

Take-Home Homework 3

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Abstract—

INTRODUCTION

THIS demo file is intended to serve as a “starter file” for IEEE journal papers produced under L^AT_EX using IEEEtran.cls version 1.7 and later. I wish you the best of success.

I. IMPEDANCE VARIATION VS FREQUENCY

- A. *Radiation Resistance R_R*
- B. *Loss Resistances R_L*
- C. *Resonance*

II. VSWR VS FREQUENCY

III. RETURN LOSS VS FREQUENCY

IV. RADIATION PATTERN

- A. *Gain*
- B. *Directivity*
- C. *3dB beamwidth*

V. ANTENNA POLARIZATION

VI. EFFECTS OF REAL GROUNDS

- A. *Relative Permittivity and Conductivity in Colorado*
 - 1) *Effects on Gain:*
 - 2) *Effects on Efficiency:*
 - 3) *Effects on Impedance:*
 - 4) *Effects on Radiation Pattern:*

VII. EFFECTS OF REAL ANTENNA MATERIALS

VIII. LOSS IN A REAL COAXIAL CABLE

IX. LOSS IN A REAL COAXIAL CABLE

X. ANTENNAS FOR PURCHASE

- A.
- B.
- C. *Subsection Heading Here*

Subsection text here.

- 1) *Subsubsection Heading Here:* Subsubsection text here.

XI. CONCLUSION

The conclusion goes here.

APPENDIX A

PROOF OF THE FIRST ZONKLAR EQUATION

Appendix one text goes here.

APPENDIX B

Appendix two text goes here.

ACKNOWLEDGMENT

The authors would like to thank...

REFERENCES

- [1] H. Kopka and P. W. Daly, *A Guide to L^AT_EX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.