Modulation Waveforms Lab Report

EXPERIMENT CP-SRP EE20017

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Contents

1 Introduction

Introduce the topic of your report and provide background information.

2 Modulation Tests

A square wave and triangle wave were generated and modulated using an AM modulator. The modulated waveforms were then observed in MATLAB where the Peak Envelope Power (PEP) and Peak to Average Power Ratio (PAPR) were derived with the following code:

```matlab
% AM Power
R = 50; % Ohms
AM_Power = (AM_time.^2) / R; % Power in Watts V^2/R
% Peak Envelope Power
PEP = max(AM_Power)/2 % Divided by 2 to get the RMS value
% Peak to Average Power Ratio
PAPR = PEP/mean(AM_Power)
```

2.1 Results for Square Wave

- PEP: [insert PEP value for square wave]
- PAPR: [insert PAPR value for square wave]

2.2 Results for Triangular Wave

- PEP: [insert PEP value for triangular wave]
- PAPR: [insert PAPR value for triangular wave]

3 Conclusion

Conclude the report by summarizing the findings and their implications.