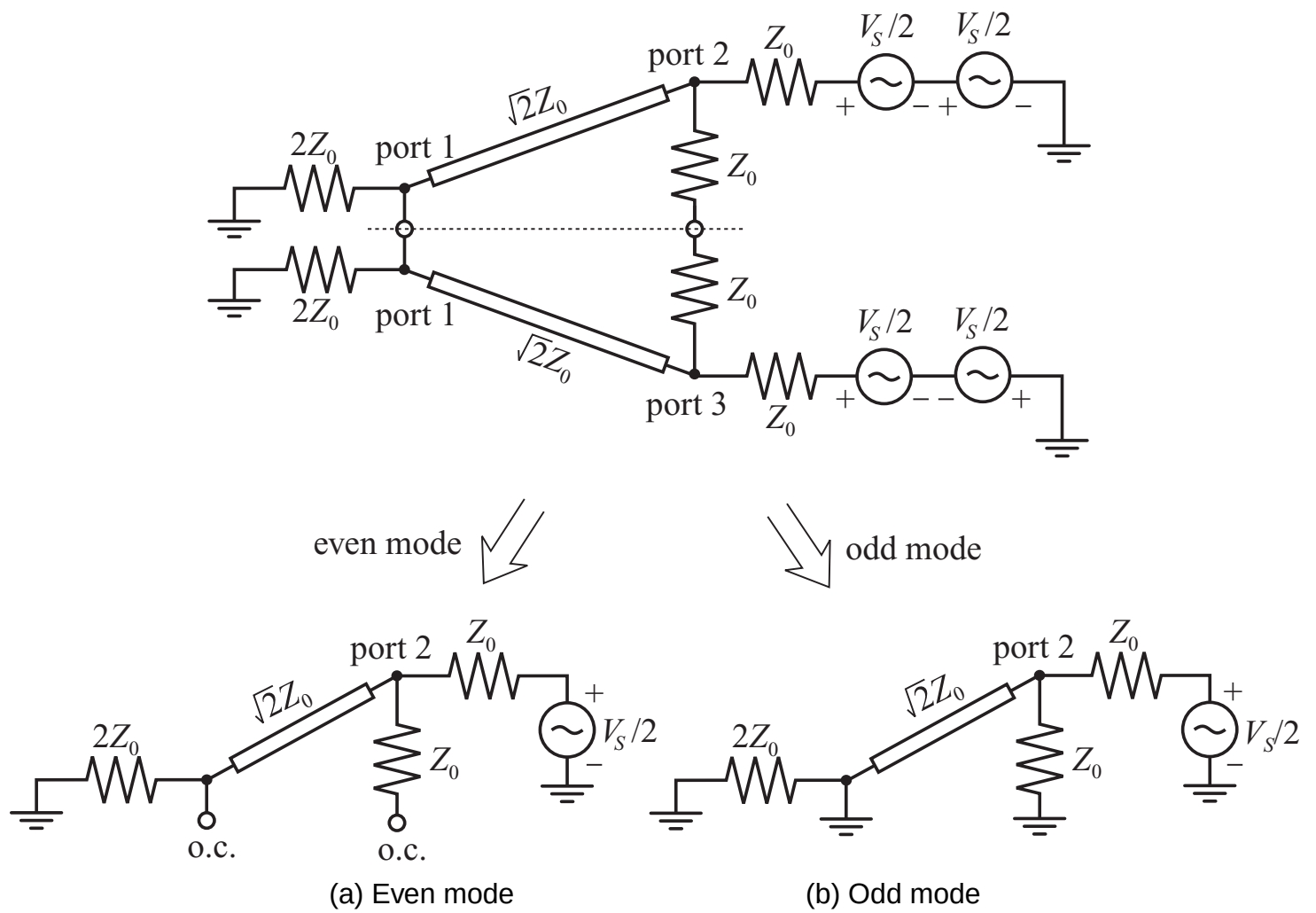


Figure G-3 Even and odd mode representation of Wilkinson divider (o.c. = open circuit).

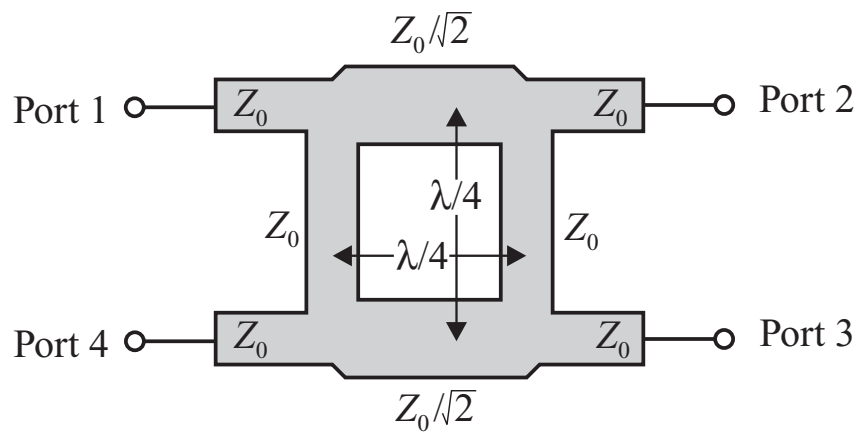
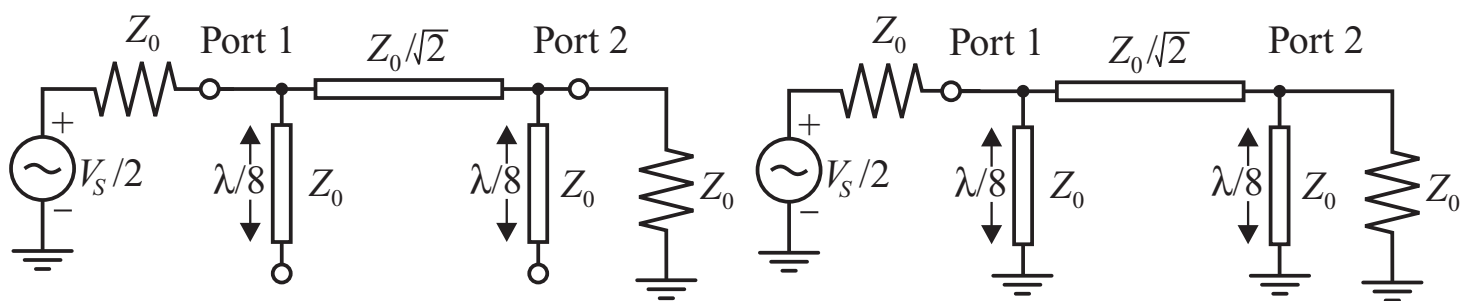
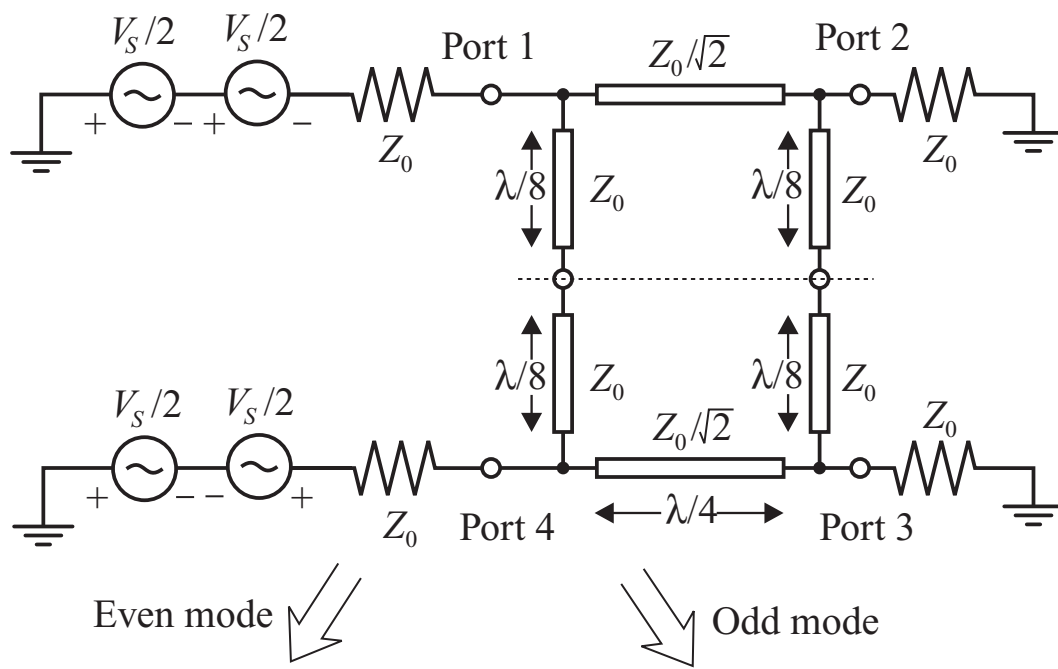


Figure G-4 Microstrip line realization of quadrature hybrid.



(a) even mode

(b) odd mode

Figure G-5 Building blocks of a branch line coupler.

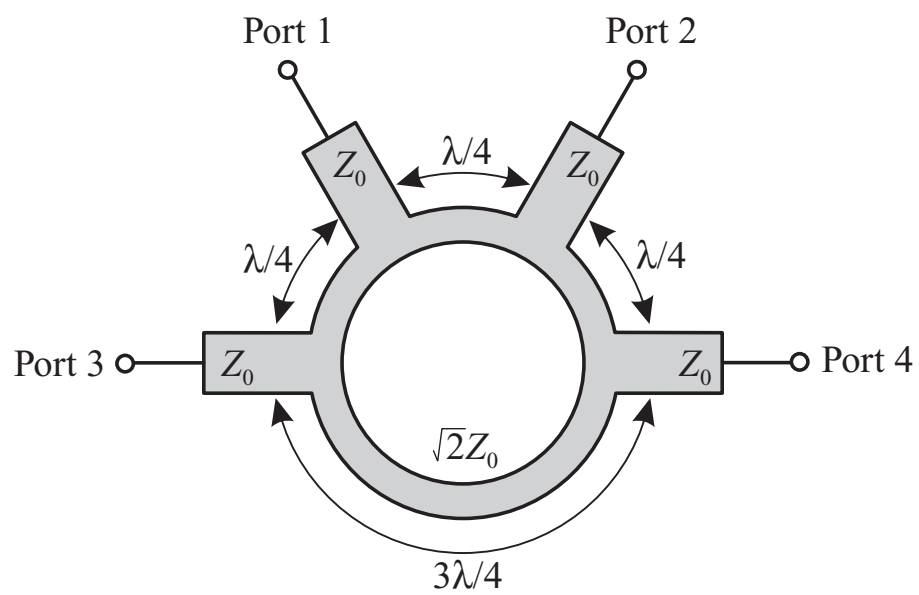


Figure G-6 A 180° ring coupler.

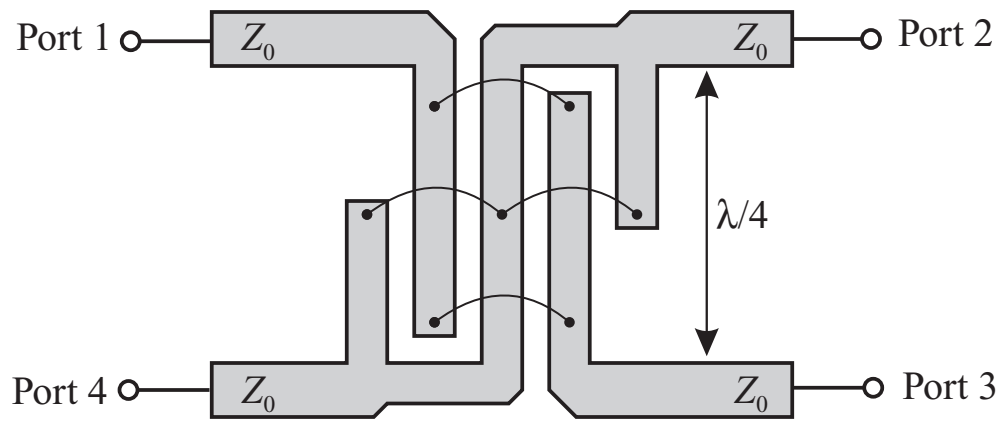


Figure G-7 A 3 dB Lange coupler.

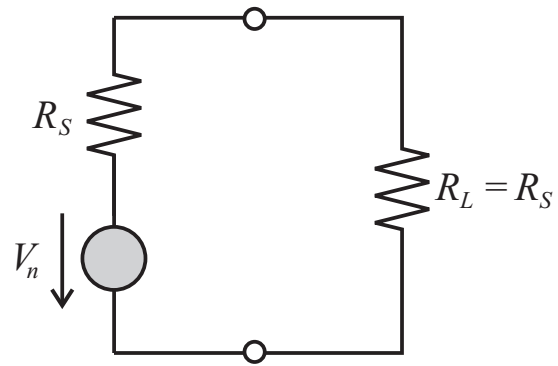


Figure H-1 Noise voltage of a circuit.

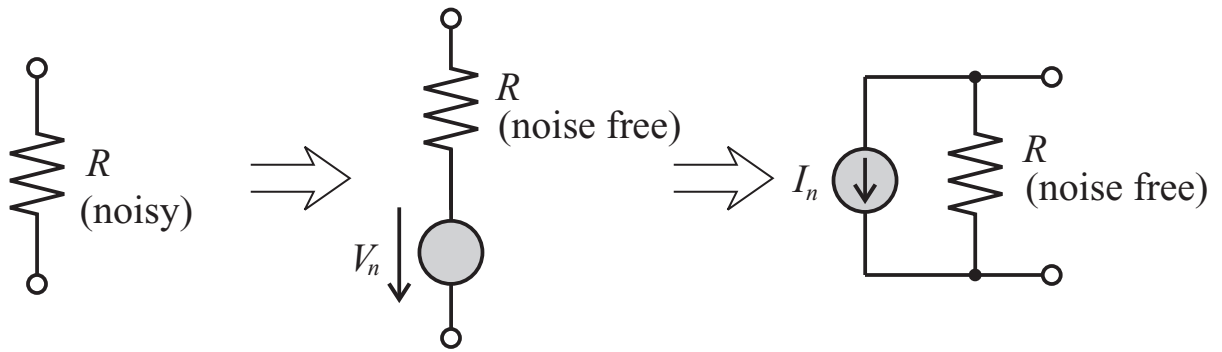


Figure H-2 Equivalent voltage and current models for noisy resistor.

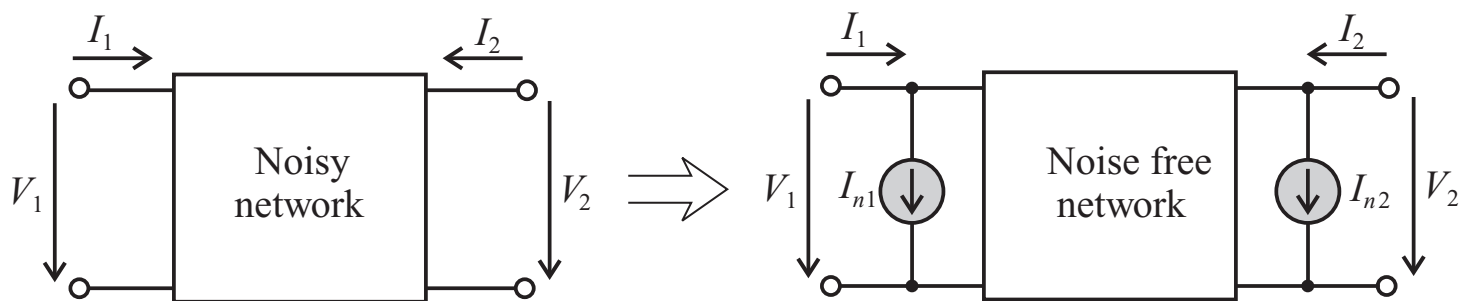


Figure H-3 Noisy two-port network and its equivalent representation.

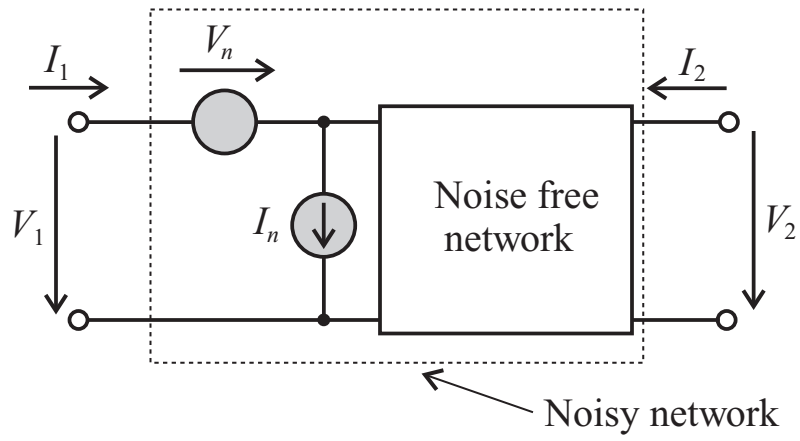


Figure H-4 Transformed network model with noise sources at the input.

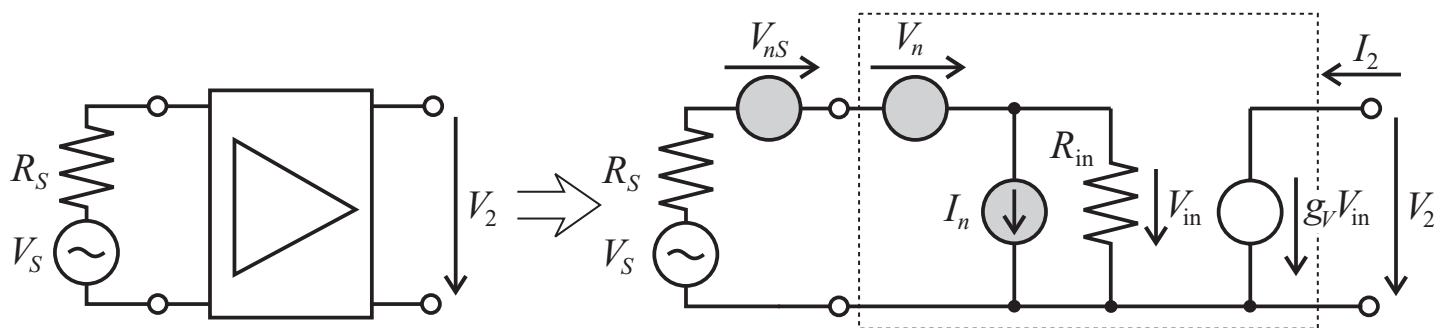


Figure H-5 Amplifier model and network representation with noise sources.

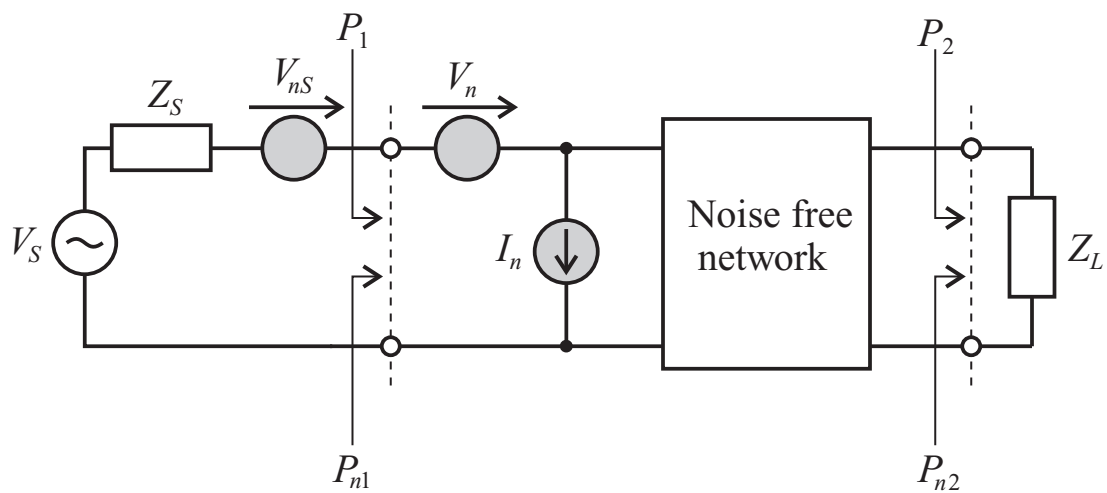


Figure H-6 Generic noise model for noise figure computation.

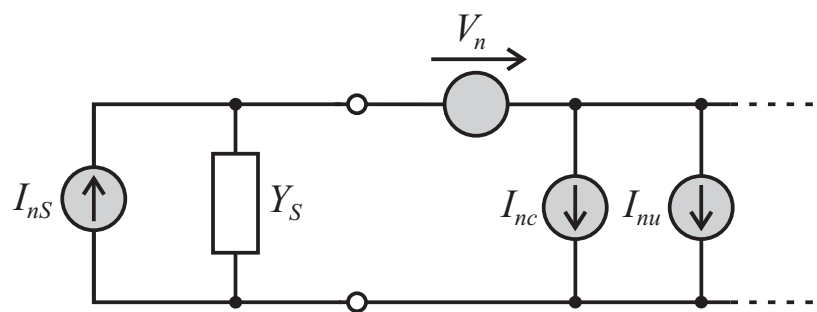


Figure H-7 Noise sources modeled at network input.

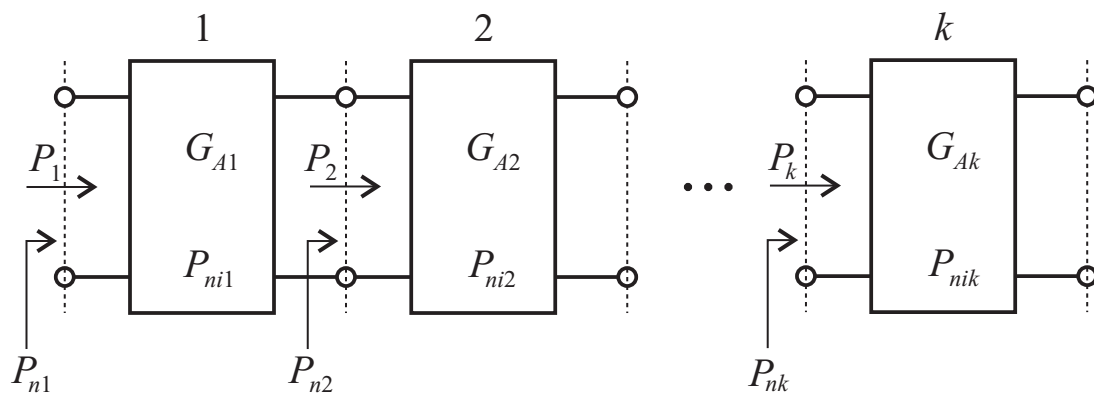


Figure H-8 Cascaded network representation.