Microwave Techniques

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PROBLEM 1. In order to find the given Z_{in} for the below configuration, calculate Z_{02} and l_2 .



PROBLEM 2. Find the followings for the given transmission line:

- (a) reflection coefficient at the load and the standing wave ratio,
- (b) input impedance of the line,
- (c) voltage at the load,
- (d) power delivered to the load,
- (e) distance between the load and the location of the first voltage maximum,
- (f) distance between the load and the location of the first voltage minimum.



PROBLEM 3. For the below matched line, is the maximum power delivered to the load?



PROBLEM 4. Sketch the diagram of the voltages both at the load and at the input.



PROBLEM 5. Determine the two possible L sections in order to match a load impedance of $Z_L = 150 + j50 \Omega$ to a 100- Ω line. Draw the L networks with the lumped elements and their values.