RADIO ENGINEERING I
HOME ASSIGNMENT   4/2025   HW4

Return by 28.11.2025 @20.00

Return your answer into Moodle.	
Write tag HW4, your name, and student ID on all sheets you are returning.	

Name   _____

Student ID   _____

A transistor has the following S parameters at 2.8 GHz:

$$S_{11} = 0.49 \,\underline{/-103°} \qquad S_{21} = 3.4 \,\underline{/53°}$$
$$S_{12} = 0.0 \,\underline{/0°} \qquad S_{22} = 0.65 \,\underline{/-72°}$$

Design an amplifier that has the maximum gain. What is the maximum transducer power gain? Use lossless lumped components when designing the matching for the input and the output. Load and source impedance are 50 Ω.