

## Project Marking Scheme

<p><b>First Design (Using Smith Chart)</b></p> <ul style="list-style-type: none"> <li>• Stability circles</li> <li>• Noise circle</li> <li>• Input matching network</li> <li>• Interstage matching network</li> <li>• Output matching network</li> <li>• Transducer Power Gain</li> </ul>	<b>30</b>
<p><b>Computer Analysis (using Touchstone)</b></p> <ul style="list-style-type: none"> <li>• Stability circles</li> <li>• Noise circle</li> <li>• Analysis of first design using 'ideal' elements</li> <li>• Compare with previous results</li> </ul>	<b>10</b>
<p><b>Optimization</b></p> <ul style="list-style-type: none"> <li>• Design bias circuitry</li> <li>• Replace ideal microstrip lines with 'real' microstrip elements</li> <li>• Optimize using Touchstone</li> <li>• Print layout</li> </ul>	<b>15</b>
<p><b>Testing</b></p> <ul style="list-style-type: none"> <li>• Test bias voltages of completed amplifier</li> <li>• Measure gain and noise figure</li> <li>• Compare with expectations</li> </ul>	<b>5</b>
<p><b>Discussions / Conclusions</b></p>	<b>25</b>
<p><b>Overall Form</b></p> <ul style="list-style-type: none"> <li>• This includes Abstract, Introduction,...., etc.</li> </ul>	<b>15</b>
<p><b>Total</b></p>	<b>100</b>